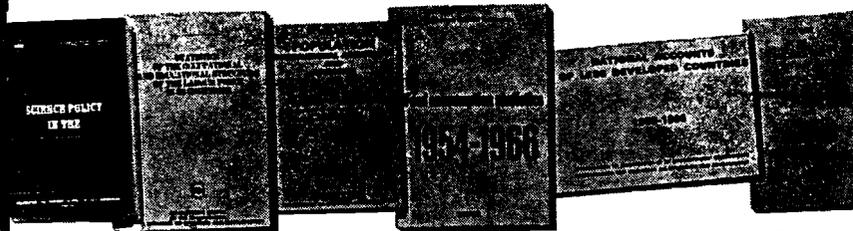




Organization for Economic Cooperation and Development
Headquarters: 2, rue André Pascal, Paris. XVI. France

The publications of this international organization
include data not readily available from any other source.



SCIENCE POLICY IN THE USSR

Examines Soviet policy for encouraging research, development, and innovation. (April 1969) 615 pp. \$15.00

STATISTICS OF THE OCCUPATIONAL AND EDUCATIONAL STRUCTURE OF THE LABOR FORCE IN 53 COUNTRIES

Data on countries with over one million population. Compiled by OECD and the London School of Economics and Political Science. (Feb. 1969) 287 pp. \$7.00

POPULATION: INTERNATIONAL ASSISTANCE AND RESEARCH

(April 1969) 233 pp. \$3.50

FOOD CONSUMPTION STATISTICS 1954-1966

Composition of the food intake for Canada, United States, Japan, and Western European countries, with production, trade, per capita consumption, and trends. (May 1968) 690 pp. \$12.00

OECD Member Countries account for over 70% of world trade and 90% of all development aid.

MEMBER COUNTRIES

Austria	Greece	Portugal
Belgium	Iceland	Spain
Canada	Ireland	Sweden
Denmark	Italy	Switzerland
Finland	Japan	Turkey
France	Luxembourg	United Kingdom
Germany	Netherlands	United States
	Norway	

SPECIAL STATUS COUNTRIES

Australia Yugoslavia

GUIDE TO LEGISLATION ON RESTRICTIVE BUSINESS PRACTICES IN EUROPE, NORTH AMERICA AND JAPAN

Includes a selection of important court and administrative decisions. 5 basic loose-leaf volumes. \$46.00
Fifth series of supplements, issued in 500-page series as changes in legislation occur. \$5.00

NATIONAL ACCOUNTS OF LESS DEVELOPED COUNTRIES, 1950-1966

Presents a readily accessible collection of national accounts data, with a critique to assist in interpretation of the statistics. Also includes data on population. (Sept. 1968) 216 pp. \$5.20

ECONOMIC SURVEYS, by country. Valuable background data and trends for each OECD country. Available separately. Entire current series: \$10.00

OECD OBSERVER

The bi-monthly magazine, with authoritative articles on international economics, politics, science, education, development, etc. Write for complimentary issue and index. \$3.50 yr.

OECD publishes 80 - 100 books and periodicals yearly. Send for free catalogue with complete listing.

Standing Orders receive special discount, prepaid shipment and other advantages. Full details on request.

OECD PUBLICATIONS CENTER

Suite 1305 Q. 1750 Pennsylvania Avenue N.W.
Washington, D. C. 20006 • (202) 298-8755

The American Political Science Review

VOL. LXIII

SEPTEMBER, 1969

NO. 3

CONCEPTUAL MODELS AND THE CUBAN MISSILE CRISIS*

GRAHAM T. ALLISON

Harvard University

The Cuban missile crisis is a seminal event. For thirteen days of October 1962, there was a higher probability that more human lives would end suddenly than ever before in history. Had the worst occurred, the death of 100 million Americans, over 100 million Russians, and millions of Europeans as well would make previous natural calamities and inhumanities appear insignificant. Given the probability of disaster—which President Kennedy estimated as “between 1 out of 3 and even”—our escape seems awesome.¹ This event symbolizes a central, if only partially thinkable, fact about our existence. That such consequences could follow from the choices and actions of national governments obliges students of government as well as participants in governance to think hard about these problems.

Improved understanding of this crisis depends in part on more information and more probing analyses of available evidence. To contribute to these efforts is part of the purpose of this study. But here the missile crisis serves primarily as grist for a more general investigation.

* A longer version of this paper was presented at the Annual Meeting of the American Political Science Association, September, 1968 (reproduced by the Rand Corporation, P-3919). The paper is part of a larger study, scheduled for publication in 1969 under the title *Bureaucracy and Policy: Conceptual Models and the Cuban Missile Crisis*. For support in various stages of this work I am indebted to the Institute of Politics in the John F. Kennedy School of Government and the Center for International Affairs, both at Harvard University, the Rand Corporation, and the Council on Foreign Relations. For critical stimulation and advice I am especially grateful to Richard E. Neustadt, Thomas C. Schelling, Andrew W. Marshall, and Elisabeth K. Allison.

¹Theodore Sorensen, *Kennedy* (New York, 1965), p. 705.

This study proceeds from the premise that marked improvement in our understanding of such events depends critically on more self-consciousness about what observers bring to the analysis. What each analyst sees and judges to be important is a function not only of the evidence about what happened but also of the “conceptual lenses” through which he looks at the evidence. The principal purpose of this essay is to explore some of the fundamental assumptions and categories employed by analysts in thinking about problems of governmental behavior, especially in foreign and military affairs.

The general argument can be summarized in three propositions:

1. Analysts think about problems of foreign and military policy in terms of largely implicit conceptual models that have significant consequences for the content of their thought.²

Though the present product of foreign policy analysis is neither systematic nor powerful, if one carefully examines explanations produced by analysts, a number of fundamental similarities emerge. Explanations produced by particular analysts display quite regular, predictable features. This predictability suggests a substructure. These regularities reflect an analyst's assumptions about the character of puzzles, the categories in which problems should be considered, the types of evidence that are relevant, and the determinants of occurrences. The first proposition is that clusters of such related assumptions constitute basic frames of reference or conceptual models in terms of which analysts

²In attempting to understand problems of foreign affairs, analysts engage in a number of related, but logically separable enterprises: (a) description, (b) explanation, (c) prediction, (d) evaluation, and (e) recommendation. This essay focuses primarily on explanation (and by implication, prediction).

both ask and answer the questions: What happened? Why did the event happen? What will happen? Such assumptions are central to the activities of explanation and prediction, for in attempting to explain a particular event, the analyst cannot simply describe the full state of the world leading up to that event. The logic of explanation requires that he single out the relevant, important determinants of the occurrence.⁴ Moreover, as the logic of prediction underscores, the analyst must summarize the various determinants as they bear on the event in question. Conceptual models both fix the mesh of the nets that the analyst drags through the material in order to explain a particular action or decision and direct him to cast his net in select ponds, at certain depths, in order to catch the fish he is after.

2. Most analysts explain (and predict) the behavior of national governments in terms of various forms of one basic conceptual model, here entitled the Rational Policy Model (Model I).⁵

In terms of this conceptual model, analysts attempt to understand happenings as the more or less purposive acts of unified national governments. For these analysts, the point of an explanation is to show how the nation or government

⁴In arguing that explanations proceed in terms of implicit conceptual models, this essay makes no claim that foreign policy analysts have developed any satisfactory, empirically tested theory. In this essay, the use of the term "model" without qualifiers should be read "conceptual scheme."

⁵For the purpose of this argument we shall accept Carl G. Hempel's characterization of the logic of explanation: an explanation "answers the question, 'Why did the explanandum-phenomenon occur?' by showing that the phenomenon resulted from particular circumstances, specified in C_1, C_2, \dots, C_n , in accordance with laws L_1, L_2, \dots, L_n . By pointing this out, the argument shows that, given the particular circumstances and the laws in question, the occurrence of the phenomenon was to be expected; and it is in this sense that the explanation enables us to understand why the phenomenon occurred." *Aspects of Scientific Explanation* (New York, 1965), p. 337. While various patterns of explanation can be distinguished, *viz.*, Ernest Nagel, *The Structure of Science: Problems in the Logic of Scientific Explanation*, New York, 1961), satisfactory scientific explanations exhibit this basic logic. Consequently prediction is the converse of explanation.

⁶Earlier drafts of this argument have aroused heated arguments concerning proper names for these models. To choose names from ordinary language is to court confusion, as well as familiarity. Perhaps it is best to think of these models as I, II, and III.

could have chosen the action in question, given the strategic problem that it faced. For example in confronting the problem posed by the Soviet installation of missiles in Cuba, rational policy model analysts attempt to show how this was a reasonable act from the point of view of the Soviet Union, given Soviet strategic objectives.

3. Two "alternative" conceptual models, here labeled an Organizational Process Model (Model II) and a Bureaucratic Politics Model (Model III) provide a base for improved explanation and prediction.

Although the standard frame of reference has proved useful for many purposes, there is powerful evidence that it must be supplemented, if not supplanted, by frames of reference which focus upon the large organizations and political actors involved in the policy process. Model II implicates that important events have important causes, i.e., that monoliths perform large actions for big reasons, must be balanced by an appreciation of the facts (a) that monoliths are black boxes covering various gears and levers in a highly differentiated decision-making structure, and (b) that large acts are the consequences of innumerable and often conflicting smaller actions by individuals at various levels of bureaucratic organizations in the service of a variety of only partially compatible conceptions of national goals, organizational goals, and political objectives. Recent developments in the field of organization theory provide the foundation for the second model. According to this organizational process model, what Model I categorizes as "acts" and "choices" are instead outputs of large organizations functioning according to certain regular patterns of behavior. Faced with the problem of Soviet missiles in Cuba, Model II analyst identifies the relevant organizations and displays the patterns of organizational behavior from which this action emerged. The third model focuses on the internal politics of a government. Happenings in foreign affairs are understood, according to the bureaucratic politics model, neither as choices nor as outputs. Instead, what happens is categorized as *outcome* of various overlapping bargaining games among players arranged hierarchically in the national government. In confronting the problem posed by Soviet missiles in Cuba, a Model III analyst displays the perceptions, motivations, positions, power, and maneuvers of principal players from which the outcome emerged.⁶

⁷In strict terms, the "outcomes" which these three models attempt to explain are essentially actions of national governments, i.e., the sum of activities of all individuals employed by a government relevant to an issue. These models focus not on a state of affairs, i.e., a full description of the

A central metaphor illuminates differences among these models. Foreign policy has often been compared to moves, sequences of moves, and games of chess. If one were limited to observations on a screen upon which moves in the chess game were projected without information as to how the pieces came to be moved, he would assume—as Model I does—that an individual chess player was moving the pieces with reference to plans and maneuvers toward the goal of winning the game. But a pattern of moves can be imagined that would lead the serious observer, after watching several games, to consider the hypothesis that the chess player was not a single individual but rather a loose alliance of semi-independent organizations, each of which moved its set of pieces according to standard operating procedures. For example, movement of separate sets of pieces might proceed in turn, each according to a routine, the king's rook, bishop, and their pawns repeatedly attacking the opponent according to a fixed plan. Furthermore, it is conceivable that the pattern of play would suggest to an observer that a number of distinct players, with distinct objectives but shared power over the pieces, were determining the moves as the resultant of collegial bargaining. For example, the black rook's move might contribute to the loss of a black knight with no comparable gain for the black team, but with the black rook becoming the principal guardian of the "palace" on that side of the board.

The space available does not permit full development, but upon national decision and implementation. This distinction is stated clearly by Harold and Margaret Sprout, "Environmental Factors on the Study of International Politics," in James Rosenau (ed.), *International Politics and Foreign Policy* (Glencoe, Illinois, 1961), p. 116. This restriction excludes explanations offered principally in terms of international systems theories. Nevertheless, this restriction is not severe, since few interesting explanations of occurrences in foreign policy have been produced at that level of analysis. According to David Singer, "The nation state—our primary actor in international relations . . . is clearly the traditional focus among Western students and is the one which dominates all of the texts employed in English-speaking colleges and universities." David Singer, "The Level-of-Analysis Problem in International Relations," Klaus Knorr and Sidney Verba (eds.), *The International System* (Princeton, 1961). Similarly, Richard Brody's review of contemporary trends in the study of international relations finds that "scholars have come increasingly to focus on acts of nations. That is, they all focus on the behavior of nations in some respect. Having an interest in accounting for the behavior of nations in common, the prospects for a common frame of reference are enhanced."

development and support of such a general argument.⁷ Rather, the sections that follow simply sketch each conceptual model, articulate it as an analytic paradigm, and apply it to produce an explanation. But each model is applied to the same event: the U.S. blockade of Cuba during the missile crisis. These "alternative explanations" of the same happening illustrate differences among the models—at work.⁸ A crisis decision, by a small group of men in the context of ultimate threat, this is a case of the rational policy model *par excellence*. The dimensions and factors that Models II and III uncover in this case are therefore particularly suggestive. The concluding section of this paper suggests how the three models may be related and how they can be extended to generate predictions.

MODEL I: RATIONAL POLICY

RATIONAL POLICY MODEL ILLUSTRATED

Where is the pinch of the puzzle raised by the *New York Times* over Soviet deployment of an antiballistic missile system?⁹ The question, as the *Times* states it, concerns the Soviet Union's objective in allocating such large sums of money for this weapon system while at the same time seeming to pursue a policy of increasing détente. In former President Johnson's words, "the paradox is that this [Soviet deployment of an antiballistic missile system] should be happening at a time when there is abundant evidence that our mutual antagonism is beginning to ease."¹⁰ This question troubles people primarily because Soviet antiballistic missile deployment, and evidence of Soviet actions towards détente, when juxtaposed in our implicit model, produce a question. With reference to what objective could the Soviet government have rationally chosen the simultaneous pursuit of these two courses of actions? This question arises only when the analyst attempts to structure events as purposive choices of consistent actors.

⁹For further development and support of these arguments see the author's larger study, *Bureaucracy and Policy: Conceptual Models and the Cuban Missile Crisis* (forthcoming). In its abbreviated form, the argument must, at some points, appear overly stark. The limits of space have forced the omission of many reservations and refinements.

¹⁰Each of the three "case snapshots" displays the work of a conceptual model as it is applied to explain the U.S. blockade of Cuba. But these three cuts are primarily exercises in hypothesis generation rather than hypothesis testing. Especially when separated from the larger study, these accounts may be misleading. The sources for these accounts include the full public record plus a large number of interviews with participants in the crisis.

¹¹*New York Times*, February 18, 1967.

¹²*Ibid.*

How do analysts attempt to explain the Soviet emplacement of missiles in Cuba? The most widely cited explanation of this occurrence has been produced by two BAND Sovietologists, Arnold Horelick and Myron Rush.¹⁹ They conclude that "the introduction of strategic missiles into Cuba was motivated chiefly by the Soviet leaders' desire to overcome . . . the existing large margin of U.S. strategic superiority."²⁰ How do they reach this conclusion? In Sherlock Holmes style, they seize several salient characteristics of this action and use these features as criteria against which to test alternative hypotheses about Soviet objectives. For example, the size of the Soviet deployment, and the simultaneous emplacement of more expensive, more visible intermediate range missiles as well as medium range missiles, it is argued, exclude an explanation of the action in terms of Cuban defense—since that objective could have been secured with a much smaller number of medium range missiles alone. Their explanation presents an argument for one objective that permits interpretation of the details of Soviet behavior as a value-maximizing choice.

How do analysts account for the coming of the First World War? According to Hans Morgenthau, "the first World War had its origin exclusively in the fear of a disturbance of the European balance of power."²¹ In the period preceding World War I, the Triple Alliance precariously balanced the Triple Entente. If either power combination could gain a decisive advantage in the Balkans, it would achieve a decisive advantage in the balance of power. "It was this fear," Morgenthau asserts, "that motivated Austria in July 1914 to settle its accounts with Serbia once and for all, and that induced Germany to support Austria unconditionally. It was the same fear that brought Russia to the support of Serbia, and France to the support of Russia."²² How is Morgenthau able to resolve this problem so confidently? By imposing on the data a "rational outline."²³ The value of this method, according to Morgenthau, is that "it provides for rational discipline in action and creates astounding continuity in foreign policy which makes American, British, or Russian for-

¹⁹ Arnold Horelick and Myron Rush, *Strategic Power and Soviet Foreign Policy* (Chicago, 1965). Based on A. Horelick, "The Cuban Missile Crisis: An Analysis of Soviet Calculations and Behavior," *World Politics* (April, 1964).

²⁰ Horelick and Rush, *Strategic Power and Soviet Foreign Policy*, p. 154.

²¹ Hans Morgenthau, *Politics Among Nations* (3rd ed.; New York, 1960), p. 191.

²² *Ibid.*, p. 192.

²³ *Ibid.*, p. 5.

ign policy appear as an intelligent, rational continuum . . . regardless of the different motives, preferences, and intellectual and moral qualities of successive statesmen."²⁴

Stanley Hoffmann's essay, "Restraints and Choices in American Foreign Policy" concentrates, characteristically, on "deep forces": the international system, ideology, and national character—which constitute restraints, limits, and blinders.²⁵ Only secondarily does he consider decisions. But when explaining particular occurrences, though emphasizing relevant constraints, he focuses on the choices of nations. American behavior in Southeast Asia is explained as a reasonable choice of "downgrading this particular alliance (SEATO) in favor of direct U.S. involvement," given the constraint: "one is bound by one's commitments; one is committed by one's mistakes."²⁶ More frequently, Hoffmann uncovers confusion or contradiction in the nation's choice. For example, U.S. policy towards underdeveloped countries is explained as "schizophrenic."²⁷ The method employed by Hoffmann in producing these explanations as rational (or irrational) decisions, he terms "imaginative reconstruction."²⁸

Deterrence is the cardinal problem of the contemporary strategic literature. Thomas Schelling's *Strategy of Conflict* formulates a number of propositions focused upon the dynamics of deterrence in the nuclear age. One of the major propositions concerns the stability of the balance of terror: in a situation of mutual deterrence, the probability of nuclear war is reduced not by the "balance" (the sheer equality of the situation) but rather by the *stability* of the balance, i.e., the fact that neither opponent in striking first can destroy the other's ability to strike back.²⁹ How does Schelling support this proposition? Confidence in the contention stems not from an inductive canvass of a large number of previous cases, but rather from two calculations. In a situation of "balance" but vulnerability, there are values for which a rational opponent could choose to strike first, e.g., to destroy enemy capabilities to retaliate. In a

²⁴ *Ibid.*, pp. 5-6.

²⁵ Stanley Hoffmann, *Daedalus* (Fall, 1962); reprinted in *The State of War* (New York, 1965).

²⁶ *Ibid.*, p. 171.

²⁷ *Ibid.*, p. 189.

²⁸ Following Robert MacIver; see Stanley Hoffmann, *Contemporary Theory in International Relations* (Englewood Cliffs, 1960), pp. 178-179.

²⁹ Thomas Schelling, *The Strategy of Conflict* (New York, 1960), p. 232. This proposition was formulated earlier by A. Wohlstetter, "The Delicate Balance of Terror," *Foreign Affairs* (January, 1959).

"stable balance" where no matter who strikes first, each has an assured capability to retaliate with unacceptable damage, no rational agent could choose such a course of action (since that choice is effectively equivalent to choosing mutual homicide). Whereas most contemporary strategic thinking is driven *implicitly* by the motor upon which this calculation depends, Schelling explicitly recognizes that strategic theory does assume a model. The foundation of a theory of strategy is, he asserts: "the assumption of rational behavior—not just of intelligent behavior, but of behavior motivated by conscious calculation of advantages, calculation that in turn is based on an explicit and internally consistent value system."³⁰

What is striking about these examples from the literature of foreign policy and international relations are the similarities among analysts of various styles when they are called upon to produce explanations. Each assumes that what must be explained is an action, i.e., the realization of some purpose or intention. Each assumes that the actor is the national government. Each assumes that the action is chosen as a calculated response to a strategic problem. For each, explanation consists of showing what goal the government was pursuing in committing the act and how this action was a reasonable choice, given the nation's objectives. This set of assumptions characterizes the rational policy model. The assertion that Model I is the standard frame of reference implies no denial of highly visible differences among the interests of Sovietologists, diplomatic historians, international relations theorists, and strategists. Indeed, in most respects, differences among the work of Hans Morgenthau, Stanley Hoffmann, and Thomas Schelling could not be more pointed. Appreciation of the extent to which each relies predominantly on Model I, however, reveals basic similarities among Morgenthau's method of "rational reenactment," Hoffmann's "imaginative reconstruction," and Schelling's "vicarious problem solving," family resemblances among Morgenthau's "rational statesman," Hoffmann's "roulette player," and Schelling's "game theorist."³¹

Most contemporary analysts (as well as laymen) proceed predominantly—albeit most often implicitly—in terms of this model when attempting to explain happenings in foreign affairs. Indeed, that occurrences in foreign affairs are the acts of nations seems so fundamental to think-

³⁰ Schelling, *op. cit.*, p. 4.

³¹ See Morgenthau, *op. cit.*, p. 5; Hoffmann, *Contemporary Theory*, pp. 178-179; Hoffmann, "Roulette in the Cellar," *The State of War*; Schelling, *op. cit.*

ing about such problems that this underlying model has rarely been recognized: to explain an occurrence in foreign policy simply means to show how the government could have rationally chosen that action.³² These brief examples illustrate five uses of the model. To prove that most analysts think largely in terms of the rational policy model is not possible. In this limited space it is not even possible to illustrate the range of employment of the framework. Rather, my purpose is to convey to the reader a grasp of the model and a challenge: let the reader examine the literature with which he is most familiar and make his judgment.

The general characterization can be sharpened by articulating the rational policy model as an "analytic paradigm" in the technical sense developed by Robert K. Merton for sociological analyses.³³ Systematic statement of basic assumptions, concepts, and propositions employed by Model I analysts highlights the distinctive thrust of this style of analysis. To articulate a largely implicit framework is of necessity to caricature. But caricature can be instructive.

RATIONAL POLICY PARADIGM

I. Basic Unit of Analysis: Policy as National Choice

Happenings in foreign affairs are conceived as actions chosen by the nation or national

³² The larger study examines several exceptions to this generalization. Sidney Verba's excellent essay "Assumptions of Rationality and Non-Rationality in Models of the International System" is less an exception than it is an approach to a somewhat different problem. Verba focuses upon models of rationality and irrationality of individual statesmen: in Knorr and Verba, *The International System*.

³³ Robert K. Merton, *Social Theory and Social Structures* (Revised and Enlarged Edition; New York, 1967), pp. 12-16. Considerably weaker than a satisfactory theoretical model, paradigms nevertheless represent a short step in that direction from looser, implicit conceptual models. Neither the concepts nor the relations among the variables are sufficiently specified to yield propositions deductively. "Paradigmatic Analysis" nevertheless has considerable promise for clarifying and codifying styles of analysis in political science. Each of the paradigms stated here can be represented rigorously in mathematical terms. For example, Model I lends itself to mathematical formulation along the lines of Herbert Simon's "Behavioral Theory of Rationality," *Models of Man* (New York, 1957). But this does not solve the most difficult problem of "measurement and estimation."

government.²⁶ Governments select the action that will maximize strategic goals and objectives. These "solutions" to strategic problems are the fundamental categories in terms of which the analyst perceives what is to be explained.

II. Organizing Concepts

A. *National Actor.* The nation or government, conceived as a rational, unitary decision-maker, is the agent. This actor has one set of specified goals (the equivalent of a consistent utility function), one set of perceived options, and a single estimate of the consequences that follow from each alternative.

B. *The Problem.* Action is chosen in response to the strategic problem which the nation faces. Threats and opportunities arising in the "international strategic market place" move the nation to act.

C. *Static Selection.* The sum of activity of representatives of the government relevant to a problem constitutes what the nation has chosen as its "solution." Thus the action is conceived as a steady-state choice among alternative outcomes (rather than, for example, a large number of partial choices in a dynamic stream).

D. *Action as Rational Choice.* The components include:

1. *Goals and Objectives.* National security and national interests are the principal categories in which strategic goals are conceived. Nations seek security and a range of further objectives. (Analysts rarely translate strategic goals and objectives into an explicit utility function; nevertheless, analysts do focus on major goals and objectives and trade off side effects in an intuitive fashion.)

2. *Options.* Various courses of action relevant to a strategic problem provide the spectrum of options.

3. *Consequences.* Enactment of each alternative course of action will produce a series of

²⁶ Though a variant of this model could easily be stochastic, this paradigm is stated in non-probabilistic terms. In contemporary strategy, a stochastic version of this model is sometimes used for predictions; but it is almost impossible to find an explanation of an occurrence in foreign affairs that is consistently probabilistic.

Analogies between Model I and the concept of explanation developed by R. G. Collingwood, William Dray, and other "revisionists" among philosophers concerned with the critical philosophy of history are not accidental. For a summary of the "revisionist position" see Maurice Mandelbaum, "Historical Explanation: The Problem of Covering Laws," *History and Theory* (1960).

consequences. The relevant consequences constitute benefits and costs in terms of strategic goals and objectives.

4. *Choice.* Rational choice is value-maximizing. The rational agent selects the alternative whose consequences rank highest in terms of his goals and objectives.

III. Dominant Inference Pattern

This paradigm leads analysts to rely on the following pattern of inference: if a nation performed a particular action, that nation must have had ends towards which the action constituted an optimal means. The rational policy model's explanatory power stems from this inference pattern. Puzzlement is relieved by revealing the purposive pattern within which the occurrence can be located as a value-maximizing means.

IV. General Propositions

The disgrace of political science is the infrequency with which propositions of any generality are formulated and tested. "Paradigmatic analysis" argues for explicitness about the terms in which analysis proceeds, and seriousness about the logic of explanation. Simply to illustrate the kind of propositions on which analysts who employ this model rely, the formulation includes several.

The basic assumption of value-maximizing behavior produces propositions central to most explanations. The general principle can be formulated as follows: the likelihood of any particular action results from a combination of the nation's (1) relevant values and objectives, (2) perceived alternative courses of action, (3) estimates of various sets of consequences (which will follow from each alternative), and (4) net valuation of each set of consequences. This yields two propositions.

A. An increase in the cost of an alternative, i.e., a reduction in the value of the set of consequences which will follow from that action, or a reduction in the probability of attaining fixed consequences, reduces the likelihood of that alternative being chosen.

B. A decrease in the costs of an alternative, i.e., an increase in the value of the set of consequences which will follow from that alternative, or an increase in the probability of attaining fixed consequences, increases the likelihood of that action being chosen.²⁷

²⁷ This model is an analogue of the theory of the rational entrepreneur which has been developed extensively in economic theories of the firm and the consumer. These two propositions specify the "substitution effect." Refinement of this model and

V. Specific Propositions

A. *Deterrence.* The likelihood of any particular attack results from the factors specified in the general proposition. Combined with factual assertions, this general proposition yields the propositions of the sub-theory of deterrence.

(1) A stable nuclear balance reduces the likelihood of nuclear attack. This proposition is derived from the general proposition plus the asserted fact that a second-strike capability affects the potential attacker's calculations by increasing the likelihood and the costs of one particular set of consequences which might follow from attack—namely, retaliation.

(2) A stable nuclear balance increases the probability of limited war. This proposition is derived from the general proposition plus the asserted fact that though increasing the costs of a nuclear exchange, a stable nuclear balance nevertheless produces a more significant reduction in the probability that such consequences would be chosen in response to a limited war. Thus this set of consequences weighs less heavily in the calculus.

B. *Soviet Force Posture.* The Soviet Union chooses its force posture (i.e., its weapons and their deployment) as a value-maximizing means of implementing Soviet strategic objectives and military doctrine. A proposition of this sort underlies Secretary of Defense Laird's inference from the fact of 200 SS-9s (large intercontinental missiles) to the assertion that, "the Soviets are going for a first-strike capability, and there's no question about it."²⁸

VARIANTS OF THE RATIONAL POLICY MODEL

This paradigm exhibits the characteristics of the most refined version of the rational model. The modern literature of strategy employs a model of this sort. Problems and pressures in the "international strategic marketplace" yield probabilities of occurrence. The international actor, which could be any national actor, is simply a value-maximizing mechanism for getting from the strategic problem to the logical solution. But the explanations and predictions produced by most analysts of foreign affairs depend primarily on variants of this "pure" model. The point of each is the same: to place the action within a value-maximizing framework, given certain constraints. Nevertheless, it may be helpful to identify several variants, each of which might be exhibited similarly as a paradigm. The first focuses upon the national actor

specification of additional general propositions by translating from the economic theory is straightforward.

²⁸ *New York Times*, March 22, 1969.

and his choice in a particular situation, leading analysts to further constrain the goals, alternatives, and consequences considered. Thus, (1) national propensities or personality traits reflected in an "operational code," (2) concern with certain objectives, or (3) special principles of action, narrow the "goals" or "alternatives" or "consequences" of the paradigm. For example, the Soviet deployment of ABMs is sometimes explained by reference to the Soviet's "defense-mindedness." Or a particular Soviet action is explained as an instance of a special rule of action in the Bolshevik operational code.²⁹ A second, related, cluster of variants focuses on the individual leader or leadership group as the actor whose preference function is maximized and whose personal (or group) characteristics are allowed to modify the alternatives, consequences, and rules of choice. Explanations of the U.S. involvement in Vietnam as a natural consequence of the Kennedy-Johnson Administration's axioms of foreign policy rely on this variant. A (third) more complex variant of the basic model recognizes the existence of several actors within a government, for example, Hawks and Doves or military and civilians, but attempts to explain (or predict) an occurrence by reference to the objectives of the victorious actor. Thus, for example, some revisionist histories of the Cold War recognize the forces of light and the forces of darkness within the U.S. government, but explain American actions as a result of goals and perceptions of the victorious forces of darkness.

Each of these forms of the basic paradigm constitutes a formalization of what analysts typically rely upon implicitly. In the transition from implicit conceptual model to explicit paradigm much of the richness of the best employments of this model has been lost. But the purpose in raising loose, implicit conceptual models to an explicit level is to reveal the basic logic of analysts' activity. Perhaps some of the remaining artificiality that surrounds the statement of the paradigm can be erased by noting a number of the standard additions and modifications employed by analysts who proceed *predominantly* within the rational policy model. First, in the course of a document, analysts shift from one variant of the basic model to another, occasionally appropriating in an *ad hoc* fashion aspects of a situation which are logically incompatible with the basic model. Second, in the course of explaining a number of occurrences, analysts sometimes pause over a particular event about which they have a great deal of information and unfold it in such detail that an impression of

²⁹ See Nathan Leites, *A Study of Bolshevism* (Glencoe, Illinois, 1953).

randomness is created. Third, having employed other assumptions and categories in deriving an explanation or prediction, analysts will present their product in a neat, convincing rational policy model package. (This accommodation is a favorite of members of the intelligence community whose association with the details of a process is considerable, but who feel that by putting an occurrence in a larger rational framework, it will be more comprehensible to their audience.) Fourth, in attempting to offer an explanation—particularly in cases where a prediction derived from the basic model has failed—the notion of a “mistake” is invoked. Thus, the failure in the prediction of a “missile gap” is written off as a Soviet mistake in not taking advantage of their opportunity. Both these and other modifications permit Model I analysts considerably more variety than the paradigm might suggest. But such accommodations are essentially appendages to the basic logic of these analyses.

THE U.S. BLOCKADE OF CUBA: A FIRST CUT²⁰

The U.S. response to the Soviet Union's emplacement of missiles in Cuba must be understood in strategic terms as simple value-maximizing escalation. American nuclear superiority could be counted on to paralyze Soviet nuclear power; Soviet transgression of the nuclear threshold in response to an American use of lower levels of violence would be wildly irrational since it would mean virtual destruction of the Soviet Communist system and Russian nation. American local superiority was overwhelming: it could be initiated at a low level while threatening with high credibility an ascending sequence of steps short of the nuclear threshold. All that was required was for the United States to bring to bear its strategic and local superiority in such a way that American determination to see the missiles removed would be demonstrated, while at the same time allowing Moscow time and room to retreat without humiliation. The naval blockade—euphemistically named a “quarantine” in order to circumvent the niceties of international law—did just that.

The U.S. government's selection of the blockade followed this logic. Apprised of the presence of Soviet missiles in Cuba, the President assembled an Executive Committee (ExCom) of the

²⁰ As stated in the introduction, this “case snapshot” presents, without editorial commentary, a Model I analyst's explanation of the U.S. blockade. The purpose is to illustrate a strong, characteristic rational policy model account. This account is (roughly) consistent with prevailing explanations of these events.

National Security Council and directed them to “set aside all other tasks to make a prompt and intense survey of the dangers and all possible courses of action.”²¹ This group functioned as “fifteen individuals on our own, representing the President and not different departments.”²² As one of the participants recalls, “The remarkable aspect of those meetings was a sense of complete equality.”²³ Most of the time during the week that followed was spent canvassing all the possible tracks and weighing the arguments for and against each. Six major categories of action were considered.

1. Do nothing. U.S. vulnerability to Soviet missiles was no new thing. Since the U.S. already lived under the gun of missiles based in Russia, a Soviet capability to strike from Cuba too made little real difference. The real danger stemmed from the possibility of U.S. over-reaction. The U.S. should announce the Soviet action in a calm, casual manner thereby deflating whatever political capital Khrushchev hoped to make of the missiles.

This argument fails on two counts. First, it grossly underestimates the military importance of the Soviet move. Not only would the Soviet Union's missile capability be doubled and the U.S. early warning system outflanked. The Soviet Union would have an opportunity to reverse the strategic balance by further installations, and indeed, in the longer run, to invest in cheaper, shorter-range rather than more expensive longer-range missiles. Second, the political importance of this move was undeniable. The Soviet Union's act challenged the American President's most solemn warning. If the U.S. failed to respond, no American commitment would be credible.

2. Diplomatic pressures. Several forms were considered: an appeal to the U.N. or O.A.S. for an inspection team, a secret approach to Khrushchev, and a direct approach to Khrushchev, perhaps at a summit meeting. The United States would demand that the missiles be removed, but the final settlement might include neutralization of Cuba, U.S. withdrawal from the Guantanamo base, and withdrawal of U.S. Jupiter missiles from Turkey or Italy.

Each form of the diplomatic approach had its own drawbacks. To arraign the Soviet Union before the U.N. Security Council held little promise since the Russians could veto any proposed action. While the diplomats argued, the missiles would become operational. To send a secret emissary to Khrushchev demanding that

²¹ Theodore Sorensen, *op. cit.*, p. 675.

²² *Ibid.*, p. 679.

²³ *Ibid.*, p. 679.

the missiles be withdrawn would be to pose untenable alternatives. On the one hand, this would invite Khrushchev to seize the diplomatic initiative, perhaps committing himself to strategic retaliation in response to an attack on Cuba. On the other hand, this would tender an ultimatum that no great power could accept. To confront Khrushchev at a summit would guarantee demands for U.S. concessions, and the analogy between U.S. missiles in Turkey and Russian missiles in Cuba could not be erased.

But why not trade U.S. Jupiters in Turkey and Italy, which the President had previously ordered withdrawn, for the missiles in Cuba? The U.S. had chosen to withdraw these missiles in order to replace them with superior, less vulnerable Mediterranean Polaris submarines. But the middle of the crisis was no time for concessions. The offer of such a deal might suggest to the Soviets that the West would yield and thus tempt them to demand more. It would certainly confirm European suspicions about American willingness to sacrifice European interests when the chips were down. Finally, the basic issue should be kept clear. As the President stated in reply to Bertrand Russell, “I think your attention might well be directed to the burglars rather than to those who have caught the burglars.”²⁴

3. A secret approach to Castro. The crisis provided an opportunity to separate Cuba and Soviet Communism by offering Castro the alternatives, “split or fall.” But Soviet troops transported, constructed, guarded, and controlled the missiles. Their removal would thus depend on a Soviet decision.

4. Invasion. The United States could take this occasion not only to remove the missiles but also to rid itself of Castro. A Navy exercise had long been scheduled in which Marines, ferried from Florida in naval vessels, would liberate the imaginary island of Vieques.²⁵ Why not simply shift the point of disembarkment? (The Pentagon's foresight in planning this operation would be an appropriate antidote to the CIA's Bay of Pigs!)

Preparations were made for an invasion, but as a last resort. American troops would be forced to confront 20,000 Soviets in the first Cold War case of direct contact between the troops of the super powers. Such brinkmanship courted nuclear disaster, practically guaranteeing an equivalent Soviet move against Berlin.

5. Surgical air strike. The missile sites should

²⁴ Elie Abel, *The Missile Crisis* (New York, 1966), p. 144.

²⁵ *Ibid.*, p. 102.

be removed by a clean, swift conventional attack. This was the effective counter-action which the attempted deception deserved. A surgical strike would remove the missiles and thus eliminate both the danger that the missiles might become operational and the fear that the Soviets would discover the American discovery and act first.

The initial attractiveness of this alternative was dulled by several difficulties. First, could the strike really be “surgical”? The Air Force could not guarantee destruction of all the missiles.²⁶ Some might be fired during the attack; some might not have been identified. In order to assure destruction of Soviet and Cuban means of retaliating, what was required was not a surgical but rather a massive attack—of at least 500 sorties. Second, a surprise air attack would of course kill Russians at the missile sites. Pressures on the Soviet Union to retaliate would be so strong that an attack on Berlin or Turkey was highly probable. Third, the key problem with this program was that of advance warning. Could the President of the United States, with his memory of Pearl Harbor and his vision of future U.S. responsibility, order a “Pearl Harbor in reverse”? For 175 years, unannounced Sunday morning attacks had been an anathema to our tradition.²⁷

6. Blockade. Indirect military action in the form of a blockade became more attractive as the ExCom dissected the other alternatives. An embargo on military shipments to Cuba enforced by a naval blockade was not without flaws, however. Could the U.S. blockade Cuba without inviting Soviet reprisal in Berlin? The likely solution to joint blockades would be the lifting of both blockades, restoring the new *status quo*, and allowing the Soviets additional time to complete the missiles. Second, the possible consequences of the blockade resembled the drawbacks which disqualified the air strike. If Soviet ships did not stop, the United States would be forced to fire the first shot, inviting retaliation. Third, a blockade would deny the traditional freedom of the seas demanded by several of our close allies and might be held illegal, in violation of the U.N. Charter and international law, unless the United States could obtain a two-thirds vote in the O.A.S. Finally, how

²⁶ Sorensen, *op. cit.*, p. 684.

²⁷ *Ibid.*, p. 685. Though this was the formulation of the argument, the facts are not strictly accurate. Our tradition against surprise attack was rather younger than 175 years. For example President Theodore Roosevelt applauded Japan's attack on Russia in 1904.

could a blockade be related to the problem, namely, some 75 missiles on the island of Cuba, approaching operational readiness daily? A blockade offered the Soviets a spectrum of delaying tactics with which to buy time to complete the missile installations. Was a fait accompli not required?

In spite of these enormous difficulties the blockade had comparative advantages: (1) It was a middle course between inaction and attack, aggressive enough to communicate firmness of intention, but nevertheless not so precipitous as a strike. (2) It placed on Khrushchev the burden of choice concerning the next step. He could avoid a direct military clash by keeping his ships away. His was the last clear chance. (3) No possible military confrontation could be more acceptable to the U.S. than a naval engagement in the Caribbean. (4) This move permitted the U.S., by flexing its conventional muscle, to exploit the threat of subsequent non-nuclear steps in each of which the U.S. would have significant superiority.

Particular arguments about advantages and disadvantages were powerful. The explanation of the American choice of the blockade lies in a more general principle, however. As President Kennedy stated in drawing the moral of the crisis:

Above all, while defending our own vital interests, nuclear powers must avert those confrontations which bring an adversary to a choice of either a humiliating retreat or a nuclear war. To adopt that kind of course in the nuclear age would be evidence only of the bankruptcy of our policy—of a collective death wish for the world.¹⁸

The blockade was the United States' only real option.

MODEL II: ORGANIZATIONAL PROCESS

For some purposes, governmental behavior can be usefully summarized as action chosen by a unitary, rational decisionmaker: centrally controlled, completely informed, and value maximizing. But this simplification must not be allowed to conceal the fact that a "government" consists of a conglomerate of semi-feudal, loosely allied organizations, each with a substantial life of its own. Government leaders do sit formally, and to some extent in fact, on top of this conglomerate. But governments perceive problems through organizational sensors. Governments define alternatives and estimate consequences as organizations process information. Governments act as these organizations enact routines. Government behavior can therefore be

understood according to a second conceptual model, less as deliberate choices of leaders and more as *outputs* of large organizations functioning according to standard patterns of behavior.

To be responsive to a broad spectrum of problems, governments consist of large organizations among which primary responsibility for particular areas is divided. Each organization attends to a special set of problems and acts in quasi-independence on these problems. But few important problems fall exclusively within the domain of a single organization. Thus government behavior relevant to any important problem reflects the independent output of several organizations, partially coordinated by government leaders. Government leaders can substantially disturb, but not substantially control, the behavior of these organizations.

To perform complex routines, the behavior of large numbers of individuals must be coordinated. Coordination requires standard operating procedures: rules according to which things are done. Assured capability for reliable performance of action that depends upon the behavior of hundreds of persons requires established "programs." Indeed, if the eleven members of a football team are to perform adequately on any particular down, each player must not "do what he thinks needs to be done" or "do what the quarterback tells him to do." Rather, each player must perform the maneuvers specified by a previously established play which the quarterback has simply called in this situation.

At any given time, a government consists of existing organizations, each with a *fixed set* of standard operating procedures and programs. The behavior of these organizations—and consequently of the government—relevant to an issue in any particular instance is, therefore, determined primarily by routines established in these organizations prior to that instance. But organizations do change. Learning occurs gradually, over time. Dramatic organizational change occurs in response to major crises. Both learning and change are influenced by existing organizational capabilities.

Borrowed from studies of organizations, these loosely formulated propositions amount simply to *tendencies*. Each must be hedged by modifiers like "other things being equal" and "under certain conditions." In particular instances, tendencies hold—more or less. In specific situations, the relevant question is: more or less? But this is as it should be. For, on the one hand, "organizations" are no more homogeneous a class than "solids." When scientists tried to generalize about "solids," they achieved similar results. Solids tend to expand when heated, but some do and some don't. More adequate categorization

of the various elements now lumped under the rubric "organizations" is thus required. On the other hand, the behavior of particular organizations seems considerably more complex than the behavior of solids. Additional information about a particular organization is required for further specification of the tendency statements. In spite of these two caveats, the characterization of government action as organizational output differs distinctly from Model I. Attempts to understand problems of foreign affairs in terms of this frame of reference should produce quite different explanations.¹⁹

ORGANIZATIONAL PROCESS PARADIGM⁴⁰

I. Basic Unit of Analysis: Policy as Organizational Output

The happenings of international politics are, in three critical senses, outputs of organizational processes. First, the actual occurrences are organizational outputs. For example, Chinese entry into the Korean War—that is, the fact that Chinese soldiers were firing at U.N. soldiers south of the Yalu in 1950—is an organizational action: the action of men who are soldiers in platoons which are in companies, which in turn are in armies, responding as privates to lieutenants who are responsible to captains and so on

¹⁸ The influence of organizational studies upon the present literature of foreign affairs is minimal. Specialists in international politics are not students of organization theory. Organization theory has only recently begun to study organizations as decisionmakers and has not yet produced behavioral studies of national security organizations from a decision-making perspective. It seems unlikely, however, that these gaps will remain unfilled much longer. Considerable progress has been made in the study of the business firm as an organization. Scholars have begun applying these insights to government organizations, and interest in an organizational perspective is spreading among institutions and individuals concerned with actual government operations. The "decisionmaking" approach represented by Richard Snyder, R. Bruck, and B. Sapin, *Foreign Policy Decision-Making* (Glencoe, Illinois, 1962), incorporates a number of insights from organization theory.

¹⁹ The formulation of this paradigm is indebted both to the orientation and insights of Herbert Simon and to the behavioral model of the firm stated by Richard Cyert and James March, *A Behavioral Theory of the Firm* (Englewood Cliffs, 1963). Here, however, one is forced to grapple with the less routine, less quantified functions of the less differentiated elements in government organizations.

to the commander, moving into Korea, advancing against enemy troops, and firing according to fixed routines of the Chinese Army. Government leaders' decisions trigger organizational routines. Government leaders can trim the edges of this output and exercise some choice in combining outputs. But the mass of behavior is determined by previously established procedures. Second, existing organizational routines for employing present physical capabilities constitute the effective options open to government leaders confronted with any problem. Only the existence of men, equipped and trained as armies and capable of being transported to North Korea, made entry into the Korean War a live option for the Chinese leaders. The fact that fixed programs (equipment, men, and routines which exist at the particular time) exhaust the range of buttons that leaders can push is not always perceived by these leaders. But in every case it is critical for an understanding of what is actually done. Third, organizational outputs structure the situation within the narrow constraints of which leaders must contribute their "decision" concerning an issue. Outputs raise the problem, provide the information, and make the initial moves that color the face of the issue that is turned to the leaders. As Theodore Sorensen has observed: "Presidents rarely, if ever, make decisions—particularly in foreign affairs—in the sense of writing their conclusions on a clean slate . . . The basic decisions, which confine their choices, have all too often been previously made."²¹ If one understands the structure of the situation and the face of the issue—which are determined by the organizational outputs—the formal choice of the leaders is frequently anti-climactic.

II. Organizing Concepts

A. *Organizational Actors.* The actor is not a monolithic "nation" or "government" but rather a constellation of loosely allied organizations on top of which government leaders sit. This constellation acts only as component organizations perform routines.²²

B. *Factored Problems and Fractionated Power.* Surveillance of the multiple facets of for-

²⁰ Theodore Sorensen, "You Get to Walk to Work," *New York Times Magazine*, March 19, 1967.

²¹ Organizations are not monolithic. The proper level of disaggregation depends upon the objectives of a piece of analysis. This paradigm is formulated with reference to the major organizations that constitute the U.S. government. Generalization to the major components of each department and agency should be relatively straightforward.

¹⁸ *New York Times*, June, 1963.

oign affairs requires that problems be cut up and parcelled out to various organizations. To avoid paralysis, primary power must accompany primary responsibility. But if organizations are permitted to do anything, a large part of what they do will be determined within the organization. Thus each organization perceives problems, processes information, and performs a range of actions in quasi-independence (within broad guidelines of national policy). Factored problems and fractionated power are two edges of the same sword. Factoring permits more specialized attention to particular facets of problems than would be possible if government leaders tried to cope with these problems by themselves. But this additional attention must be paid for in the coin of discretion for *what* an organization attends to, and *how* organizational responses are programmed.

C. *Parochial Priorities, Perceptions, and Issues.* Primary responsibility for a narrow set of problems encourages organizational parochialism. These tendencies are enhanced by a number of additional factors: (1) selective information available to the organization, (2) recruitment of personnel into the organization, (3) tenure of individuals in the organization, (4) small group pressures within the organization, and (5) distribution of rewards by the organization. Clients (e.g., interest groups), government allies (e.g., Congressional committees), and extra-national counterparts (e.g., the British Ministry of Defense for the Department of Defense, ISA, or the British Foreign Office for the Department of State, EUR) galvanize this parochialism. Thus organizations develop relatively stable propensities concerning operational priorities, perceptions, and issues.

D. *Action as Organizational Output.* The pre-eminent feature of organizational activity is its programmed character: the extent to which behavior in any particular case is an enactment of preestablished routines. In producing outputs, the activity of each organization is characterized by:

1. *Goals: Constraints Defining Acceptable Performance.* The operational goals of an organization are seldom revealed by formal mandates. Rather, each organization's operational goals emerge as a set of constraints defining acceptable performance. Central among these constraints is organizational health, defined usually in terms of bodies assigned and dollars appropriated. The set of constraints emerges from a mix of expectations and demands of other organizations in the government, statutory authority, demands from citizens and special interest groups, and bargaining within the organization. These constraints represent a quasi-resolution of

conflict—the constraints are relatively stable, so there is some resolution. But conflict among alternative goals is always latent; hence, it is a quasi-resolution. Typically, the constraints are formulated as imperatives to avoid roughly specified discomforts and disasters.⁴²

2. *Sequential Attention to Goals.* The existence of conflict among operational constraints is resolved by the device of sequential attention. As a problem arises, the subunits of the organization most concerned with that problem deal with it in terms of the constraints they take to be most important. When the next problem arises, another cluster of subunits deals with it, focusing on a different set of constraints.

3. *Standard Operating Procedures.* Organizations perform their "higher" functions, such as attending to problem areas, monitoring information, and preparing relevant responses for likely contingencies, by doing "lower" tasks, for example, preparing budgets, producing reports, and developing hardware. Reliable performance of these tasks requires standard operating procedures (hereafter SOPs). Since procedures are "standard" they do not change quickly or easily. Without these standard procedures, it would not be possible to perform certain concerted tasks. But because of standard procedures, organizational behavior in particular instances often appears unduly formalized, sluggish, or inappropriate.

4. *Programs and Repertoires.* Organizations must be capable of performing actions in which the behavior of large numbers of individuals is carefully coordinated. Assured performance requires clusters of rehearsed SOPs for producing specific actions, e.g., fighting enemy units or answering an embassy's cable. Each cluster comprises a "program" (in the terms both of drama and computers) which the organization has available for dealing with a situation. The list of programs relevant to a type of activity, e.g., fighting, constitutes an organizational repertoire. The number of programs in a repertoire is always quite limited. When properly triggered, organizations execute programs; programs cannot be substantially changed in a particular situation. The more complex the action and the greater the number of individuals involved, the more important are programs and repertoires as determinants of organizational behavior.

5. *Uncertainty Avoidance.* Organizations do not attempt to estimate the probability distribution of future occurrences. Rather, organizations

⁴²The stability of these constraints is dependent on such factors as rules for promotion and reward, budgeting and accounting procedures, and mundane operating procedures.

avoid uncertainty. By arranging a *negotiated environment*, organizations regularize the reactions of other actors with whom they have to deal. The primary environment, relations with other organizations that comprise the government, is stabilized by such arrangements as agreed budgetary splits, accepted areas of responsibility, and established conventional practices. The secondary environment, relations with the international world, is stabilized between allies by the establishment of contracts (alliances) and "club relations" (U.S. State and U.K. Foreign Office or U.S. Treasury and U.K. Treasury). Between enemies, contracts and accepted conventional practices perform a similar function, for example, the rules of the "precarious status quo" which President Kennedy referred to in the missile crisis. Where the international environment cannot be negotiated, organizations deal with remaining uncertainties by establishing a set of *standard scenarios* that substitute the contingencies for which they prepare. For example, the standard scenario for Tactical Air Command of the U.S. Air Force involves combat with enemy aircraft. Planes are designed and pilots trained to meet this problem. That these preparations are less relevant to more probable contingencies, e.g., provision of close-in ground support in limited wars like Vietnam, has had little impact on the scenario.

6. *Problem-directed Search.* Where situations cannot be construed as standard, organizations engage in search. The style of search and the solution are largely determined by existing routines. Organizational search for alternative courses of action is problem-oriented: it focuses on the atypical discomfort that must be avoided. It is simple-minded: the neighborhood of the symptom is searched first; then, the neighborhood of the current alternative. Patterns of search reveal biases which in turn reflect such factors as specialized training or experience and patterns of communication.

7. *Organizational Learning and Change.* The parameters of organizational behavior mostly persist. In response to non-standard problems, organizations search and routines evolve, assimilating new situations. Thus learning and change follow in large part from existing procedures. But marked changes in organizations do sometimes occur. Conditions in which dramatic changes are more likely include: (1) Periods of budgetary feast. Typically, organizations devour budgetary feasts by purchasing additional items on the existing shopping list. Nevertheless, if committed to change, leaders who control the budget can use extra funds to effect changes. (2) Periods of prolonged budgetary famine. Though a single year's famine typically

results in few changes in organizational structure but a loss of effectiveness in performing some programs, prolonged famine forces major retrenchment. (3) Dramatic performance failures. Dramatic change occurs (mostly) in response to major disasters. Confronted with an undeniable failure of procedures and repertoires, authorities outside the organization demand change, existing personnel are less resistant to change, and critical members of the organization are replaced by individuals committed to change.

E. *Central Coordination and Control.* Action requires decentralization of responsibility and power. But problems lap over the jurisdictions of several organizations. Thus the necessity for decentralization runs headlong into the requirement for coordination. (Advocates of one horn or the other of this dilemma—responsive action entails decentralized power vs. coordinated action requires central control—account for a considerable part of the persistent demand for government reorganization.) Both the necessity for coordination and the centrality of foreign policy to national welfare guarantee the involvement of government leaders in the procedures of the organizations among which problems are divided and power shared. Each organization's propensities and routines can be disturbed by government leaders' intervention. Central direction and persistent control of organizational activity, however, is not possible. The relation among organizations, and between organizations and the government leaders depends critically on a number of structural variables including: (1) the nature of the job, (2) the measures and information available to government leaders, (3) the system of rewards and punishments for organizational members, and (4) the procedures by which human and material resources get committed. For example, to the extent that rewards and punishments for the members of an organization are distributed by higher authorities, these authorities can exercise some control by specifying criteria in terms of which organizational output is to be evaluated. These criteria become constraints within which organizational activity proceeds. But constraint is a crude instrument of control.

Intervention by government leaders does sometimes change the activity of an organization in an intended direction. But instances are fewer than might be expected. As Franklin Roosevelt, the master manipulator of government organizations, remarked:

The Treasury is so large and far-flung and ingrained in its practices that I find it is almost impossible to get the action and results I want. . . .

But the Treasury is not to be compared with the State Department. You should go through the experience of trying to get any changes in the thinking, policy, and action of the career diplomats and then you'd know what a real problem was. But the Treasury and the State Department put together are nothing compared with the Na-a-vy . . . To change anything in the Na-a-vy is like punching a feather bed. You punch it with your right and you punch it with your left until you are finally exhausted, and then you find the damn bed just as it was before you started punching.*

John Kennedy's experience seems to have been similar: "The State Department," he asserted, "is a bowl full of jelly."⁴⁵ And lest the McNamara revolution in the Defense Department seem too striking a counter-example, the Navy's recent rejection of McNamara's major intervention in Naval weapons procurement, the F-111B, should be studied as an antidote.

F. *Decisions of Government Leaders.* Organizational persistence does not exclude shifts in governmental behavior. For government leaders sit atop the conglomerate of organizations. Many important issues of governmental action require that these leaders decide what organizations will play out which programs where. Thus stability in the parochialisms and SOPs of individual organizations is consistent with some important shifts in the behavior of governments. The range of these shifts is defined by existing organizational programs.

III. Dominant Inference Pattern

If a nation performs an action of this type today, its organizational components must yesterday have been performing (or have had established routines for performing) an action only marginally different from this action. At any specific point in time, a government consists of an established conglomerate of organizations, each with existing goals, programs, and repertoires. The characteristics of a government's action in any instance follows from those established routines, and from the choice of government leaders—on the basis of information and estimates provided by existing routines—among existing programs. The best explanation of an organization's behavior at t is $t - 1$; the prediction of $t + 1$ is t . Model II's explanatory power is achieved by uncovering the organizational routines and repertoires that produced the outputs that comprise the puzzling occurrence.

*Marriner Eccles, *Beckoning Frontiers* (New York, 1951), p. 336.

⁴⁵Arthur Schlesinger, *A Thousand Days* (Boston, 1965), p. 406.

IV. General Propositions

A number of general propositions have been stated above. In order to illustrate clearly the type of proposition employed by Model II analysts, this section formulates several more precisely.

A. *Organizational Action.* Activity according to SOPs and programs does not constitute far-sighted, flexible adaptation to "the issue" (as it is conceived by the analyst). Detail and nuance of actions by organizations are determined predominantly by organizational routines, not government leaders' directions.

1. SOPs constitute routines for dealing with standard situations. Routines allow large numbers of ordinary individuals to deal with numerous instances, day after day, without considerable thought, by responding to basic stimuli. But this regularized capability for adequate performance is purchased at the price of standardization. If the SOPs are appropriate, average performance, i.e., performance averaged over the range of cases, is better than it would be if each instance were approached individually (given fixed talent, timing, and resource constraints). But specific instances, particularly critical instances that typically do not have "standard" characteristics, are often handled sluggishly or inappropriately.

2. A program, i.e., a complex action chosen from a short list of programs in a repertoire, is rarely tailored to the specific situation in which it is executed. Rather, the program is (at best) the most appropriate of the programs in a previously developed repertoire.

3. Since repertoires are developed by parochial organizations for standard scenarios defined by that organization, programs available for dealing with a particular situation are often ill-suited.

B. *Limited Flexibility and Incremental Change.* Major lines of organizational action are straight, i.e., behavior at one time is marginally different from that behavior at $t - 1$. Simple-minded predictions work best: Behavior at $t + 1$ will be marginally different from behavior at the present time.

1. Organizational budgets change incrementally—both with respect to totals and with respect to intra-organizational splits. Though organizations could divide the money available each year by carving up the pie anew (in the light of changes in objectives or environment), in practice, organizations take last year's budget as a base and adjust incrementally. Predictions that require large budgetary shifts in a single year between organizations or between units within an organization should be hedged.

2. Once undertaken, an organizational in-

vestment is not dropped at the point where "objective" costs outweigh benefits. Organizational stakes in adopted projects carry them quite beyond the loss point.

C. *Administrative Feasibility.* Adequate explanation, analysis, and prediction must include administrative feasibility as a major dimension. A considerable gap separates what leaders choose (or might rationally have chosen) and what organizations implement.

1. Organizations are blunt instruments. Projects that require several organizations to act with high degrees of precision and coordination are not likely to succeed.

2. Projects that demand that existing organizational units depart from their accustomed functions and perform previously unprogrammed tasks are rarely accomplished in their designed form.

3. Government leaders can expect that each organization will do its "part" in terms of what the organization knows how to do.

4. Government leaders can expect incomplete and distorted information from each organization concerning its part of the problem.

5. Where an assigned piece of a problem is contrary to the existing goals of an organization, resistance to implementation of that piece will be encountered.

V. Specific Propositions.

1. *Deterrence.* The probability of nuclear attack is less sensitive to balance and imbalance, or stability and instability (as these concepts are employed by Model I strategists) than it is to a number of organizational factors. Except for the special case in which the Soviet Union acquires a credible capability to destroy the U.S. with a disarming blow, U.S. superiority or inferiority affects the probability of a nuclear attack less than do a number of organizational factors.

First, if a nuclear attack occurs, it will result from organizational activity: the firing of rockets by members of a missile group. The enemy's control system, i.e., physical mechanisms and standard procedures which determine who can launch rockets when, is critical. Second, the enemy's programs for bringing his strategic forces to alert status determine probabilities of accidental firing and momentum. At the outbreak of World War I, if the Russian Tsar had understood the organizational processes which his order of full mobilization triggered, he would have realized that he had chosen war. Third, organizational repertoires fix the range of effective choice open to enemy leaders. The menu available to Tsar Nicholas in 1914 has two entrees: full mobilization and no mobilization. Partial mobilization was not an organizational option.

Fourth, since organizational routines set the chessboard, the training and deployment of troops and nuclear weapons is crucial. Given that the outbreak of hostilities in Berlin is more probable than most scenarios for nuclear war, facts about deployment, training, and tactical nuclear equipment of Soviet troops stationed in East Germany—which will influence the face of the issue seen by Soviet leaders at the outbreak of hostilities and the manner in which choice is implemented—are as critical as the question of "balance."

2. *Soviet Force Posture.* Soviet force posture, i.e., the fact that certain weapons rather than others are procured and deployed, is determined by organizational factors such as the goals and procedures of existing military services and the goals and processes of research and design labs, within budgetary constraints that emerge from the government leader's choices. The frailty of the Soviet Air Force within the Soviet military establishment seems to have been a crucial element in the Soviet failure to acquire a large bomber force in the 1950s (thereby faulting American intelligence predictions of a "bomber gap"). The fact that missiles were controlled until 1960 in the Soviet Union by the Soviet Ground Forces, whose goals and procedures reflected no interest in an intercontinental mission, was not irrelevant to the slow Soviet buildup of ICBMs (thereby faulting U.S. intelligence predictions of a "missile gap"). These organizational factors (Soviet Ground Forces' control of missiles and that service's fixation with European scenarios) make the Soviet deployment of so many MRBMs that European targets could be destroyed three times over, more understandable. Recent weapon developments, e.g., the testing of a Fractional Orbital Bombardment System (FOBS) and multiple warheads for the SS-9, very likely reflect the activity and interests of a cluster of Soviet research and development organizations, rather than a decision by Soviet leaders to acquire a first strike weapon system. Careful attention to the organizational components of the Soviet military establishment (Strategic Rocket Forces, Navy, Air Force, Ground Forces, and National Air Defense), the missions and weapons systems to which each component is wedded (an independent weapon system assists survival as an independent service), and existing budgetary splits (which probably are relatively stable in the Soviet Union as they tend to be everywhere) offer potential improvements in medium and longer term predictions.

October 22, 1962, President Kennedy disclosed the American discovery of the presence of Soviet strategic missiles in Cuba, declared a "strict quarantine on all offensive military equipment under shipment to Cuba," and demanded that "Chairman Khrushchev halt and eliminate this clandestine, reckless, and provocative threat to world peace."⁴⁸ This decision was reached at the pinnacle of the U.S. Government after a critical week of deliberation. What initiated that precious week were photographs of Soviet missile sites in Cuba taken on October 14. These pictures might not have been taken until a week later. In that case, the President speculated, "I don't think probably we would have chosen as prudently as we finally did."⁴⁹ U.S. leaders might have received this information three weeks earlier—if a U-2 had flown over San Cristobal in the last week of September.⁴⁸ What determined the context in which American leaders came to choose the blockade was the discovery of missiles on October 14.

There has been considerable debate over alleged American "intelligence failures" in the Cuban missile crisis.⁴⁹ But what both critics and defenders have neglected is the fact that the discovery took place on October 14, rather than three weeks earlier or a week later, as a consequence of the established routines and procedures of the organizations which constitute the U.S. intelligence community. These organizations were neither more nor less successful than they had been the previous month or were to be in the months to follow.⁵⁰

The notorious "September estimate," approved by the United States Intelligence Board (USIB) on September 19, concluded that the Soviet Union would not introduce offensive missiles into Cuba.⁵¹ No U-2 flight was directed over the western end of Cuba (after September 5) before

October 4.⁵² No U-2 flew over the western end of Cuba until the flight that discovered the Soviet missiles on October 14.⁵³ Can these "failures" be accounted for in organizational terms?

On September 19 when USIB met to consider the question of Cuba, the "system" contained the following information: (1) shipping intelligence had noted the arrival in Cuba of two large-hatch Soviet lumber ships, which were riding high in the water; (2) refugee reports of countless sightings of missiles, but also a report that Castro's private pilot, after a night of drinking in Havana, had boasted: "We will fight to the death and perhaps we can win because we have everything, including atomic weapons"; (3) a sighting by a CIA agent of the rear profile of a strategic missile; (4) U-2 photos produced by flights of August 29, September 5 and 17 showing the construction of a number of SAM sites and other defensive missiles.⁵⁴ Not all of this information was on the desk of the estimators, however. Shipping intelligence experts noted the fact that large-hatch ships were riding high in the water and spelled out the inference: the ships must be carrying "space consuming" cargo.⁵⁵ These facts were carefully included in the catalogue of intelligence concerning shipping. For experts sensitive to the Soviets' shortage of ships, however, these facts carried no special signal. The refugee report of Castro's private pilot's remark had been received at Opa Locka, Florida, along with vast reams of inaccurate reports generated by the refugee community. This report and a thousand others had to be checked and compared before being sent to Washington. The two weeks required for initial processing could have been shortened by a large increase in resources, but the yield of this source was already quite marginal. The CIA agent's sighting of the rear profile of a strategic missile had oc-

curred on September 12; transmission time from agent sighting to arrival in Washington typically took 9 to 12 days. Shortening this transmission time would impose severe cost in terms of danger to sub-agents, agents, and communication networks.

On the information available, the intelligence chiefs who predicted that the Soviet Union would not introduce offensive missiles into Cuba made a reasonable and defensible judgment.⁵⁴ Moreover, in the light of the fact that these organizations were gathering intelligence not only about Cuba but about potential occurrences in all parts of the world, the informational base available to the estimators involved nothing out of the ordinary. Nor, from an organizational perspective, is there anything startling about the gradual accumulation of evidence that led to the formulation of the hypothesis that the Soviets were installing missiles in Cuba and the decision on October 4 to direct a special flight over western Cuba.

The ten-day delay between that decision and the flight is another organizational story. At the October 4 meeting, the Defense Department took the opportunity to raise an issue important to its concerns. Given the increased danger that a U-2 would be downed, it would be better if the pilot were an officer in uniform rather than a CIA agent. Thus the Air Force should assume responsibility for U-2 flights over Cuba. To the contrary, the CIA argued that this was an intelligence operation and thus within the CIA's jurisdiction. Moreover, CIA U-2's had been modified in certain ways which gave them advantages over Air Force U-2's in averting Soviet SAM's. Five days passed while the State Department pressed for less risky alternatives such as drones and the Air Force (in Department of Defense guise) and CIA engaged in territorial disputes. On October 9 a flight plan over San Cristobal was approved by COMOR, but to the CIA's dismay, Air Force pilots rather than CIA agents would take charge of the mission. At this point details become sketchy, but several members of the intelligence community have speculated that an Air Force pilot in an Air Force U-2 attempted a high altitude overflight on October 9 that "flamed out", i.e., lost power, and thus had to descend in order to restart its engine. A second round between Air Force and CIA followed, as a result of

which Air Force pilots were trained to fly CIA U-2's. A successful overflight took place on October 14.

This ten-day delay constitutes some form of "failure." In the face of well-founded suspicions concerning offensive Soviet missiles in Cuba that posed a critical threat to the United States' most vital interest, squabbling between organizations whose job it is to produce this information seems entirely inappropriate. But for each of these organizations, the question involved the issue: "Whose job was it to be?" Moreover, the issue was not simply, which organization would control U-2 flights over Cuba, but rather the broader issue of ownership of U-2 intelligence activities—a very long standing territorial dispute. Thus though this delay was in one sense a "failure," it was also a nearly inevitable consequence of two facts: many jobs do not fall neatly into precisely defined organizational jurisdictions; and vigorous organizations are imperialistic.

Organizational Options. Deliberations of leaders in ExCom meetings produced broad outlines of alternatives. Details of these alternatives and blueprints for their implementation had to be specified by the organizations that would perform these tasks. These organizational outputs answered the question: What, specifically, could be done?

Discussion in the ExCom quickly narrowed the live options to two: an air strike and a blockade. The choice of the blockade instead of the air strike turned on two points: (1) the argument from morality and tradition that the United States could not perpetrate a "Pearl Harbor in reverse"; (2) the belief that a "surgical" air strike was impossible.⁵⁶ Whether the United States might strike first was a question not of capability but of morality. Whether the United States could perform the surgical strike was a factual question concerning capabilities. The majority of the members of the ExCom, including the President, initially preferred the air strike.⁵⁷ What effectively foreclosed this option, however, was the fact that the air strike they wanted could not be chosen with high confidence of success.⁵⁸ After having tentatively chosen the course of prudence—given that the surgical air strike was not an option—Kennedy reconsidered. On Sunday morning, October 21, he called the Air Force experts to a special meeting in his living quarters where he probed once more for the option of a "surgical" air strike.⁵⁹ General

⁴⁸ U.S. Department of State, *Bulletin*, XLVII, pp. 715-720.

⁴⁹ Schlesinger, *op. cit.*, p. 803.

⁵⁰ Theodore Sorensen, *Kennedy*, p. 675.

⁵¹ See U.S. Congress, Senate, Committee on Armed Services, Preparedness Investigation Subcommittee, *Interim Report on Cuban Military Build-up*, 88th Congress, 1st Session, 1963, p. 2; Hanson Baldwin, "Growing Risks of Bureaucratic Intelligence," *The Reporter* (August 15, 1963), 48-50; Roberta Wohlstetter, "Cuba and Pearl Harbor," *Foreign Affairs* (July, 1965), 706.

⁵² U.S. Congress, House of Representatives, Committee on Appropriations, Subcommittee on Department of Defense Appropriations, *Hearings*, 88th Congress, 1st Session, 1963, 25 ff.

⁵³ R. Hilsman, *To Move a Nation* (New York, 1967), pp. 172-173.

⁵⁴ Department of Defense Appropriations, *Hearings*, p. 67.

⁵⁵ *Ibid.*, pp. 66-67.

⁵⁶ For (1) Hilsman, *op. cit.*, p. 186; (2) Abel, *op. cit.*, p. 24; (3) Department of Defense Appropriations, *Hearings*, p. 64; Abel, *op. cit.*, p. 24; (4) Department of Defense Appropriations, *Hearings*, pp. 1-30.

⁵⁷ The facts here are not entirely clear. This assertion is based on information from (1) "Department of Defense Briefing by the Honorable R. S. McNamara, Secretary of Defense, State Department Auditorium, 5:00 p.m., February 6, 1963." A verbatim transcript of a presentation actually made by General Carroll's assistant, John Hughes; and (2) Hilsman's statement, *op. cit.*, p. 186. But see R. Wohlstetter's interpretation, "Cuba and Pearl Harbor," 700.

⁵⁸ See Hilsman, *op. cit.*, pp. 172-174.

⁵⁹ Abel, *op. cit.*, pp. 26 ff; Weintal and Bartlett, *Facing the Brink* (New York, 1967), pp. 62 ff; *Cuban Military Build-up*; J. Daniel and J. Hubbell, *Strike in the West* (New York, 1963), pp. 15 ff.

⁵⁶ Schlesinger, *op. cit.*, p. 804.

⁵⁷ Sorensen, *Kennedy*, p. 684.

⁵⁸ *Ibid.*, pp. 684 ff.

⁵⁹ *Ibid.*, pp. 694-697.

Walter C. Sweeny, Commander of Tactical Air Forces, asserted again that the Air Force could guarantee no higher than ninety percent effectiveness in a surgical air strike.⁶² That "fact" was false.

The air strike alternative provides a classic case of military estimates. One of the alternatives outlined by the ExCom was named "air strike." Specification of the details of this alternative was delegated to the Air Force. Starting from an existing plan for massive U.S. military action against Cuba (prepared for contingencies like a response to a Soviet Berlin grab), Air Force estimators produced an attack to guarantee success.⁶³ This plan called for extensive bombardment of all missile sites, storage depots, airports, and, in deference to the Navy, the artillery batteries opposite the naval base at Guantanamo.⁶⁴ Members of the ExCom repeatedly expressed bewilderment at military estimates of the number of sorties required, likely casualties, and collateral damage. But the "surgical" air strike that the political leaders had in mind was never carefully examined during the first week of the crisis. Rather, this option was simply excluded on the grounds that since the Soviet MRBM's in Cuba were classified "mobile" in U.S. manuals, extensive bombing was required. During the second week of the crisis, careful examination revealed that the missiles were mobile, in the sense that small houses are mobile: that is, they could be moved and reassembled in 6 days. After the missiles were reclassified "movable" and detailed plans for surgical air strikes specified, this action was added to the list of live options for the end of the second week.

Organizational Implementation. Ex-Com members separated several types of blockade: offensive weapons only, all armaments, and all strategic goods including POL (petroleum, oil, and lubricants). But the "details" of the operation were left to the Navy. Before the President announced the blockade on Monday evening, the first stage of the Navy's blueprint was in motion, and a problem loomed on the horizon.⁶⁵ The Navy had a detailed plan for the blockade. The President had several less precise but equally determined notions concerning what should be done, when, and how. For the Navy the issue was one of effective implementation of the Navy's blockade—without the meddling and interference of political leaders. For the President, the problem was to pace and manage

events in such a way that the Soviet leaders would have time to see, think, and blink.

A careful reading of available sources uncovers an instructive incident. On Tuesday the British Ambassador, Ormsby-Gore, after having attended a briefing on the details of the blockade, suggested to the President that the plan for intercepting Soviet ships far out of reach of Cuban jets did not facilitate Khrushchev's hard decision.⁶⁶ Why not make the interception much closer to Cuba and thus give the Russian leader more time? According to the public account and the recollection of a number of individuals involved, Kennedy "agreed immediately, called McNamara, and over emotional Navy protest, issued the appropriate instructions."⁶⁷ As Sorensen records, "in a sharp clash with the Navy, he made certain his will prevailed."⁶⁸ The Navy's plan for the blockade was thus changed by drawing the blockade much closer to Cuba.

A serious organizational orientation makes one suspicious of this account. More careful examination of the available evidence confirms these suspicions, though alternative accounts must be somewhat speculative. According to the public chronology, a quarantine drawn close to Cuba became effective on Wednesday morning, the first Soviet ship was contacted on Thursday morning, and the first boarding of a ship occurred on Friday. According to the statement by the Department of Defense, boarding of the *Marcula* by a party from the *John R. Pierce* "took place at 7:50 A.M., E.D.T., 180 miles northeast of Nassau."⁶⁹ The *Marcula* had been trailed since about 10:30 the previous evening.⁷⁰ Simple calculations suggest that the *Pierce* must have been stationed along the Navy's original arc which extended 500 miles out to sea from Cape Magsi, Cuba's eastern most tip.⁷¹ The blockade line was not moved as the President ordered, and the accounts report.

What happened is not entirely clear. One can be certain, however, that Soviet ships passed through the line along which American destroyers had posted themselves before the official "first contact" with the Soviet ship. On October 26 a Soviet tanker arrived in Havana and was honored by a dockside rally for "running the blockade." Photographs of this vessel show the name *Vinnitsa* on the side of the vessel in

⁶² Schlesinger, *op. cit.*, p. 818.

⁶³ *Ibid.*

⁶⁴ Sorensen, *Kennedy*, p. 710.

⁶⁵ *New York Times*, October 27, 1962.

⁶⁶ Abel, *op. cit.*, p. 171.

⁶⁷ For the location of the original arc see Abel, *op. cit.*, p. 141.

Cyrillic letters.⁷² But according to the official U.S. position, the first tanker to pass through the blockade was the *Bucharest*, which was hailed by the Navy on the morning of October 25. Again simple mathematical calculation excludes the possibility that the *Bucharest* and the *Vinnitsa* were the same ship. It seems probable that the Navy's resistance to the President's order that the blockade be drawn in closer to Cuba forced him to allow one or several Soviet ships to pass through the blockade after it was officially operative.⁷³

This attempt to leash the Navy's blockade had a price. On Wednesday morning, October 24, what the President had been awaiting occurred. The 18 dry cargo ships heading towards the quarantine stopped dead in the water. This was the occasion of Dean Rusk's remark, "We are eyeball to eyeball and I think the other fellow just blinked."⁷⁴ But the Navy had another interpretation. The ships had simply stopped to pick up Soviet submarine escorts. The President became quite concerned lest the Navy—already riled because of Presidential meddling in its affairs—blunder into an incident. Sensing the President's fears, McNamara became suspicious of the Navy's procedures and routines for making the first interception. Calling on the Chief of Naval Operations in the Navy's inner sanctum, the Navy Flag Plot, McNamara put his questions harshly.⁷⁵ Who would make the first interception? Were Russian-speaking officers on board? How would submarines be dealt with? At one point McNamara asked Anderson what he would do if a Soviet ship's captain refused to answer questions about his cargo. Picking up the Manual of Navy Regulations the Navy man waved it in McNamara's face and shouted, "It's all in there." To which McNamara replied, "I don't give a damn what John Paul Jones would have done; I want to know what you are going to do, now."⁷⁶ The encounter ended on Anderson's remark: "Now, Mr. Secretary, if you and your Deputy will go back to your office the Navy will run the blockade."⁷⁷

MODEL III: BUREAUCRATIC POLITICS

The leaders who sit on top of organizations

⁷² *Facts on File*, Vol. XXII, 1962, p. 376, published by Facts on File, Inc., New York, yearly.

⁷³ This hypothesis would account for the mystery surrounding Kennedy's explosion at the leak of the stopping of the *Bucharest*. See Hilsman, *op. cit.*, p. 45.

⁷⁴ Abel, *op. cit.*, p. 153.

⁷⁵ See *ibid.*, pp. 154 ff.

⁷⁶ *Ibid.*, p. 156.

⁷⁷ *Ibid.*

are not a monolithic group. Rather, each is, in his own right, a player in a central, competitive game. The name of the game is bureaucratic politics: bargaining along regularized channels among players positioned hierarchically within the government. Government behavior can thus be understood according to a third conceptual model not as organizational outputs, but as outcomes of bargaining games. In contrast with Model I, the bureaucratic politics model sees no unitary actor but rather many actors as players, who focus not on a single strategic issue but on many diverse intra-national problems as well, in terms of no consistent set of strategic objectives but rather according to various conceptions of national, organizational, and personal goals, making government decisions not by rational choice but by the pulling and hauling that is politics.

The apparatus of each national government constitutes a complex arena for the intra-national game. Political leaders at the top of this apparatus plus the men who occupy positions on top of the critical organizations form the circle of central players. Ascendancy to this circle assures some independent standing. The necessary decentralization of decisions required for action on the broad range of foreign policy problems guarantees that each player has considerable discretion. Thus power is shared.

The nature of problems of foreign policy permits fundamental disagreement among reasonable men concerning what ought to be done. Analyses yield conflicting recommendations. Separate responsibilities laid on the shoulders of individual personalities encourage differences in perceptions and priorities. But the issues are of first order importance. What the nation does really matters. A wrong choice could mean irreparable damage. Thus responsible men are obliged to fight for what they are convinced is right.

Men share power. Men differ concerning what must be done. The differences matter. This milieu necessitates that policy be resolved by politics. What the nation does is sometimes the result of the triumph of one group over others. More often, however, different groups pulling in different directions yield a resultant distinct from what anyone intended. What moves the chess pieces is not simply the reasons which support a course of action, nor the routines of organizations which enact an alternative, but the power and skill of proponents and opponents of the action in question.

This characterization captures the thrust of the bureaucratic politics orientation. If problems of foreign policy arose as discreet issues, and decisions were determined one game at a time, this

account would suffice. But most "issues," e.g., Vietnam or the proliferation of nuclear weapons, emerge piecemeal, over time, one lump in one context, a second in another. Hundreds of issues compete for players' attention every day. Each player is forced to fix upon his issues for that day, fight them on their own terms, and rush on to the next. Thus the character of emerging issues and the pace at which the game is played converge to yield government "decisions" and "actions" as collages. Choices by one player, outcomes of minor games, outcomes of central games, and "foul-ups"—these pieces, when stuck to the same canvas, constitute government behavior relevant to an issue.

The concept of national security policy as political outcome contradicts both public imagery and academic orthodoxy. Issues vital to national security, it is said, are too important to be settled by political games. They must be "above" politics. To accuse someone of "playing politics with national security" is a most serious charge. What public conviction demands, the academic penchant for intellectual elegance reinforces. Internal politics is messy; moreover, according to prevailing doctrine, politicking lacks intellectual content. As such, it constitutes gossip for journalists rather than a subject for serious investigation. Occasional memoirs, anecdotes in historical accounts, and several detailed case studies to the contrary, most of the literature of foreign policy avoids bureaucratic politics. The gap between academic literature and the experience of participants in government is nowhere wider than at this point.

BUREAUCRATIC POLITICS PARADIGM¹⁸

I. Basic Unit of Analysis: Policy as Political Outcome

The decisions and actions of governments are essentially intra-national political outcomes:

"This paradigm relies upon the small group of analysts who have begun to fill the gap. My primary source is the model implicit in the work of Richard E. Neustadt, though his concentration on presidential action has been generalized to a concern with policy as the outcome of political bargaining among a number of independent players, the President amounting to no more than a "superpower" among many lesser but considerable powers. As Warner Schilling argues, the substantive problems are of such inordinate difficulty that uncertainties and differences with regard to goals, alternatives, and consequences are inevitable. This necessitates what Roger Hilsman describes as the process of conflict and consensus building. The techniques employed in this process often resemble those used in legislative assemblies, though

outcomes in the sense that what happens is not chosen as a solution to a problem but rather results from compromise, coalition, competition, and confusion among government officials who see different faces of an issue; political in the sense that the activity from which the outcomes emerge is best characterized as bargaining. Following Wittgenstein's use of the concept of a "game," national behavior in international affairs can be conceived as outcomes of intricate and subtle, simultaneous, overlapping games among players located in positions, the hierarchical arrangement of which constitutes the government.¹⁹ These games proceed neither at random nor at leisure. Regular channels structure the game. Deadlines force issues to the attention of busy players. The moves in the chess game are thus to be explained in terms of the bargaining among players with separate and unequal power over particular pieces and with separable objectives in distinguishable subgames.

II. Organizing Concepts

A. *Players in Positions.* The actor is neither a unitary nation, nor a conglomerate of organizations, but rather a number of individual play-

ers. Samuel Huntington's characterization of the process as "legislative" overemphasizes the equality of participants as opposed to the hierarchy which structures the game. Moreover, whereas for Huntington, foreign policy (in contrast to military policy) is set by the executive, this paradigm maintains that the activities which he describes as legislative are characteristic of the process by which foreign policy is made.

"The theatrical metaphor of stage, roles, and actors is more common than this metaphor of games, positions, and players. Nevertheless, the rigidity connoted by the concept of "role" both in the theatrical sense of actors reciting fixed lines and in the sociological sense of fixed responses to specified social situations makes the concept of games, positions, and players more useful for this analysis of active participants in the determination of national policy. Objections to the terminology on the grounds that "game" connotes non-serious play overlook the concept's application to most serious problems both in Wittgenstein's philosophy and in contemporary game theory. Game theory typically treats more precisely structured games, but Wittgenstein's examination of the "language game" wherein men use words to communicate is quite analogous to this analysis of the less specified game of bureaucratic politics. See Ludwig Wittgenstein, *Philosophical Investigations*, and Thomas Schelling, "What is Game Theory?" in James Charlesworth, *Contemporary Political Analysis*.

ers. Groups of these players constitute the agent for particular government decisions and actions. Players are men in jobs.

Individuals become players in the national security policy game by occupying a critical position in an administration. For example, in the U.S. government the players include "Chiefs": the President, Secretaries of State, Defense, and Treasury, Director of the CIA, Joint Chiefs of Staff, and, since 1961, the Special Assistant for National Security Affairs;²⁰ "Staffers": the immediate staff of each Chief; "Indians": the political appointees and permanent government officials within each of the departments and agencies; and "Ad Hoc Players": actors in the wider government game (especially "Congressional Influentials"), members of the press, spokesmen for important interest groups (especially the "bipartisan foreign policy establishment" in and out of Congress), and surrogates for each of these groups. Other members of the Congress, press, interest groups, and public form concentric circles around the central arena—circles which demarcate the permissive limits within which the game is played.

Positions define what players both may and must do. The advantages and handicaps with which each player can enter and play in various games stems from his position. So does a cluster of obligations for the performance of certain tasks. The two sides of this coin are illustrated by the position of the modern Secretary of State. First, in form and usually in fact, he is the primary repository of political judgment on the political-military issues that are the stuff of contemporary foreign policy; consequently, he is a senior personal advisor to the President. Second, he is the colleague of the President's other senior advisers on the problems of foreign policy, the Secretaries of Defense and Treasury, and the Special Assistant for National Security Affairs. Third, he is the ranking U.S. diplomat for serious negotiation. Fourth, he serves as an Administration voice to Congress, the country, and the world. Finally, he is "Mr. State Department" or "Mr. Foreign Office," "leader of

¹⁸Inclusion of the President's Special Assistant for National Security Affairs in the tier of "Chiefs" rather than among the "Staffers" involves a debatable choice. In fact he is both super-staffer and near-chief. His position has no statutory authority. He is especially dependent upon good relations with the President and the Secretaries of Defense and State. Nevertheless, he stands astride a genuine action-channel. The decision to include this position among the Chiefs reflects my judgment that the Bundy function is becoming institutionalized.

officials, spokesman for their causes, guardian of their interests, judge of their disputes, superintendent of their work, master of their careers."²¹ But he is not first one, and then the other. All of these obligations are his simultaneously. His performance in one affects his credit and power in the others. The perspective stemming from the daily work which he must oversee—the cable traffic by which his department maintains relations with other foreign offices—conflicts with the President's requirement that he serve as a generalist and coordinator of contrasting perspectives. The necessity that he be close to the President restricts the extent to which, and the force with which, he can front for his department. When he defers to the Secretary of Defense rather than fighting for his department's position—as he often must—he strains the loyalty of his officialdom. The Secretary's resolution of these conflicts depends not only upon the position, but also upon the player who occupies the position.

For players are also people. Men's metabolisms differ. The core of the bureaucratic politics mix is personality. How each man manages to stand the heat in his kitchen, each player's basic operating style, and the complementarity or contradiction among personalities and styles in the inner circles are irreducible pieces of the policy blend. Moreover, each person comes to his position with baggage in tow, including sensitivities to certain issues, commitments to various programs, and personal standing and debts with groups in the society.

B. *Parochial Priorities, Perceptions and Issues.* Answers to the questions: "What is the issue?" and "What must be done?" are colored by the position from which the questions are considered. For the factors which encourage organizational parochialism also influence the players who occupy positions on top of (or within) these organizations. To motivate members of his organization, a player must be sensitive to the organization's orientation. The games into which the player can enter and the advantages with which he plays enhance these pressures. Thus propensities of perception stemming from position permit reliable prediction about a player's stances in many cases. But these propensities are filtered through the baggage which players bring to positions. Sensitivity to both the pressures and the baggage is thus required for many predictions.

²¹Richard E. Neustadt, Testimony, United States Senate, Committee on Government Operations, Subcommittee on National Security Staffing, *Administration of National Security*, March 26, 1963, pp. 82-83.

C. *Interests, Stakes, and Power.* Games are played to determine outcomes. But outcomes advance and impede each player's conception of the national interest, specific programs to which he is committed, the welfare of his friends, and his personal interests. These overlapping interests constitute the stakes for which games are played. Each player's ability to play successfully depends upon his power. Power, i.e., effective influence on policy outcomes, is an elusive blend of at least three elements: bargaining advantages (drawn from formal authority and obligations, institutional backing, constituents, expertise, and status), skill and will in using bargaining advantages, and other players' perceptions of the first two ingredients. Power wisely invested yields an enhanced reputation for effectiveness. Unsuccessful investment depletes both the stock of capital and the reputation. Thus each player must pick the issues on which he can play with a reasonable probability of success. But no player's power is sufficient to guarantee satisfactory outcomes. Each player's needs and fears run to many other players. What ensues is the most intricate and subtle of games known to man.

D. *The Problem and the Problems.* "Solutions" to strategic problems are not derived by detached analysts focusing coolly on the problem. Instead, deadlines and events raise issues in games, and demand decisions of busy players in contexts that influence the face the issue wears. The problems for the players are both narrower and broader than the strategic problem. For each player focuses not on the total strategic problem but rather on the decision that must be made now. But each decision has critical consequences not only for the strategic problem but for each player's organizational, reputational, and personal stakes. Thus the gap between the problems the player was solving and the problem upon which the analyst focuses is often very wide.

E. *Action-Channels.* Bargaining games do not proceed randomly. Action-channels, i.e., regularized ways of producing action concerning types of issues, structure the game by pre-selecting the major players, determining their points of entrance into the game, and distributing particular advantages and disadvantages for each game. Most critically, channels determine "who's got the action," that is, which department's Indians actually do whatever is chosen. Weapon procurement decisions are made within the annual budgeting process; embassies' demands for action cables are answered according to routines of consultation and clearance from State to Defense and White House; requests for instructions from military groups (concerning

assistance all the time, concerning operations during war) are composed by the military in consultation with the Office of the Secretary of Defense, State, and White House; crisis responses are debated among White House, State, Defense, CIA, and Ad Hoc players; major political speeches, especially by the President but also by other Chiefs, are cleared through established channels.

F. *Action as Politics.* Government decisions are made and government actions emerge neither as the calculated choice of a unified group nor as a formal summary of leaders' preferences. Rather the context of shared power but separate judgments concerning important choices, determines that politics is the mechanism of choice. Note the *environment* in which the game is played: inordinate uncertainty about what must be done, the necessity that something be done and crucial consequences of whatever is done. These features force responsible men to become active players. The *pace of the game*—hundreds of issues, numerous games, and multiple channels—compels players to fight to "get other's attention," to make them "see the facts," to assure that they "take the time to think seriously about the broader issue." The *structure of the game*—power shared by individuals with separate responsibilities—validates each player's feeling that "others don't see my problem," and "others must be persuaded to look at the issue from a less parochial perspective." The *rules of the game*—he who hesitates loses his chance to play at that point, and he who is uncertain about his recommendation is overpowered by others who are sure—pressures players to come down on one side of a 51-49 issue and play. The *rewards of the game*—effectiveness, i.e., impact on outcomes, as the immediate measure of performance—encourages hard play. Thus, most players come to fight to "make the government do what is right." The strategies and tactics employed are quite similar to those formalized by theorists of international relations.

G. *Streams of Outcomes.* Important government decisions or actions emerge as collages composed of individual acts, outcomes of minor and major games, and foul-ups. Outcomes which could never have been chosen by an actor and would never have emerged from bargaining in a single game over the issue are fabricated piece by piece. Understanding of the outcome requires that it be disaggregated.

III. Dominant Inference Pattern

If a nation performed an action, that action was the *outcome* of bargaining among individuals and groups within the government. That outcome included *results* achieved by groups

committed to a decision or action, *resultants* which emerged from bargaining among groups with quite different positions and *foul-ups*. Model III's explanatory power is achieved by revealing the pulling and hauling of various players, with different perceptions and priorities, focusing on separate problems, which yielded the outcomes that constitute the action in question.

IV. General Propositions

1. *Action and Intention.* Action does not presuppose intention. The sum of behavior of representatives of a government relevant to an issue was rarely intended by any individual or group. Rather separate individuals with different intentions contributed pieces which compose an outcome distinct from what anyone would have chosen.

2. *Where you stand depends on where you sit.*⁸³ Horizontally, the diverse demands upon each player shape his priorities, perceptions, and issues. For large classes of issues, e.g., budgets and procurement decisions, the stance of a particular player can be predicted with high reliability from information concerning his seat. In the notorious B-36 controversy, no one was surprised by Admiral Radford's testimony that "the B-36 under any theory of war, is a bad gamble with national security," as opposed to Air Force Secretary Symington's claim that "a B-36 with an A-bomb can destroy distant objectives which might require ground armies years to take."⁸⁴

3. *Chiefs and Indians.* The aphorism "where you stand depends on where you sit" has vertical as well as horizontal application. Vertically, the demands upon the President, Chiefs, Staffers, and Indians are quite distinct.

The foreign policy issues with which the President can deal are limited primarily by his crowded schedule: the necessity of dealing first with what comes next. His problem is to probe the special face worn by issues that come to his attention, to preserve his leeway until time has clarified the uncertainties, and to assess the relevant risks.

Foreign policy Chiefs deal most often with the hottest issue *de jour*, though they can get the attention of the President and other members of the government for other issues which they judge important. What they cannot guarantee is that "the President will pay the price" or that "the others will get on board." They

⁸³ This aphorism was stated first, I think, by Don K. Price.

⁸⁴ Paul Y. Hammond, "Super Carriers and B-36 Bombers," in Harold Stein (ed.), *American Civil-Military Decisions* (Birmingham, 1963).

must build a coalition of the relevant powers that be. They must "give the President confidence" in the right course of action.

Most problems are framed, alternatives specified, and proposals pushed, however, by Indians. Indians fight with Indians of other departments; for example, struggles between International Security Affairs of the Department of Defense and Political-Military of the State Department are a microcosm of the action at higher levels. But the Indian's major problem is how to get the *attention* of Chiefs, how to get an issue decided, how to get the government "to do what is right."

In policy making then, the issue looking *down* is options: how to preserve my leeway until time clarifies uncertainties. The issue looking *sideways* is commitment: how to get others committed to my coalition. The issue looking *upwards* is confidence: how to give the boss confidence in doing what must be done. To paraphrase one of Neustadt's assertions which can be applied down the length of the ladder, the essence of a responsible official's task is to induce others to see that what needs to be done is what their own appraisal of their own responsibilities requires them to do in their own interests.

V. Specific Propositions

1. *Deterrence.* The probability of nuclear attack depends primarily on the probability of attack emerging as an outcome of the bureaucratic politics of the attacking government. First, which players can decide to launch an attack? Whether the effective power over action is controlled by an individual, a minor game, or the central game is critical. Second, though Model I's confidence in nuclear deterrence stems from an assertion that, in the end, governments will not commit suicide, Model III recalls historical precedents. Admiral Yamamoto, who designed the Japanese attack on Pearl Harbor, estimated accurately: "In the first six months to a year of war against the U.S. and England I will run wild, and I will show you an uninterrupted succession of victories; I must also tell you that, should the war be prolonged for two or three years, I have no confidence in our ultimate victory."⁸⁵ But Japan attacked. Thus, three questions might be considered. One: could any member of the government solve his problem by attack? What patterns of bargaining could yield attack as an outcome? The major difference between a stable balance of terror and a questionable balance may simply be that in the first case most members of the government

⁸⁵ Roberta Wohlstetter, *Pearl Harbor* (Stanford, 1962), p. 350.

appreciate fully the consequences of attack and are thus on guard against the emergence of this outcome. Two: what stream of outcomes might lead to an attack? At what point in that stream is the potential attacker's politics? If members of the U.S. government had been sensitive to the stream of decisions from which the Japanese attack on Pearl Harbor emerged, they would have been aware of a considerable probability of that attack. Three: how might miscalculation and confusion generate foul-ups that yield attack as an outcome? For example, in a crisis or after the beginning of conventional war, what happens to the information available to, and the effective power of, members of the central game.

THE U.S. BLOCKADE OF CUBA: A THIRD CUT

The Politics of Discovery. A series of overlapping bargaining games determined both the date of the discovery of the Soviet missiles and the impact of this discovery on the Administration. An explanation of the politics of the discovery is consequently a considerable piece of the explanation of the U.S. blockade.

Cuba was the Kennedy Administration's "political Achilles' heel."⁸⁵ The months preceding the crisis were also months before the Congressional elections, and the Republican Senatorial and Congressional Campaign Committee had announced that Cuba would be "the dominant issue of the 1962 campaign."⁸⁶ What the administration billed as a "more positive and indirect approach of isolating Castro from developing, democratic Latin America," Senators Keating, Goldwater, Capehart, Thurmond, and others attacked as a "do-nothing" policy.⁸⁷ In statements on the floor of the House and Senate, campaign speeches across the country, and interviews and articles carried by national news media, Cuba—particularly the Soviet program of increased arms aid—served as a stick for stirring the domestic political scene.⁸⁸

These attacks drew blood. Prudence demanded a vigorous reaction. The President decided to meet the issue head-on. The Administration mounted a forceful campaign of denial designed to discredit critics' claims. The President himself manned the front line of this offensive, though almost all Administration officials participated. In his news conference on August 19, President Kennedy attacked as "irresponsible" calls for an invasion of Cuba, stressing rather "the totality of our obligations" and promising to "watch what happens in Cuba with

⁸⁵ Sorensen, *Kennedy*, p. 670.

⁸⁶ *Ibid.*

⁸⁷ *Ibid.*, pp. 670ff.

⁸⁸ *New York Times*, August, September, 1962.

the closest attention."⁸⁸ On September 4, he issued a strong statement denying any provocative Soviet action in Cuba.⁸⁹ On September 12 he lashed out at "loose talk" calling for an invasion of Cuba.⁹¹ The day before the flight of the U-2 which "discovered" the missiles, he campaigned in Capehart's Indiana against those "self-appointed generals and admirals who want to send someone else's sons to war."⁹²

On Sunday, October 14, just as a U-2 was taking the first pictures of Soviet missiles McGeorge Bundy was asserting:

I know that there is no present evidence, and I think that there is no present likelihood that the Cuban government and the Soviet government would, in combination, attempt to install a major offensive capability.⁹³

In this campaign to puncture the critics' charges, the Administration discovered that the public needed positive slogans. Thus, Kennedy fell into a tenuous semantic distinction between "offensive" and "defensive" weapons. This distinction originated in his September 4 statement that there was no evidence of "offensive ground to ground missiles" and warned "were it to be otherwise, the gravest issues would arise."⁹⁴ His September 13 statement turned on this distinction between "defensive" and "offensive" weapons and announced a firm commitment to action if the Soviet Union attempted to introduce the latter into Cuba.⁹⁵ Congressional committees elicited from administration officials testimony which read this distinction and the President's commitment into the *Congressional Record*.⁹⁶

What the President least wanted to hear, the CIA was most hesitant to say plainly. On August 22 John McCone met privately with the President and voiced suspicions that the Soviets were preparing to introduce offensive missiles into Cuba.⁹⁷ Kennedy heard this as what it was: the suspicion of a hawk. McCone left

⁸⁹ *New York Times*, August 20, 1962.

⁹⁰ *New York Times*, September 5, 1962.

⁹¹ *New York Times*, September 14, 1962.

⁹² *New York Times*, October 14, 1962.

⁹³ Cited by Abel, *op. cit.*, p. 13.

⁹⁴ *New York Times*, September 5, 1962.

⁹⁵ *New York Times*, September 14, 1962.

⁹⁶ Senate Foreign Relations Committee; Senate Armed Services Committee; House Committee on Appropriation; House Select Committee on Export Control.

⁹⁷ Abel, *op. cit.*, pp. 17-18. According to McCone, he told Kennedy, "The only construction I can put on the material going into Cuba is that the Russians are preparing to introduce offensive missiles." See also Weintal and Bartlett, *op. cit.*, pp. 60-61.

Washington for a month's honeymoon on the Riviera. Fretting at Cap Ferrat, he bombarded his deputy, General Marshall Carter, with telegrams, but Carter, knowing that McCone had informed the President of his suspicions and received a cold reception, was reluctant to distribute these telegrams outside the CIA.⁹⁸ On September 9 a U-2 "on loan" to the Chinese Nationalists was downed over mainland China.⁹⁹

The Committee on Overhead Reconnaissance (COMOR) convened on September 10 with a sense of urgency.¹⁰⁰ Loss of another U-2 might incite world opinion to demand cancellation of U-2 flights. The President's campaign against those who asserted that the Soviets were acting provocatively in Cuba had begun. To risk downing a U-2 over Cuba was to risk chopping off the limb on which the President was sitting. That meeting decided to shy away from the western end of Cuba (where SAMs were becoming operational) and modify the flight pattern of the U-2s in order to reduce the probability that a U-2 would be lost.¹⁰¹ USIB's unanimous approval of the September estimate reflects similar sensitivities. On September 13 the President had asserted that there were no Soviet offensive missiles in Cuba and committed his Administration to act if offensive missiles were discovered. Before Congressional committees, Administration officials were denying that there was any evidence whatever of offensive missiles in Cuba. The implications of a National Intelligence estimate which concluded that the Soviets were introducing offensive missiles into Cuba were not lost on the men who constituted America's highest intelligence assembly.

The October 4 COMOR decision to direct a flight over the western end of Cuba in effect "overturned" the September estimate, but without officially raising that issue. The decision represented McCone's victory for which he had lobbied with the President before the September 10 decision, in telegrams before the September 19 estimate, and in person after his return to Washington. Though the politics of the intelligence community is closely guarded, several pieces of the story can be told.¹⁰² By September 27, Colonel Wright and others in DIA believed that the Soviet Union was placing missiles in the

⁹⁸ Abel, *op. cit.*, p. 23.

⁹⁹ *New York Times*, September 10, 1962.

¹⁰⁰ See Abel, *op. cit.*, pp. 25-26; and Hilsman, *op. cit.*, p. 174.

¹⁰¹ Department of Defense Appropriation, *Hearings*, 69.

¹⁰² A basic, but somewhat contradictory, account of parts of this story emerges in the Department of Defense Appropriations, *Hearings*, 1-70.

San Cristobal area.¹⁰³ This area was marked suspicious by the CIA on September 29 and certified top priority on October 3. By October 4 McCone had the evidence required to raise the issue officially. The members of COMOR heard McCone's argument, but were reluctant to make the hard decision he demanded. The significant probability that a U-2 would be downed made overflight of western Cuba a matter of real concern.¹⁰⁴

The Politics of Issues. The U-2 photographs presented incontrovertible evidence of Soviet offensive missiles in Cuba. This revelation fell upon politicized players in a complex context. As one high official recalled, Khrushchev had caught us "with our pants down." What each of the central participants saw, and what each did to cover both his own and the Administration's nakedness, created the spectrum of issues and answers.

At approximately 9:00 A.M., Tuesday morning, October 16, McGeorge Bundy went to the President's living quarters with the message: "Mr. President, there is now hard photographic evidence that the Russians have offensive missiles in Cuba."¹⁰⁵ Much has been made of Kennedy's "expression of surprise,"¹⁰⁶ but "surprise" fails to capture the character of his initial reaction. Rather, it was one of startled anger, most adequately conveyed by the exclamation: "He can't do that to me!"¹⁰⁷ In terms of the President's attention and priorities at that moment, Khrushchev had chosen the most unhelpful act of all. Kennedy had staked his full Presidential authority on the assertion that the Soviets would not place offensive weapons in Cuba. Moreover, Khrushchev had assured the President through the most direct and personal channels that he was aware of the President's domestic political problem and that nothing would be done to exacerbate this problem. The Chairman had lied to the President. Kennedy's initial reaction entailed action. The missiles must be removed.¹⁰⁸ The alternatives of "doing nothing" or "taking a diplomatic approach" could not have been less relevant to his problem.

These two tracks—doing nothing and taking

¹⁰³ Department of Defense Appropriations, *Hearings*, 71.

¹⁰⁴ The details of the 10 days between the October 4 decision and the October 14 flight must be held in abeyance.

¹⁰⁵ Abel, *op. cit.*, p. 44.

¹⁰⁶ *Ibid.*, pp. 44ff.

¹⁰⁷ See Richard Neustadt, "Afterword," *Presidential Power* (New York, 1964).

¹⁰⁸ Sorensen, *Kennedy*, p. 676; Schlesinger, *op. cit.*, p. 801.

a diplomatic approach—were the solutions advocated by two of his principal advisors. For Secretary of Defense McNamara, the missiles raised the spectre of nuclear war. He first framed the issue as a straightforward strategic problem. To understand the issue, one had to grasp two obvious but difficult points. First, the missiles represented an inevitable occurrence: narrowing of the missile gap. It simply happened sooner rather than later. Second, the United States could accept this occurrence since its consequences were minor: "seven-to-one missile 'superiority,' one-to-one missile 'equality,' one-to-seven missile 'inferiority'—the three postures are identical." McNamara's statement of this argument at the first meeting of the ExCom was summed up in the phrase, "a missile is a missile."¹⁰⁹ "It makes no great difference," he maintained, "whether you are killed by a missile from the Soviet Union or Cuba."¹¹⁰ The implication was clear. The United States should not initiate a crisis with the Soviet Union, risking a significant probability of nuclear war over an occurrence which had such small strategic implications.

The perceptions of McGeorge Bundy, the President's Assistant for National Security Affairs, are the most difficult of all to reconstruct. There is no question that he initially argued for a diplomatic track.¹¹¹ But was Bundy laboring under his acknowledged burden of responsibility in Cuba I? Or was he playing the role of devil's advocate in order to make the President probe his own initial reaction and consider other options?

The President's brother, Robert Kennedy, saw most clearly the political wall against which Khrushchev had backed the President. But he, like McNamara, saw the prospect of nuclear doom. Was Khrushchev going to force the President to an insane act? At the first meeting of the ExCom, he scribbled a note, "Now I know how Tojo felt when he was planning Pearl Harbor."¹¹² From the outset he searched for an alternative that would prevent the air strike.

The initial reaction of Theodore Sorensen, the President's Special Counsel and "alter ego," fell somewhere between that of the President and his brother. Like the President, Sorensen felt the poignancy of betrayal. If the President had been the architect of the policy which the missiles punctured, Sorensen was the draftman. Khrushchev's deceitful move demanded a strong

counter-move. But like Robert Kennedy, Sorensen feared lest the shock and disgrace lead to disaster.

To the Joint Chiefs of Staff the issue was clear. Now was the time to do the job for which they had prepared contingency plans. Cuba I had been badly done; Cuba II would not be. The missiles provided the occasion to deal with the issue: cleansing the Western Hemisphere of Castro's Communism. As the President recalled on the day the crisis ended, "An invasion would have been a mistake—a wrong use of our power. But the military are mad. They wanted to do this. It's lucky for us that we have McNamara over there."¹¹³

McCone's perceptions flowed from his confirmed prediction. As the Cassandra of the incident, he argued forcefully that the Soviets had installed the missiles in a daring political probe which the United States must meet with force. The time for an air strike was now.¹¹⁴

The Politics of Choice. The process by which the blockade emerged is a story of the most subtle and intricate probing, pulling, and hauling; leading, guiding, and spurring. Reconstruction of this process can only be tentative. Initially the President and most of his advisers wanted the clean, surgical air strike. On the first day of the crisis, when informing Stevenson of the missiles, the President mentioned only two alternatives: "I suppose the alternatives are to go in by air and wipe them out, or to take other steps to render them inoperable."¹¹⁵ At the end of the week a sizeable minority still favored an air strike. As Robert Kennedy recalled: "The fourteen people involved were very significant. . . . If six of them had been President of the U.S., I think that the world might have been blown up."¹¹⁶ What prevented the air strike was a fortuitous coincidence of a number of factors—the absence of any one of which might have permitted that option to prevail.

First, McNamara's vision of holocaust set him firmly against the air strike. His initial attempt to frame the issue in strategic terms struck Kennedy as particularly inappropriate. Once McNamara realized that the name of the game was a strong response, however, he and his deputy Gilpatric chose the blockade as a fallback. When the Secretary of Defense—whose department had the action, whose reputation in the Cabinet was unequaled, in whom the President demonstrated full confidence—marshalled

the arguments for the blockade and refused to be moved, the blockade became a formidable alternative.

Second, Robert Kennedy—the President's closest confidant—was unwilling to see his brother become a "Tojo." His arguments against the air strike on moral grounds struck a chord in the President. Moreover, once his brother had stated these arguments so forcefully, the President could not have chosen his initially preferred course without, in effect, agreeing to become what RFK had condemned.

The President learned of the missiles on Tuesday morning. On Wednesday morning, in order to mask our discovery from the Russians, the President flew to Connecticut to keep a campaign commitment, leaving RFK as the unofficial chairman of the group. By the time the President returned on Wednesday evening, a critical third piece had been added to the picture. McNamara had presented his argument for the blockade. Robert Kennedy and Sorensen had joined McNamara. A powerful coalition of the advisers in whom the President had the greatest confidence, and with whom his style was most compatible, had emerged.

Fourth, the coalition that had formed behind the President's initial preference gave him reason to pause. Who supported the air strike—the Chiefs, McCone, Rusk, Nitze, and Acheson—as much as how they supported it, counted. Fifth, a piece of inaccurate information, which no one probed, permitted the blockade advocates to fuel (potential) uncertainties in the President's mind. When the President returned to Washington Wednesday evening, RFK and Sorensen met him at the airport. Sorensen gave the President a four-page memorandum outlining the areas of agreement and disagreement. The strongest argument was that the air strike simply could not be surgical.¹¹⁷ After a day of prodding and questioning, the Air Force had asserted that it could not guarantee the success of a surgical air strike limited to the missiles alone.

Thursday evening, the President convened the ExCom at the White House. He declared his tentative choice of the blockade and directed that preparations be made to put it into effect by Monday morning.¹¹⁸ Though he raised a question about the possibility of a surgical air strike subsequently, he seems to have accepted the experts' opinion that this was no live option.¹¹⁹ (Acceptance of this estimate suggests that he may have learned the lesson of the Bay of Pigs—"Never rely on experts"—less well than

he supposed.)¹²⁰ But this information was incorrect. That no one probed this estimate during the first week of the crisis poses an interesting question for further investigation.

A coalition, including the President, thus emerged from the President's initial decision that something had to be done; McNamara, Robert Kennedy, and Sorensen's resistance to the air strike; incompatibility between the President and the air strike advocates; and an inaccurate piece of information.¹²¹

CONCLUSION

This essay has obviously bitten off more than it has chewed. For further developments and synthesis of these arguments the reader is referred to the larger study.¹²² In spite of the limits of space, however, it would be inappropriate to stop without spelling out several implications of the argument and addressing the question of relations among the models and extensions of them to activity beyond explanation.

At a minimum, the intended implications of the argument presented here are four. First, formulation of alternative frames of reference and demonstration that different analysts, relying predominantly on different models, produce quite different explanations should encourage the analyst's self-consciousness about the nets he employs. The effect of these "spectacles" in sensitizing him to particular aspects of what is going on—framing the puzzle in one way rather than another, encouraging him to examine the problem in terms of certain categories rather than others, directing him to particular kinds of evidence, and relieving puzzlement by one procedure rather than another—must be recognized and explored.

Second, the argument implies a position on the problem of "the state of the art." While accepting the commonplace characterization of the present condition of foreign policy analysis—personalistic, non-cumulative, and sometimes insightful—this essay rejects both the counsel of despair's justification of this condition as a consequence of the character of the enterprise, and the "new frontiersmen's" demand for a *priori* theorizing on the frontiers and *ad hoc* appropriation of "new techniques."¹²³ What is re-

¹⁰⁹ Schlesinger, *op. cit.*, p. 296.

¹¹⁰ Space will not permit an account of the path from this coalition to the formal government decision on Saturday and action on Monday.

¹¹¹ *Bureaucracy and Policy* (forthcoming, 1969).

¹¹² Thus my position is quite distinct from both poles in the recent "great debate" about international relations. While many "traditionalists" of the sort Kaplan attacks adopt the first posture and

¹¹³ *Ibid.*, p. 831.

¹¹⁴ Abel, *op. cit.*, p. 186.

¹¹⁵ *Ibid.*, p. 49.

¹¹⁶ Interview, quoted by Ronald Steel, *New York Review of Books*, March 13, 1969, p. 22.

¹¹⁷ Sorensen, *Kennedy*, p. 686.

¹¹⁸ *Ibid.*, p. 691.

¹¹⁹ *Ibid.*, pp. 691-692.

¹²⁰ Hilsman, *op. cit.*, p. 195.

¹²¹ *Ibid.*

¹²² Weintal and Bartlett, *op. cit.*, p. 67; Abel, *op. cit.*, p. 53.

¹²³ Schlesinger, *op. cit.*, p. 803.

quired as a first step is non-casual examination of the present product: inspection of existing explanations, articulation of the conceptual models employed in producing them, formulation of the propositions relied upon, specification of the logic of the various intellectual enterprises, and reflection on the questions being asked. Though it is difficult to overemphasize the need for more systematic processing of more data, these preliminary matters of formulating questions with clarity and sensitivity to categories and assumptions so that fruitful acquisition of large quantities of data is possible are still a major hurdle in considering most important problems.

Third, the preliminary, partial paradigms presented here provide a basis for serious reexamination of many problems of foreign and military policy. Model II and Model III cuts at problems typically treated in Model I terms can permit significant improvements in explanation and prediction.¹²⁴ Full Model II and III analyses require large amounts of information. But even in cases where the information base is severely limited, improvements are possible. Consider the problem of predicting Soviet strategic forces. In the mid-1950s, Model I style calculations led to predictions that the Soviets would rapidly deploy large numbers of long-range bombers. From a Model II perspective, both the frailty of the Air Force within the Soviet military establishment and the budgetary implications of such a buildup, would have led analysts to hedge this prediction. Moreover, Model II would have pointed to a sure, visible indicator of such a buildup: noisy struggles among the Services over major budgetary shifts. In the late 1950s and early 1960s, Model I calculations led to the prediction of immediate, massive Soviet deployment of ICBMs. Again, a Model II cut would have reduced this number because, in the earlier period, strategic rockets were controlled by the Soviet Ground Forces rather than an independent Service, and in the later period, this would have necessitated massive shifts in budgetary

many "scientists" of the sort attacked by Bull adopt the second, this third posture is relatively neutral with respect to whatever is in substantive dispute. See Heddy Bull, "International Theory: The Case for a Classical Approach," *World Politics* (April, 1966); and Morton Kaplan, "The New Great Debate: Traditionalism vs. Science in International Relations," *World Politics* (October, 1966).

¹²⁴ A number of problems are now being examined in these terms both in the Bureaucracy Study Group on Bureaucracy and Policy of the Institute of Politics at Harvard University and at the Rand Corporation.

splits. Today, Model I considerations lead many analysts both to recommend that an agreement not to deploy ABMs be a major American objective in upcoming strategic negotiations with the USSR, and to predict success. From a Model II vantage point, the existence of an on-going Soviet ABM program, the strength of the organization (National Air Defense) that controls ABMs, and the fact that an agreement to stop ABM deployment would force the virtual dismantling of this organization, make a viable agreement of this sort much less likely. A Model III cut suggests that (a) there must be significant differences among perceptions and priorities of Soviet leaders over strategic negotiations, (b) any agreement will affect some players' power bases, and (c) agreements that do not require extensive cuts in the sources of some major players' power will prove easier to negotiate and more viable.

Fourth, the present formulation of paradigms is simply an initial step. As such it leaves a long list of critical questions unanswered. Given any action, an imaginative analyst should always be able to construct some rationale for the government's choice. By imposing, and relaxing, constraints on the parameters of rational choice (as in variants of Model I) analysts can construct a large number of accounts of any act as a rational choice. But does a statement of reasons why a rational actor would choose an action constitute an explanation of the occurrence of that action? How can Model I analysis be forced to make more systematic contributions to the question of the determinants of occurrences? Model II's explanation of t in terms of $t - 1$ is explanation. The world is contiguous. But governments sometimes make sharp departures. Can an organizational process model be modified to suggest where change is likely? Attention to organizational change should afford greater understanding of why particular programs and SOPs are maintained by identifiable types of organizations and also how a manager can improve organizational performance. Model III tells a fascinating "story." But its complexity is enormous, the information requirements are often overwhelming, and many of the details of the bargaining may be superfluous. How can such a model be made parsimonious? The three models are obviously not exclusive alternatives. Indeed, the paradigms highlight the partial emphasis of the framework—what each emphasizes and what it leaves out. Each concentrates on one class of variables, in effect, relegating other important factors to a *ceteris paribus* clause. Model I concentrates on "market factors:" pressures and incentives created by the "international strategic marketplace." Mod-

els II and III focus on the internal mechanism of the government that chooses in this environment. But can these relations be more fully specified? Adequate synthesis would require a typology of decisions and actions, some of which are more amenable to treatment in terms of one model and some to another. Government behavior is but one cluster of factors relevant to occurrences in foreign affairs. Most students of foreign policy adopt this focus (at least when explaining and predicting). Nevertheless, the dimensions of the chess board, the character of the pieces, and the rules of the game—factors considered by international systems theorists—constitute the context in which the pieces are moved. Can the major variables in the full function of determinants of foreign policy outcomes be identified?

Both the outline of a partial, *ad hoc* working synthesis of the models, and a sketch of their uses in activities other than explanation can be suggested by generating predictions in terms of each. Strategic surrender is an important problem of international relations and diplomatic history. War termination is a new, developing area of the strategic literature. Both of these interests lead scholars to address a central question: *Why do nations surrender when?* Whether implicit in explanations or more explicit in analysis, diplomatic historians and strategists rely upon propositions which can be turned forward to produce predictions. Thus at the risk of being timely—and in error—the present situation (August, 1968) offers an interesting test case: Why will North Vietnam surrender when?¹²⁵

In a nutshell, analysis according to Model I asserts: nations quit when costs outweigh the benefits. North Vietnam will surrender when she realizes "that continued fighting can only generate additional costs without hope of compensating gains, this expectation being largely the consequence of the previous application of force by the dominant side."¹²⁶ U.S. actions can increase or decrease Hanoi's strategic costs. Bombing North Vietnam increases the pain and thus increases the probability of surrender. This proposition and prediction are not without meaning. That—"other things being equal"—nations are more likely to surrender when the

¹²⁵ In response to several readers' recommendations, what follows is reproduced *verbatim* from the paper delivered at the September, 1968 Association meetings (Rand P-3919). The discussion is heavily indebted to Ernest R. May.

¹²⁶ Richard Snyder, *Deterrence and Defense* (Princeton, 1961), p. 11. For a more general presentation of this position see Paul Keeskemeter, *Strategic Surrender* (New York, 1964).

strategic cost-benefit balance is negative, is true. Nations rarely surrender when they are winning. The proposition specifies a range within which nations surrender. But over this broad range, the relevant question is: why do nations surrender?

Models II and III focus upon the government machine through which this fact about the international strategic marketplace must be filtered to produce a surrender. These analysts are considerably less sanguine about the possibility of surrender at the point that the cost-benefit calculus turns negative. Never in history (i.e., in none of the five cases I have examined) have nations surrendered at that point. Surrender occurs sometime thereafter. *When* depends on process of organizations and politics of players within these governments—as they are affected by the opposing government. Moreover, the effects of the victorious power's action upon the surrendering nation cannot be adequately summarized as increasing or decreasing strategic costs. Imposing additional costs by bombing a nation may increase the probability of surrender. But it also may reduce it. An appreciation of the impact of the acts of one nation upon another thus requires some understanding of the machine which is being influenced. For more precise prediction, Models II and III require considerably more information about the organizations and politics of North Vietnam than is publicly available. On the basis of the limited public information, however, these models can be suggestive.

Model II examines two sub-problems. First, to have lost is not sufficient. The government must know that the strategic cost-benefit calculus is negative. But neither the categories, nor the indicators, of strategic costs and benefits are clear. And the sources of information about both are organizations whose parochial priorities and perceptions do not facilitate accurate information or estimation. Military evaluation of military performance, military estimates of factors like "enemy morale," and military predictions concerning when "the tide will turn" or "the corner will have been turned" are typically distorted. In cases of highly decentralized guerrilla operations, like Vietnam, these problems are exacerbated. Thus strategic costs will be underestimated. Only highly visible costs can have direct impact on leaders without being filtered through organizational channels. Second, since organizations define the details of options and execute actions, surrender (and negotiation) is likely to entail considerable bungling in the early stages. No organization can define options or prepare programs for this treasonous act. Thus, early overtures will be uncoordinated with

the acts of other organizations, e.g., the fighting forces, creating contradictory "signals" to the victor.

Model III suggests that surrender will not come at the point that strategic costs outweigh benefits, but that it will not wait until the leadership group concludes that the war is lost. Rather the problem is better understood in terms of four additional propositions. First, strong advocates of the war effort, whose careers are closely identified with the war, rarely come to the conclusion that costs outweigh benefits. Second, quite often from the outset of a war, a number of members of the government (particularly those whose responsibilities sensitize them to problems other than war, e.g., economic planners or intelligence experts) are convinced that the war effort is futile. Third, surrender is likely

to come as the result of a political shift that enhances the effective power of the latter group (and adds swing members to it). Fourth, the course of the war, particularly actions of the victor, can influence the advantages and disadvantages of players in the loser's government. Thus, North Vietnam will surrender not when its leaders have a change of heart, but when Hanoi has a change of leaders (or a change of effective power within the central circle). How U.S. bombing (or pause), threats, promises, or action in the South affect the game in Hanoi is subtle but nonetheless crucial.

That these three models could be applied to the surrender of governments other than North Vietnam should be obvious. But that exercise is left for the reader.

The present theory sketch views arms control as an aspect of the integration of political organizations. Political integration, in turn, is the consequence of a process of political transactions among principal political actors over time. In keeping with numerous contemporary conceptions of social transaction, political "things" of one kind or another are exchanged between actors when both (or more) parties perceive or anticipate a "profit," that is, applying their own individual criteria, see a net gain when measuring what is received against what is given up in the transaction. In order to quantify and relate these transactional events to the process leading to political integration, three types of "cur-

A TRANSACTIONAL THEORY OF POLITICAL INTEGRATION AND ARMS CONTROL*

RALPH M. GOLDMAN
San Francisco State College

Nominally, the English became a nation in the eighth century but did not achieve political integration until the seventeenth century, a thousand years later. During the millennium, the English "nation" was the scene of recurring internal wars, the last ending with the acceptance of the Bill of Rights by William III and Mary in 1688. What was the process leading to cessation in the use of armed conflict as a technique of domestic politics in England?

Nominally, Mexico was an independent nation in 1821 but did not see the end of its internal wars until the 1940's. What political process led to domestic "arms control" in Mexico?

Although taking place in different centuries and in nations with distinct political cultures, were there common elements in the two transitions to internal arms control? What were critical factors in the integrative process? May the same factors, or analogous ones, be identified and controlled in contemporary efforts related to regional and international arms control? What may be learned from the English, the Mexican, and other national cases that is generalizable to the problem of international political integration and arms control?

The present theory sketch views arms control as an aspect of the integration of political organizations. Political integration, in turn, is the consequence of a process of political transactions among principal political actors over time. In keeping with numerous contemporary conceptions of social transaction, political "things" of one kind or another are exchanged between actors when both (or more) parties perceive or anticipate a "profit," that is, applying their own individual criteria, see a net gain when measuring what is received against what is given up in the transaction. In order to quantify and relate these transactional events to the process leading to political integration, three types of "cur-

rency" are postulated: positional, decisional, and materiel currencies. These types are employed in the analysis of the content of each political transaction. The following general hypotheses are then proposed:

1. Successive transactions perceived as profitable by all parties tend to reinforce attitudes of trust among political transactors.

2. Trust among political transactors is positively correlated with sharp increases in the inclusion of decisional currencies among the content of transactions.

3. Increased trust is positively associated with the decline in political exchanges involving armaments (a sub-type of materiel currency), that is, increasing trust and decreasing violent warfare are positively correlated.

4. Transactional sequences that follow a trust-inducing pattern tend to be associated with successful transition from unintegrated to integrated states of political organization.¹

¹The distinction between "disarmament" and "arms control" is significant. Neither England nor Mexico, for example, is a domestically disarmed nation. Rather, as a consequence of the processes to be examined with this theory, each nation—as others that are politically integrated—has established a monopoly of its major means of internal violence. Domestic peace, that is, the cessation of internal wars, seems to be associated with conditions of arms control (involving decisional currency exchanges) rather than disarmament.

"Political development" and "political integration" are also troublesome terms that should not delay us long. Since World War II, the rubric "political development" has tended to be employed mainly to describe comparative studies of national modernization, particularly with respect to the growth of economic organization and governmental bureaucracies. Overviews of current usage are reported in Samuel P. Huntington, "Political Development and Political Decay," *World Politics*, 17 (April, 1965), 386-430; Fred W. Riggs, "The Theory of Political Development," in J. C. Charlesworth (ed.), *Contemporary Political Analysis* (New York: The Free Press 1967), pp. 317-349; Robert T. Holt and John E. Turner, *The Political Basis of Economic Development* (Princeton, N.J.: D. Van Nostrand, 1966). The approach described in this report is "developmental" simply in its search for recurring tendencies.

* This report is part of an investigation under contract between the Group Psychology Branch, Office of Naval Research, and the Frederic Burk Foundation for Education, San Francisco State College. (Contract Nonr-4722 (00), Project NR 177258). The author is indebted to Luigi Petruccio, Director, Psychological Sciences Division, ONR, and Abraham S. Levine, formerly of the Group Psychology Branch, for their advice and encouragement.