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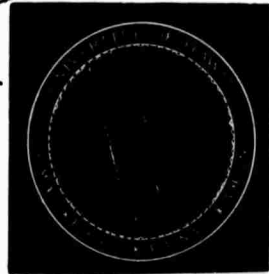
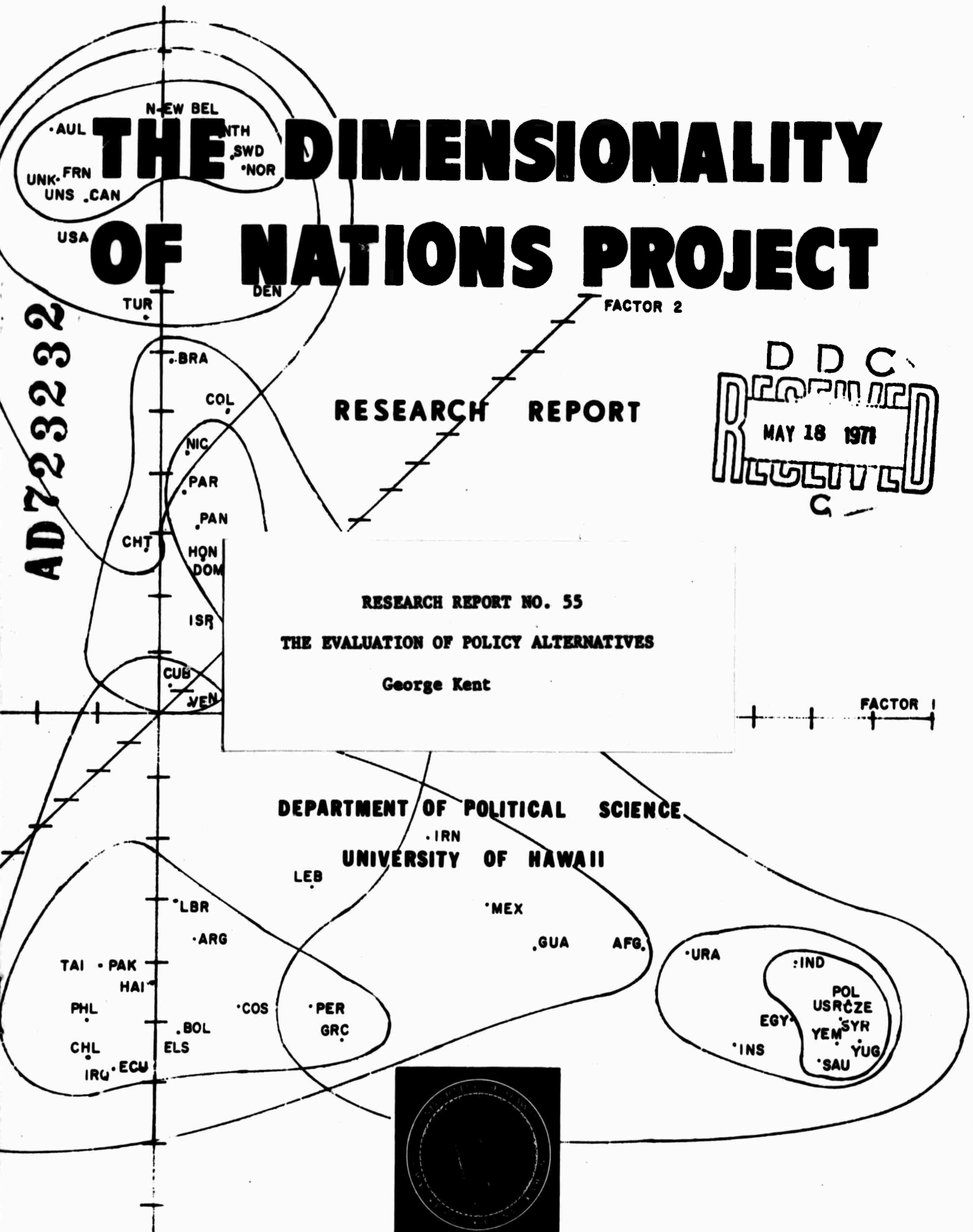
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RESEARCH REPORT NO. 55
THE EVALUATION OF POLICY ALTERNATIVES
George Kent

FACTOR 1

DEPARTMENT OF POLITICAL SCIENCE
UNIVERSITY OF HAWAII



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13. ABSTRACT <p>→ The purpose of systematic evaluation procedures is to help policy analysts confronted with difficult decisions to form wise choices. Few useful guidelines have been offered for the evaluation of action alternatives, especially in the realm of foreign policy formation. Schemes based on statements of goals or objectives or on the use of broadly applicable criteria for choosing among alternatives can be misleading, and they are frequently found to be unworkable. Rather than searching for particular rules by which wise choices should be made, it is more useful to find ways in which difficult decision problems can be decomposed into smaller questions, each of which is easier to answer than the larger problem. A tabular, account-book format, described as the <u>revised general ledger</u>, provides a sound basis for systematically comparing and evaluating those features which significantly differentiate the action alternatives under examination. The scheme may be used as the core of an efficient approach to policy analysis described as the <u>pair-wise evaluation strategy</u>.</p>			

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ABSTRACT

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THE EVALUATION OF POLICY ALTERNATIVES¹

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1. INTRODUCTION

1.1 The Problem

The purpose of this essay is to explore the character of evaluation as it occurs in the work of policy formation. Evaluation is understood here to refer to the task of determining which of several alternatives confronting a decision-maker is preferred and should be chosen. The alternatives are assumed to be concrete action possibilities, and not grand, abstract sets of principles. While emphasis is placed on the problem of choosing among foreign policy alternatives, many of the observations that are made will apply in other domains as well.

The term evaluation has been used in many different ways, as will be apparent from the review in the following subsection. Here, the problem is deliberately connected with decision-making: given that a choice must be made between two or more possible courses of action, how should one decide which of them should be chosen? In this view, the assessment of the properties of alternatives is instrumental to the end of determining preferences, and is part of the larger task of evaluation, but the assessment of properties does not in itself constitute the whole task of evaluation.

The problem under study is essentially that of a single individual trying to decide his own preferences. Another, different problem arises when several individuals, in a common committee or as political opponents, confront each other with incompatible preferences and try to reconcile their

differences. This problem of group decision-making, where the individual members' preferences are presumed to be well-specified at the outset, has been studied in a wide variety of formats, including bargaining and gaming, and also in the studies on social welfare functions.² The group problem is set aside here on the grounds that the formulation of preferences by the individual is naturally prior to the question of how several different decision-makers reconcile their preferences. As de Rivera put it, "in the last analysis, it is the conflict within each person that will decide policy."³

Paul Diesing has characterized political decisions by the way in which they are made, rather than in terms of their subject matter:

Non-political decisions are reached by considering a problem in its own terms, and by evaluating proposals according to how well they would solve the problem. The best available proposal should be accepted regardless of who makes it or who opposes it, and a faulty proposal should be rejected or improved no matter who makes it. Compromise is always irrational; the rational procedure is to determine which proposal is best, and to accept it. In a political decision, on the other hand, action never is based on the merits of a proposal but always on who makes it and who opposes it. Action should be designed to avoid complete identification with any proposal and any point of view, no matter how good or how popular it might be. The best available proposal should never be accepted just because it is best; it should be deferred, objected to, discussed, until major opposition disappears. Compromise is always a rational procedure, even when the compromise is between a good and a bad proposal.⁴

This study is not about the politics of policy-making. Political factors do greatly influence foreign policy decisions, but this may be precisely because there is no well-developed alternative procedure. A major motivation of this work is to help develop practical means for identifying wise choices which are better than the essentially arbitrary means of weighing political power within bureaucracies. In other words, the goal

is to convert political decisions into non-political ones. Of course, decisions on matters of policy must take full account of likely political consequences, but the way in which they are taken into account should, in the sense described here, be apolitical.

Unfortunately, political analysis as an object of study has almost always been taken to refer to what political scientists do, and not to what political actors do. As a result, most studies about political analysis are hopelessly irrelevant to the needs of actors.

There have been many studies of how people do arrive at their decisions, both in political and in non-political contexts, but few studies have been devoted to the question of how they should arrive at their decisions.⁵ It may be that people do tend to be highly responsive to peer group pressures, or that statesmen are not much concerned with moral questions, but observations of this kind tell us little about how they should respond. This study is concerned more with prescription than with description or explanation. How should one decide what action to take? What advice can be offered to the policy analyst faced with a difficult choice? What analytical procedure might be useful?

Obviously, the answer to the problem of evaluation will not be provided here. There is no right answer, but some answers are better than others. The objective of this study is to raise the question, to encourage its serious study, to identify some of the common difficulties, and to suggest some usable procedures for the work of evaluation. More satisfactory answers will ultimately be obtained only through slow and cumulative efforts, and only after many more mistakes have been made, both in analysis and in action.

The following subsection of this study offers a sampling of the views of students of foreign policy on the problem of evaluation. Rather than responding to each of these views individually, my critical reactions are implied in the arguments that are developed later. This review is followed by a brief discussion of the distinction between past-directed and future-directed evaluation.

There is much more to policy analysis than just the evaluation of alternatives. To place that task into its larger context, some of the other phases of the policy formation process are discussed in the second major section. The study as a whole, however, focuses on the problem of choosing among alternatives, and not on general policy formation or problem solving procedures.

The purpose and character of evaluation procedures are discussed in the third section. This section reflects personal understanding and aspiration more than empirical description, so it should be understood as being primarily prescriptive in nature. Naturally, this characterization implicitly anticipates the proposal to be developed in the conclusion.

In the fourth section, I review a variety of suggested evaluation schemes. I conclude with a description of my favorite system, a general ledger accounting form which seems to incorporate the best features of the other procedures that have been suggested. It does not make the gross errors of other formulations, and makes up in practical applicability for what it lacks in apparent sophistication. Finally, I describe a policy analysis strategy suggested by the preceding arguments, and then summarize the major observations of the essay.

1.2 "Evaluation" in Foreign Policy Studies

Eugene Meehan, noting that there are certain areas of behavior "in which the consequences of choice may be catastrophic for very large segments of the world's population," asks "How can such choices best be made?" The question is urgent:

The justifications offered in support of existing values are seldom very convincing. And there is little evidence to show that the quality of the value judgments men make improves with the seriousness of the decisions being made, and some evidence to the contrary--witness the considerations alluded to when modern governments make major policy decisions. According to the news media, and to the participants themselves, stakes of unbelievable magnitude are wagered out of irrational fear, foolish pride, conceit, ignorance, malice, and even stupidity. The vehemence with which the moralists of the age attack such idiocy seems more than justified, though the attack would fare better if the reasoning of the critics were substantially better than the reasoning of those they criticize--and that is seldom the case.⁶

The need for research on bases for guiding judgment in national and international decision-making was described by Richard Snyder and James Robinson more than a decade ago:

Value judgments of policy decision processes are natural and necessary, but rigorous analysis and conceptual clarification of criteria have been notably lacking. In the absence of explicit and agreed criteria, the evaluation of policy consequences gives rise to some of the most troublesome problems in the whole arena of public affairs. If, as the late John Foster Dulles asserted, wars result from miscalculation, what is an error in policy-making and how is it to be ascertained or measured?⁷

The question has remained unanswered, and worse, ignored. Prescriptive studies have come to be regarded as unscholarly, and have been shunned by students of foreign policy.⁸ One result has been that, at least so far

as the development of potentially useful guidelines is concerned, the problem of the evaluation of foreign policy alternatives has received very little attention. The question has been recognized by some, of course. The kinds of answers that are given by students of foreign policy can be illustrated with a few examples.

According to Glenn Paige's definition

By evaluation is meant the judgment (assignment of values to) actual or potential empirical states of affairs in terms of certain criteria.⁹

His evaluative method

. . . is suggested by studies of "ordinary language" that have been done by ethical theorists in philosophy. That is, rather than impose from outside a set of evaluative criteria that has been created out of professional polemics in political science, we might begin with the ordinary language of moral discourse that is revealed by the Korean case materials themselves.¹⁰

Paige analyzed the responses of critical observers of the United States' decision to intervene in Korea in 1950 and summarized their views in eight different normative propositions, some saying the decision was wrong, and some saying it was right. No attempt was made to coalesce the findings into a single encompassing judgment. Certain categories and criteria of evaluation were suggested by the analysis, however. These were

Antecedent behavior: Was the behavior of the decision-makers in the pre-crisis period such as to minimize the occurrence of the crisis precipitating the event?

Decisional process: Was the response to the crisis decided in such a way as to gain widespread acceptance of the authority of the decision makers through the legitimacy of the decisional processes?

Ends: Were the ends pursued of deep and enduring human value?

Means: Were the means employed such as to receive widespread acceptance as being appropriate for the ends sought?¹¹

Paige also suggested another possible approach:

Another avenue for exploration in evaluating the Korean decision is to invoke certain criteria that are commonly employed, either explicitly or implicitly in political science analyses. This approach differs from that of the normative inventory in that it brings to bear criteria of judgment that originate outside the Korean case.¹²

These criteria were illustrated by questions about such things as the attainability of the ends, the suitability of the means, the timeliness and flexibility of the response, and the accuracy of the calculated support.

Speaking of the critical assessment of past actions, another student of foreign policy, John Lovell states that

The desirability of a decision or action, however, is determined from an assessment of the consequences ... knowledgeable evaluation is invariably dependent upon adequate explanation. To decide whether the decision of the Truman administration to send troops to Korea was good or bad, it is essential to investigate its consequences Actually, assessment of a decision or act requires not only a determination of the consequences, but also a comparison of the actual consequences with the probable ones if an alternative course of action had been selected In short, what is required in the evaluation of past decisions, programs, and organizations is a comparison of what was with what might have been.¹³

Paige was concerned with the critical assessment of past decisions made by others, a task which may be differentiated from our main concern, the future-oriented assessment of contemplated actions. Lovell makes that distinction, and according to his terminology, one evaluates past actions, but prescribes future actions. Similarly, in Lovell's usage, one explains past events, but predicts future events:

The relationship between prediction and prescription is analogous to that between explanation and evaluation. ... Thus, sound prescription rests upon accurate prediction, just as knowledgable evaluation rests upon accurate explanation. Moreover, just as assessment of a past decision requires a comparison of what was with what might have been, assessment of future decisions and actions requires one to compare the consequences of a prescribed course of action with the probable consequences of alternative courses.¹⁴

Later, Lovell asks

Can any universally acceptable criteria be established that could serve policy makers as guideposts in choosing among various intermediate policy objectives and among policy means and tactics, or that could serve the student of foreign policy in evaluating the choices made by policy makers? our quest is for a standard of evaluation that can be applied objectively rather than subjectively. That is, we are searching for a standard by which each of us, in appraising the same set of foreign-policy goals and means, would arrive at the same conclusions as to which goals and means were good and which were bad.¹⁵

He then examines three candidate criteria, legal norms, moral principles, and "realism" to determine whether any of them is "both universally acceptable and operationally meaningful."¹⁶ As Lovell understands the last of these criteria, "realistic goals and means would be those that, in the existing pattern of demands and opportunities, would best maintain or promote the national interest."¹⁷ All three criteria are found wanting for predictable reasons, including especially their ambiguity and their questionable applicability in concrete cases.¹⁸

Lovell finds that

... reasonable men can and do disagree about what is legal, moral, and in the national interest, and under what conditions various norms are applicable. Indeed, we may conclude that politics is a struggle not only to influence particular policy outcomes or to influence

the allocation of costs and benefits that accrue from the policy process; politics is also a struggle to influence the structuring of norms by which various policy choices are judged to be legitimate and broadly acceptable.¹⁹

Many observers suggest that wisdom should be socially defined. According to Charles Lindblom, for example, "Agreement on policy thus becomes the only practicable test of the policy's correctness."²⁰ In a context which qualifies its meaning considerably, Roger Hilsman has said that "The test of policy is not that it will most effectively accomplish an agreed-upon value, but that a wider number of people decide to indorse it...."²¹ Interpreting this as a prescription, Joseph de Rivera disagreed, and responded to this statement by saying that

While we might call the above the "test of consensus," it would be a mistake to assume that this is the only test of policy and that policy can not be evaluated from a value-free point of view. For the real test of policy is not simply that a number of people think it will help them achieve their values. Thus, in spite of the fact that policy is a-rational, we may ask a kind of reasonableness of it. We would like the policy to: (1) achieve the goals which its supporters hoped it would achieve, and (2) to achieve these without having unanticipated consequences that damage other values which its supporters hold. If a policy meets these criteria, then it is a "good" policy, whether or not it is good for a particular individual who may not have supported the policy. We may call this the "test of reasonableness."²²

None of these suggested tests seem adequate. While many students of foreign policy gladly say which particular policies seem to them to be wise or unwise, few have had anything to say about how one should decide. Those who have recognized the question have not agreed in their answers.

They have been most effective in showing that the answer to the question of how foreign policy alternatives should be evaluated is not at all obvious.

1.3 Past versus Future Evaluation

Although one might not like his labels, Lovell does make a useful distinction between assessments made for past decisions and assessments made for future decisions. There may be important differences in the ways in which the two kinds of tasks should be carried out. The critical analysis of past decisions is not the major concern of this study, but a brief comparative look at it may help to sharpen understanding of the policy analyst's evaluation task.

As quoted earlier, Lovell says that "To decide whether the decision of the Truman administration to send troops to Korea was good or bad, it is essential to investigate its consequences." Similarly, Paige suggests that it may be valid to ask whether the Korean decision really reduced the likelihood of future wars, as Truman had hoped. He suggests that it may be valid to include in one's evaluation "an assessment of the objective consequences of behavior whether appreciated by the decision makers or not."²³

It is useful to distinguish between the decision-maker and his decision, on the one hand, and the resulting action and consequences, on the other hand. Decisions are made and actions are taken because certain consequences are intended and expected, but because of the inescapable imperfections in knowledge, these may be different from the consequences that are actually obtained. Therefore, looking backward, there are two

very different kinds of judgments one can make, one on the merits of the decision, and one on the merits of the action.

If one's purpose is to assess the wisdom of a decision-maker, it is unreasonable to base that assessment on the actual consequences of the action. If actual outcomes are considered, the decision-maker is charged or credited even with the unforeseeable consequences of his action. The wisdom of a past decision should be assessed, not on the basis of the actually obtained consequences, as seen retrospectively, but on the basis of the best prediction that could have been made at the time of making the decision.²⁴ Contrary to the suggestion of Lovell, Paige, de Rivera, and others, evaluations for past and future decisions should not be different in this respect. One may regret decisions that have turned out badly, but that is different from judging them to have been made unwisely.

In critically analyzing past decisions made by others, one must ask by whose standards the action is to be assessed. Should it be judged against the decision-maker's goals or the critic's? In general, the critic is obligated to assess not only the decision but also the quality of the actor's values. Efficient murderers are not praiseworthy. The policy analyst, evaluating the alternatives he himself confronts, ultimately has only his own values to consider, while the critic, assessing a decision made by someone else, has that actor's values to consider as well as his own. The policy analyst's task is therefore somewhat simpler than the critic's.²⁵

If one's purpose is to judge the quality of an action, in the sense of trying to decide whether one should regret its having been taken, there is no reason whatever to consider the analysis made by the decision-maker at the

time. His intentions and expectations, and his values as well, are all irrelevant to this judgment. This kind of retrospective critical analysis has little in common with forward-looking policy analysis.

Even the hindsight required for retrospective analysis is often blurred because the identification of the consequences of past actions can be extraordinarily difficult. Some sort of explanation (causal analysis) is needed to determine which events should be charged or credited to a given action. History does not reveal its alternatives. It will often be unclear as to which events can be traced to the particular action, and which would have happened anyway.

2. PRE-EVALUATION

2.1 The Beginnings of Policy Analyses

To place the work of evaluation into context, some of the other phases of the policy-formation process are sketched out here. Evaluation is still defined, quite narrowly, as the task of determining preferences among action alternatives.

Some decision theorists speak of the evaluation of alternatives as if that were synonymous with the work of policy-making. They begin by specifying alternatives which, by their definition, are taken to be well-defined, mutually exclusive, and collectively exhaustive. Unfortunately, real problems do not begin that way. They do not begin as choices between a clear this and a clear that, but as questions of how to get there, or even more vaguely, as questions of what should be done about some thing. To speak as if well-defined alternatives were always immediately at hand drastically oversimplifies the work of policy-making. There is always a

great deal of work to be done before any evaluation is needed, including the identification of things that could be done, and then the reformulation of these possibilities into alternatives.

Although the analytical tasks faced in the pre-evaluation stages of policy formation have been overlooked in the decision-making literature, they are nevertheless very real. The following subsections isolate and characterize some of the tasks in a highly stylized way. In practice, of course, the work does not normally proceed according to any such step-wise program. Where difficulties are encountered, however, it may be useful to prescribe procedures like those outlined to the policy analyst.

2.2 Discovering and Inventing Possibilities

What are the different things a given actor could do in a given situation? In asking what could be done, the analyst poses the question of capabilities, a more or less pure question of fact. The evaluative question is temporarily set aside. The analyst does not yet ask himself about the wisdom of the possible actions, but at this stage seeks only to identify them.

The action possibilities are by no means obvious simply upon the naming of a problem. They can be identified only through intensive study of the particular situation, the surrounding circumstances, the participants involved, the actor's resources, and so on. While some generalizations might be made about action possibilities in certain classes of situations, the policy analyst concerned with a specific, concrete problem must engage himself in a close study of that problem, and must become deeply familiar with it and its context. Only then will he be able to suggest reasonably refined and meaningful action possibilities.

To illustrate the discussion, suppose that the policy analysis to be performed is that of formulating recommendations for United States action in relation to the problem of the Palestinians. After a preliminary study, the policy analyst might draw up a list of things which the United States could do and which would be related to that problem. The list might look something like this:

The United States could:

1. encourage programs designed to advance the welfare of the refugees in the camps;
2. encourage enhanced political organization of the Palestinian groups;
3. decrease, continue, or increase the funds it supplies to the refugees through the United Nations Relief and Works Agency, UNRWA;
4. attach any of a variety of political conditions to the funds it supplies through UNRWA;
5. modify its policies for supplying arms;
6. call for and arrange a variety of different kinds of conferences or commissions to propose actions dealing with the refugee problem;
7. liberalize immigration laws so that Palestinian refugees could take up residence in the United States more easily;
8. have Congress pass resolutions publicly advocating programs favored by the United States;
9. curtail training of military officers from Arab states in the United States;
10. make financial support of the American University of Beirut contingent on its systematic support of political outcomes favored by the United States;
11. offer to provide American troops to serve as a buffer between Israel and the Palestinians, or to police occupied territories;
12. resume efforts at working in collaboration with the Soviet Union to determine arrangements which would be satisfactory to Israel, the Palestinians, and the Arab states.

Obviously, many other possible actions could be added to this list. Even as it stands, the length of the list could be multiplied many times by permuting it through a variety of possible conditional statements or

other qualifications, by including all the different possible mixtures of these actions, and by counting the many different time sequences in which they might be mixed. The basic elements can be compounded in many different ways.

The number of possibilities which might be considered depends on the level of specificity or abstraction at which they are identified. Those less familiar with the particular problem would be likely to use grosser, more abstract categories, suggesting, say, that the United States might take: 1. political; 2. economic; or 3. military actions. These labels can be useful if they are understood as reminders to search more intensively within each of these categories. Even possibilities like those listed above are highly abstract. Each item on that list stands for or "contains" innumerable possibilities.

Possibilities described at any level of abstraction may be included in the list. When the list of possibilities is first drawn up, it should be viewed simply as an idea net. Ideas for action can be listed as they occur to the analyst, without concern for organization of the list and without concern for the detailed description of each possibility. At the beginning stages of analysis, something like "action through the United Nations," might be listed, simply as a reminder to look into that category of possibilities.

2.3 Reformulating Possibilities into Alternatives

It would be premature to try to systematically evaluate the entries on the initial list of possibilities to determine which of them is best or to determine a preference ranking for them. No choice problems have yet been posed. There is no merit to comparing the qualities of, say, providing increased funds to UNRWA with the qualities of liberalizing immigration laws

since there is no intrinsic need to choose between these possibilities. They are not alternatives, in the sense that they are not mutually exclusive; doing one of these things does not foreclose the possibility of doing the other. Actions which may at first seem to be mutually exclusive often are not, and can be mixed in different degrees, if not at the same time, then at least through time. One can have his cake and eat it, at different times, or at the same time if one can be satisfied with eating less than the whole cake. It is a serious mistake to insist that one must choose between one possible action or another when in fact independent choices can be made for each of them. The policy analyst should not suggest a choice is necessary where in fact none is required because doing so would waste the analyst's limited resources, and more importantly, because it would lead to the rejection of possible action mixtures without their being recognized and examined.

Thus, no matter how exhaustive they may be, lists of action possibilities need reformulation to show where choices must be made.

It is possible to formulate alternatives which are collectively exhaustive and mutually exclusive by making purely logical disjunctions, that is, by asserting that a particular effort must be increased or decreased or allowed to remain at the same level, or by counterpointing each proposal with its negation. Sets of alternatives like the following might be described:

The United States could:

- 1A. encourage programs to advance the welfare of the refugees in the camps;
- OR 1B. not encourage programs to advance the welfare of the refugees in the camps.

The United States could:

- 3A. decrease the funds it supplies to the refugees through the UNRWA;
- OR 3B. continue the funds it supplies to the refugees through the UNRWA;
- OR 3C. increase the funds it supplies to the refugees through the UNRWA.

In a formal sense, choices do have to be made from each of these sets of alternatives. These sets do not bring out the real problems faced by the policy analyst, however, because the proposals, as stated, are much too vague. How should the United States encourage what programs to advance the welfare of the refugees? In what degree should the United States decrease or increase appropriations to UNRWA? Should the funds be given unconditionally? Each of the abstract proposals listed earlier can be manifested concretely in hundreds of different ways, and choices must be made among these possible variations. If an affirmative answer is given to the question of whether to encourage welfare programs, one must still ask what kind of program it is to be, and this in turn will lead to many other questions.

This suggests a hierarchical decision-making system in which commitments are made at higher levels of generality, at the "strategic" level, and lower level "tactical" questions are then dealt with after those higher level questions have been settled. That procedure is simple and elegant, but unrealistic. It creates a misleading illusion of simplicity. The higher level question cannot be answered in its abstract form without reference to the way in which the concrete action that is suggested will be carried out. A firm commitment cannot be made at the higher level until some of the lower level options are recognized and decided. The analyst can pursue his work by asking, if the United States were to encourage

welfare programs for the refugees, what form should these programs take? He could then go on to suggest concrete programs.

It should be appreciated that each of these proposed programs could then be evaluated on its own merits. There would be no need to go back up the abstraction ladder to answer the highly generalized question about whether that kind of activity should be undertaken. Decision problems posed at high levels of generality are not only difficult to answer, but are often not worth answering. This is illustrated by a series of studies that were supposed to systematically examine the problem of choosing among five different basic defense postures.²⁶ The authors failed to deal with the substance of the problem, partly, it seems, because the five options that were offered were never made concrete. The first phase of their analysis should have been devoted to specifying in detail how each of the five configurations would have been implemented if adopted. Doing this would have also helped to show whether the original question was well formed, since that initial probe might have revealed that there was actually a smaller or larger variety of distinctly different defense postures which needed examination.

The reformulation of a list of possibilities yields a large number of sets of alternatives. Typically, each set will show a variety of ways in which a given kind of action might be taken, and include a null alternative saying that that kind of action should be rejected altogether. One choice must be made from each set. The choices from the different sets could be made independently (by definition), but the analyst is free to couple some of the choices together or to condition some choices on others in any way.

For many of these sets of alternatives the choices will not be problematical, and it will be clear which of the alternatives is the best

of a given set. In some of these cases, that clearly favored option will be the null alternative, the one that says one should forget about taking any of the possible variations of a particular kind of action. Thus, these clusters of action possibilities are rejected. In other obvious cases, certain positive actions will be seen as clearly worth pursuing.

The policy analyst can then work at evaluating the alternatives in those sets in which the decision is problematic, or he can develop and pursue those positive actions which appear to be clearly worth pursuing. This last option successfully, and perhaps wisely, evades or defers the necessity for engaging in the work of systematic evaluation. It may be wiser--that is, more worthwhile, for the policy analyst to follow up on actions clearly worth taking than to expend his energy on making difficult choices.

Where he does find it difficult to choose among alternatives, that may be because there is not much difference among the alternatives, and the analyst knows it, or because he does not know very much about the alternatives. In the first kind of case, he might be better off just flipping a coin, arbitrarily choosing one or another of the nearly equivalent alternatives. In the second kind of case, if the stakes are high enough and if he has the time and other resources to do so, he may wish to invest energy into obtaining more information about the character of the action alternatives and about their likely consequences. This new information may then simplify what had previously been a difficult choice.

In any case, the policy analyst should not spread his attention uniformly, and thinly, across all of the clusters of action possibilities of which he is able to conceive. At some stage he will have to focus his attention on certain ones, and set aside others. Since it is usually not

worthwhile to conduct a thorough "meta-" policy analysis to decide which of them is most worth pursuing, the choice will have to be somewhat arbitrary. The analyst should, of course, use his best judgment to pick out the most promising-appearing possibilities.

Thus, even though there may not be any external constraints forcing a choice among certain kinds of action possibilities, the analyst's own resource limitations may force him to choose among them. He should be careful to be clear about which possibilities are rejected because his analysis leads to the conclusion that they are deficient, and which are simply set aside without examination. If he redefines his mandate and focuses the body of his analysis on just one cluster of possibilities, on funding policy for UNRWA, for example, he is no longer asking what is the best thing the United States could do about the problem generally. He should be clear that his concluding recommendations on conditions to be attached to UNRWA appropriations are not to be understood as implying a rejection of possible actions in other domains. His conclusions should acknowledge whatever limitations he has imposed on the analysis, and should include a clear description of the way in which he may have redefined his original problem.

The policy analyst has now arrived at a stage at which he can invest his effort into developing and implementing the alternatives which he has already chosen, or into making choices from those sets of alternatives in which it is not obvious which alternative is best. Although it may be wisest to emphasize the first of these courses, the discussion hereafter will focus on the second. A variety of rough and intuitive evaluations had presumably been made before this point, but it is only at this stage that the policy analyst takes up and squarely confronts the problem of

systematically evaluating alternatives. The discussion of the task of evaluation, itself, begins immediately after the following subsection.

2.4 Risk Balancing

Some might argue that the list of possible actions to be considered should be exhaustive, that it should include all action possibilities. Taken literally, that prescription is absurd. It cannot be fulfilled simply because the number of possible actions is limitless, and because the analyst's resources are always limited. It is reasonable, however, to ask that there be no arbitrary or unjustified conscious exclusions.

An overly long list would be unmanageable, and not very useful anyway. The policy analyst's art lies, in part, in his finding good, convenient, and reasonable ways to delimit the list of possibilities to be examined.

The extent to which it is worthwhile for the analyst to continue listing possible actions depends on how fruitful that effort is likely to be when compared with the opportunities for investing that same amount of effort elsewhere in the policy analysis. Although it was suggested earlier that the analyst should be unconcerned with the quality or wisdom of the actions when he draws up the list of possibilities, the limitations on the analyst's resources require that this statement be softened. A rough, intuitive evaluation must be made just to determine whether it is worthwhile to include any given action possibility on the list. Because of the limitations on the analyst's resources, a possibility must merit further examination. It does so only by having some significant chance of being adopted. Action possibilities whose detailed examination would obviously waste the analyst's time should be excluded as early as possible. Of course, there is a risk of premature rejection in this procedure. Given the inevitable limitation

on the resources available to be devoted to any analysis, that risk is inescapable.

The list of possibilities can be extended by developing ideas for new items to be added to the list, or by intensively examining entries in the current list and showing the options contained within them. Efficient policy analyses commonly begin with relatively abstract characterizations of the action possibilities, and then, as some are discarded, energy is invested into refining the remaining, promising possibilities.

Some of the refinement work may take place as the possibilities are identified, and some may be performed after alternatives are formulated and it becomes clearer which possibilities are worth refining. The same sort of principles apply in moving up and down the abstraction ladder when dealing with sets of alternatives. While it is not true that a firm commitment must be made to selecting from a given category of actions before the members of that category can be subjected to closer scrutiny, a tentative commitment does have to be made to determine whether it is worthwhile to invest energy into working out the lower level options. Again, a given cluster of possible actions must merit further examination by holding out a substantial promise of ultimately being chosen. It is usually not worthwhile to work out tactics for strategies that have very little chance of being implemented.²⁷

It is possible to be more precise about how finely the alternatives must be described. Clearly, they must be developed to some extent, but it is also clear that they do not need to be fully developed, down to fine details of implementation. The analyst's resources must be invested carefully. For the purposes of policy analyses, alternatives need to be specified only

to the degree that is needed to make a clear choice. Detail beyond that level can be decided upon after particular alternatives are chosen.

The policy analysis process involves much more than just evaluation, and those other steps demand the analyst's attention as well. The purpose of evaluation is to help form choices. There is therefore no need to expend great amounts of energy on evaluation until and unless it is clear what choices need to be made.

3. THE PURPOSE AND CHARACTER OF EVALUATION PROCEDURES

3.1 The Function of Evaluation Procedures

Since the function of evaluation, as defined here, is to determine preferences among alternatives, evaluation must be understood as fundamentally comparative, and value must be understood as fundamentally relativistic. As Eugene Meehan put it

. . . if a value judgment is an expression of preference, a proposed value judgment that specifies only one outcome is improper and incomplete, whatever the situation to which it applies, because the term "preference" implies comparison and comparison requires two or more class members.²⁸

The decision-maker needs to know, not whether a given action would be good or wise in an absolute sense, but whether it would be better or wiser than its competitors.

Since his purpose is simply to make a choice, the analyst may not be much concerned with how much better one alternative is than another. If he does not need that information, he may not find it worthwhile to pay the extra effort required to determine that subtle measure of degree. It

may be sensible for him to rest with simple determinations of superiority and inferiority.

The purpose of evaluation is to determine preferences. The purpose of systematic evaluation procedures is to guide the determination of preferences in problematic situations, that is, where choices are difficult to make. Techniques of this kind are of no use where the decision-maker is already confident in his selection of one or another of the alternatives. He might use the technique to sanctify decisions he has already made, and to persuade others of their virtue, but that use would be an abuse.

If it were possible to find a procedure by which it was possible to evaluate alternatives without the analyst's active intervention, that procedure would serve as a substitute for judgment, and would also allow the analyst to remain quite ignorant of the nature of the political problem at issue. The simplest such procedure, flipping a coin, requires only a purely mechanical activity, and does not demand any knowledge or judgment on the part of the "analyst." Deferring decisions to a group consensus or to a more or less arbitrary voting procedure is, similarly, a way of not deciding hard issues on their merits. It is possible to find ways to avoid facing up to a decision, but no really good way has yet been devised.

Evaluation procedures of the kind studied here are intended to help the analyst to deal with, rather than evade, decisions. They should be viewed as aids to judgment, not as substitutes for judgment. They demand deep knowledge of the particular political problem and of the alternatives at hand.

Three major kinds of systematic evaluation procedures will be discussed in Section 4, the use of goals and objectives, the use of criteria, and the decomposition of problematic decisions. None of these procedures

eliminates the work of evaluation and the need for judgment and decisions. They only change the scope or magnitude or locus of that work in some sense. Where, for example, goals or objectives are offered as the basis for choice, those goals or objectives always must, in turn, be selected from a large variety of alternative goals. If a certain criterion is proposed, the analyst must still decide that being higher on a particular measure is to be preferred. (Of course, seeking criteria by which to select criteria can lead to the same endless regression encountered in selecting goals.) Similarly, decomposing complex alternatives into simpler components still requires evaluative judgments on each of those components. In the expected value model, for instance, where actions are evaluated according to the qualities of the outcomes to which they might possibly lead, those possible outcomes still require evaluation. For the incrementalists, too, "Choice among policies is made by ranking in order of preference the increments by which social states differ."²⁹ That is, the analyst is asked simply to exercise his judgment to decide which marginal alternative would be best. The evaluation task cannot be wholly evaded, but it can be rearranged in such a way that it becomes more manageable. That is the function of a systematic evaluation procedure.

3.2 Separating the Fact and Value Questions

Decisions are based on the factual and the value aspects of the analyst's understanding of the alternatives under examination. It is not only the value component which is "psychological" and internal to the decision-maker, while the relevant facts are somehow "objective" and external. The factual component (past, present, and projected) which enters into the decision is a matter of judgment, just like the value component. The

decision is necessarily based on the way the alternatives appear to the decision-maker, according to his best judgment of the evidence. He does not compare actual consequences or actual costs or actual features of any kind; he compares his informed judgments on these dimensions. The decision-maker or analyst may, of course, adopt his information from some authoritative source, but it is still his judgment, rather than the external fact, that enters into the analysis. He makes his choices on the basis of his beliefs about the nature of the alternatives under examination.³⁰

Evaluative judgments are about beliefs of fact. It follows that difficulties in forming evaluations may be partially due to uncertainties with respect to those facts. Difficulties may sometimes be encountered even when the relevant facts seem clear to the decision-maker. The analytical process involved in the "pure" evaluation problem can be raised in clear relief by separating it from the associated questions of fact. The empirical and evaluative tasks can be separated by postulating a variety of hypothetical answers to the empirical questions that arise, and then performing evaluations and determining the appropriate choice for each hypothetical set of facts. The usefulness of this procedure was appreciated by Harold Lasswell, especially in relation to projected facts:

It is generally held that the evaluation of policy alternatives is more a field of professional competence than that of the making of comprehensive estimates of the future. A specialist can make himself comfortable among alternatives of policy by the expedient device of adopting successive sets of working assumptions about future contingencies. The expert can in this way evade the responsibility for committing himself to a definite estimate of the likelihood that a given contingency will in fact appear.³¹

Strictly speaking, purely evaluative analyses should always report their results on a conditional basis. Rather than simply saying that a certain alternative should be chosen, the findings should say something to the effect that if the postulated facts are the case and if one has the values described, then one's best choice would be to take such and such action. If the underlying argument is sound, denial of these stated conditions can then provide a basis for denying the consequent imperative. Of course, in practical policy analyses it may be awkward or impossible to frame concluding recommendations in this logical form, but the principle should be fully appreciated, and the body of the argument should make clear the conditions and assumptions on which the final recommendations are based.

One important reason for carefully distinguishing between questions of fact and questions of desirability is that often, through sloppiness or deviousness, one type of question is substituted for the other. The debate over the supersonic transport, for example, has sometimes focused on the question of whether it would generate excessive noise, as if it were obvious that if it did not generate excessive noise it would be a good thing. Similarly, for a time the argument over the shootings at Kent State University swirled around the question of whether the National Guardsmen actually heard sniper fire, as if a positive answer would have been sufficient to justify their shooting into the students massed in front of them. It is in this way that questions of fact are sometimes improperly substituted for, and treated as surrogates for, questions of value.

3.3 Begging the Question, Strategically

Policy makers frequently resist policy making. Asked "if it were true that it was his ambition to go down in history as the Secretary of State who solved the Berlin crisis," Dean Rusk reportedly replied " 'No. I'm not quite that vain. But I do want to go down in history as one of those Secretaries of State who succeeded in passing the Berlin crisis on to his successor!' "³² While the failure to face up to hard decisions often does reflect an abdication of responsibility, it is sometimes justified. Unnecessarily impaling decision-makers on the horns of dilemmas wastes good talent. Charles Lindblom has been one of the few observers to plainly acknowledge that "muddling through" is sometimes positively wise. The underlying principle is simply that it may be better to make no decision than to take a high risk of making a bad decision. Of course, "no decision" really means choosing the null alternative. If there is no null alternative and a risky decision must be made, the choice of a less consequential alternative may help to assure that blunders can only be small ones.

One good reason for refusing to choose among substantive alternatives, and instead deferring the decision, is to gain time to obtain new information. Sometimes delays are not very costly. New information may be expected to present itself to the decision-maker with the passage of time, as events unfold, or it may be actively pursued, through some sort of research process. It may be anticipated that that new information will clarify the nature of the alternatives sufficiently to make the best choice obvious.

Another good reason for deferring decisions is simply to allow more time for processing the information the analyst already has. More thorough

policy analyses take more time. The analyst might use the time to try to develop new alternatives, beyond the original problematic ones he had confronted. A skilled decision-maker usually can find many possible stopping points between yes and no. Instead of asking whether to do one thing or another, he may find it possible to suggest a variety of interesting action mixtures. If a new proposal can be produced which is clearly superior to any of the previous considered alternatives, the hard question of evaluation will have been elegantly begged.

Systematic evaluation procedures can be avoided by avoiding decisions, and also by making decisions without going through a systematic analysis. In many cases the differences in the qualities of the alternatives will be relatively small, so that the risk of error will be small. It is not worth investing as much energy into comparing bicycles being considered for purchase as it is in comparing homes being considered for purchase. Where the risk is small, it is simply not worthwhile to pursue a tedious and costly analysis. In foreign policy making, however, where errors can be extremely costly, large investments in policy analysis often are warranted. In any concrete decision situation, one of the first risk-balancing questions to be asked is whether a systematic policy analysis should be conducted at all.

4. SOME SUGGESTED EVALUATION PROCEDURES

4.1 Goals and Objectives

It is sometimes suggested that one of the first things the policy analyst must do is to define his objectives. He is asked to identify his target, to specify where he wants to go, like a general mapping out the territory he intends to capture.

Those who speculate about the policy-making process have always found this to be a very reasonable-sounding suggestion, but practitioners find that it just does not work very well.³³ A decision-maker facing a crisis situation, for example, is not likely to find it worthwhile to begin his policy analysis by listing a series of objectives. He could do it, but the exercise is not likely to be very meaningful or helpful. The decision-maker might come to grips with his problem more effectively if he thinks first in terms of the different kinds of responses which are available to him, examines their qualities, and then makes choices where choices are required.

One reason why goals and objectives are not very useful to the policy analyst is that they are usually described in abstract and distant terms, so that it is difficult to decide how the immediately available concrete action alternatives differ with respect to those goals. Objectives like "the defense of freedom" or "self-determination for all peoples" hardly provide adequate guidance for the choices of action encountered on a day-to-day basis.

The imputation of goals is useful after the fact to help understand decisions that have been made, but these helpful explanatory constructs may have little to do with the deliberative processes which impelled the

actions in the first place. As Lasswell observed, "the analysis of political results in terms of certain values (like deference, safety, income) does not imply that the result or the values are consciously sought."³⁴ Surely few statesmen think about the national interest or about the pursuit of power in the comic sense that Hans Morgenthau and others prepared to explain past foreign policies do.

The evaluation of alternatives exclusively in terms of their effectiveness in achieving specified objectives is very narrow, and may lead to the neglect of other important considerations like costs or unintended consequences. Of course, it may sometimes be useful to state objectives explicitly, and alternatives should be compared in terms of their likelihood of fulfilling those objectives. The point is, simply, that thinking in these terms does not bring out the full range of considerations which should enter into any evaluation of alternatives.

4.2 Criteria

In the eyes of Yehezkel Dror, and many others as well, ...

In principle evaluation involves two main steps:
 (1) a critereion is used to ascertain the actual level or quality (including both quantitative and qualitative aspects of "quality") of a process; and (2) a standards is used to appraise the ascertained quality.³⁵

Criteria for evaluation may be understood as dimensions of variation in the character of alternatives which have clear value associations, in the sense that an alternative which measures higher on one dimension is, at least in that respect, preferred to other alternatives which measure lower on that dimension. The cost of an item, for example, might be regarded as a criterion of choice, since a less costly item is clearly preferred to a more costly version of that same item. These dimensions can also be

simply nominal, where for example, particular colors are preferred.

For any suggested criterion to serve its function in evaluation, it must be decidable in the sense that it can be clearly determined where each alternative stands on that particular dimension. It might be argued that, say, "likelihood of success" would be a good basis for choosing among alternatives, but the criterion is not useful if it is not possible to decide which of the alternatives is higher on that dimension. Similarly, criteria like legality or morality are only applicable where the alternatives are readily differentiable on these dimensions.

Lovell, like many other observers, suggests that any valid criterion for choice must be universally acceptable, universally applicable, and exclusive.

The requirement that criteria must be universally acceptable suggests a particular concern with resolving differences among decision-makers, that is, with the group decision-making problem. There is no particular reason why the criteria used by the individual faced with a problematic choice should necessarily be broadly agreed upon. Consensus is nice, but not necessary, and certainly not the best indicator of wisdom. Inappropriate strictures of this kind can seriously confound the decision-maker's task.

Insistence on universal, or at least general, applicability implies a search for criteria which usefully distinguish alternatives in a very broad variety of problem situations. In this conception, criteria would not vary from one decision problem to another, as goals or objectives would. It seems evident, however, that since the significant dimensions of variation of alternatives are very different in different situations, it will

not be possible to discover any general applicable criteria for the evaluation of alternatives.

In addition to suggesting that it be universally applicable and universally agreed upon, Lovell also asked that any criterion for choosing among alternatives should be exclusive, in the sense that choices should be made according to legal considerations alone or according to moral considerations alone. Given the highly multidimensional nature of action alternatives (apparent from any thorough description), it is plain that no single criterion can serve as an adequate guide to choice. The only measure which might conceivably serve in this way would be a construct such as utility or goodness or desirability which, by its definition, comprehensively subsumed all individual dimensions of variation. Herbert Simon's generalized criterion of efficiency is comprehensive in this way, but only by virtue of his expanding its meaning beyond recognition.³⁶ Conceptualizing indicators of this kind is not, in itself, helpful, since it is not evident how the utility or efficiency of alternatives is to be gauged. Indeed, that measurement problem is simply another way of describing the general problem of evaluation under study here.

Criteria like legality or morality may nevertheless be useful. Relevant criteria can be identified through an exercise in which hypothetical questions based on the ceteris paribus, or "other things equal" assumption are posed. If two alternatives differed only in the degree to which they were legal, and the decision-maker would prefer the more legal alternative, that is an indication that legality is, for him, an appropriate criterion to be considered in evaluating alternatives. Any such distinction which potentially can, under certain circumstances, affect the choice that would

be made, can be regarded as a significant criterion for choice. Legality may not be the criterion by which choices should be made, but it is certainly a relevant criterion. The quality of alternatives is partially determined by their legal character, and therefore this variable can make a difference in the choice. In any case in which the alternatives differ in their legality, that difference should be taken into consideration.

Used with care, a wide variety of criteria can help decision-makers to form their choices in difficult situations. It is plain, however, that no small number of criteria will serve as an adequate guide to choice for most decision-makers in most situations. The idea of criteria may be misleading because it tends to narrow, rather than expand, the range of vision of the analyst. Potentially, there are as many different valid criteria as there are ways of distinguishing among alternatives. An action alternative should not be chosen simply because it has some good features, and should not be rejected simply because it is possible to point to some bad features. A good evaluative analysis is comprehensive, and takes into account the full range of attributes of the alternative actions.

4.3 Decomposition Techniques

John Lovell asks

Are there any objective, or universally acceptable, criteria by which one may measure the goodness or badness, the desirability or undesirability of foreign policy goals and means? Or are the norms of evaluation to be selected or rejected merely on the basis of personal preference?³⁷

The dichotomy is false and unhelpful. It is not true that if generally acceptable criteria (or goals) cannot be found, there is nothing

left to guide choice but taste and whim. There may be other ways to help.

A number of considerations always enter into the determination of preferences. Usually the particular elements are not articulated, but are viewed as a unitary gestalt, without differentiation. This is typically the case for non-problematic decisions, where there is no felt need for probing investigation. Where decisions are difficult to make, however, the analyst might well be able to decompose his original difficult question into a series of smaller questions, each of which is easier to answer than the larger decision problem.

Thus, instead of suggesting specific criteria, one can suggest procedures for decomposing the larger question. For example, one could suggest doing something like listing the alternatives and then writing down the advantages and disadvantages of each as they come to mind. Even very simple exercises like this can be very helpful. They can clarify problems sufficiently so that appropriate choices become apparent, even without further systematic and explicit analysis.

Different decision-makers or analysts with different beliefs will presumably answer the smaller questions differently, and thus may produce different responses to the larger question. That is, the same procedure may lead different analysts to different conclusions because they may use different inputs into the procedure. The procedure may nevertheless be very helpful for each of them. Decomposition procedures for evaluating action alternatives are described in the two following subsections.

4.4 The Expected Value Model

In discussing goals, objectives, and criteria, it was assumed that the analyst knew everything he needed to know about the alternatives under

examination, and only needed a way to clarify his thinking about them. Frequently, however, the analyst is very unsure of the character of the alternatives he faces. Two very different kinds of uncertainty can be distinguished. The most common is a very diffuse kind of uncertainty, where the analyst does not know very much about his options. He may not even be able to form clear questions about them. He not only does not know what consequences they would yield, he hardly knows what consequences they could yield. His understanding of the situation is simply very fuzzy.

Where the decision-theorist's expected value model is supposed to apply, however, another, much neater kind of uncertainty is assumed to prevail. Here, the analyst does not know exactly what the outcome of each alternative action would be, but he does know what it could be. The possible outcomes associated with each alternative are small in number and clearly distinguished from one another. The analyst knows the quality that each of these possible outcomes would have if it were obtained, and he is also able to judge the likelihoods with which each action would lead to each possible outcome.

The objective of the expected value model is to show how this "given" information can be combined to produce a reasonable measure of the quality, or expected value, of each alternative action under examination. The model asserts that the expected value of any given action is equal to the sum of the values of the outcomes to which it might possibly lead, each discounted by the probability of its being obtained. In other words, the expected value for any given alternative is equal to the product of the probability measure and the value measure for each possible outcome, summed over all the possible outcomes for that alternative. The answer is strictly true if the measure of value and of the probabilities fulfill the strict mathematical requirements which would make it true. If rougher measures are used,

the answer may be regarded as a reasonable estimate. That alternative which has the highest expected value is the one that is best and should be chosen.³⁸

The model is very logical, but it is not very useful in practice. It applies only under very restricted conditions, and it demands very special kinds of information as input. For example, the formula applies only if the possible outcomes are clearly enumerable, and only if they are identified in a manner such that they are mutually exclusive, so that obtaining one strictly precludes the possibility of obtaining any other. This is a difficult and unnatural way of describing real political situations. The method is inconvenient if the number of possible outcomes is very large, or if they are not discretely distinguishable. Measures of the estimated likelihoods of occurrence and of the values of the possible outcomes which fulfill the mathematical requirements are extremely difficult to obtain.

The model also assumes that the different possible outcomes are already evaluated at the outset. Although it does not say how that is to be accomplished, presumably the outcomes are to be evaluated by an extension of the same calculus, whereby the value of a given possible outcome is determined by its apparent instrumental relation to still more remote possible consequences.

It is quite reasonable to assert that the quality of an action depends on the quality of the outcomes to which it is expected to lead, especially if outcome is construed broadly to include all kinds of "consequences" such as considerations of cost and otherwise foregone alternatives, short-term responses of others, long-term reactions, risks, and so on. Unfortunately, however, rather than bringing out the rich variety of possible qualities

and consequences of political actions, expected value analyses tend to lead to the examination of only a few narrow categories of outcomes.

The most important failure of the expected value approach is that it does not address itself to the decision-maker's problem. Generally, if a political analyst knew enough about the problem he faced to formulate the alternatives, clearly identify the possible outcomes, evaluate them, and associate unambiguous likelihood estimates with each of them, he would probably know enough about the situation to know which alternative would be best, without bothering to carry out the calculations indicated by the formula. Once the information that is needed to begin to use the expected value model was obtained, the problem would likely be solved. The problem lies in the difficulty of obtaining that information. The analyst typically begins with a fuzzy, diffuse kind of uncertainty, and not with the neatly ordered kind that is presumed by the expected value model.

4.5 The General Ledger

Evaluation implies comparative analysis, which in turn implies asking the same questions about two or more different entities and then comparing the answers. For example, if the analyst is concerned about meeting certain objectives, he must ask how well each of the alternatives under examination would meet those objectives, and then compare the answers. If the answers did not differ, the alternatives could not be distinguished on those grounds. Thus, evaluative analysis needs to focus specifically on the differences among alternatives, the differentia.

The analysis may be decomposed into a primarily empirical or factual part, and another, more clearly evaluative part. Each may be understood as being comprised of two major steps. In the first step, the analyst

asks how the alternatives differ in fact, past, present, or anticipated; that is, he identifies the apparently significant differences among the alternatives. Second, after the differentia are identified (named), the analyst elaborates the descriptive characterization of those differences. In the third step, the analyst examines the particular differences and evaluates them, deciding which tend to make one alternative better, and which favor the choice of the other alternative. Fourth, and finally, these elementary evaluative judgments are then combined into an overall evaluative judgment asserting the superiority of one or the other of the alternatives.

The elementary evaluative judgments, based on single differentia, should be easier to form than the composite evaluation because each of them is based on a single dimension of variation.

The analysis of a decision problem can be laid out in the form of a general ledger, as shown in Table 1. It is described as a ledger simply because it provides a way to account for credits and debits, assets and liabilities, advantages and disadvantages, costs and benefits. Each row corresponds to one feature, that is, to one question, one basis for comparison, one variable or dimension which characterizes, and possibly distinguishes the alternatives. A pair of columns is associated with each alternative. The first column of the pair provides a place for the analyst's best understanding of the factually correct answer to the question posed in that particular row. In practice, of course, the full answer will have to be provided elsewhere, in generous prose, and no more than a few summarizing words, serving as reminders, can be included in the table itself. The second column of the pair summarily records the analyst's evaluative response to the facts as he understands them.

Alternative 1:
Facilitate immigration and
provide transport.

Alternative 2:
Facilitate immigration and
not provide transport.

Feature

	<u>Empirical Characterization</u>	<u>Evaluation</u>	<u>Empirical Characterization</u>	<u>Evaluation</u>
I. Dollar cost to U.S.?	Small; limit can be set	Somewhat bad	None	Good
II. Effect on U.S. military security?	Might help; negligible risk	Good	Might help; negligible risk	Good
III. Reaction of Palestinians?	Mixed; pockets of hostility	On balance, mildly good	Mixed; pockets of hostility	On balance, mildly good
IV. Reaction of Israel?	Officially favorable; some private opposition	Good	Officially favorable; some private opposition	Good
V. Reaction of American Jewry?	Broad, weak support; some substantial opposition	Somewhat good	Broad, weak support; inaudible opposition	Good
VI. Reaction of United Arab Republic?	Strongly favorable	Extremely good	Favorable	Very Good
VII. Reaction of Asian and African countries?	Viewed with suspicion	Mildly bad	Viewed as a positive gesture	Mildly Good
VIII. Moral quality of the action?	Generally benefits individual Palestinians, but could weaken Palestinian organization.	Very Good	Benefits individual Palestinians, but could weaken Palestinian organization	Good
IX. Effect on Middle East Stability?	Defuses situation	Good	Defuses situation	Good
And so on . . .				

Table 1. The General Ledger

To illustrate, suppose a policy analyst concerned with United States action with respect to the Palestinians has already decided to recommend that the United States should help those Palestinians who wish to do so to immigrate to the United States. The question might then arise as to whether the United States government should go so far as to provide the transportation. The action alternatives, then, are for the United States government to provide the transportation, or for it not to provide the transportation. For the sake of the illustration, it is assumed that a choice must be made between these two options.

After describing these action possibilities in some detail, the analyst's next step would be to try to think of and name the kinds of features which determine their qualities. He does not have to worry in advance about whether they will, in fact, distinguish between the alternatives. The features might be like those listed in Table 1. The analyst may not know the answers to these questions at the outset, but formulating them will help him to decide what information matters, and will help him to guide his research.³⁹ The answers then constitute parts of his empirical characterization of the alternatives. Descriptive terms serving as reminders of those detailed characterizations may be included in the ledger table.

The analyst is free to include in the list whatever questions seem to him to be significant. If he thinks his choice might be affected by, say, Chinese reactions, then that item should be included in the list. If the questions that are first posed are found to be difficult to answer, the analyst may sometimes find it useful to refine or decompose them further. Some of the questions, like the one about moral quality, may not be of the sort that are normally regarded as purely empirical or factual. That does not matter. Any variable on which the alternatives can be characterized

and which should be considered in the overall analysis may be incorporated within this scheme, by these procedures, whether or not the question is a purely empirical one.

Once the information base is established, the analyst can then proceed to form evaluative judgments on each of the elements. Of course, in some instances a knowledgeable analyst may be able to form clear evaluative judgments without first developing detailed and explicit empirical characterizations of the proposed actions. In any case, the evaluations will reflect the analyst's response to what he understands to be the facts. His evaluations of each of the features may be recorded simply as judgments of "good" and "bad," or he might use a more elaborate judgmental scale, possibly with higher positive numbers indicating greater "goodness" and higher negative numbers indicating greater "badness."

A similar "balance sheet" method for the comparative analysis of policy alternatives has been developed and illustrated by Ralph White in a study of five different Vietnam policies.⁴⁰ The policies were measured against ten different "values" like "avoiding World War III in the long run," "avoiding the domino tendency," and "ending the war quickly." While these values were not chosen blindly, as a priori criteria, they did not go to that other extreme, advocated here, of attempting to take into account all significant features by which the particular alternatives can be distinguished.

The ledger idea has deep historical roots, tracing back at least to Jeremy Bentham's "felicific calculus" calling for the balancing of pleasures and pains. It can also be viewed as a generalization of the expected value model. In the expected value analysis, the distinctive features are the actions' possible outcomes, each having specified values,

and the only empirical characterizations of concern are the likelihoods with which these possible outcomes will be obtained as a result of selection of a particular action alternative.

After evaluations on each of the relevant features are determined, the analyst must somehow put all that information together to determine which of the alternatives, taken as a whole, would be best to choose. The natural inclination is to calculate some sort of sum for each evaluation column, with the more important features given extra weight. The more desirable alternative would then be that one which had the higher overall measure of quality. This seems to capture the way in which people ordinarily think of analyzing alternatives.

Sometimes, however, thinking in these terms can lead to careless propositions. For example, it is sometimes suggested that one should take an action if its advantages outweigh its disadvantages. It should be clear that this would be true only if the only alternative against which it was to be compared was one whose net value was counted as zero. There may actually be a number of mutually exclusive alternatives, all of which have a net positive quality, in which case the rule would provide no guidance at all. Sometimes one may have to choose the best out of a had lot of alternatives, where positive features are outweighed by negative features in every case. It may be wiser to take an action than not to take it, but it does not always follow that it would therefore be wise to take that action. This is so simply because there may be other alternative actions which would be even better. The good can be the enemy of the best.

The suggestion that an alternative should be chosen if its assets outweigh its liabilities is misleading, because it fails to take into account

the essentially comparative nature of the evaluation process. The analyst should not simply compute the (possibly weighted) sum for a single column and examine it to determine whether it is positive or negative. He should compare that measure of the quality of one alternative with the corresponding measure of quality for that alternative's competitors.

Each of the individual, elementary evaluative assessments should be made in relation to some clear reference. If several substantive alternatives are under examination, it is natural to choose the null alternative as the common reference. The assessments would then show the degree to which each of the substantive alternatives were seen as better or worse than the null alternative on each of the enumerated dimensions. Any other alternative could just as well be used as the reference standard.

The essentially comparative nature of the evaluation process is fully acknowledged if, instead of using an external reference standard of measurement, the alternatives under examination are compared directly with one another. Contrary to the suggestion of Dror, Mehan and others, there is really no need for a standard independent of the alternatives themselves. Table 2 shows a revised general ledger format which brings out the differences directly. Here, only one column is provided for empirical information, and it asks how the alternatives differ with respect to each of the particular features. The analyst, sensitized to this concern for differences, no longer needs to expend his research effort on total or absolute characterizations of the alternatives. It is on the basis of these differences in the character of the alternatives that comparative elementary evaluations are made. At its simplest, the evaluation question on each feature asks: If the alternatives differed only in this respect, which of them would be preferred? Instead of forming some absolute, overall

<u>Feature</u>	<u>Empirical Differences</u>	<u>Comparative Evaluation of Alternative 1 to Alternative 2</u>
I. Dollar cost to U.S.?	1 more expensive	Worse
II. Effect on U.S. military security	None	Same
III. Reaction of Palestinians?	Much more favorable to 1	Much better
IV. Reaction of Israel?	More favorable to 1	Better
V. Reaction of American Jewry?	More favorable to 2	Worse
VI. Reaction of United Arab Republic?	More favorable to 1	Better
VII. Reaction of Asian and African countries	More favorable to 2	Mildly worse
VIII. Moral quality of the action?	Much greater for 1	Very good
IX. Effect on Middle East stability?	No difference	Same
And so on . . .		

Table 2. The Revised General Ledger

measure of the quality of each of the alternatives and then relating those measures, now the individual, elemental measures are compared across the alternatives.

Whether the basic or the revised general ledger is used, it is still necessary to find appropriate measures for the elementary evaluations.

"Appropriate" should be taken to mean adequate to the task, and not necessarily as a requirement for mathematical elegance. It may sometimes be possible to get by with very rough elemental evaluations, distinguished into categories no more refined than, say, "good" and "bad," or "better" and "worse." These will be adequate where, for example, it is found that "goods" consistently fall on one side of the ledger, while the "bads" fall on the other side. More sophisticated measures, generally more difficult to obtain, can be introduced if and when the "cheaper" ones prove to be inadequate.

Together with the measurement problem, there also still remains the analytic problem of determining appropriate rules by which the elementary evaluative judgments should be combined to form the larger, composite evaluation. One might try to associate weights with each of the particular features to reflect their relative importance, and then compute column sums. This may be impractical, however, because the effort it would entail would be too great, and would draw energies away from the particular decision problem at hand. Another, interesting, approach might be to simply let the magnitude of each elemental measure reflect an implicit weighting, so that the more important dimensions had higher positive or negative measures associated with them. The values of these measures might be determined by successive approximation,

as a result of posing a series of questions as to which choice would be made with given hypothetical changes in the nature of the alternatives. For example, the analyst might ask what choice he would make if the alternatives differed only with respect to feature I, only with respect to II, only with respect to II and III, only with respect to I and VI, and so on, and continuously adjust the numbers in the cells of the ledger until they reflected his answers to all these hypothetical questions.⁴¹

In practice, however, it may not be important to have exact measures and perfectly clear, logical rules of combination. Reasonable-sounding answers to these questions can be given, but they all have serious deficiencies in practice. This essay intentionally stops short of trying to provide generally satisfactory answers. The argument here is simply that analyzing decision problems in the revised general ledger format that has been described will itself often clarify problematic decision situations sufficiently to make wise choices obvious. The policy analyst may use the simplest scheme sufficient to his task, and that will often mean that he can stop before encountering rigorous measurement problems or the formal analytic problem of composition.

4.6 The Pair-Wise Evaluation Strategy

It is not the purpose of this essay to study the policy analysis process as a whole, but the revised general ledger technique has certain implications for that process which should be drawn out. It may be objected that that evaluation procedure is well suited to the comparison of pairs of alternatives, but in realistic situations it is often necessary

to examine much larger numbers of alternatives. Except for certain mathematically anomalous situations, however, (those in which preference orderings are intransitive), pair-wise analysis is entirely appropriate.⁴²

The analyst can zero-in on the one best action alternative by comparing two at a time. He can begin by comparing any pair of the alternatives. The inferior one, the "loser" in that comparison, can be rejected altogether. It does not have to be compared with any of the other alternatives. The "winner" is then compared with another alternative, and the "loser" of that second round of evaluation can then be rejected. This step-wise comparison of pairs is continued until the one best alternative is identified.⁴³

This procedure makes use of the fact that there is no need to locate all the steps in the rank-ordered preference ladder if the only real requirement is to locate the top rung. The full preference ordering does not have to be determined, so the total number of comparisons that have to be made is sharply reduced. With the pair-wise evaluation strategy, the best alternative is located rapidly and efficiently.

The strategy also suggests a guideline for the investment of effort into the articulation of alternatives. The rule is simply that an alternative does not have to be developed in detail unless it has some reasonable chance of showing itself to be superior to the current, tentatively chosen, best alternative. According to the procedure described earlier, the policy analyst drew up a list of alternatives, then described them in detail, and then evaluated them. The policy analyst could instead proceed by first fully articulating one promising course of action, and making a tentative commitment to choosing it. He then tries to think up

or find some other course of action (possibly a minor variation on the one in hand) which would be better than the tentatively chosen one. If he finds any candidate which apparently would have a hope of showing itself to be better than the current tentative best one, he develops it in more detail, and then carries out a systematic evaluative analysis, comparing the new candidate with the previous, tentative winner. If that newly developed candidate is found to be superior, he then makes a tentative commitment to choosing it. This process of developing and systematically evaluating new, promising candidates is continued until no new alternative can be found to challenge the current tentative winner, at which time the evaluation procedure is concluded. With this evaluation strategy, rather than being spread all over the field, the energy available for articulating alternatives is invested only where it promises to provide the highest possible benefit. Furthermore, this openness, this constant probing, helps to protect the analyst against premature closure. With this scheme, he will be less likely to deceive himself into believing that a particular alternative is the best possible when he has only shown that it happens to be better than some "straw-man" alternative.

4.7 Conclusion

The literature on prescriptive foreign policy analysis is extraordinarily meager. The insights there are camouflaged by a great variety of misconceptions and inadequate conceptions of the way in which wise choices of action should be distinguished from unwise ones. The purpose of this essay has been to help generate a sensitivity to the problems encountered in the evaluation of policy alternatives, and to suggest

some specific guidelines for forming evaluations.

Schemes which suggest analysis in terms of particular goals or criteria or outcomes tend to narrow rather than broaden the policy analyst's range of vision. In contrast, the use of an account-book procedure permits the full range of positive and negative qualities of the options to be systematically examined. A suggested revised general ledger format focuses directly on the comparative analyses that are required, and this, in turn, forms the basis of a highly efficient evaluation strategy.

The analysis process was described in terms of operations undertaken by a single individual in response to a problem felt by a single individual. The assertion of the natural priority of individual over group decision-making should not be taken to mean that individual preferences should always be firmly established before entering into any social encounter. Overly rigid determination of individual preferences may seriously impede group decision-making, to the disadvantage of all concerned. On the other hand, group interaction may frequently be of great help to the individual in analyzing his decision problem. Rather than simply deferring to the group, the individual may use the group to help him to understand the problem and to come to his own decision.

Decomposition schemes like those described here can be especially useful for group decision-making. If different decision-makers disagree on what should be done in a particular case, a systematic analytic procedure can help to make the bases for the decisions explicit. It can help the individuals to identify the sources of their differences, and this in turn can help them to find ways to reconcile those differences.

Much of the evaluation work required in the larger policy analysis process can be accomplished perfectly well without systematic, explicit

procedures. Hard questions of evaluation, as distinguished from questions of fact, for example, probably arise only rarely, and when they do arise, it may be possible, and wise, to avoid them in one way or another. Nevertheless, it is important that the nature of the evaluation process, the ways in which it should be conducted, and the ways in which it should not be conducted, are well understood if the selection of policy alternatives is to be soundly based. In the realm of foreign policy, in particular, the investment of effort would surely be worthwhile.

NOTES

¹This study was prepared in connection with the Dimensionality of Nations Project, supported by the Advanced Research Projects Agency, ARPA Order No. 1063, and monitored by the Office of Naval Research, Contract No. N00014-67-A-0387-0003.

²Cf. Kenneth Arrow, Social Choice and Individual Values, New York: Wiley, 1951; Robert Axelrod, Conflict of Interest, Chicago: Markham, 1970; Anthony Downs, An Economic Theory of Democracy, New York: Harper & Row, 1957; George Kent, The Effects of Threats, Columbus: Ohio State University Press, 1967; R. Duncan Luce and Howard Raiffa, Games and Decisions, New York: Wiley, 1957.

³Joseph H. de Rivera, The Psychological Dimension of Foreign Policy, Columbus, Ohio: Merrill, 1968, p. 106.

⁴Paul Diesing, Reason in Society, Urbana: University of Illinois Press, 1962, pp. 203-204.

⁵Among the many studies on how foreign policy is made, see, for example, Roger Hilsman, To Move a Nation, New York: Delta, 1967; Burton T. Sapin, The Making of United States Foreign Policy, New York: Praeger, 1966. Writers of this school frequently offer recommendations, but, rather than address themselves to individual decision-makers and their problems, they advocate organizational reforms. This is also generally true of the sparse literature about the analysis of foreign policy, representative of which are Richard C. Snyder, H. S. Bruck, and Burton Sapin, (eds.), Foreign Policy Decision-Making: An Approach to the Study of International Politics, New York: Free Press, 1962; Joseph Frankel, The Making of Foreign Policy: An Analysis of Decision Making, New York: Oxford University Press, 1963; John Lovell, Foreign Policy in Perspective: Strategy, Adaptation, Decision Making, New York: Holt, Rinehart and Winston, 1970.

⁶Eugene Heehan, Value Judgment and Social Science: Structures and Process, Homewood, Ill.: Dorsey, 1969, pp. 26-27; also p. 58.

⁷Richard C. Snyder and James A. Robinson, National and International Decision-Making, New York: Institute for International Order, 1951, p. 27.

⁸This is illustrated by their exclusion from the dominating anthology of foreign policy studies, James N. Rosenau (ed.), International Politics and Foreign Policy: A Reader in Research and Theory, New York: Free Press, 1969. The resurrection of prescriptive studies is advocated in my essay, "Policy Analysis for Action Recommendations," University of Hawaii: Dimensionality of Nations Project, Research Report No. 51, January 1971.

⁹ Glenn Paige, The Korean Decision: June 24-30, 1950, New York: Free Press, 1968, p. 329.

¹⁰ Paige, The Korean Decision, p. 330.

¹¹ Paige, The Korean Decision, p. 339.

¹² Paige, The Korean Decision, p. 339.

¹³ Lovell, Foreign Policy in Perspective, p. 15.

¹⁴ Lovell, Foreign Policy in Perspective, p. 15.

¹⁵ Lovell, Foreign Policy in Perspective, pp. 291, 297.

¹⁶ Lovell, Foreign Policy in Perspective, p. 290.

¹⁷ Lovell, Foreign Policy in Perspective, pp. 296-297.

¹⁸ Cf. Werner Levi, "The Relative Irrelevance of Moral Norms in International Politics," Social Forces, Vol. XLIV (1965), pp. 226-233; reprinted in Rosenau, International Politics and Foreign Policy. As Rosenau says in his introduction, Levi "tackles the difficult task of assessing the extent to which moral values, as distinguished from national interests, serve as goals of foreign policy." He does not, however, inquire into the extent to which moral considerations should affect foreign policy.

¹⁹ Lovell, Foreign Policy in Perspective, p. 301. The influence of political power on the determination of prevailing norms is insightfully analyzed in E. H. Carr, The Twenty Years' Crisis, 1919-1939, New York: Harper and Row, 1964.

²⁰ Charles E. Lindblom, "The Science of 'Muddling Through,'" Public Administration Review, Vol. XIX (Spring 1959).

²¹ Roger Hilsman, "The Foreign Policy Consensus: An Interim Research Report," Journal of Conflict Resolution, Vol. III, No. 4 (December 1959), p. 364.

²² de Rivera, The Psychological Dimension of Foreign Policy, pp. 90-91.

²³ Paige, The Korean Decision, p. 344.

²⁴ A similar error was made in Barry M. Blechman, "The Quantitative Evaluation of Foreign Policy Alternatives: Sinai, 1956," Journal of Conflict Resolution, Vol. X, No. 4 (December 1966), pp. 408-426. Blechman compared the action Israel did take with other actions Israel might have taken by comparing the actual consequences of the action that was chosen with predicted consequences of the actions that were not chosen. The analysis should have been based on predictions throughout, using the anticipations that were reasonable at the time. The error has been acknowledged by Blechman in personal correspondence.

²⁵ Meehan, Value Judgment and Social Science, confuses the two roles when (on p. 30) he skips from the perspective of a decision-maker evaluating action alternatives to that of a detached critic observing a decision-maker. At the same time, he narrows the variety of qualities to be considered down to those of consequence for human welfare, presumably with the intention of examining more purely ethical questions. In my understanding, ethical questions are particularly concerned with the effects a decision may have on the welfare of others. No ethical questions arise for a decision-maker contemplating action alternatives which would affect no person other than himself, but value questions still arise for him in choosing among the alternatives. Meehan seems to mix the problem of judging the moral character of an actor with the decision-maker's task of judging the overall qualities of alternative courses of action.

²⁶ Davis Bobrow (ed.), Weapons Systems Decisions: Political and Psychological Perspectives on Continental Defense. New York: Praeger, 1969.

²⁷ A systematic procedure for moving back and forth between higher and lower levels of abstraction, described as "mixed-scanning," has been developed in Amitai Etzioni, The Active Society: A Theory of Societal and Political Processes, New York: Free Press, 1968, pp. 282-309.

²⁸ Meehan, Value Judgment and Social Science, p. 3; also p. 48.

²⁹ David Braybrooke and Charles E. Lindblom, A Strategy of Decision: Policy Evaluation as a Social Process, New York: Free Press, 1963, p. 86.

³⁰ This distinction between the fact and value aspects of evaluation corresponds to the distinction between affective and belief components of attitudes in social psychology. Cf. Martin Fishbein (ed.), Readings in Attitude Theory and Measurement, New York: Wiley, 1967. Fishbein's suggested rule of composition by summation of products of affect and belief components (pp. 394, 437) may be viewed as a generalization of the expected value model to be described later. The formulation is offered as a basis for explanation, but it could reasonably be suggested as a basis for prescription.

³¹ Harold D. Lasswell, Politics: Who Gets What, When, How. New York: Meridian, 1958, p. 189 (pcstscript).

³²Hilsman, To Move A Nation, p. 41.

³³Cf. Charles J. Hitch, "On the Choice of Objectives in Systems Studies," in Donald P. Eckman, (ed.), Systems: Research and Design, New York: Wiley, pp. 43-51; Aaron Wildavsky, "The Political Economy of Efficiency: Cost Benefit Analysis, Systems Analysis, and Program Budgeting," in Austin Ranney (ed.), Political Science and Public Policy, Chicago: Markham, 1968, especially pp. 64-67; Lindblom, "The Science of Muddling Through."

³⁴Lasswell, Politics, p. 26.

³⁵Yehezkel Dror, Public Policymaking Reexamined, San Francisco: Chandler, 1968, p. 25. A good discussion of the selection and use of criteria may be found in Charles J. Hitch and Roland N. McKean, The Economics of Defense in the Nuclear Age, New York: Atheneum, 1967, pp. 158-205.

³⁶Herbert A. Simon, Administrative Behavior, Second Edition, New York: Free Press, 1957, pp. 178-186.

³⁷Lovell, Foreign Policy in Perspective, pp. 289-290.

³⁸For thorough expositions of the expected value model, cf. Robert Schlaifer, Introduction to Statistics for Business Decisions, New York: McGraw-Hill, 1961; Howard Raiffa, Decision Analysis: Introductory Lectures on Choices Under Uncertainty, Reading, Mass.: Addison-Wesley, 1968. Limitations on the applicability of the expected value model and others like it are discussed in Braybrooke and Lindblom, A Strategy of Decision, pp. 21-33; Günter Menges, "The Suitability of the General Decision Model for Operational Applications in the Social Sciences," in J. R. Lawrence, (ed.), Operational Research and the Social Sciences, London: Tavistock, 1966, pp. 565-577; Philburn Ratoosh, "Defense Decision-Making: Cost Effectiveness Models and Rationality," in Bobrow, Weapons System Decisions.

³⁹A method for assessing likely reactions to particular proposals is suggested in my paper, "Foreign Policy Analysis: Middle East," Peace Research Society: Papers, Vol. XIV (1970), pp. 95-112.

⁴⁰Ralph K. White, Nobody Wanted War: Misperception in Vietnam and Other Wars, New York: Doubleday, 1970, Appendix, pp. 339-358.

⁴¹A similar process is illustrated in Blechman, "The Quantitative Evaluation"

⁴²On the problem of intransitive preference, cf. Luce and Raiffa, Games and Decisions, p. 25.

⁴³This strategy should not be confused with the search-by-dichotomy procedure suggested by information theory, a procedure designed for moving from abstract, inclusive categories down to specifics in a successive branching process. The pair-wise strategy is intended for operations at a single level of abstraction. Applied at a single level, search-by-dichotomy calls for dividing the alternatives into two subgroups, and then deciding which of them would be likely to contain the best alternative. Then that selected subgroup would be divided again into two parts, and then one of those would be selected. This process of division and selection would continue until one alternative was chosen. The procedure is useful when there is some non-arbitrary basis, such as strong similarity, for clustering alternatives within given subgroups. A procedure like this is used intuitively when moving from abstract, general descriptions of proposed courses of action down to specifics. On search-by-dichotomy, cf. Stafford Beer, Cybernetics and Management, New York: Wiley, 1959, pp. 55-56, 82-87.

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