COMMUNICATIONS AND POLITICAL BEHAVIOR IN
THE INTERNATIONAL SYSTEM: EXPLORATIONS
INTO THEORY, METHOD, AND SUBSTANCE

by

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ABSTRACT

This study deals with possible relationships between the political information levels of nation states and their behavior in the international political system. The purpose of the study is purely exploratory. Drawing upon the literature of domestic political participation studies and the systems framework of David Easton, the author investigates the relevance and implications of the hypothesis, the availability and reliability of data sources, and the substantive relationship between information and behavior.

The author suggests that a basic modification of the Easton model—the addition of a membership environment—makes the framework applicable to the analysis of international politics, and shows political information to be a salient variable, previously overlooked in systemic analyses of international relations.

Attention is devoted to the utility of news index and news summary sources for behavioral data. Using correlational techniques, the investigator finds that the advantages of availability and economy of these sources are somewhat offset by the existence of biases; no conclusions can be drawn, the author suggests, until a more systematic assessment of these sources is undertaken.
Using a randomization test for matched pairs of twenty nation states, the study indicates a probable relationship between the extent of information channels and the systemic orientation of states' international behavior. The information channels utilized in the research design are diplomatic exchanges and memberships in intergovernmental organizations. The substantive findings are then related to the behavioral data source question, and to the further researchability of the problem.

The author concludes that the results of the pilot study are sufficiently interesting to warrant fuller investigation of both the hypothesis and the source bias problem.
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Any errors of commission or omission are, of course, my own.
INTRODUCTION

This paper explores two problems. One relates to communications as a variable affecting the international behavior of nations. The other concerns methods of data collection and use. The research reported in this thesis was undertaken as a pilot study; consequently, the dominant orientation is theoretical and methodological, not substantive.

The two related problems to be explored arise from a large number of sources in the literature both of domestic political science and of international relations. The researcher has drawn on materials as diverse as cybernetic theory, diplomatic history, international integration, voting studies, systems analysis, and aggregate data research for assistance in considering the problem and its ramifications.

The term 'communication' is a broad one. To state that it is a relevant variable in the analysis of politics at any level is neither new nor particularly informative. Many avenues of communication have been well explored, but little of this work specifically has been applied or attempted in the investigation of international political systems.
CHAPTER I

INFORMATION: A DETERMINANT OF ACTION?

In this study, the aspect of communication to be investigated is political information, particularly as applied to systemic analysis. The basic problem could be stated thus: What level of political information do nations possess, and how does this relate to their behavior in the international system? The related question asks how the researcher can determine political information levels and their bearing on behavior. The problems derive from a stimulus-response view of international behavior, a rough model for which will be discussed below.

The Literature

Voting studies have provided a wealth of data on the relevance of political information to domestic political activity. For example, Milbrath cites twelve studies which support the hypothesis, "... the more stimuli about politics a person receives, the greater the likelihood he will participate in politics, and the greater the depth of his participation."^1^ Stimuli in the form of mere information,

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however, are not sufficient to generate significant activity: the information must be interpreted. At the domestic level, face-to-face communication tends to fulfill this role.² "... persons participating in informal political discussions," according to five studies cited by Milbrath, "are more likely than nondiscussants to vote and participate in other ways in the political process."³ Kirkpatrick—although he writes in the context of crisis situations—makes a similar observation: "... presenting just the facts or the 'truth' alone is simply not enough. The facts must also be interpreted."⁴ All of these observations have emerged from the study of private individuals.

At the governmental level, a similar tendency can be seen. A study of decision makers in three international and two domestic crises, for example, found that no decision or a wrong decision was taken in each case because of the absence of a correct interpretation of news which the decision makers had received.⁵ Awareness of the importance of correctly


³Milbrath, op. cit., p. 40.


interpreted information was shown by the British Foreign Office when it communicated to United States Secretary of State Dulles via American Secret Service agents. Research findings with respect to this tendency are neither so direct nor so numerous at the decision making level as they are at the individual level, but nothing exists to contradict the plausibility of applying the observations of private individuals to governmental decision makers. It can be assumed with reasonable certainty that the level of political information, and in particular, the level of interpreted political information, is an important determinant of political action, whether among private persons or among governmental decision makers.

The Concept of Information in International Relations

Discussion has so far centred on the relevance of interpreted political information to individual political behavior, but no attention has been given to the concept's application to the analysis of international systems. The transition from one level of analysis to another can be made without violation of Singer's caveat, as the comments below will make clear.

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Substantively and analytically, a nation state in the contemporary system acts through its agents, for whom the observations noted above should hold. This group of agents—the government—is acting within a more complex milieu and acting on behalf of persons other than themselves; members of the group, however, obviously react to the stimuli of political information in a manner similar to private individuals.

Although the research interest is the international political system, the available empirical data are based upon the nation state and its agents. In other words, international relations researchers must approach systemic variables by operationalization at the level of the nation state, as Charles McClelland notes:

The system theorist who considers international relations would be very likely to turn his attention very early to the question of how nations act on each other. He would seek out one of a number of prominent characteristics in the interactions of parts relationships. The interaction characteristics are not the only source of conceivable relationships but they are the basis of the main relational properties in almost any imaginable system.8

Data based on national actors are applicable and relevant to questions about the international system. We return to the discussion of general communications, this time in the context of the relationships between nations.

At the international level, integration theorists have long made communications an integral part of their study, but they have used the concept in the broad sense. Amitai Etzioni, Ernst Haas, and Karl Deutsch deal with communications in function of common goal establishment, 'images' and expectations among integrative nations, social interaction, and economic transactions. Their view naturally includes the members of interested elites within each country studied, so that the empirical area of interest ranges widely among types of message senders, channels of transmission, and targets.9

Systems theorists, too, have dealt with broad aspects of communications. Morton Kaplan included political information and communications channels in his deductive framework.10 Richard Rosecrance gave some consideration to inter-nation communication within his systemic analysis, but his focus in this respect was more closely aligned with the integrationists' approach.11 More recently, Rudolph Rummel subjected

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indicators of communications—along with many other variables—to factor analysis in his Dimensionality of Nations Project.12

Steven Brams, perhaps more than any other systemic researcher, has concentrated on communications, but he looked for 'salient' relationships between nations, in large part on the communications basis.13 Stating that "it is our contention that information provides the potential for political control,"14 Brams investigated transaction flows based on three indicators, two of them communications. His concentration on inter-nation linkage maps produced interesting and worthwhile results, but the research was directed to answer questions arising from a different conception of the international system. This view stems from the problem of mapping inter-nation influence; the alternative concern, embraced by this author, arises from a broader interest--system operation—although the two basic concepts are not antithetical.

The model on which this project is based was largely inspired by the general political systems framework of David Easton (although interest in Easton originally was aroused by the works of Kaplan and Rosecrance, discussed above). Evaluation can be based only on anticipated utility; on this basis,


the author believes systems models to be of more ultimate value in international relations research than any other approach. In other words, investigating the system and its operation would seem to be worthwhile approach to international politics.

Allusions have been made to previous work on political communication in the discussion of the background to this pilot study. These citations, however, do not demonstrate sufficiently the reasons for selection of the project or its ultimate relevance to the field of international politics. It is necessary to digress, at considerable length, to consider the Eastonian model, its difficulties, and the way in which these problems can perhaps be treated. From this discussion should emerge the reasons for the methodological orientation of the thesis, and the rationale for the research hypothesis.
CHAPTER II

INFORMATION AS A KEY FACTOR IN THE OPERATION
OF INTERNATIONAL SYSTEMS: THE MODEL

The major advantages of a system view of politics (at any level) include its ability to display the 'whole picture'; its provisions for the integration of narrower-gauge concepts into the whole; and its capability to direct the researcher (as any useful model will do) into new areas for inquiry. At the conceptual level, the systems model of David Easton\(^1\) is extremely worthwhile by these criteria. The major problem in using the model, however, lies in operationalization.

At the conceptual level, the Eastonian framework is well suited to deal with "contemporary historical developments," as Hanrieder describes them:

The cold-war conflict and the attending mobilization of military, socioeconomic, and psychological resources by the superpowers and their allies; ventures of regional economic integration; the changing nature of the nation-state; the close connection between the conditions prevailing in the international system and the attempts made by the new states to modernize and to coalesce into viable societies--these are just a few examples of how foreign and domestic policy projects have become overlapping and perhaps entirely inseparable.\(^2\)

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Systems analysis, and particularly Easton's systems model, is capable of assisting in the analysis of these problems. The framework can take account of sub-systems, overlapping memberships, different levels and types of political activity, and new operating styles of actors. Thus, at the conceptual level, Easton's claim to applicability to international politics is a valid one. The apparent operational invalidity of the claim may well arise from his assumptions, to which we turn now.

The Assumptions of Easton vs. Current Views of the International System

Easton proceeds from two related assumptions which are empirically questionable at this stage. The first is that a continuously operating international (world) system exists. Second, he assumes that the actors in that system have continuous membership, even though they might not, at times, behave in any observable way. With respect to the first assumption there is some evidence that the world political system may operate discontinuously or at least that it often may be suspended in virtual limbo. This makes problematical the

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3 Easton, op. cit., p. 487 ff.

4 The author is indebted to Professor Easton for clarifying the assumptions on which the two differing views of the system are based. Personal conversation, Victoria, B.C., May 19, 1968.

utility of assuming continuity in the world system, although the subsystems (e.g. European Common Market) might well be in continuous operation.

The second assumption rests on the belief that the system's members can be identified, and further, that their presence is a 'constant' in system operation. It is legitimate first to ask the question, who are the actors--all of the actors? The analytic position taken by this author was stated earlier: the chief actors are the agents of nation-states, that is, officials of nation-state governments who make authoritative allocations of valued resources on behalf of their respective polities. These actors at times may make such allocations—in the name of their nation states or individually—on behalf of the international system. This position—taken on the basis of empirical research needs—makes untenable Easton's assumption that there exist actors who occupy an 'authority' role within the international system.

Easton's position centres on the notion that international political and financial elites exist as de facto 'authorities.' Easton comments,

Although most current theories of international politics systematically take into consideration the presence of national units, regional groups, and functional organizations as subsystems, they tend to ignore the development of new kinds of

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6Easton, A Systems Analysis... pp. 484-488, and Personal conversation, op.cit.
actors. With the shrinking of the world, individual members of these component subsystems have become increasingly oriented to world affairs; they respond to world events and the nature of their responses helps to condition the way in which the sub-unit of which they are a part participates in the international system. We would be forced to neglect an important kind of actor if we did not accept such members individually considered. . . 7

It is difficult to quarrel with this position in its general sense, but to suggest that individuals prominent in each sub-unit will tend to be the 'authorities' is to miss other behaviors which these individuals will undertake. Easton has in mind, for example, United States Secretary of State Rusk, Soviet Foreign Minister Gromyko, and other foreign affairs spokesmen for the major powers as the political elites—and thus, 'authorities'—of the world society. 8 Following from this position, when one looks at the world political system, one includes all nation states and their spokesmen as members, even though many of the members may be on the periphery, having little to do with the system. Membership in the system, even though not made manifest by overt actions, still

7 Easton, A Systems Analysis. . . , p. 486.

8 Easton Conversation, loc. cit.
embraces a set of expectations and roles, Easton argues, and thus is a concept which cannot be excluded from analysis. The logic of this argument is persuasive, but empirically, the researcher remains with the problem of what data to gather and how to compensate for unavailable information.

There are two basic positions, then, from which the researcher can proceed in this matter. One, following Easton, assumes continuity of the system and its membership; investigation undertaken on this basis would overlook some of the empirical questions which seem to be basic. The second position assumes no continuity, positing instead a sporadic system of behavior only, and leading to more interesting avenues of exploration. The second position makes possible such questions as definition of membership, identification of actors, clarification of system operation, and so forth—all on a step-by-step, empirical basis. In other words, it is contended here that operationalization 'up' toward the system theory is more immediately useful—and perhaps ultimately more valid—than operationalization 'down.' A model must be judged by its utility; the value of the second position seems at this stage to be greater.

9 Ibid.
The Model and its Adaptations

The adaptations to be made to Easton's model, then, follow from the second position. Instead of assuming membership and continuous role occupation by specific actors, all actors will be considered separate from the system, as occupants of a membership environment. The 'system' itself will constitute only the inter-nation and political behaviors of those members. This adaptation utilizes available data with greater ease, and points to some neglected areas of inquiry, to be elucidated below.

The separation of behavior—a dynamic quality—from attributes—a more static concept—allows the researcher to accomplish a number of useful operations. First, it clarifies the nature of empirical data by giving to the analytic task a more theoretical base. Second, the separation of behavior from attributes allows the researcher to determine more easily what international roles actors will play, under what circumstances they will be played, and what types of actors will tend to play them. This function in turn allows the investigator to consider more clearly the difficult problems of membership, system continuity, and environmental influences. Perhaps most important is the ability of such a scheme to allow the analysis of multiple role playing by one actor, following Rosenau's 'issue area' concept.\[^{10}\] The Eastonian method, while not

\[^{10}\] The author was stimulated and helped in this regard by James N. Rosenau, "Pre-Theories and Theories of Foreign Policy," in Approaches to Comparative and International Politics, ed. R. Barry Farrell, (Evanston: Northwestern University Press, 1966) pp. 27-92, and by Charles McClelland, loc. cit.
strictly confining the researcher, tends to produce a 'one-actor-one role' view of systemic actors and thus might tend to mislead.

Other advantages to the separation of members and system include a clearer view of inter-system interaction (that is, the impact—for example—of the economic world system on the political world system: environmental factors), easy identification of system change, and easier identification of the participation levels of actors.

The 'members' of the international political system (usually nation states) are the only continuously existing entities, whose attributes are relatively constant and substantive. Such attributes include military capability, population size and type, domestic governmental stability, domestic political ideologies, value systems, and so forth. These attributes can be correlated with behavioral characteristics, but they should not be confused with system behavior. The attributes of all nations, including the issue-area relationships and hierarchies between nations, are analyzed as part of the membership environment. Only when a nation seeks to change these attributes, or when some external influence brings about change, does the action become a dynamic behavior which may or may not have implications for the operation of the system.
The separation of membership environment from system is the only major adjustment required to make Easton's model useful and applicable to the analysis of international relations. The adjustment, however, carries a number of implications for the use of the model, and opens new areas for investigation. It is in one of these areas that research—reported in this thesis—has been started.

The actual shape of the international political system, as Figure 1 indicates, is little different from Easton.\textsuperscript{11} The only alterations involve the addition of entry portals for each role behavior emanating from the membership environment. In other words, because the system is seen as being empty of membership, 'inputs' (demands, supports) are not the only actions to enter the system. Other behaviors to enter will be gatekeeping, associated allocating, and authoritative allocating actions.\textsuperscript{12}

\textsuperscript{11}Cf. Easton's diagram in \textit{A Systems Analysis}, . . ., p.30.

\textsuperscript{12}Examples of these basic role functions are as follows:

\textbf{Demand} - A plea by a non-aligned state to stop a major power from assisting local insurgents. Other occupants of the membership environment must process this demand in some way.

\textbf{Support} - A serious offer to negotiate an issue stressing the system. The United States for instance, might make such an offer to the Soviet Union with respect to the Berlin problem.

\textbf{Gatekeeping} - Articulation and placement of a 'want' into the system, thus converting it into a 'demand'. A middle power might demand that the system prevent the escalation of a border war, in response to pleas from the combatants.

\textbf{Associated Allocating} - The efforts of the United States and the Soviet Union to cool the head of the 1967 Arab-Israeli war were allocative, but only in an associated way, since the attempts were not authoritative, i.e., successful and final.

\textbf{Authoritative Allocating} - United States Secretary of State Dulles' actions during the latter stages of the 1956 Suez
Figure 1. The International Political System.

KEY

A Membership environment, composed of actors (Nation states) in news linkages
B System support portal
C System want Portal
D System information Portal
E System gatekeeping-rôle Portal
F Allocation attempt Portal
G Authoritative allocation Portal
H Input-Information and Process-Information Source
J Authoritative allocation or 'final output' source
The 'output' side of the system, while similar to the original Eastonian model, is conceptualized in a slightly different way. Output, as used here, need not be final. Allocations of values which are either associated or authoritative may emerge from the 'output side' of the system because no utility accrues in the adapted model from distinguishing between outputs and outcomes.\textsuperscript{13}

Two other differences between the shape of Easton's system and the model proposed in this thesis can be seen in Figure 1. These are an entry and an exit portal for information about initiative behavior. Usually, this information will concern alterations or intended changes in the membership environment. The reason for feeding such information through the system is simply one of convenience: it makes changes in membership environment easy to identify. For example, the size of military service of state X is an attribute of X, and forms part of the membership environment. The existence of the military service is not a behavior, as such. However, should X seek to increase its military strength, the increase becomes a behavior, and first enters the system as information.

\textsuperscript{13}See Easton, op. cit., p. 351, for a discussion of this distinction. Simply stated, 'outputs' are specific authoritative allocations of values, while 'outcomes' are the longer-term
If there is at least tacit agreement among actors to allow X to do so, no action will occur on this matter within the system. It is information only, but it may be of interest to an analyst.

Because of the decision to separate the membership environment from the behavioral system, the feedback loop, as conceptualized in the adapted model, has been changed considerably from that shown by Easton. Entering into the loop from the political system are both outputs and 'unprocessed' information. Once the loop feeds into the membership environment, it disappears as a feedback loop. What emerges from the membership environment and travels into the system is a new sequence of behaviors (inputs, gatekeeping, allocations, etc.). It is possible, and at times likely, that the information from the feedback loop will expire once it reaches the membership environment. Such would be the case in the example above, where X's increase in military strength was not opposed. We turn now to the dynamics of the system's operation.

A New Feature of the Model: Linkages in the Membership Environment and their Relevance

As the reader already may have surmised, the model posited here is a basic stimulus-response scheme, with results—in a sense, the repercussions--of the allocation process.
information—the subject of our inquiry—acting as the stimulus. Matters which engage the system, unlike the Eastonian conceptualization, are seen to involve two or more cycles; the first occurs when the information enters the system, and the second takes place once the information has 'fed back' into the membership environment and stimulated some (or all) actors into behaving within the system. This behavior may be supportive, demanding, gatekeeping, aggregative, or allocative, as indicated above. Which actors respond to which stimuli, and how they respond, will be a function of the actors' interests.

This notion is not dissimilar to James Rosenau's view of activity according to issue area; in fact, the issue area concept is an integral—although secondary—part of the stimulus-response patterns within the membership environment. As Rosenau states,

\[ \text{an issue area is conceived to consist of (1) a cluster of values, the allocation or potential allocation of which (2) leads the affected or potentially affected actors to differ so greatly over (a) the way in which the values should be allocated or (b) the horizontal levels at which the allocations should be authorized that (3) they engage in distinctive behavior designed to mobilize support for the attainment of their particular values.}^{14} \]

\[ ^{14} \text{James N. Rosenau, "Pre-Theories and Theories of Foreign Policy," in Approaches to Comparative and International Politics, ed. R. Barry Farrel, (Evanston: Northwestern University Press, 1966), pp. 27-81. Italics in the original.} \]
The information which generates these responses may have a virtually limitless number of possible sources, some of which will be considered shortly. The main point is that different issue contents, according to the adapted model, will stimulate different actors to behave in different ways within the system.\textsuperscript{15}

Although David Easton does not include within his model the notion of membership environment or news linkages (to be discussed below), he does deal in a somewhat similar manner to that of the adapted model with the issue area concept.\textsuperscript{16} He states, for example, that demands entering the system cannot be equivalent units,\textsuperscript{17} and adds, "where it is voiced, who articulates it, who hears it, how widely it is diffused are all matters of signal importance for the future stages of the demand's career."\textsuperscript{18} This assertion, which relates directly to the main focus of this study, can be applied not only to demands, but also to the operation of the system as a whole.

Issue interest is not the only determinant of a nation's decision to act within the system. Most important

\textsuperscript{15}Two sociologists have recently completed a study which indicates the likelihood of a substantive base for the notion of issue area differentiation. See Theodore Caplow and Kurt Finsterbusch, "France and Other Countries: A Study of International Interaction," Journal of Conflict Resolution, XII, 1 (March, 1968), pp. 1-15.

\textsuperscript{16}See his discussion of pressure groups in connection with his conceptualization of alternative feedback patterns, op. cit., pp. 372-376.

\textsuperscript{17}Ibid., p. 67.

\textsuperscript{18}Ibid., p. 81.
is the presence of interpreted political information, our main focus. That issue interest and political information are related is obvious: interest will influence the level of information, and vice versa. Political information is posited as the crucial variable, however, because without it no nation would have any basis on which to act, regardless of interest. We devote attention now to this information dispersion process.

As information about the system feeds back, it is filtered in and through the membership environment. This filtering process is accomplished by individual nation states, structured within the environment in a series of hierarchical linkages. At the 'top' of the hierarchies are nations whose information-gathering capabilities are greatest. These states, in turn, are linked to allies with whom they share information about the system, and the allies in turn are linked to other allies, and so forth. These linkages are particularly relevant with respect to the interpretation placed on feedback stimuli because—as we noted earlier—it will be on the interpretations that existence, intensity, duration and role-type of responses depend.\footnote{It is in this area of the system's operation that such studies as Brams' would fit. His concern was not specifically to answer the question of interpreted news linkages but the work could be considered as a start toward determination of such patterns.} The linkage hierarchies are assymetric, in that virtually no nation states depend solely on any single source for information from the feedback loop. Some nations may
in fact be completely self-reliant.  

The adapted model presented here attaches great significance to news linkages within the membership environment for reasons based in cybernetic theory. From cybernetics—to which the Easton framework and the modified schema expressly have an affinity—comes the concept of entropy and negative entropy. Entropy deals with the gradual decay of the system into undifferentiated constituent parts; negative entropy, in essence, is required to keep system components differentiated and operating. This notion will not be developed here, but its importance for the analysis of international systems can be seen, at least, at the intuitive level.

Easton comments,

... in all but the simplest political systems, intrasystem structural differentiation is such that there are a number of kinds of roles functionally distinct from that of general member of the system.

Compared with most modern domestic polities, the international system is a relatively 'simple' one, whose level and intensity of functioning must be based, in the final analysis, on level and intensity of information about the system. In a domestic

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20 This statement may hold only in principle. In fact, almost all nations have at least informal agreements to share aspects of their intelligence, diplomatic information, and so forth.

21 See, for example, James G. Miller, "Living Systems: Basic Concepts," Behavioral Science, X, 3 (July 1965).

22 Easton, op. cit., p. 86.
polity (which does display a high level of intrasystem structure) differentiation can be seen to stem, in part, from the need for the control and selection of information. As an economist-cybernetician comments,

\[\ldots\] in the present day information can be multiplied endlessly--there is no end to it. \[\ldots\] The greater amount of information we have, the more uncertain we are as to which course of action to take.\[23\]

Ultimately the investigation of interpreted political information as a stimulus to system action may lead fruitfully into questions of system structure.

Explication of other aspects of the model\[24\] would be extraneous to the purposes of discussing it. However, some examples may indicate how analysis under the adapted scheme might proceed.

**Examples of the Model in Operation**

We have stated that attributes of the members and of their normal relationships do not comprise part of the system, but instead are part of the membership environment. However, changes in those attributes do become systemic inputs. For example, if nations X and Y form a new defense alliance, this action constitutes an input into the system. If the agreement


\[24\] With the exception of system norms. See Appendix A.
violates the current norms and rules of the system (see Appendix A) the input is a demand on the system, and others in the membership environment will take actions designed to dissuade X and Y from their position. Thus, A and B may enter the system as gatekeepers by trying to convince X and Y that no need exists for the alliance, thus attempting to kill the demand before it penetrates the system further. Meanwhile, nations C and D enter the system as associated authorities, acting to coerce X and Y into abandonment or modification of their action through the use of threats or promises. The output of this interaction process travels along the feedback loop to the membership environment. Further action by other actors (or the same ones) will depend on the result of the gatekeeping and allocative attempts.

Nation N may, to use another example, offer peacekeeping forces, thus making an input of support into the system. Again, whether N's proposal is processed by other occupants of the membership environment will depend on the members' level of information and their perceptions of motive and necessity to proceed with the proposal.

A third type of input may not stimulate any sequence of actions. For instance, nation M may support a faction within an unstable domestic polity, but the action, after travelling through the feedback loop, may exorcize no nation strongly enough to stimulate reaction. M 'wins' in a sense, by default. With respect to this type of action, Easton's conceptualization is similar, but differs in function of his
authority occupant assumption. He states,

Uncontested demands ... advance directly to the decision centers in the system without the intervention of any reduction mechanisms. 25

The adapted model suggests that because the decision center is not normally occupied, inaction of all other occupants of the membership environment (who give the action at least tacit approval) results in no reduction or change of any kind. The action is information only.

Summary

The foregoing examples, and the discussion of the adapted model, do not provide a detailed view of international system operation. The contents of this chapter do, however, indicate the possible utility of the systems view of international politics. Further—as stated at the beginning of this discussion—this chapter may indicate to the reader in a way which the earlier citations did not the ultimate relevance which the researcher believes his project might have to increasing knowledge about international relations.

To summarize, the scholars of international politics face at the present time a new realization of the complexity of their subject. This realization has come about through continuing empirical investigations which put into question

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the assumption that the 'international system' functions continuously, and the assumption that any given actor will behave uniformly on all matters. Instead, actors tend to display interests and behaviors according to issue, and therefore analysis may have to be approached in this light.

We have seen that the systems approach is capable of displaying the 'big picture' of system operation at the conceptual level. We also have seen that some changes in the Easton model were required for two reasons. The first is the need successfully to operationalize most aspects of the model. The second reason involves the need to rationalize the model's assumptions in terms of new questions about the system.

The adapted model has also indicated a new area for research: inter-nation communication about system matters may be a crucial, and overlooked, aspect of system operation. If methods can be found to investigate this matter successfully, the research may well produce at least some explanatory and predictive variables for use in the study of other aspects of system behavior.

We turn attention now to the question, can a way be found to investigate political information as a factor in system operation?
CHAPTER III

DATA SOURCES FOR RESEARCH INTO INTERNATIONAL COMMUNICATIONS AND BEHAVIOR

The chief methodological problem to which this thesis addresses itself is the possibility of investigating empirically the patterns of communication between nations. We also wish to know in a preliminary way whether any relationship exists between an actor's information level and the international behavior which that actor displays. Clearly, to trace the channels and content of political information for all actors and all times is not possible. However, it is possible to investigate a number of normally-used contemporary information channels, without regard for the moment to content.

Communications Data

At the official governmental level, four main information channels are available to each nation state. These are: (1) reports from intelligence operations; (2) reports from diplomats assigned to other nation states; (3) information from representatives assigned to inter-governmental organizations; and (4) knowledge gained from direct visits to other nations by heads of state or by high government officials. Three of these channels are relatively easy to investigate, although it must be repeated, only the channels,
and not the content of information deriving from these phenomena can be determined.

At the unofficial level, information can enter a nation through news media, personal or corporate mail, tourists, business missions, and international non-governmental organizations. How much of the information from these unofficial sources enters a country's governmental system cannot easily be determined. Further, it is not possible easily to discover the relevance of such information to government decision makers, so there is justification at this point for concentrating only on the official channels.

Data on intelligence operations—the most useful channel of information—is beyond the researcher's grasp. Data on this source would indicate more than any other single factor the extent of an actor's knowledge of the system. Equally important, the data could be used to draw a definitive map of news linkages, to allow some prediction of an actor's likely interpretation of news gained or shared. It might be assumed that the existence of intelligence networks is an "open secret" among officials of most governments, but the assumption does nothing to aid the researcher who wishes access to this information.1 Perhaps a "well-connected" political scientist could gain intelligence data, but his research would not be replicable in the usual sense of the term.

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1The researcher has received one derogatory letter which substantiates this rather obvious statement.
The three remaining channels of information can be investigated easily, and may in fact be sufficient. Visits by heads of states are well documented in newspapers. Memberships in intergovernmental organizations—henceforth referred to as IGOs—are published regularly in a number of sources, and thus constitute usable and accessible data. Diplomatic exchanges between nation states—henceforth to be called DEs—similarly are measurable, although not with the same ease as with IGOs and visits.

At least for the present, then, channels of international communication are researchable, and access to most of this information is relatively easy. Because the investigator wishes to relate the communication data to the actor's behavior, he is equally interested in sources of information about international intercourse.

A great deal of this information is available, but the reliability, systematic bias, and general usability of the behavioral data are at this stage somewhat indeterminate. Regardless of source, the researcher faces the normal problem of abstracting what is relevant, and categorizing with validity what he has found. This problem is neither new nor unique: it has concerned thoughtful historians since antiquity, and no solution is apparent. Thus, a high

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possibility of error exists with respect to the data: error arising from biases and omissions in source material, and error arising from wrong judgements made about the data.

Historical Behavioral Data

The two main types of available behavioral data are current materials and historical documents. The latter type include memoirs, personal documents, government records (once they are released) and other typical diplomatic historical sources. These materials usually allow an exhaustive treatment of the subject, but contain problems: there may be no data, for example, to answer 'new questions', particularly in the context of systems analysis or communications studies. Further, because of different rules for release of documents, the researcher may be frustrated in his attempts to study a period of particular theoretical interest to him because of incomplete data. Two other limitations on the utility of this type of material also exist. First, a number of smaller states might not have available in usable form the required information—a factor which would frustrate systemic analysis or specific research questions with respect to small states. Second, the data-gathering task would be immense—in fact, uneconomic—for any adequately-sized sample. Few works of historians parallel the interests of contemporary political science, so the chances of reducing this
latter problem through the use of secondary materials are small.

**Contemporary Behavioral Data**

In using contemporary material, the investigator exchanges one set of problems for another, although the extent of the second group of problems seems to be not quite so severe. Current data sources are, in the main, newspapers and magazines, press releases and the like, and personal interviews, where such are economic and possible. Similar to the use of historical materials, the chief problem in using contemporary sources stems from inequality or incompleteness of coverage across all nation states. The severity of the incompleteness is not so great in modern sources because its cause is different. Events not deemed 'newsworthy' are usually excluded from media offerings; it is this which causes the incompleteness of coverage. The availability of many sources can compensate for the loss: not just one but a variety of newspaper and magazine sources can be utilized to reduce the gravity of the problem.

Newspapers have been relatively little used in international relations research. Rummel, whose overall project budget runs into the hundreds of thousands of dollars, is a notable exception. Under his direction, Dimensionality of Nations Project researchers gathered behavioral data from
the newspaper articles, themselves. For most projects, however, the lack of a large research budget tends not to permit the use of actual news stories printed in the daily editions of major papers.

News stories in index form, however, are economic. Both the New York Times and the London Times publish regularly an index of all of their news material. Newspaper data in this form have been used by McClelland, and Holsti and Sullivan, among others. Generally speaking, however, few researchers have taken advantage of this source of data.

Newspaper indexes are supplemented by short narrative articles, also indexed, which appear annually or weekly. Examples of this type of publication include Keesing's Contemporary Archives, Facts on File, and Deadline Data on World Affairs. These sources take a great deal more time to work with because the researcher continually must move from index to article and back, but they have the advantage of drawing upon more news sources than a single newspaper


will. Keesing's, for example, utilizes the *Times* of London, New York, and New Delhi, the Montreal Star, Pravda, Le Monde, and so forth—in fact, every major newspaper in the world. Further, Keesing's lists sources like news releases from Embassies and government departments which might or might not be published in newspapers.

Data from both types of index, then, exist in quantity. Although the probability of source errors and biases may be high, this form of information seems worthy of further exploration. Charles McClelland, who utilized *New York Times Index* data for his Berlin study,¹ feels that the utility of the source is great enough to offset losses through error, even though these difficulties cannot be overlooked:

> Of all the relevant events that occurred, only some were recorded by anybody; of all the events recorded anywhere, one American newspaper (however special it is as a 'newspaper of record') printed only a part; and of all the relevant information printed in the newspaper, only a part was indexed (such shortcoming must be assumed on principle according to the nature of indexing). Further losses and distortions were inflicted no doubt, in our gathering and categorizing of the materials that were taken from the *New York Times Index*.²

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¹ *In* Singer, *loc. cit.*
He might have added one further problem: occasionally, the
index entry, by itself, provides insufficient information to
allow the researcher to code confidently without consulting
the actual newspaper article.

Summary

Index data, then, show promise in two respects: availability and relative economy. Their potential makes
worthwhile any attempt systematically to use the indexes, to discover their biases and problems, and to find whether
these difficulties can be circumscribed. As we saw earlier, communications data, too, are available in reasonable quan-
tity. The information required to explore the relationship of communications to behavior, in short, can be obtained.
CHAPTER IV

THE RESEARCH PROBLEM

In the last chapter, three specific governmental channels of international political information were identified as researchable. These were visits by heads of state, diplomatic exchanges (DEs) and memberships in intergovernmental organizations (IGOs). Because this study was conceived as a pilot project, an attempt was made to keep the research design as simple as possible. To this end, visits by heads of state were counted not as communicative data, but were considered instead as part of the behavioral data, in temporary violation of the model. This position invokes no real harm since visits seldom provide enough new sources of information to alter the system significantly. Further, these visits are not continuous sources of information, as the other two researchable channels are, and it was continuous information channels in which the investigator was primarily interested.

The research problem arises from the question of whether communications levels and behavior can be related. Specifically, does a higher level of political system information result in the tendency for a nation state to orient more of its actions toward the system? The problem
is formulated to measure **direction** of behaviors, rather than **quantity**. The reason for this formulation relates to the difficulties, discussed earlier, of using newspaper index sources for the behavioral data: too many uncertainties exist to measure **amounts** of behavior with any confidence. Measuring only the direction instead of the quantity tends to minimize, at least, some of the problems which inhere in the use of such data.

With respect to the information variables, it can be assumed with safety that news about the international political system accrues both from sending diplomats abroad and from participating in IGO activities. We shall not examine diplomats received from abroad because—although some political information obviously comes from these sources—the information is less likely to be system-oriented, and more likely to contain fewer trusted interpretations, over the long run, than information sent by a nation state's own diplomats. One further factor entered into the decision to ignore diplomats received in home capitals. **Receiving** diplomats tends to be a passive, rather than active, behavior: the situation does not necessarily indicate participation in the system. **Sending** diplomats, on the other hand, does indicate a more international orientation. Both this activity and IGO participation can be assumed to produce
credible, interpreted information which, once transmitted to the home government, might have an effect on that government's policies and actions.¹

We turn now to the two hypotheses. One—the main research hypothesis—is obviously the one of chief interest. The second is an alternative to check on the validity of indicators used in the first.

The Hypotheses and Research Design

The controlling variable in the first hypothesis is DE levels for sample nation states. The scope of this project did not make possible the control of a large number of variables such as gross national product, stability, and so forth. Hence, diplomatic exchange level was considered to be the best single indicator of the entire cluster of control variables, including size, wealth, population, orientation to international politics, technical advancement, and bureaucratic sophistication.

The independent variable under the research hypothesis is IGO memberships. This measure exhibits a fairly

wide variation across all nation states, and lends itself
to manipulation (through sampling choice) while controlling
for DE level. As stated earlier, the main theoretical
interest in IGO memberships arises from the high content
of interpreted information which the variable can be assumed
to possess. The dependent variable is the proportion of
system-oriented behavior (out of total actions) exhibited by
sample nation states. This leads us to the research
hypothesis:

1. A nation state with a higher level of IGO
memberships will tend to exhibit a larger
proportion of system-oriented actions than
a nation state with a lower level of IGO
memberships, DE levels being the same.

To test this hypothesis, nation states in the sample
were paired, controlling for DE levels within plus or minus
ten percent of the DE score. Each country in the pair then
differed by more than ten percent on its IGO score, and the
behavior of one nation was compared to the behavior of the
other in the pair to check for support or rejection of the
hypothesis.

To control for the possibility that support might
occur by chance, and to control similarly for the possibility
of invalid reasoning in the choice of control and independent
variables, the alternative hypothesis "turns the table on its side." This second hypothesis states:

2. A nation state with a higher level of DEs will tend to exhibit a larger proportion of system-oriented actions than a nation state with a lower level of DEs, IGO membership levels being the same.

According to the model outlined in the second chapter, this hypothesis could be supported by the data, if DE level serves no reasonable control function for size, orientation, and capability of the actor. In other words, if IGO memberships are equally good as a single indicator for the control variables, under the model, the data could be expected to confirm the alternative hypothesis.

No attempt was made statistically to correlate DE and IGO scores with the national attributes to be controlled, but an examination of the data showed IGO memberships to vary greatly according to functions other than size, while DEs followed quite closely the countries' relative attribute levels. Thus, it was expected that the alternative hypothesis would not be supported by the data.
Sources

Different sources were used for each of the three variables. DE totals were collected privately, IGO memberships were taken from a published volume, and behavior data were taken from two of the index sources discussed earlier.

Diplomatic exchange levels were collected by Professor Chadwick Alger and by Steven J. Brams, in connection with the latter's doctoral dissertation. The data collected by the two men were the result of a patient process of letter writing to each of the 119 nation states over a period of "many months."

The data on DE levels are not exact for two reasons—time and incompleteness. First, the lists sent by responding nations covered a one-and-one-half year time period (June 1963 to January 1965). Second, not all countries responded to the request for information. Some of the DE data, therefore, had to be derived from that which was available.

A third factor affected the diplomatic totals. Nations, on the whole, sent to Alger and Brams the list of foreign diplomats residing in the responding country's home

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2 Exhaustive lists of all diplomats, country, name, and posting were published in England in 1950 and again in 1951, but the venture—obviously intended to be annual—failed and no published sources have appeared since.

3 Personal correspondence from Brams.
capital, not the number of its own diplomats which were abroad. Thus, the data on diplomats sent abroad by each sample country had to be derived. None of these three problems is unduly severe, however, as Appendix B shows.

The data provided totals on both the number of countries in which the sending nation had resident representation, and the number of diplomatic personnel abroad. A third score, reached by multiplying the one total by the other, gives a combined value for each nation. A Spearman's Rank Correlation test, run pairwise at a time for all three totals, showed sufficient rank uniformity between the two original columns to allow the choice of number of foreign capitals as the crucial score.  

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4The Spearman coefficient for foreign capitals with total diplomats was .944; for foreign capitals with the product of the two primary scores, the coefficient was .98; for total diplomats with product, the coefficient was .989. The smallest T-score with 117 degrees of freedom was 30.8. The values obtained on this test were considered sufficiently high that no stronger test was warranted. The foreign capitals total, although lower than total diplomats, was chosen on two grounds. One, it was the simplest to work with, and a coefficient of .944 was considered within the bounds of acceptability. Two, because of the system orientation of this project, the number of foreign capitals from which information could come to a home government was considered more relevant than the number of persons available to send it.
Data for the IGO membership scores were gathered from one source, the *Worldmark Encyclopaedia of the Nations*. This volume devotes most of its pages to the United Nations and its subsidiary organizations, then to world organizations such as the General Agreement on Tariffs and Trade, International Atomic Energy Agency, and so forth. Included with an extensive article on each organization is a list of members as of January 1963; membership data were taken from each of these lists. A table near the end of the volume provided data on memberships in specialized and regional IGOs. Although the separate totals for world and regional IGO memberships were summed for a grand IGO score, the crucial total in the process of sample selection was the world IGO score, in line with the model.

Behavioral data were taken from two of the sources discussed in Chapter III, *Keesing's Contemporary Archives*

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6 World IGO scores were excluded from the Brams study on the basis that all nation states were members, and that to include them would simply add a constant to the totals. See Alger and Brams, op. cit., p. 657. On the contrary, the totals ranged from zero (East Germany and mainland China) to 26 (United States and France), with a mean of 9.37 memberships in world IGOs. In this study, the only world IGOs not counted were those where membership involved formal adherence only, and those in which there were no regularly
and the New York Times Index. Although some exceptions were found, entries for the most part contained sufficient information on which a coding decision could be based without having to consult the original news story. Further consideration will be given to this topic later.

The Sampling Procedure

Sampling originally was planned as a random process, but a number of difficulties forced a change in the sampling approach. The research was undertaken without the benefit of computer analysis (ironically, because of insufficient time). This meant that the researcher had to select his sample by hand, checking across totals for DEs, IGOs, and behavioral data for all 119 independent countries in the sample year, 1963. It was here that the sampling problem arose. There were few nation states which paired on the control variable, differed sufficiently on the independent variable, and displayed a large enough number of behavioral

or frequently scheduled meetings of members. These excluded organizations are: Part Two members of the International Development Association (overlaps memberships in World Bank), International Civil Aviation Organization (infrequent meetings), International Telecommunications Union (infrequent meetings), Universal Postal Union (meets each five years only), Intergovernmental Maritime Consultative Organization (meets each two years only), and World Meteorological Organization (meets each four years only).
entries to make analysis worthwhile. The (arbitrary) criterion for selection of a country on the dependent variable was that the nation, to be included in the sample, had to act in the international system at least five times, according to the entries in Keesing's for 1963.

The reasons for the choice of calendar 1963 as the sample year were purely pragmatic. The Brams diplomatic data (without which this project would not have been possible) were labelled 1963, although they would be equally applicable to 1964 because of the reports' one-and-one-half year spread, discussed above. This researcher felt that for the sake of consistency with Brams and for future use of other 1963 data already collected (for example, export figures, not used in this project), selection of the specific year was justified. Further, the IGO lists were published as of early 1963, although the volume containing the information was copyrighted in 1965.

In all, twenty-seven countries were sampled. Twenty nations, in ten pairs, were used to test the research hypothesis; a similar number also in ten pairs, was required to test the alternative hypothesis. It was not possible to use the same sample countries under both hypotheses. The selection problems outlined above made necessary the addition
of five nations to the list used under the second hypothesis, and the concommitant deletion of five of the countries from the original list.

Two nations, Algeria and Cuba, originally were included within the sample, but were deleted before coding when it became clear that their inclusion would add severe bias to the tests. Each of the two countries operated under extenuating circumstances in 1963. Algeria was still in the process of consolidating its independence, having gained that status only in late 1962. Its circumstances were complicated by a border war with Morocco late in 1963. Cuba was still deeply involved in the aftermath of the 1962 Missile Crisis. Both nations' behaviors, however, were submitted to coding in order to give a larger N in the analysis of coding problems.7

Coding Categories

Two coding decisions were required for each of the 581 behavioral data entries for the twenty-seven sample nations. First, a decision was made to include or exclude the entry from consideration as an inter-nation political action. Second, a decision was made under the hypotheses:

7Algeria, the first nation dealt with by the panel, had the highest number of coding errors and reduced the coding reliability score considerably.
was the entry indicative primarily of action in the nation's self-interest, or did the action display system orientation?

The second decision, respecting self or system interest, may seem at first to be spurious, since virtually all behavior by any actor can be regarded ultimately as self-interested. This position derives perhaps from common sense: a decision maker would take no action which he was unable to justify in terms of direct or indirect national benefit. The position has been a traditional one in diplomatic history and international relations analysis, and the literature contains a large number of taxonomies of 'goals'. The enumeration of 'goals' may possess pedagogical or descriptive utility, but tends to lack operational power for many questions for empirical research.

For the purposes of this project and others like it, the notion of ultimate self-interest in national behavior must be discarded in favor of some other classificatory scheme. In other words, it is necessary to place prime importance on what Abraham Kaplan terms "action meaning".

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rather than "act meaning." In making the shift we differentiate between the meaning of the behavior to the actor and the meaning of the event to the researcher. It is both necessary and legitimate to ascribe meaning to manifested actions for the purposes of analysis.

The distinction between self-oriented and system-oriented behavior can be drawn along two main dimensions, directness of payoff and number of nations involved in the transaction, as Table I indicates. Each of these dimensions will be discussed in turn, after consideration is given to two underlying concepts, environmental susceptibility and the authoritative allocation of valued resources.

Although the international political system is the focus of our analytic interest, the system is—for each actor—an environmental variable. We are concerned at the operational level to discover those national behaviors which display cognizance of the actor's international environment. The analogy cannot be pressed far, but the

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### TABLE I
CATEGORIZATION OF INTERNATIONAL BEHAVIOR BY TWO VARIABLES—NUMBER OF NATIONS AND PAYOFF

<table>
<thead>
<tr>
<th>Number of Nations involved with actor</th>
<th>DIRECT</th>
<th>Payoff</th>
<th>INDIRECT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multilateral</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a)</td>
<td>Self-oriented</td>
<td></td>
<td>System-oriented</td>
</tr>
<tr>
<td>Bilateral</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b)</td>
<td>Self-oriented</td>
<td></td>
<td>Self-oriented (d)</td>
</tr>
<tr>
<td>Unilateral</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(c)</td>
<td>Self-oriented</td>
<td></td>
<td>System-oriented</td>
</tr>
</tbody>
</table>

(a) Multilateral transactions involve a nation with two or more actors on the same event. The behaving nation's actions are either taken in concert with two or more countries, or are directed toward them.

(b) Bilateral transactions involve a nation with only one other country, whether as collaborator or as target.

(c) Unilateral behavior is directed to no other countries, or to all. This sort of action usually involves declarations and the like.

(d) Except where action is directed toward or followed by subsequent behavior concerning any other (i.e. third) nation or IGO in connection with the same event; and except where the behavior is specifically related to international system norms, e.g. giving foreign aid.
authors of *The Lonely Crowd* offer a useful differentiating concept. Taken slightly out of context, Riesman et al. state the difference between 'inner-directed' and 'other-directed' behavior:

The inner-directed person has early incorporated a psychic gyroscope. . . . He goes through life. . . obeying this internal piloting.11

. . . the other-directed person learns to respond to signals from a far wider circle . . . . This control equipment, instead of being like a gyroscope, is like a radar.12

Distinguishing between self and system orientation in behaviors, then, we are concerned with manifestations of susceptibility to the 'wider circle'--the environment of the nation, the international political system.

By definition (following Easton and others), any time a nation's agents act in the international system, the decision makers have allocated valued resources on behalf of their polity. Operationally, these valued resources include more than mere economic items. Also included are


11Ibid., p. 24.

12Ibid., p. 25.
future freedom of action,\textsuperscript{13} status, security, technical knowledge, and personnel or man-hours.\textsuperscript{14} Thus, an allocation of any of these resources must be directed to a 'payoff', a benefit which is conferred directly upon the acting nation, or indirectly upon the acting nation's environment in line with the nation's desire for a hospitable environment. This notion and the concept of environmental susceptibility bear on the two dimensions of self versus system-oriented action.

The most important dimension which helps to differentiate between the two types of behavior is payoff. Regardless of the number of states with whom the nation interacts during any single event, the behavior must be self-oriented if the payoff or benefit is specific to the actor. The criterion for judgement is an affirmative answer to the question, Is the action directed primarily toward gaining any valued resources for the behaving nation? Two qualifications inhere in this criterion. The action may be directed to more than one benefit. The researcher must concern himself only with the apparent primary concern of

\textsuperscript{13}A treaty commitment, for example, is a constraint--actual or potential--upon a nation's freedom of choice in international politics; freedom of action theoretically could be fully 'spent' and is thus a valued resource.

\textsuperscript{14}This resource is more salient with respect to small or developing nations than to large or developed ones, which enjoy a more extensive pool of trained personnel from which to draw.
the actor; this obviously is a judgemental matter, but certainly not an insurmountable one. The second condition is that the actor's behavior be directed toward a net gain. A policy may fail, of course, but if it is directed toward this net gain, the intended benefit would be direct, and the behavior would display self-orientation.

An example might best illustrate this criterion and its two conditions. Yugoslavia, in 1963, sought to move farther from the Soviet bloc and closer to the 'West'. President Tito decided upon a visit to the United States. After persisting, his attempt to arrange a meeting with a reluctant President Kennedy finally succeeded. Aside from the economic expenditure for air transportation, President Tito allocated the resource, status, in an attempt to gain for his country another resource which he clearly valued higher than prestige at the time: future freedom of action, and perhaps peripherally, increased security and perhaps economic values through new trade markets. Clearly, the intended benefit from Tito's allocations was directed to a net gain in valued resources for Yugoslavia, and thus was self-oriented by reason of the directness of payoff. President Tito might have had in mind a reconfiguration of the world political system as a result of his visit to the United States, but this payoff obviously was not the one to which his actions primarily were directed.
An indirect payoff is a benefit specific to the actor’s environment; behavior directed to this end generally tends to be system-oriented, and displays the susceptibility to environment which was discussed above.

The primary target of action relating to an indirect payoff will thus be general system conditions, IGOs, or other nation states, rather than the acting nation. Functionally, the indirect benefits category subsumes actions involving no payoff. Behaviors directed to no specific payoffs usually are expressive or symbolic, and most often require the allocation either of few valued resources or of resources of little value.\textsuperscript{15}

The second dimension—number of nations involved in an interaction sequence—is less important than payoff, but cannot be excluded from consideration. Three basic categories are involved in this dimension, and they will be discussed in turn.

Unilateral action by a nation state involves only that nation. Its target for the action will be either no other nation or all nations, but none of them specifically. It can be seen that the meaning of unilateral is slightly different from that of normal usage. This category of

\textsuperscript{15}Examples of this type of action would include the severance of diplomatic relations, a protest, an agreement on a treaty of friendship and collaboration, and so forth.
action--and the other two along this dimension--specifically relates to target of action. Examples of untargeted--i.e. unilateral--behavior would include the declaration of new offshore fishing limits, of a policy of non-alignment (both of these actions have a direct payoff), of willingness to give aid through an IGO, or a declaration of hostility toward current system norms (the latter two possessing indirect payoff).

Multilateral action--that is, behavior specifically targeted toward two or more nations--is somewhat similar to unilateral moves, but is much more frequently occurring. The signature of the nuclear test ban treaty and the multinational efforts to end the Arab-Israeli war (both indirect payoff actions) are two examples of multilateral behavior. Other actions of this type include the formation of a regional economic association and concession-seeking from a group of allies (both direct payoff behaviors).

Bilateral action is targeted on only one nation state, but with two qualifications. First, activity which is part of a sequence impinging upon third country, upon an IGO, or upon incumbents of the membership environment as a whole does not constitute bilateral involvement. Such behavior, because of its primary purpose, must be classified as multilateral. Second, activity which accords
with the norms and rules of the system, in line with expectations of these system values, also must be conceived as multilateral, although the presence or salience of the other nations may be only implicit. An example of this second condition would be the protests against the French nuclear explosion in the Sahara Desert in 1963. Each nation which protested the bomb detonation was targeting its complaint to one other country, France. Yet, each protest was made in the context of similar actions by a large number of other states, and so in terms of its meaning constituted multilateral action. These two qualifications make narrow the definition of bilateral action, but make more easy the operationalization of the concepts of self- and system-orientation.

Table I indicates the tendencies to self- or system-oriented behavior across the two dimensions. All direct payoff actions, according to the definitions of authoritative allocations, net gain, and primary purpose of the actor, are by nature self-oriented. Indirect payoff actions betray system orientation ("environmental susceptibility") with respect to multilateral and unilateral activity, but not to bilateral behavior, as it has been defined here.
An example might demonstrate this last point. "Gunboat diplomacy" is a type of bilateral indirect payoff behavior which obviously is self-interested. The United States used this technique in the sail-past of Santo Domingo. Here, only one nation was targeted; the action clearly was directed toward the United States' environment. The United States was concerned to keep its immediate geographical environment—the "Caribbean Lake"—hospitable. The action's primary purpose had nothing to do with the international political system as such, and thus was self-oriented.

If bilateral involvement is only the first behavior in a broader sequence, or is specifically oriented toward the 'wider circle', it is system-oriented, through its multilateral connotations. For example, Soviet aid to Algeria was bilateral, and had indirect payoff. Unlike 'gunboat diplomacy', however, the aid action was undertaken with a broader perspective than mere help to a new nation which might be a potential ally; it was undertaken as part of the Soviets' continuing policy of showing friendship to the Arab world, to preserve the pattern of relationships within the membership environment. It thus counts as system-oriented action, because of the implicit multilateral referent.
We have, then, the two dimensions based on two underlying concepts to determine whether an activity is system- or self-oriented. The dimension of payoff is the more relevant, but number of nations cuts across this factor, as we have seen, to justify its use as a second dimension. The definition is far from perfectly operational, because specific cases might not adequately be covered, and because judgement is required in applying some of the criteria for decision. It is a beginning, however, toward a fuller and more reliable method of classifying behaviors.

Coding Procedure

Because the analysis of data depended heavily on the reliability of coding, the researcher engaged two panels of coders to do this work. One panel comprised two graduate students at the University of British Columbia, each with considerable training in international relations theory. The second panel was composed of two senior undergraduates at the same university, each with extensive, but more substantive, training in the subject. The two members of each panel worked together, rather than separately, in reaching a coding decision. Each of the panels was asked to consider

16Because of the researcher's inexperience, the method of coding was weak in some respects. The procedure which was followed makes meaningless any calculations as to reliability, although the investigator is confident that the data ultimately were coded in a valid manner. These considerations are discussed in the concluding chapter.
the instructions contained in Appendix C, and to move operationally to apply them to each behavioral entry for each nation in the sample. Each panel was informed that it could bring to bear its members' knowledge on any behavior, but that no references or further information sources were to be consulted. The reasoning in this last instruction arose from the concern of the researcher to discover the adequacy of news index entries: to move formally beyond what those entries contained would be to reduce the value of the project. To call upon the general knowledge of a trained student of international relations was felt to be legitimate, however, because any replication of this study undoubtedly would draw upon similarly-qualified coders.

Procedures used in the coding process were as follows. The investigator met with the two members of Panel A, allowed them to read their instructions, then asked whether they had any questions. The researcher then left the two coders to work together on the data. The same sequence was followed with the two members of Panel B.17 The two coding sheets were then compared, and all disagreements between the panels were listed. Finally, a joint meeting of all coders was held by the researcher to resolve

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17 Care was taken to give exactly the same information to the second panel as was given to the first.
the disagreements. Where applicable, the rationale for each decision was stated by the panels. Twelve coding rules emerged from this meeting; these are listed in Appendix C, along with a brief analysis of the areas of disagreement.

Statistical Procedures

Two statistical tests were performed on the data under the research hypothesis; only one of these tests was applied to the alternative hypothesis. After final coding scores were computed for each sample country by dividing its total number of counted behaviors into the total number of system-coded actions. The result was a percentage value, constituting the interval level of measurement. The Wilcoxon matched-pairs signed-ranks test was applied to the data under both hypotheses, because the Wilcoxon test is a good approximation to the stronger randomization test for matched pairs.\textsuperscript{18} The decision was made to seek significance at the .05 level, one-tailed because the direction of the difference between the paired countries was predicted under the research hypothesis. The power of the Wilcoxon test is approximately .95, if the sample is considered to be randomly selected with a theoretically continuous distribution.\textsuperscript{19}


\textsuperscript{19}Ibid. A fairly persuasive argument could be formulated to favor these assumptions, although it will not be done here.
The stronger but more cumbersome randomization test for matched pairs was applied to the data under the research hypothesis to gain an exact significance figure. The second test was not performed on the data from the alternative hypothesis because an exact value was not of interest.

We turn now to the results of the experiment. Support for the hypotheses will be considered first, before attention is paid to methodological questions. The latter type of question deals primarily with source bias for the behavioral data, then with coding.
Substantive Results

To the extent that the experimental procedure conferred any validity on the results, strong support was found for the research hypothesis. The randomization test for matched pairs indicated a significance level of .0127. Eight of the ten pairs displayed the predicted direction of differences—as indicated in Table II—and usually did so by quite large values. The two deviant pairs (Finland/Bulgaria and Mexico/Ghana) ranked within the fifty-fifth percentile based on ranked—but unsigned—difference scores (the logic of the Wilcoxon test).

Sample selection was successful in that no serious distortion in percentage scores occurred as a result of an N within any pair being too small. Sudan, with N=8, had the smallest number of coded behaviors of any nation in the sample. Ethiopia, its pair, had a system-oriented behavior score (37.5%) sufficiently low that an increase of six actions—none of them system-oriented—would be required to change Sudan's position within the set. The Brazil/Turkey pair at first glance indicates possible distortion, but it was not severe. Turkey (involved in
TABLE II
SAMPLE NATION STATES IN PAIRED FORMATION, CONTROLLING FOR DE LEVEL (±10%), AND TESTING FOR SYSTEM-ORIENTED BEHAVIOR BY MANIPULATING INDEPENDENT VARIABLE, IGO MEMBERSHIPS

<table>
<thead>
<tr>
<th>Nation State</th>
<th>DEs</th>
<th>IGOs</th>
<th>World</th>
<th>Region</th>
<th>Total N of coded behaviors for Year 1963</th>
<th>N of system-oriented</th>
<th>Percent of system behavior</th>
<th>Difference, high IGO - low IGO</th>
<th>Rank</th>
<th>Ranks with less frequent sign</th>
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</thead>
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<td>15</td>
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<tr>
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<td>15</td>
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</table>

\[ T = 6.5; \text{ critical } T \text{ at .025, one-tailed, is 8.} \]
the Cyprus dispute in 1963) had a large number of behaviors (N=20), only one of which was coded as system-oriented. However, its pair—Brazil, with N=15—would require eighty-five more actions, none of them system-oriented, to affect the direction of the difference between the two nations. One can entertain reasonable confidence, therefore, that the distortions in percentage scores are not sufficient to change any real difference between pairs.

The alternative hypothesis—as indicated by Table III—was not supported by the data. The Wilcoxon T value obtained from the testing procedure was quite distant from the critical value required, and further statistical testing was not indicated on this group of data. The results enumerated in Table III showed not only a lack of significance, but also displayed a tendency counter to the predicted direction of differences. That is, nations with a higher level of DEs tended to exhibit a smaller proportion of system-oriented behaviors than nations with a lower level of DEs, IGO memberships being the same. This tendency will be considered in more detail in a later section. For the moment, however, we may conclude that the rationale for the control variable and the independent variable under the experimental hypothesis may have some validity.
TABLE III
SAMPLE NATION STATES IN PAIRED FORMATION, CONTROLLING FOR IGO MEMBERSHIPS (+10%), AND TESTING FOR SYSTEM-ORIENTED BEHAVIOR BY MANIPULATING INDEPENDENT VARIABLE, DE LEVEL (ALTERNATIVE HYPOTHESIS)

<table>
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<th>IGOs World</th>
<th>Region</th>
<th>Capitals</th>
<th>Diplomats</th>
<th>Total N of behaviors for 1963</th>
<th>N of system-oriented behaviors</th>
<th>Percent of system behavior</th>
<th>Difference, hi DE - lo DE</th>
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<td></td>
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</tr>
</tbody>
</table>

T = 12; critical value is 8 at .025 level, one-tailed, or .05 level, two-tailed.
Under the alternative hypothesis, the number of coded behaviors on which the system-oriented percentage scores are based seems to be adequate for each sample nation. Two states have an N of less than ten, Sudan (N=8, paired with Ghana, N=15) and Mali (N=6, paired with Saudi Arabia, N=15). In each case, however, the difference between the countries in each pair is sufficiently large to make irrelevant any concern about significant distortion arising from an insufficiently large number of international behaviors.

Despite the strong statistical support given to the research hypothesis, substantive interpretation of the results cannot be undertaken with any great degree of confidence. The reasons for this conditions are three. First, despite the statistical tests for chance occurrence, the researcher feels that pair selection, through manipulation, might be so arranged that an insignificant or perhaps even opposite result might occur. Second, the possibility of a great degree of systematic error in the behavioral data sources cannot be ruled out. Third, coding—although probably valid, as mentioned—was not reliable because of the insufficiency of the procedure and definitions used.
Problem: Sampling

With respect to the first factor, pair selection, a glance at the nations used in the research and alternative hypotheses (Tables II and III) indicates that many of the countries might be used interchangeably in other pairs. For example, Brazil, Turkey, Canada, Poland, Czechoslovakia, Yugoslavia, and perhaps Argentina might be grouped differently with different experimental results. The same statement applies to Philippines, Nigeria, Sudan, Ethiopia, and perhaps Australia. To the greatest possible extent, the investigator tried to match—according to DE scores—nations which were closely comparable on an intuitive or subjective basis, and feels overall that he succeeded. However, this should not obscure the fact that the existing pairs of sample nations constitute only one of many possible configurations, all of which would be equally legitimate under the research design as it is stated. We shall return to this problem in the final chapter.

Problem: Biased Data?

Source bias, discussed earlier as a possibility, warrants further attention here. As the researcher worked with the data, the nagging belief arose that to compare national behavior based only on the reports of two sources might not be a legitimate operation: a noticeable preponderance of space was devoted, in each of the two indexes,
to areas of the world and to issues which were of tradi-
tional or special interest to the countries of publication.

Once coding operations were completed, the problem
of source bias required testing. A possible relationship
was noted between the tendency of nations' system-oriented
scores to increase as their size and total number of be-
haviors decreased. A Spearman rank order correlation was
performed between the system-oriented percentage scores, on
the one hand, and total space devoted in each respective
index to the sample nations, on the other. Details of
this test and some conclusions on the biases of each source
are discussed in Appendix E. The Spearman ($r_s$) coefficient
between the New York Times Index coverage and system-
oriented behavior scores was .390, a value significant at
the .025 level. Keesing's, tested the same way, produced
a coefficient of .431, also significant at the .025 level.

A number of possible explanations emerge with respect
to these correlation results. First, there might be no
reporting bias at all. That is, smaller nations might
depend upon the system for survival, and thus in fact
exhibit proportionately more system-oriented actions than
larger nations. From a different perspective (under the
same assumption that the indexes give an accurate represen-
tation of the events of importance) specific behavioral
characteristics might attach to specific types of nations.
Perhaps only the larger nations become involved in self-oriented, "shopkeeping" international intercourse; that the small nations, in other words, escape the volume and type of day-to-day transactions which necessarily are self-oriented. These explanations would indicate no appreciable source bias for the behavioral data.

Other possible explanations exist, however. Most probable is the likelihood that the two sources—which are written for specific readerships, after all—tend to ignore the inter-nation news of purely local interest within the smaller countries, and report only that which fits into the lay "Western" political value systems and interests. If this were true, news of system-supportive and system-threatening actions could be expected to appear with greater frequency than items which deal with matters of purely local or regional interest. If empirical support could be found for this notion, source bias could be a serious detriment to the use of the indexes for many research questions, including the one pursued here.

In this particular project, only a small amount of doubt is cast upon the experimental results. Examination of Table IV indicates that, although the rank orders on space devoted by the Times index and Keesing's are often discrepant between sample pairs (under the research hypothesis), the majority of the discrepancies run counter to the direction which would justify concern. That is, in all but two cases there seems to be little danger that
### TABLE IV
COMPARISON OF RESULTS UNDER THE RESEARCH HYPOTHESIS
WITH RANK DISCREPANCIES IN DATA SOURCE COVERAGE

<table>
<thead>
<tr>
<th>NATION</th>
<th>SCORE</th>
<th>TIMES</th>
<th>KEESSING'S</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>26.09*</td>
<td>11*</td>
<td>23</td>
<td>Because of split between sources, and discrepancies small, probably little contamination.</td>
</tr>
<tr>
<td>Morocco</td>
<td>13.33</td>
<td>16</td>
<td>18*</td>
<td></td>
</tr>
<tr>
<td>Brazil</td>
<td>33.33*</td>
<td>20</td>
<td>21*</td>
<td></td>
</tr>
<tr>
<td>Turkey</td>
<td>5.00</td>
<td>13*</td>
<td>22</td>
<td>Same as above.</td>
</tr>
<tr>
<td>Canada</td>
<td>47.37*</td>
<td>24</td>
<td>24</td>
<td>Ideal situation</td>
</tr>
<tr>
<td>Poland</td>
<td>19.05</td>
<td>17*</td>
<td>10*</td>
<td></td>
</tr>
<tr>
<td>Finland</td>
<td>30.77</td>
<td>8</td>
<td>11*</td>
<td>Ranks close together. Little apparent problem.</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>50.00*</td>
<td>6*</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Iran</td>
<td>25.00*</td>
<td>12</td>
<td>15</td>
<td>Ideal</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>6.67</td>
<td>3*</td>
<td>4*</td>
<td>Discrepancies great on one source, uniform biases match high score. Probable contamination.</td>
</tr>
<tr>
<td>Mexico</td>
<td>60.00</td>
<td>14</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Ghana</td>
<td>66.67*</td>
<td>5*</td>
<td>6*</td>
<td></td>
</tr>
<tr>
<td>Phillippines</td>
<td>50.00*</td>
<td>7</td>
<td>5*</td>
<td>Possible contamination, but great detail of news in Times which was prime source</td>
</tr>
<tr>
<td>Nigeria</td>
<td>30.77</td>
<td>4*</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>Sudan</td>
<td>62.50*</td>
<td>2*</td>
<td>1*</td>
<td>With such discrepant scores and close ranks, little problem seen.</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>37.50</td>
<td>9</td>
<td>3</td>
<td>Probable contamination. More 'detail' stories listed for Israel.</td>
</tr>
<tr>
<td>Sweden</td>
<td>42.86*</td>
<td>10*</td>
<td>7*</td>
<td>Ideal. No likely problem arising from source bias.</td>
</tr>
<tr>
<td>Israel</td>
<td>18.18</td>
<td>21</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>Yugoslavnia</td>
<td>44.00*</td>
<td>23</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Czechoslovakia</td>
<td>33.33</td>
<td>15*</td>
<td>12*</td>
<td></td>
</tr>
</tbody>
</table>

Scores marked with asterisk are the high ones for the pair. Ranks marked with asterisk are the low ones for each pair. Appearance of three asterisks on the same line indicates greater possibility of source contamination of results.
the results are contaminated by data source. The two pairs where this bias is probable are Mexico/Ghana and Sweden/Israel. In each case, the country with the higher system-oriented behavior score has a lower rank, across both sources, than the other nation in the pair. The few other appearances of undesired rank-score relationships seem not to threaten the integrity of the pair differences to any significant degree, as noted in the 'comments' column in the table.

Problem: Coding

The third problem area which casts possible doubt upon the experimental results is coding. Because of the investigator's inexperience with this operation, enough errors were made in the procedure to render suspect the coding reliability value obtained.

These errors were the following. First, the researcher informed the coders of the hypothesis which he was testing. While the coders had no indication of pairing configurations or IGO or DE totals, coding bias as a result of this mistake is possible. Second, the written instructions to coders were in the wrong form. More operational definitions and many examples should have been included in the instructions; the rambling, essay type of format should have been changed. Further, some
of the wording in the instructions could leave doubt in the reader's mind as to specifically what was meant. Third, the investigator asked the coders to make many decisions which the researcher, himself, should have made. The most glaring omission in this respect is a definition of 'subsequent behaviors' (an operational definition did emerge, as shown in the Appendix). Other omissions included guidance on the veracity of conflicting charges and claims, and an operational statement with examples on what constitutes inter-nation political behavior, and what should be excluded from coding. Fourth, the coders should have worked independently of each other, not in pairs. Each panel's members reported that they tended, while processing the 581 behavioral entries, to generate a group feeling during the three hours required for the task.

Among all four coders, i.e. each of the two pairs of coders, there was total agreement on only 460 of the 581 entries. The coding reliability value for total agreement with respect to both decisions (identification, then categorization) is .792, based on the formula

\[
C.R. = \frac{2(\text{number of entries on which agreement})}{\text{total decisions: Panel A + Panel B}}
\]

\[
= \frac{2(460)}{2(581)} = .792
\]

Using the same formula, the C.R. value for perfect agreement on identification only (519 out of the 581 entries) is
The C.R. coefficient for perfect agreement on categorization only (426 out of 485) is .878.

The PI value for perfect agreement on both decisions is low: .595. The formula on which this figure is based is:

\[
\text{PI} = \frac{\% \text{ Agreement achieved} - \% \text{ Expected by Chance}}{1 - \% \text{ expected by chance}}
\]

Calculations of values plugged into this formula are shown in Table V.

**TABLE V**

**CALCULATIONS FOR PI VALUE**

1. Percent agreement achieved (all decisions): \( \frac{460}{581} = .792 \)
2. Percentage of agreements expected by chance = .486

<table>
<thead>
<tr>
<th>Coding Decision</th>
<th>Number Coded</th>
<th>...In Decimal Form...</th>
<th>...Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>System-oriented behavior</td>
<td>138</td>
<td>.238</td>
<td>.057</td>
</tr>
<tr>
<td>Self-oriented behavior</td>
<td>374</td>
<td>.644</td>
<td>.415</td>
</tr>
<tr>
<td>Not counted, irrelevant</td>
<td>69</td>
<td>.119</td>
<td>.014</td>
</tr>
</tbody>
</table>

\[ \Sigma = 581 \quad \Sigma = .486 \]

(A) The totals in this column are based on the final decisions reached at the joint meeting of all coders with the researcher. This meeting was the culmination of the coding procedure, and resolved all disagreements between the two panels.
A breakdown of types of error made by each panel is included in Appendix C. Most disagreements of interest (as displayed in the figure in the Appendix) have been discussed in general terms above. Almost all the prominent types of error could have been avoided had the researcher designed coding procedures competently.

Three specific categories of behavior deserve special comment. Visits by heads of state and emissaries caused a great deal of trouble to the coders, both with respect to inclusion and to categorization. Part of this problem can be attributed to insufficient instructions, but not all of it. The occurrences of visits were well reported in the indexes, but the content of talks or reasons for the visits usually were not. As a result, coders frequently had insufficient information on which to base a decision. This type of behavior is one area where the indexes are less than adequate to the purpose—at least, to the purpose pursued in this project.

The second category of action which produced an inordinately large number of disagreements is conflict behavior (wars and disputes). Here, the main problem centred on identification. What actions constitute a new input into the international political system, and what subsequent actions change nothing? The coders, at the joint meeting, agreed that each action at the diplomatic
level would constitute a separate behavior to be included, but this still leaves unsolved the inclusion of significant military actions. The decision may perhaps be the best available. But an attempt to establish more specific criteria would be worthwhile. Whether the attempt could be successful is indeterminate at this point.

The third and allied problem involves subsequent actions. Again, the coders emerged with a decision rule, but more specific criteria are required to prevent such a high incidence of disagreement on this type of behavior.

In this chapter, the results of the project have been reported and examined, and some conclusions have been offered in passing. Discussion of the research hypothesis and three factors which cast some doubt on the experimental results has led to the consideration of sample selection, source bias, and coding problems. Attention turns now to a more systematic evaluation of the project, and to some possible areas for further research.

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1McClelland, in his Berlin study, op. cit., counted each behavior separately, but his frame of reference was somewhat different from the more broad notions of events and behaviors which were pursued in this project.
CHAPTER VI

CONCLUSIONS

Assessment of the study will follow roughly the organization of the thesis, itself. Consideration will be given, first, to the relevance and theoretical implications of what was attempted. Then will follow a discussion of the experiment and its problem areas; finally, attention will be given to the chief methodological problem of the project, the utility of the data sources.

Theoretical Considerations

International relations investigators have "borrowed" extensively from the conceptual and substantive contents of sociology, psychology, anthropology, and economics. They have utilized very little, however, the results of research in their own discipline, political science. As indicated in the first chapter, knowledge about domestic political participation seems to be applicable to international politics as well. The second area of political science to be "borrowed" from is the general political systems model of David Easton, whose concepts are more satisfying than previous attempts by international systems scholars.
It has been argued in this thesis that the Eastonian scheme possesses great utility for the analysis of international relations, both to provide a "big picture" and to direct research into new areas. Adaptations to the model were made necessary by the difficulties of operationalizing Easton's framework at the international level, and by the need to reconcile the assumptions of the model with recent work on the nature of the international system.

Because of the necessity to adapt the Eastonian model, the reasons and changes were given considerable attention—more than would perhaps be normal for a research report of this nature. Also discussed were some of the new areas for research to which the adapted model points.

It is true that the literature of domestic political participation and its application to international politics might well be sufficient justification for the research project reported in this thesis. Why, then, is the Easton model necessary? By its inclusiveness, the framework directs attention to areas of research which can be investigated concurrently with the main project at hand. The possibility that communications and political information networks ('news linkages') might not only affect participation, but also the very structure of the international system might be somewhat less evident without the systems model as
presented here. The model, furthermore, relates the current questions within the discipline to the whole.\(^1\) The model can direct the researcher to ask whether, for instance, system stress or collapse is related to communications and political information; it can also foster more inclusive questions like the role non-aligned, developing countries in providing stability to system operation.

Even though the model may lead to new questions, it must also lend itself to operationalization. This has been accomplished in this thesis, although the extent of operationalization is very small. The utility of the adaptations cannot yet be judged, except on a basis of potential. More operational definitions are required. For example, operational attention needs to be devoted to system supports, norms and rules, to roles as discussed in the context of the adapted model, and to the notion of the allocation of valued resources for action in the international arena.

The investigator did not undertake to operationalize the entire model's components and interrelationships because to do so would involve an extraordinary amount of time which might be spent needlessly. If the entire model is sketched

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\(^1\) Questions include these: Is there a continuous system: Who are the actors? What are the effects of IGOs, foreign aid programs, and international peace forces? Is the contemporary system really any different from the pre-war system?, and so forth.
in, its features can be added to as empirical investigation is undertaken on the questions which it poses. The researcher believes as a result of this pilot study, for example, that the concepts of demand inputs, support inputs, stresses, gatekeeping, associated and authoritative allocations—all of what we have called the role behaviors—should be operationalized and used in the study which will follow, to gain much greater benefit from the same basic amount of data collection that would be required in any event. If these concepts can be operationalized, the problems inherent in the use of system- versus self-orientation in behavior may well disappear through the development of a more satisfactory classificatory scheme. In this way, the model's ultimate utility can be discovered concurrently, it is hoped, with the discovery of new substantive knowledge about the international political system. In the interim, a start has been made on the problem: the potential of the model appears to have been increased significantly by positing a membership environment separate from the system. The model also indicates the relevance of the research problem pursued here to international system operations.
The Research Design and Results

Despite the problems and faults of the research design, the substantive result of the experiment at least indicates that a relationship between interpreted information levels and behavior probably exists. The results may have particular relevance to the study of international organizations and their effect on system operation. (Reference was made earlier to the probable validity of IGO memberships as a channel of interpreted political information). IGOs may affect system stability in ways heretofore overlooked.

That the research design was overly simple is clear. The reasons for this were three. First, pressure of time imposed limitations on what could be accomplished. This pressure made inadvisable the use of computer analysis, which would have allowed better sample selection, a larger number of behavior categories, and stronger statistical techniques through the computer's ability to rotate pairs and variables for more thorough analysis. In the project to follow, this aid to analysis should be utilized.

The main problem of the design as it stands, however, is one of definition and operationalization. The choice of system- versus self-oriented categories for the behavior variables posed the biggest problem; while seeming simplistic, the dichotomy forces the researcher to leave to ad hoc
judgement many of the criteria for coding. An operationally 
more elaborate system of classification is required to deal 
adequately with the large number of types of behavior which 
are found in the international system. Definitions must be 
made specific, exclusive, and exhaustive before further 
research is attempted.\(^2\) This applies not only to categories 
of behavior, but to inclusion and exclusion rules to answer 
the question, what constitutes a behavior?

The only satisfactory operationalizations were those 
for the control and the independent variables. The control 
variable as such was too simplistic: the availability of 
computer time in the project to follow should allow the use 
of more control variables. Nevertheless, DEs served well as 
a single indicator of national attributes and political in-
formation channel. IGO memberships, too, indicated with 
probable validity the presence of interpreted political 
information. IGOs as an indicator, however, could be much 
more useful if memberships were classified by type (economic, 
social, etc.). This would allow a relatively easy examination

\(^2\) A further weakness of the self/system dichotomy is 
its invalidity. System orientation tends to be defined in 
terms of the negation of self-directed behavior. Nothing 
exists in the definition as it was used to define expli-
citly what system orientation is. There may be behaviors 
which are neither system- nor self-oriented, and there was 
no classification to take account of this difference.

Further, a nation may take predominantly bilateral 
action in a more traditional diplomatic style as a result 
of a high degree of susceptibility to environment. The 
definition does not allow adequately for this possibility, 
either.
of the possible relationship between types of political information and issue-area action.

The exclusion of intra-IGO (i.e. organizational) behavior from analysis could not be avoided under the research design, but the omission should not be made in future investigation. These data would have tended to support the research hypothesis, if added; their inclusion in the next project, however, may provide a fuller picture of the scope and intensity of international politics.

Sample selection was adequate for the research design but should be expanded in future, both with respect to numbers and time period. Concerning numbers, all nation states should be utilized. Regarding time, the researcher gained the impression while working on the present project that events occurred almost by accident. These events, such as the Algerian-Moroccan border war, visits to other countries by the leader of the new Pearson government in Canada, and the aftermath of the Missile Crisis of 1962, subjectively seem to bias the results severely for these nations in any one year. On the other hand, these same events are part of the whole population of international political actions, and cannot be excluded necessarily. The solution to this problem lies in the extension of the time period covered by the sample. A two-year range should be attempted, along
with the use of all countries, for a sample procedure less susceptible to bias.

Coding and Sources

Methodologically, the weakest single aspect of the experiment was the coding procedure. This problem has been well explored in other sections of the thesis, but it bears repeating that definitional problems and actual coding operations combined to make unreliable the categorization of the data. That confidence can be expressed in the validity of coding does not compensate for the loss of a reasonable measure of reliability.

A problem related to coding arises from the use of news indexes as source material. Coding operations on these data will always require a considerable degree of judgement, unless a dictionary can be started to make more exact the categorization process. Charles McClelland made a significant start on this basis during his Berlin conflict study. He compiled a list of eighteen types of action "made to conform as closely as possible to the language used by the Index compilers. Synonym lists were also developed. . .". ³ While this achievement applies only to conflict situations and only to one index, it raises the ultimate possibility of

³McClelland, in Singer, op. cit., p. 168.
a full dictionary. The list of words and synonyms could assist the researcher to be more explicit and consistent, and could be adapted well to later computer analysis. Once the dictionary were compiled, significant economies would emerge from the use of this source material. The need for work in this area is definitely indicated. It can probably be done best in the way that the adapted model should be elaborated: step by step, in conjunction with empirical research.

Also arising from the question of behavioral data sources, a more detailed and systematic investigation of bias in data coverage is warranted on the basis of the correlations discovered in this project (and discussed in Appendix E). All of the index sources mention in Chapter III should be appraised, compared to each other, and compared to non-Western source material, to gain a more precise assessment of the hazards of each source. The pilot project, indicating need for this information, was not structured to deal more thoroughly with the question.

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4 This admittedly would be a task of large proportions, but work toward this end should be started.
Summary

This chapter has reviewed some of the problems to be dealt with in further inquiry. The investigation reported in this thesis was undertaken as a pilot project, not as a definitive piece of research. In this context, the study has proved useful, by isolating problems in conceptualization, methodology, and data sources. Work will be continued in the same vein.

The thesis project was directed to three basic areas of concern: theoretical, methodological, and substantive. In each of these, findings of probable long-term value have been made. A start has been made on the operationalization of the Eastonian model, and in particular a previously unexplored area of inquiry has been isolated. Substantively, in this unexplored area, a probable relationship was found between information and participation in the international system. Third, a start was made on the assessment of a promising but little-used source of behavioral data for international relations research.
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APPENDICES
APPENDIX A
SYSTEM NORMS AND RULES

This appendix is included as a supplement to the discussion of the adapted model, because the question of norms and rules impinges upon some of the concepts and examples used in the body of Chapter II. The existence of norms and rules will be demonstrated here at the conceptual level: displaying the phenomena operationally must await a later time.

From any given nation state, the researcher can abstract factors which he terms variables of 'political culture'. Although there is little intradiscipline agreement on the precise meaning of this concept, certain aspects of political culture, taken in the broad sense, can be identified. Factors would embrace styles of behavior (customs, rules and the like, taken from the anthropological perspective) and belief systems (attitudes, norms and goals, often taken from the psychological perspective). The researcher concerned with these variables as they exist within a polity would seek to discover the dominant norms, rules, goals and styles within the nation state, and would note the proportion and type of deviant behavior in the system. From this operation could emerge a number of pictures of the polity. One of
them (our chief concern) would be a picture of the nature and extent of support, in the broad sense, which the system enjoys.

To transform political culture into supports is not to reduce the meaning of the concept 'culture' to ridiculous extremes. Supports of the political system are, in fact, part of the culture, and vice versa: the two are inextricably linked. David Easton's concepts of supports are informative to this discussion. He lists three objects of support within any political system as authorities, regime and community.¹ Support for any of these three objects can range from negative to positive.² Although there are many other dimensions to political culture, we shall concentrate on the three support objects because of their relevance to the international system.

If one can assume the existence of political culture among actors in a domestic polity, and if one can assume that part of that culture comprises supports for the objects just mentioned, it is equally logical to assume that the actors in the international system will display certain behavioral


²Ibid., p. 163.
characteristics which we can term 'culture' and 'support' for specific objects of the system. As with research in a domestic polity, the investigator can inquire into what the predominant styles and belief systems in the international system may be, and how these relate to the three objects of support. This notion is displayed in Figure A-1.

Each circle represents the set of values of each respective nation. The solid area indicates issues on which there is complete agreement between nations within the system. The shaded area shows issues on which there is substantial agreement between two nations.

Figure A-1. Schematic representation of system norms and rules using Nations A, B, and C as examples of all system actors.

As the figure demonstrates, nations share some styles of behavior and beliefs with virtually all other nations; they share other things also with some other nations, but not all; some values are shared little, if at all. 'System rules and norms' are considered to be those factors which are almost unanimously shared. The degree to which these behaviors and views are shared between nations depends upon the objects of support, as well as depending upon information, domestic
constraints on policy, and so forth. The degree of sharing will vary also according to issue. It is the objects of support, however, which are most relevant to the question of sharing. This is characterized in Figure A-2.

Figure A-2. Proportion of inter-nation sharing with respect to objects of support within the international system.

Because the adapted model posits no incumbents in the position of authority, there can be no lasting or continuous authority support. Whatever support can be discovered in this category will be on ad hoc issues: shared approval will given to specific actors carrying out specific authority roles within the international system from time to time. In the contemporary system then it would be more usual for a sizeable group of nations to oppose the legitimacy of authority action. Thus, authorities—as an object of support within the international system—receive little unanimous support from the full membership environment.
Support for regime tends to be shared on a wider basis. On this object, Easton is of direct assistance:

The regime as sets of constraints on political interaction in all systems may be broken down into three components: values (goals and principles), norms, and structure of authority. Some goals and principles will be universally shared—the 'motherhood and sin' type—such as formal equality between all nations, negative attitudes toward nuclear weapons testing, belief in international cooperation (to a greater or lesser extent, depending upon the actor), and so forth. The researcher can observe these values, often, by looking only at behavior. They need not be articulated as values to qualify for analysis. As Easton comments,

Part of their function derives from the very fact that they may lie dormant most of the time, serving as the silent assumptions of behavior rather than as articulate ideologies.

Norms would include the set of mutual expectations on which nations would interact, and would embrace the set of shared notions about proper processing procedures for different types of system inputs. The structure of authority concept

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3 Ibid., p. 193.
4 Ibid., p. 199.
5 This should not be confused with 'authorities' mentioned earlier. Whereas 'authorities' are specific actors who may undertake to play the authority role in a given sequence of events, the structure of authority is the set of rules by which such actors can accomplish this feat.
applies to specific provisions within international organizations for the normal system operations. For example, processing of disputes is one aspect of the structure of authority. Other aspects include approval of the state of quasi-anarchy and *ad hoc* actions which characterize the international political system. Such approval might well be predicated on shared notions of national self-interest and shared desires to maximize freedom from external constraints.

Support for community, as applied in the international sphere, is a rather amorphous concept. Do the objects for support within the 'community' category involve only nation states, people, social classes, or what? This question will not be answered here, if indeed it can be answered in any definitive way. The relevant part of the concept for our purpose deals with shared perceptions of interdependence among nations. One characteristic of the contemporary international system is the predominant notion that no nation can exist in isolation from all others; that what happens in Japan, France, or Ghana may well have repercussions on the entire membership environment. The proportion of shared community support variables is hypothesized to be greater than those of regime or authority support factors, in part because community variables are less specific.
In summary, the most relevant objects of support in this analysis is support for regime, i.e. 'system norms and rules'. Here, virtually unanimous sharing on specific items under this category becomes part of the international political culture, with almost all actors perceiving the 'rightness' or 'correctness' of certain modes of behavior and certain values. In Figure A-1, this area of agreement is represented by the solid area in the intersection of the three circles. It will be in the shaded area—norms and rules which are shared by some but not all of the actors—that the points of international system contention tend to arise. These sets of partly-shared norms and rules will predominate as issues on which most attention tends to center within the international political system. The white area of the circles in the figure indicates items which are shared by the actor with few or no other actors.

Obviously, an operational limit must be set for how many actors or what kind of actors share given values before they become significant in the system as contentious issues. An operational limit is needed also to determine how many occupants of the membership environment need to share certain views before these views are counted as 'system norms and rules', the salient part of the international political culture. Until such operational definitions can be for-
mulated and research be carried out, demonstration of the empirical reality of system norms and rules cannot be undertaken. Using the concepts discussed here, however, the contention that system norms and rules do exist carries a certain face validity.
APPENDIX B

DETAILS OF DIPLOMATIC EXCHANGE DATA—
ITS COLLECTION, DERIVATION, AND CODING

(All of the information below is quoted directly from Brams' reports. The material presented up to the asterisks(*) is from Chadwick F. Alger and Steven J. Brams, "Patterns of Representation in National Capitals and Inter-governmental Organizations," World Politics, XIX (July, 1967), p. 647. The material quoted below the asterisk is an appendix to Steven J. Brams, Form and Flow in the International System, Unpublished Ph.D. Dissertation, Northwestern University, 1966, pp. 150-153. The rationale for each coding decision is excluded.)

"Lists of diplomats that a country sent abroad were obtained from forty-five nations, and 1,469 individual missions recorded as sent, as taken from these sending lists, were compared with the comparable missions received, as recorded in the receiving lists, to check the reliability of the receiving-list data. Only 153 of the comparisons, or 10.4 percent, differed either by more than five diplomats or by more than a factor of two, even though comparisons were based on sending and receiving lists that differed by as much as two years.

"We estimate that our tally of diplomats for 1963-64 is over ninety percent complete. Receiving-list data were not obtained from fifteen of the 119 nations included in the study. . . These fifteen nations sent 1,362 diplomats

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to 104 nations from which data were obtained, or 5.8 percent of the total number of diplomats that these nations received. Even if these fifteen nations sent a proportionately high number of diplomats to one another, it is still unlikely that their contribution to the world diplomatic community would exceed ten percent.

1. Diplomatic representatives who were stationed in the capital of a country (or wherever the embassy or legation was located) were distinguished from those who were stationed elsewhere in the country. [Footnote: 'Although Rawalpindi is the official capital of Pakistan, Karachi was considered the capital in this study since the great bulk of the Pakistan diplomatic community is stationed there.] Data were recorded for both the number of diplomats residing in the national capital and the total number stationed in the entire country, including the capital, but the analyses in this study are based only on the capital figures. [This statement holds also for the McMaster study.] For those countries with dual capitals (Brazil, Libya, and Saudia Arabia), the number of representatives in one capital was added to the number in the other to give a composite capital figure.

2. Clerical and secretarial personnel, as well as specialists, technicians, and staff who did not have career-officer rank, were excluded from the capital totals. In the case of the United States, regular foreign service officers and reserve officers (but not staff officers), as well as specialists with career-officer rank attached to the embassy staff, were counted in the diplomatic totals.

3. A substantial number of countries, most frequently the smaller ones, maintain formal diplomatic relations with other countries but do not station permanent representatives in these countries. Personnel who were accredited to one or more countries, but who were not actually living in these countries, were not counted as representatives to these countries, although the fact that a country had in absentia representation with another country was noted. On the other hand, if a post were temporarily vacant or a person had been formally nominated or officially approved for a post but had not yet arrived in the host country, the post was regarded as if it were occupied by a permanent representative.
"4. Honorary diplomatic representatives were not included in the capital totals. . . .

"5. In addition to the career personnel in embassies and legations, the career representatives in consulate generals, consulates, and vice-consulates were also included in the capital totals. In the few cases where the nationality of a consul was listed as that of the country in which he resided--instead of a country which he represented--he was not counted as a career representative. . . .

"6. Permanent representatives to regional and international organizations were not counted as diplomatic representatives to the country in which the headquarters of these organizations are located. Personnel in regional offices (e.g. the British Information Office for the Middle East in Lebanon) were similarly excluded from the figures for the country in which they were located. . . .

"7. All foreign aid mission personnel were excluded from the diplomatic totals. Included in this category are the U.S. Agency for International Development (AID) Missions, and the French missions of Aid and Cooperation in most of France's former colonies. . . .

"8. Only military personnel who were attached to embassy staffs were included in the diplomatic totals. Thus, the U.S. Military Assistance Advisory Group in the Philippines and Spain, U.S. Mutual Defense Assistance Program Personnel in Belgium and Great Britain, personnel in the office of the Deputy Commandant of the British Military Government in Berlin, and the Australian Army Training Team in South Vietnam were not considered diplomatic representatives; personnel of the British Advisory Mission in South Vietnam, however, did qualify as representatives because each member of the mission also carried the title of military attache.

"9. If a country stationed diplomatic representatives in both Chinas, Germanys, Koreas, or Vietnams, it was treated as if it allotted diplomatic recognition to both countries, and the representatives sent to each were separately counted. . . .

"10. When no local address was given for the chancellery and no local addresses were given for any of the diplomatic representatives which one country was listed as receiving from another, then no transaction of personnel was assumed
to have taken place and no diplomatic exchange was recorded. . . .

"11. Representatives from one country (e.g. Switzerland) who looked after the foreign interests of another country (e.g. The United States) in a third country (e.g. Cuba) were excluded from the 'servicing' country's (Switzerland's) representation in the third country (Cuba). . . .

"12. Due to the fact that the diplomatic lists were printed in many different languages and the rules for the inclusion of personnel differ among countries, there were numerous opportunities for misinterpretations of the lists. In many cases where questions arose, consulates in Chicago were called and representatives consulted about the interpretation of their lists."
1. Instructions and Comments to Coders

(Copies of the material in this section were given to each coding panel.)

The data on the sheets for each country are gathered from two news sources, the New York Times Index and Keesing's Contemporary Archives. Where possible, I have typed the data in chronological order. Many entries on my rough working sheets, however, were made without dates, and thus many nations and behaviors are not necessarily in time sequence. I would suggest that, before coding is undertaken for each country, you read over the behavior of that country for the entire year, to get a perspective on the full scope of events for the year. Coding is crucial to this project: despite a seeming lack of information regarding any given behavior, a decision must be made—if necessary on a 'best guess' basis.

THE PROJECT'S PURPOSE

I am testing the hypothesis that a nation with a higher level of memberships in inter-governmental organizations will tend to exhibit a greater proportion of world-oriented, rather than self-oriented, international behaviors than a nation with a lower membership level will show. (The concept is somewhat similar to Riesman's inner versus other directedness.) It is the dependent variable which you will be coding, then.

While the project does not involve systems analysis, the underlying hypothesis—that the kind and amount of information which a nation receives determines in part the nation's international behavior—as well as further plans for this form of analysis, stem from a systemic view of international politics. Just before we discuss the details of the coding, I would like to sketch in some of the concepts, in the hope that it will be of help in coding.

My basic system view follows that of David Easton, but with a number of modifications. Operationally, I see a system as interactions or behaviors, not component members, and regard it as being in a series of separate equilibria, or in a sense in a non-existent state, except when affected by inputs over time. Thus, operationally,
I am interested only in behaviors which constitute inputs which reinforce or alter the system (or the environment). I am not interested, for example, in an agreement between two nations to continue a treaty, because the treaty already was part of the system, and nothing has changed. Inputs into the system come from actors who have been stimulated by information about that system or its environment. So, substantively, I conceptualize membership in the system as being determined by the degree to which an actor or nation state has access to systemic information.

WHAT COUNTS

Basically, there are two decisions to be made about each behavior. First, should each entry on the data sheets be counted at all? Second, if counted, how is each behavior to be classified?

With respect to the first point—whether the behavior should be counted at all—there are two specific types of activity which are to be excluded. The first is any action which arises from membership in international organizations, i.e. occurs within the normal role framework of such membership. This is necessary to avoid being tautological because my sample selection is based on number of memberships of a country in these organizations, and I wish at all costs to avoid counting the same thing twice. (Action to form a new organization is considered countable, however. In 1963, the Addis Ababa Conference, which resulted in the formation of the Organization of African Unity, is a case in point. Such participation should be counted as such was fully operating, with specified role behaviors on the part of its members.)

The other type of behavior which I wish to exclude is purely passive activity. If country X, for example, is visited by the chief of state of country Y, the hosting duty of X is passive and hence excluded, if by all appearance the only reason for the visit by Y to X is the presence of Y in the general area. On the other hand, if host country X has taken the initiative and invited the head of Y to visit, such a behavior would be counted.

What should be counted? The most obvious criterion is that the action must be political. Again adapting from Easton, I am defining "political" acts as authoritative allocations of valued resources for the whole society (of which the government is agent). Thus a government, in the international arena, can allocate information, economic resources
or funds, sovereignty, freedom of action, manpower, or political status, within the context of the nation's position or status in the hierarchy of world nations (if such exists). Seeking aid, for example, is an allocation of a valued resource, status, and giving aid is an allocation of a valued resource, economic or manpower or information, depending upon the type of aid. A reminder that the nation's entire aid program is not being scrutinized; only the new agreements which developed in the year in question are of interest, because these new acts of aid-granting or -seeking can be considered as changing the system or environment. A government which articulates support for another government or for a peace proposal or whatever, is allocating the valued resource, status, at minimum.

That the allocation must be for the whole society which the government represents, must be clarified. Here, the concepts of 'direct and immediate' results enter into the picture. (See below, for elaboration.) In other words, if the government, as agent for a group of timber merchants, concludes a timber trade agreement, the government would be acting, not for the whole society, but for the merchants. Ultimately, of course, the entire society's economy might benefit, but not 'immediately'. Trade agreements are the most difficult area to deal with, from this standpoint: are they primarily economic, or primarily political?

Another view of 'political' behaviors must be included among criteria for counting. Simply put, one government must be dealing with another government. For example, in 1963, the president of Brazil visited the Pope in Rome. This is excluded from 'political' activity, because it is not international behavior, but rather social or cultural.

Another criterion for acceptance of a behavior must be that the action is initiative or 'new'. For example, a decision to go to war would be counted as a behavior, but the first movement of troops, in the wake of that decision, would not be counted because it forms part of the same event. This is another difficult area for coding decision. A specific reinforcement to an event may be counted because it forms part of a specific, definite act, rather than a 'natural follow-up', but this decision must be made in each case. In our war example, significant new acts to be counted might include conferences of heads of states which arise from the war, or the activity of ally seeking, suggestion of new peace terms, etc., but making propaganda against the enemy would not count because it could be seen as a natural part of the entire process. (Troop movements which are undertaken as a form of warning during a conflict situation would be counted--as a warning--however.)
One other area where this problem arises is in the expulsion of 'spies' between east and west oriented countries. It is part of the 'rules of the game' for the accused country to take retaliatory action by expelling a national of the accusing country, guilty or not. Such retaliatory expulsions should not count, because it should be considered part of the same event, with initiative having been taken by the other country. (Further to espionage charges, the spy acting in the milieu is part of the system. Only the interruption of espionage activities by the accusing country should be counted, in line with the concept of system as used here; the interruption of spying constitutes a change to the system, although it might be a temporary one only.)

One other area of acceptability remains to be commented upon: the area of credibility. One must make an assumption and apply it consistently throughout, for coding purposes. One can assume that all charges where no outcomes are reported, and that all 'informed source' reports are true, or that they are false. Because of the stature of the sources used in data collection, and because of the apparently greater danger through assuming falsity of loss of information, the assumption in this project is one of truth. Where it was noted in the indexes, a conviction following a spy charge was, in turn, noted on the data sheets. Where conflicting claims were included in the indexes, these, too, were noted; in this case, it is up to the coders to judge which of the two competing and reported claims would seem to have greater validity.

This section has dealt with the inclusion and exclusion rules for data—whether to count something or not to count it. If not counted, note why; or if contentious but counted anyway, also note the reason. We move now to self-oriented versus system-oriented behavior, the main task of coding.

CRITERIA FOR CATEGORIZING

The chief criterion for deciding whether the behavior falls under the self-interest or system-interest category is its appearance to have direct and immediate relevance to the viability of the country. By viability is meant the status and functioning of the nation state at the moment in time concerned; nation states are assumed here to be acting in their self-interest if they seek to maintain, or to increase (maximize) directly their condition. This is a general concept, not operationally stated, but it is in this area that coders' judgement is important. To use an example, adherence to the nuclear test ban treaty of 1963 is not of direct and immediate concern to a nation. It ultimately may be of greatest relevance
of course, but only indirectly and only at some time in the future. Normalizing diplomatic relations, on the other hand, or recognizing a new government of a country (a 'shopkeeper' function, perhaps) is seen as being of direct and immediate concern, in the sense that day-to-day functioning is return to a more normal state. To cite another example, a nation which files a protest to another country over a border incursion is acting in a manner obviously classified as self-oriented—of direct and immediate importance to the viability of the government or country. Sending a protest note over a matter of principle which occurred in a distant place, on the other hand, would be world system oriented.

System-oriented behavior generally falls into two main types: affiliative, or supportive, as seen here. The latter type of action can be either symbolic or material, in terms of resource allocation by the nation which undertakes the action. (Demands can also be made on the system, but for the purposes of this study, such demands—for example, for aid—would be considered self-oriented, as ally-seeking or ally-reinforcing would be self-oriented.) By world system-oriented, I do not mean only "the" entire system; subsystem or regional considerations would qualify as system-oriented, as long as they cannot be counted as a matter of direct and immediate self-interest.

For self-oriented or 'inner directed' behaviors, code "I". For system or sub-system (or 'other directed') behaviors, code "0". If the behavior is not to be counted, leave the coding space blank. And in the case of any difficult or contentious decision, please be certain that the reasons for the decision are noted down.

Part of the purpose of this project centres on exploring the utility of the news report indexes; hence, no outside source is to be consulted for clarification or substantiation of the entries on the data sheets.

2. Twelve Coding Rules Derived by the Coders in Resolving Disagreements Between The Two Panels

1. Any announcement of a policy of non-alignment is coded as self-interest, because the policy basically concerns defense.

2. Any offer of benefits by one nation to another is coded as self-orientation (an attempt by the offering country to generate goodwill with the intended recipient) unless absolutely no conditions or 'strings' can be detected or implied.
3. A host country is assumed to have invited a visiting head of state, except for special occasions such as anniversaries when the visitor might be simply expected to attend. Thus, visits to hosting capitals are included as active behaviors for the host nation.

4. In a conflict situation, each action at the diplomatic level shall be considered a new input, since the success of any of these actions would alter the equilibrium of the conflict.

5. In a conflict situation, visits by intermediaries from non-combattant powers are judged to be passive for the host country, since the intended mediators in all probability were not formally invited to visit.

6. Attempts by officials of non-combattant states to mediate a conflict will be counted separately if, for example, entries are made first of an attempt to bring together the disputants, then later of the mediator presiding over such a meeting.

7. Actions which are subsequent to previous moves by a country are excluded if they occurred within three months of the first action, and counted if they occurred more than three months after the previous action, since most 'subsequent' types of behavior occur very shortly after the first move and a passage of three months is construed as requiring a new attempt to be made.

8. Where a nation negotiates with foreign private companies to compensate them for nationalization, the action is considered political because of implicit inter-governmental retaliation possibilities.

9. In behaviors involving the exchange of technical information, coding on self- or system-orientation is based on apparent equality of the partners to the transaction. In other words, if the nation in question stands to gain more than the partner country, the action is categorized as self interest; if the gain be less, it is system orientation.

10. Coding of diplomatic visits is based on the same concept as that outlined in Rule 9: if there is no apparent gain for the visiting head of state, the categorization is system orientation; if there is any apparent gain, the coding is self orientation.

11. Action to send warships on a goodwill cruise abroad is not counted, since training cruises must be carried out in any event.
12. A nation which joins an intergovernmental organization whose primary purpose is not political, e.g. O.E.C.D., is considered to be acting politically nevertheless, because the nation changes the interaction pattern among members of the political system as a secondary effect.

3. **Distribution of Coding Disagreement, by Behavior Type, Between Panels**

To compute these values, the researcher coded all 581 behavioral data entries by type, and composed a frequency chart to display graphically where the problems tended to lie. Because of procedural errors, no meaningful discussion of reliability can be offered. However, the following table displays the areas where insufficient instructions or definitions resulted in a noticeable disparity between panels.

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<thead>
<tr>
<th></th>
<th>Panel One</th>
<th>Panel Two</th>
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<td>u b m</td>
<td>u b m</td>
</tr>
<tr>
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<td>1 4 1</td>
</tr>
<tr>
<td>**System Oriented</td>
<td>19 3 30</td>
<td>3 13 20</td>
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**Legend:**
- u - unilateral
- b - bilateral
- m - multilateral
<table>
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<th>code</th>
<th>date</th>
<th>behavior</th>
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<td>IRN recognizes new govt in IRQ</td>
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<tr>
<td>JAN 28</td>
<td>Expels attache to UAR embassy for distributing &quot;sedition&quot; leaflets</td>
<td></td>
</tr>
<tr>
<td>MAY 26</td>
<td>Shah successfully mediates AFG/PAK dispute; peace talks held in IRN capital</td>
<td></td>
</tr>
<tr>
<td>MAY</td>
<td>President of IND visits IRN</td>
<td></td>
</tr>
<tr>
<td>JUNE 6</td>
<td>Blames UAR for riots in IRN over IRN domestic reforms</td>
<td></td>
</tr>
<tr>
<td>JUNE 12</td>
<td>Shah announces USR propaganda attacks stopped, after IRN assured that it not be site of missile base</td>
<td></td>
</tr>
<tr>
<td>OCT 18</td>
<td>FRN Pres. de Gaulle visits; no report re communique; FRN announces aid thru credits to IRN</td>
<td></td>
</tr>
<tr>
<td>OCT 7</td>
<td>Shah announces technical assistance pact with USR to be expanded</td>
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<td>AUG 9</td>
<td>Adheres to nuclear test ban treaty</td>
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<td>OCT 3</td>
<td>Queen of NTH visits</td>
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</tr>
<tr>
<td>NOV 17</td>
<td>Brezhnev of USR visits</td>
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</tr>
<tr>
<td>DEC 12</td>
<td>IRN gets USR to pay 1/2 damages for IRN survey plane shot down accidentally</td>
<td></td>
</tr>
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APPENDIX E

TESTS FOR BIAS IN BEHAVIORAL DATA SOURCES

The investigator detected a possible relationship between size of country and/or coverage given to news of the country, on the one hand, and size of system-oriented behavior score, on the other. With a number of possibilities in mind, the decision was made to attempt to test a hypothesis to this effect. The hypothesis is that nations' scores, for percentage of system-oriented behavior, taken over the entire sample, increase inversely to space devoted to them in the two behavioral data sources.

Measurement of variable X, the behavioral scores, was left unchanged from that used to test the main research hypothesis. Variable Y, space devoted to each sample country in the New York Times Index, was measured in column-centimeters, because this scale converts easily to decimal fractions. Variable Z, space devoted to each country in the Index (only) of Keesing's Contemporary Archives, was similarly measured in column-centimeters. It must be noted that the index for Keesing's (and, in fact, the entire volume) covers the two-year period, 1963-64. Little information was lost or gained, however, by taking the measure of the two-year period, since the interests of the editors could be considered fairly stable over the short run.
The Spearman rank order correlation test was chosen to analyze the data statistically. Although this test is not the strongest possible correlational technique, the researcher felt that it was appropriate to the very loose measure of devoted space, and appropriate to the purpose of examining, in an exploratory way, a sub-hypothesis arising from the main project. The two tests are set out in the tables following.

Formulas used to conduct the test were taken from Sidney Siegel, *Nonparametric Statistics for the Behavioral Sciences* (New York: McGraw-Hill, 1956), p. 210, with respect to computing the $r_s$, and p. 212 with respect to significance. The more complex formula was decided upon because three tied ranks occurred in the X variable—-one of the ties involving three countries—and the score was checked for approximate accuracy by reperforming the test using the conventional formula.
1. Behavior Score vs. New York Times Index Space

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<th>Nation State</th>
<th>Rank on X</th>
<th>Rank on Y</th>
<th>Y-X</th>
<th>(Y-X)^2</th>
<th>Column Centimeters</th>
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\[ \sum d_i = 2000.00 \]
2. Behavior Score vs. Keesing's Index Space

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<td>47.7</td>
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<td>23.3</td>
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<td>48.3</td>
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<td>237.4</td>
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<td>5</td>
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<td>64.6</td>
</tr>
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</table>

\[ \sum d_i = 1864.00 \]

For both tests, the correcting score for ties,

\[ \sum T_x = \frac{t^3 - t}{12} = \frac{2^3 - 2}{12} + \frac{3^3 - 3}{12} + \frac{2^3 - 2}{12} = 3 \]

(See Siegel, p. 207)

\[ \sum x^2 - \sum T^2 = 1638 - 3 = 1635 \]

\[ \sum y^2 - \sum T^2 = 1638 - 0 = 1638 \]

\[ \sum z^2 - \sum T^2 = 1638 - 0 = 1638 \]
1. \( X \) vs. \( Y \):

\[
\begin{align*}
\rho_s &= \frac{\sum x^2 + \sum y^2 - \sum d^2 - T^2}{2 \sqrt{\sum x^2 \sum y^2}} = \frac{1635+1638-2000}{2 \sqrt{1635 \times 1638}} = \frac{1273}{3272.988} \\
&= .389
\end{align*}
\]

\[
\begin{align*}
t &= \rho_s \sqrt{\frac{N - 2}{1 - \rho_s^2}} = .389 \sqrt{\frac{25}{.848726}} = 2.11
\end{align*}
\]

Significant at the .025 level, one-tailed.

2. \( X \) vs. \( Z \):

\[
\begin{align*}
\rho_s &= \frac{\sum x^2 + \sum z^2 - \sum d^2 - T^2}{2 \sqrt{\sum x^2 \sum z^2}} = \frac{1635+1638-1864}{2 \sqrt{1635 \times 1638}} = \frac{1409}{3272.988} \\
&= .430
\end{align*}
\]

\[
\begin{align*}
t &= \rho_s \sqrt{\frac{N - 2}{1 - \rho_s^2}} = .430 \sqrt{\frac{25}{.814239}} = 2.39
\end{align*}
\]

Significant at the .025 level, one-tailed.

As to both behavioral data sources, the hypothesis was supported. No detailed consideration of the meaning of these results will be given here. Some possible implications are discussed in the main body of the report, toward the end of Part III.
Out of interest—in part, to check on the observation that the New York Times Index and Keesing's seemed to give disproportionate coverage to areas and countries in which the publishing countries had a special interest—a Spearman rank correlation was conducted also on the Y vs. Z variables. No ties being involved, the conventional Spearman rank formula 

\[
\rho_s = 1 - \frac{6 \sum d_i^2}{N^3 - N}
\]

was used. The coefficient obtained was .692, a value which is significant beyond .0005, one-tailed (\(t = 4.7974\) with d.f. = N-2 = 25). Further tests were not pursued on the detail of the unequal ranks, because such study is peripheral to the main topic under investigation.

However, observation of the values in the two main appendix tables provides some interesting—although somewhat commonsense—comparisons. For example, the Times' greatest coverage went to Cuba, in the year after the Missile Crisis, with 613 column centimeters of the Index devoted to an exhaustive 'blow by blow' account of events. Keesing's, on the other hand, devoted only 37.1 column centimeters to Cuba for the two years, combined. Ranks for Cuba were 27 and 14, respectively. Keesing's gave special attention to traditional British areas and issues, including India, Australia, and other Commonwealth nations, the middle east, and Algeria, whereas the Times Index paid somewhat less attention, proportionately speaking. Canada, as might be expected, ranked the same on both variables Y and Z, 24th. Argentina, a
traditional area of interest to the United States, ranked 22nd on Y and 8th on Z. Based on column centimeters space devoted to each sample country, the observations made while working with the data are borne out.

As a side issue, it is interesting to note that Keesing's, although utilizing sources from all over the world, displays a bias just as British as the Daily Mirror might be expected to show.

Examination of this topic was not intended to be 'scientific' necessarily. It was undertaken simply to determine whether any relationships exist which might warrant further investigation. Such relationships have been found, and investigation on a more rigorous plane is seen to be warranted because of the need to know of all possible systematic error in index sources of data.