

CRUCIAL DECISIONS

Leadership in Policymaking
and Crisis Management

IRVING L. JANIS



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An Uncommon Strategy: Vigilant Problem Solving

Suppose that a chief executive of a national government or a large corporation always used a seat-of-the-pants approach even for the most consequential policy decisions and for the most momentous crises. That chief executive would not be likely to survive in office for very long—or else the government or corporation itself would not be likely to survive. When all vital decisions are made on the basis of a simplistic strategy, the gross misperceptions and miscalculations that remain uncorrected are likely to lead to disaster sooner or later—usually sooner rather than later.¹ Those policymakers who do survive can be expected to have something more in their repertoire than a collection of simple decision rules (like the ones described in Chapters 2, 3, and 4) to draw upon when they are required to make important policy decisions. That “something more” consists of the components essential for vigilant problem solving.

Essential Steps of Vigilant Problem Solving

When executives are asked how they go about making the most consequential decisions, some of them acknowledge that when they believe the stakes are really very high, they do not stick to the seat-of-the-pants approach that they ordinarily use in daily decisionmaking. In fact, their accounts of what they do in such circumstances are not very different from the analytic problem-solving approach recommended in most standard textbooks in management sciences.

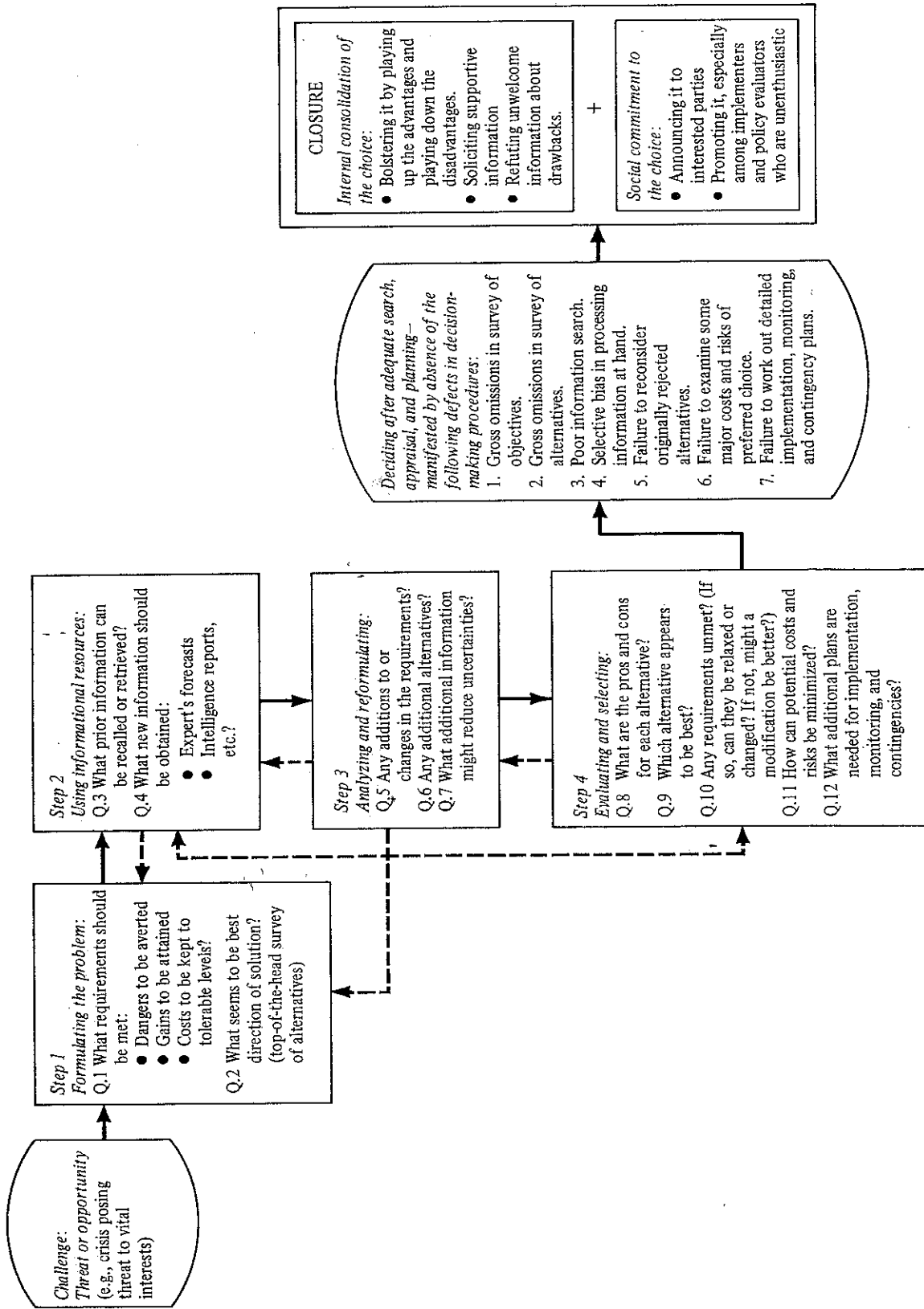
Anyone who looks over the numerous textbooks used in university

courses that deal with policymaking will notice that the authors do not agree on many important details in their descriptions of how policy decisions usually are made or in their prescriptions for improving the quality of policymaking. For example, in some widely used textbooks, the authors recommend procedures that apply a mathematical or statistical model of rational choices, making use of Bayesian theory; whereas, in other textbooks, the authors belittle those rational quantitative models and recommend, instead, a variety of decision aids to promote creativity in generating alternatives and they encourage a qualitative rather than a quantitative evaluation for arriving at a choice. But despite all the controversies and polemics, there is nevertheless a fair amount of agreement about the desirability of using a problem-solving approach for crucial policy decisions. There is also some agreement about the essential steps required. (These steps form the basis for the seven procedural criteria for high-quality decisionmaking listed in Chapter 2.)

The essential steps of vigilant problem solving are represented in Figure 5-1, which summarizes the main components described by social scientists who have studied policymaking.² The figure is not intended as an ideal model for the making of policy decisions but as a realistic *descriptive* model of what most executives demonstrate by their actions that they are *capable* of doing when they try to do the best job of decisionmaking they can under the circumstances. The model describes what executives can do within the confines of incomplete knowledge, unresolvable uncertainties, limited capacity to process information, and all the other usual constraints, which can hamper sound thinking about the generally ill-defined problems that require policy decisions. The sequence of the four steps is not necessarily carried out by vigilant policymakers in exactly the order shown in the figure. In any case, they are likely to go back and forth, especially when a new step changes their understanding of the subtleties and ramifications of the problem or makes them aware of difficulties that prevent an "obvious" solution from being as satisfactory as it initially seemed to be.

The hallmark of high-quality decisionmaking, as I have already indicated, is that by the time the policymakers arrive at their final choice and move toward closure, they have carried out the essential steps of vigilant problem solving (by answering all the key questions listed in Figure 5-1) sufficiently well that they do not display any of the symptoms of defective decisionmaking. Of course, insofar as the available evidence reviewed in the next chapter indicates that the

FIGURE 5-1 Main Steps Characterizing a Vigilant Problem-Solving Approach to Decisionmaking



steps depicted in Figure 5-1 increase the chances of successful outcomes, this descriptive model also can be used, with due caution about its limitations, as a *prescriptive* model (see Chapters 9 and 10).

The four steps represented in this schematic diagram, it will be noticed, require a decisionmaker to do much more work and use more of the resources of his or her organization than does the typical seat-of-the-pants approach. In contrast to the relatively simple questions that need to be answered when one relies on a small set of decision rules, a relatively large number of questions need to be answered and often those questions are very difficult. Obviously, it takes much more time and effort to carry out all the steps of the vigilant problem-solving strategy shown in Figure 5-1 than to use a simplistic strategy, such as the ones described in Chapters 2, 3, and 4.

Right from the outset, the policymaker who adopts a vigilant problem-solving strategy to deal with a challenging threat or opportunity is required to engage in arduous mental activity in order to formulate the problem in a comprehensive way. The policymaker must take account of important goals or values that appear to be at stake by specifying requirements to be met for a solution to be satisfactory—that is, sufficiently good that it is likely to be one of the best available, as well as acceptable to other powerholders within the organization, including the lower-level administrators who are expected to implement it. Then the policymaker must answer to the best of his or her ability the other 11 questions listed in steps 1 through 4 in Figure 5-1.³ Some of those questions may have to be answered more than once, as indicated by the dotted arrows going in the reverse direction. For instance, a policymaker's initial tentative answer to question 9 may turn out not to be a satisfactory choice when he or she considers unmet requirements (question 10) and potential costs (question 11), which require more deliberation (returning back to questions 5 and 6) and sometimes more information gathering (returning back to question 7) and memory searching (returning back to question 3).

It would be overly ambitious and unrealistic for an executive to set out to find the very best solution, as Herbert Simon has emphasized. Anyhow, no one can ever know for certain whether or not an even better alternative might be found if the search were to continue indefinitely, long after a fairly or very good solution has already been found and an intensive search seems to have reached the point of

diminishing returns. Nevertheless, an executive would not be likely to take the trouble to carry out all the steps of vigilant problem solving shown in Figure 5-1 unless he or she were quite ambitious about finding a good solution to the particular challenge at hand. The level of motivation would be much higher than at times when the same executive is willing to settle for the first minimally "good enough" course of action that he or she can think of, which characterizes a quick-and-easy approach that relies mainly upon the commonly used heuristic that Simon (1976) refers to as "satisficing" (see Figure 2-1, p. 36).

To go through all the steps depicted in Figure 5-1 to the best of one's ability and to do all the reversing and backtracking required in response to new information that corrects prior misjudgments requires more than simply devoting one's time and energy to the tasks. Executives must also set themselves to do the very best mental work that their minds are capable of.⁴ Creative imagination and critical thinking are undoubtedly necessary to find a sound solution to most policy problems, particularly when it comes to generating and modifying viable alternatives (the tasks posed by questions 2, 6, and 10 in Figure 5-1). As Milan Zeleny points out, "the *absence* of a prominent [that is, an acceptable, conflict-free] alternative constitutes the source of most [decisional] conflicts." Such problems, he says, are not resolved by agonizing between pairs of known alternatives but through the *discovery* of one that had not been thought of before: "Making a [policy] decision often means inventing a creative new alternative, not just choosing one among the 'givens.'"

Ingenuity as well as common sense is needed when performing the essential chores of conducting a productive information search (the tasks posed by questions 3, 4, 7 and the information-gathering implications of question 12). An executive cannot do an adequate job simply by putting in requests for computer printouts of all the organization's stored information bearing on a policy issue. It is certainly not true, as Zeleny emphasizes, that the more information one obtains, the better. "More information," he says, "does not necessarily imply better decisions: it is the *quality*, the *relevance*, and the *timing* . . . of information which are much more important aspects of successful decisionmaking." Taking account of the research of Tversky and Kahneman, he argues that:

People tend to utilize whatever information is available—even though it might be erroneous or unrelated to the task at hand.

Consequently, people may actually be hindered from penetrating to the core of a decision problem when they are overloaded with extraneous information. Without specific information, people tend to use whatever knowledge of logical analysis, statistical laws, and rational evaluation they can muster. When worthless information is given, they tend to use it and ignore the laws and rules! It is no wonder that the age of information explosion is often characterized by incompetent, sloppy, and sometimes disastrous decisionmaking. (Zeleny, p. 359)

While carrying out all the burdensome and sometimes demoralizing tasks of critical appraisal, policymakers need to go through the subjective discomfort of raising skeptical doubts about their own best ideas for a promising solution, and listening attentively to what their critics are saying. While doing so, they have to contemplate all the crucial things that could go wrong, as Stein and Tanter point out. This has to be done even after they have decided upon the best available choice—at a time when it is especially painful to counteract the natural tendency to indulge in elated feelings and to move toward complete closure by bolstering the choice—in order to work out high-quality implementation, monitoring, and contingency plans (in answer to question 12 in Figure 5-1).

Successful policies generally are the product of an iterative process (involving the making of a series of subsequent nested decisions after the initial policy decision) in order to deal with negative feedback. For example, the policymakers may be confronted with serious implementation difficulties or specific setbacks indicating that costs or losses are turning out to be greater than anticipated. Effective executives must continue to be open to unpleasant information if they are to have the appropriate mental set for iteration of the steps of vigilant problem solving each time it is necessary. (Nested decision will be discussed in Chapter 8.)

Executives are not likely to have the high level of motivation needed for doing the very best they can under the circumstances when they encounter each successive challenge, or to draw extensively upon the organizational resources required for high-quality information gathering and appraisal, unless they judge the threat or opportunity confronting them to be one that poses a very *important* problem. They will make that judgment only if they can see that a great deal could be at stake. Later (in Chapter 7) I shall specify major determinants of the perceived importance of any challenge. Those

determinants help to explicate various psychological sources of error (such as policymakers' faulty ideological assumptions) that give rise to misjudgments of what might be at stake when executives screen the steady flow of internal memoranda, expert reports, news clippings from the mass media, and other messages about potential challenges that are constantly crossing their desks.

When a policymaker responds to a challenge by carrying out adequately all four steps of vigilant problem solving, he or she will not display any of the symptoms of defective decisionmaking listed in the fourth column of Figure 5-1. The seven symptoms are indicators of failure to meet the elementary criteria of sound decisionmaking (listed in Chapter 2). When none of the steps shown in the figure is carried out adequately by a chief executive or an executive committee, we can expect to observe all seven symptoms.

The presence or absence of these symptoms can be used to judge the quality of decisionmaking not only of top-level policymakers but also of middle-level and lower-level administrators who are pursuing the goals and interests of their own unit—for example, the administrators of a division or subsection of a government agency or the managers in a chain-store firm who are in charge of purchasing, personnel recruitment, or sales in a local branch office. The seven symptoms can also be applied to assess the quality of decisionmaking of an entire set of nested decisions by executives who arrive at a strategic choice by adopting a "logical incrementalism" approach. Those step-by-step decisions will not necessarily prove to be of poor quality, as manifested by a large number of symptoms of defective decisionmaking. As Quinn observed in his study of managers of multibillion-dollar corporations, "In the hands of a skilled manager, such incrementalism was not muddling."

After going through all the steps of vigilant problem solving to deal with a serious problem, policymakers sometimes exert considerable caution about all sorts of residual uncertainties and hedge against unanticipated losses by deliberately planning to take one small move after another in a series of remedial actions. The plan that emerges as a product of vigilant problem solving consists of making an initial commitment only to the very first move and then monitoring carefully to see how it is working out before proceeding to the next one. The successive moves to be made are sometimes well elaborated, with flexible options specified that will depend upon the success or failure of preceding moves in the series. This planned sequential incrementalism is obviously entirely different from reliance upon the simple "incrementalism" rule (described in Chapter 2). It

has been described by Alexander George as a "sophisticated variant of incrementalism."

Limitations of Vigilant Problem Solving

The assumption that symptoms of defective decisionmaking are predictive of unsuccessful outcomes pertains to only one major cause of error in policymaking. It does not imply that when policymakers display no symptoms of defective decisionmaking as a result of using a vigilant problem-solving strategy they will make no false assumptions that remain uncorrected, no major miscalculations about the consequences of the course of action they choose, and no faulty implementation plans. Vigilant problem solving is certainly not a cure-all that can eliminate all human errors in policymaking. Other causes of error may persist despite the best efforts of policymakers to use the highest-quality procedures for arriving at a decision. That is to say, even when all the steps represented in Figure 5-1 are carried out by a highly proficient group of policymakers to the best of each member's capabilities, there are likely to be residual sources of error that can sometimes make for crucial misjudgments and poor choices.

Proficient policymakers, like all other human beings, are far from infallible when gathering and processing information for the purpose of deciding what to do, no matter how vigilantly they approach the tasks. Among the sources of error are basic perceptual and judgmental processes that give rise to faulty inferences from intelligence reports, such as those bearing on the probability of various outcomes. For example, on the basis of research findings, Kahneman and Tversky conclude that "people are limited in their ability to comprehend and evaluate extreme probabilities, [thus] highly unlikely events are either ignored or overweighted, and the difference between high probability and certainty is either neglected or [amplified]."

Even more serious conceptual errors may arise right at the outset and persist throughout the entire time when a vital policy decision is being made. Such errors may continue uncorrected beyond the initial decision over a lengthy period when one after another in an iterative series of nested decisions bearing on the same policy problem is being worked on vigilantly in response to negative feedback showing that something is drastically wrong. For example, existing knowledge may be so incomplete that policymakers remain unaware of faulty

assumptions about an adversary's threatening moves that result in misperceiving the challenging event or its historic context and consequently diagnosing the problem incorrectly. When a misdiagnosis is made, policymakers draw incorrect inferences about what is at stake and they frame the ill-defined problem in a way that misleads them into looking in the wrong direction for a solution. If that happens they fail to request the most essential kinds of information and they misinterpret whatever cogent information they do receive.

The intelligence reports and expert assessments to which policymakers are exposed may themselves suffer from systematic errors because the analysts who prepare the reports or the aides who edit them share the same misdiagnosis. Misleading conclusions in intelligence reports can occur because of the writers' or editors' idiosyncratic biases and blind spots or because they were deceived by false information from adversaries. Quite aside from the unavailability of valid information on such crucial matters as the hidden intentions of opponents who appear to be threatening vital interests, the fragmentary information and the educated guesses to which the policymakers are exposed may be of very poor quality. This can be a result of misconceptions, biases, or self-protective censorship at lower levels of the organization, which affect what gets transmitted upward. In short, the alleged facts taken into account by top-level policymakers after an intensive information search can be misleading as a result of distortions by the transmitters as well as by the receivers:

Incentives for biased reporting exist throughout the organization. Incoming information will be filtered through and fitted into existing images, preconceptions, preferences, and plans. . . . Thus, officials will tend to screen out at least some of the data adverse to their own interests and to magnify data that are favorable (Downs 1967, pp. 266, 282). Information moving upward in the organization may also be distorted by the tendency to make it reflect, more closely than reality warrants, what superiors want to hear (Downs 1967, p. 265). Quite aside from deliberate distortions that arise from efforts to protect or enhance parochial interests, each step in transmission also results in some information loss. The taller the hierarchy, the greater the distortion and "uncertainty absorption" as the information moves upward. . . . Finally, bureaucratic emphasis on a single formal channel of communication ("going through channels") reduces the opportunities for independent verification of information. (Holsti & George, p. 294)

The vigilant problem-solving strategy cannot be expected to detect and rectify all those distortions. The best that can be said for it is that it increases the likelihood that some of the worst distortions will be corrected before a final decision is made.

Underlying many of the diagnostic and information-processing errors that tend to persist uncorrected throughout all the steps of problem solving are the relatively stable cognitive schemas that policymakers regularly employ to make sense out of what seems to be happening when they are induced by an impressive challenge to formulate a policy problem (step 1) and to figure out what to do about it (steps 2, 3, and 4). Their schemas include concepts that enter into their presumptions about states of affairs essential for protecting vital interests, stereotypes of opponents and allies, and notions about effective strategies and tactics for dealing with recurrent threats and opportunities, including the most pervasive beliefs that constitute their operational code.

Lindblom describes the ideology of American leaders as a set of beliefs that tie together "ideas about democracy, liberty, pluralism, private enterprise, individualism, and social responsibility in a way that guides . . . [their] thinking about public policy." He points out that certain key beliefs in any such ideology are "out of the gunfire of criticism or at least [each believer] throws up some defense of them." He adds that "ideology offers a trade-off between simplifying ideas that help and simplifications that hurt."

Persistence and Change of Erroneous-Assumptions

Ideological assumptions as well as beliefs about other nations, concepts like "the need to demonstrate *resolve* to protect our vital interests," and many related cognitive schemas can be regarded as forming the policymakers' "mind-set," functioning as a filter for processing information. Right at the beginning of their deliberations policymakers usually have recourse to schemas that embody notions about "what will fly"—preconceptions about which actions will and will not be appropriate, legitimate, feasible, and acceptable to others in the organization. They immediately exclude certain alternatives and thereafter are not at all inclined to look into the supposed crippling objections to them, to find out whether the judgments they made at the outset were correct. As a result, the policymakers' initial beliefs and attitudes, unless modified by unexpected information,

tend to restrict their search and appraisal activities to a very limited set of alternatives, sometimes precluding ones that would be better solutions to the policy problem than any of the preferred candidates.

Little attention has been paid in social science research to discerning when policymakers' faulty assumptions and other conceptual errors are likely to be corrected and when they are likely to persist unchanged. One variable that appears to be relevant is the degree to which the leaders in a policymaking group share essentially the same views of rivals and allies, the same operational code beliefs, and the same ideological attitudes such as those designated as ultraconservative, middle-of-the-road, or ultraliberal in America. Groups vary from very high ideological consensus about basic attitudes and beliefs through intermediate degrees to highly individualized attitudes and beliefs that are different for each member. The following hypothesis seems plausible: Errors arising from misleading assumptions have the best chance of being corrected when there is a *moderate degree of heterogeneity* in basic attitudes and beliefs among the members of the policymaking group—as when a U.S. presidential advisory committee on foreign policy is bipartisan, including statesmen and stateswomen from both ends and the middle of the dove-hawk continuum—*provided that the members of the group participate in a vigilant problem-solving approach*. By a “moderate degree of heterogeneity” I mean that the divergences in “mind-set” among them are such that the members tend to be dubious about each others' key presumptions, particularly those affecting the way the problem is formulated, the types of alternatives that are excluded at the outset, and the way cogent information about positive and negative consequences is interpreted. But, of course, the divergences cannot be considered moderate if they are so great as to lead to persistent disagreements about major objectives or constant bickering about criteria for assessing the means for attaining the objectives.

In my comparative study of major international crises since the end of World War II, I have rarely found instances of policymakers changing any of their *fundamental ideological assumptions* in response to new information they had gathered. But I have encountered a number of examples of openness to changes in *ancillary beliefs or attitudes*, including stereotypes about enemies and allies, which play a role in guiding policy choices.

One such example, involving changes in beliefs about an alliance, occurred during the first week of the Korean War crisis in June of 1950. President Truman was notified of an offer by Chiang Kai-

vs.

shek, head of the Nationalist Chinese government in Taiwan, to send 33,000 of his ground troops to support the small United Nations force aiding the South Koreans to resist the North Korean invasion. In his memoirs, Truman states that he was quite prepared to accept this offer because it would nicely solve the military problem posed by the immediate need to augment the insufficient forces on hand to fight the North Korean invaders. This was a very worrisome problem because of the enormous amount of time it would take to send troops from the United States or from other parts of the world. Evidently Truman was unaware of the complexities of America's relations with Nationalist China, still embroiled in a struggle with the Communist government of mainland China, which led the President to assume that there was a lot to gain from accepting this offer from a would-be ally close to where the fighting was going on and that there was nothing to lose. But when he discussed the decision with Secretary of State Acheson and other advisors, Paige reports, he learned that there were strong political and military objections to cementing a military alliance with Chiang Kai-shek, especially because of its potential for bringing Chinese Communist troops into the fighting in Korea. Truman came to see that his initial assumption had to be changed after he was informed about the serious drawbacks he either had overlooked or had been entirely unaware of, not the least of which was that key members of his administration were unwilling to accept the closer alliance.

As an example of a marked change in a policymaker's stereotype of the leader of an unfriendly nation, the transformation in Secretary of State Henry Kissinger's assessment of Egypt's President Anwar Sadat can be cited. Kissinger reports in his memoirs that prior to the Arab-Israeli War in 1973 he viewed Sadat as a "weak, ineffectual leader." Privately he had labeled the President of Egypt as "a fool," "a clown," "a buffoon who goes on stage everyday to declare a war," making threats that are nothing but "empty talk." This negative stereotype appears to have played a considerable role in Kissinger's decision to reject an urgent invitation to come to Cairo to discuss a peaceful settlement at the time when Egypt was threatening to go to war to regain the territory lost to Israel in the Six Day War of 1967. When Sadat actually carried out his threat by ordering Egyptian troops to invade Israel, Kissinger felt certain that Egypt would be promptly defeated by Israel's far superior armed forces. Although the Egyptians were much more successful than expected during the first few days of the war, they were, in fact, almost completely de-

feated (with the help of a U.S. airlift of military supplies to Israel) within two-and-one-half weeks. After having led the Israelis to believe that they could continue to pursue the Egyptian forces a bit longer by postponing their compliance with a cease-fire in place that he had negotiated with the Soviet Union, Kissinger found it necessary to exert great effort to get them to comply. Without that effort, Israeli troops probably could have marched into Cairo to conquer the entire country, which could have evoked massive military intervention by the Soviet leaders to protect their client state.

Sadat's humiliating defeat might well have reinforced Kissinger's negative stereotype of the Egyptian leader. After all, it looked as if Sadat was an even bigger fool than Kissinger had thought because he should have had sense enough to be deterred from starting a war that Egypt would certainly lose. But after Egypt's defeat, Kissinger listened carefully to what he was told about Sadat by the Egyptian Foreign Minister who came to consult with him in Washington. He was also open to other sources of information about Sadat's reasons for starting the war, his capabilities, and his aspirations for settling the Middle East conflict, all of which were completely discrepant with the negative stereotype. Kissinger ended up concluding that Sadat was a sensible and capable statesman with whom it would be well worthwhile to negotiate.⁶

Additional examples of responsiveness to intelligence information occurred among U.S. officials during the Vietnam War. In 1967, Robert McNamara began advocating that the U.S. government should de-escalate the war in Vietnam and should seek a military and political settlement. This was a switch from his earlier wholehearted support of a policy of escalation to defeat the Vietcong and the North Vietnamese, which came about largely as a result of his responsiveness to intelligence data that were discrepant with his original conception of the enemy's capabilities. According to the *Pentagon Papers*, his transformation occurred at a time when others in the government were aware of the same intelligence data but remained unchanged in their view of the enemy's vulnerability to stepped-up air and ground warfare: The Joint Chiefs of Staff strongly urged large-scale escalation; President Johnson continued to favor the escalation policy, as did almost all his main advisors; leading members of Congress continued to give it strong backing.

The new information that led McNamara to revise his assumptions was presented in quantitative reports on trends in enemy losses prepared by the Pentagon's systems-analysis section, headed by Assist-

ant Secretary of Defense Alain C. Enthoven, and in memoranda summarizing other data and analyses prepared by another Assistant Secretary of Defense, John T. McNaughton, who himself had become convinced by new information that his earlier conceptions of the enemy were wrong when he was "an advocate of the 'progressive squeeze' on Hanoi through air power." Strongly influenced by the new information presented to him by his two Assistant Secretaries, McNamara repeatedly tried to get President Johnson and other members of the top-level policymaking group to see the implications of the data that had made him change his own assumptions, but he repeatedly failed. For his pains, he was gradually eased out of his powerful position as the President's leading advisor and ended up being removed from office in a "fast shuffle" by the President, who knew that he "would go quietly and suffer the indignity in silence."

Ironically, McNamara's replacement as the new Secretary of Defense, Clark Clifford, up to that time a "dependable hawk," soon became convinced of the unsoundness of the escalation policy by the factual evidence presented to him in the Pentagon and thereafter became the sole advocate of de-escalation in White House meetings. Subsequently, other members of the policymaking group became convinced, partly by the evidence Clifford presented and partly by other impressive considerations, which led them belatedly to urge President Johnson to make a public announcement in March 1968 that he would de-escalate the war (to which he dejectedly added that he would not run for reelection).

Additional examples of executives correcting their conceptual errors in response to new information are presented by Neustadt and May in a detailed analysis of policymaking in business organizations and in government. These authors make a number of impressive recommendations for preventing common errors in policymaking, such as those arising from immediately charging into action, relying on fuzzy analogies, and failing to check on the correctness of key assumptions in light of available facts and expert judgments. Their recommendations implicitly assume that policymakers are capable of correcting many of their conceptual errors if they use certain procedures.

The procedures recommended by Neustadt and May appear to be ones that would facilitate carrying out the essential steps of vigilant problem solving, as represented in Figure 5-1. For example, they recommend that at the outset of their deliberations policymakers should draw up three separate lists of what is actually known, what remains unclear, and what is presumed. Then, for each of the main

presumptions the policymakers should explicitly discuss the question. "What fresh facts, if at hand, would cause us to change this presumption?" Neustadt and May suggest that the answers they agree upon should be put in a tickler system and subsequently should be reviewed to see whether the new information that has come in requires amending any of the main presumptions and, if so, what the implications are for redefining the policy problem, the objectives, and the options.

At a later stage in the decisionmaking process, when the policymakers are discussing the pros and cons of viable options, similar questions and a similar tickler system is recommended by Neustadt and May for checking on presumptions and uncertain expectations concerning the consequences of each course of action under consideration. For example, the leader of a crisis management group might ask: "What things worry us about this plan and what fresh information should we watch for that would make us more worried or less worried?" The new information gathered to answer this set of questions would then be examined to see if the initial assumptions about the feasibility or effectiveness of any of the options needed to be corrected.

The examples given by Neustadt and May, like the ones I have just summarized from my case studies of U.S. crisis management during the Truman, Nixon, and Johnson administrations, indicate that some policymakers are capable of changing their faulty initial assumptions or misleading stereotypes when they are exposed to corrective information in the course of working on a policy decision.⁷ How often such changes occur and under what conditions such changes are facilitated remain as important problems that should be added to the research agenda of social scientists who investigate policymaking processes.

In order to increase our knowledge of the facilitating conditions it probably would be worthwhile to attempt to collect and compare positive and negative cases. Positive cases are instances like those in the examples just given: While working on a policy decision, an executive ends up evaluating options somewhat differently than at the outset because of vigilant processing of new corrective information that induces modifications of an initial faulty assumption or misleading stereotype. A substantial number of additional positive cases can probably be found in case studies of policy decisions by leaders in private-sector organizations as well as in federal, state, and local governments.

Negative cases that are comparable to the positive cases could also

be sought out. These would be instances of *failure* on the part of similar (if not the very same) policymakers, when working on similar policy issues, to change an erroneous assumption or stereotype, despite being exposed to corrective information. If sufficiently comparable sets of positive and negative cases can be assembled, it should be possible to learn a great deal by examining differences between the two samples with respect to organizational norms and leadership practices (such as those specified in Chapter 10 that are expected to promote vigilant problem solving) and in personality predispositions (such as those specified in Chapter 9 on characteristics that are likely to differentiate between good and poor policymakers).

Although studies of governmental, business, and welfare organizations provide few findings bearing on the conditions under which policymakers do and do not correct their conceptual errors, a great deal of evidence is available from psychological research on the conditions under which ordinary citizens do and do not amend cognitive schemas that have adverse biasing effects on everyday judgments and on hypothetical decisions.

On the basis of evidence from social psychological research, Philip Tetlock concludes that "belief perseverance is not . . . an immutable law of human information processing." He cites several systematic studies that report marked changes in judgments and decisions in response to new information, under conditions where people realized that they would be accountable to others for their choice. A study by Rozelle and Baxter, for example, showed that academic judges were highly responsive to new factual evidence under conditions where they were told that their decisions would influence applicants' admission to graduate school and that they would be asked later on to justify their decisions to a faculty review committee. When these conditions were not present, however, judges were found to display relatively little responsiveness to new factual information about the persons being judged.

Other investigators have also concluded that it is not always the case that people accept uncritically information that supports their initial beliefs or cognitive schemas and reject disconfirmatory evidence. On the basis of a large number of findings from research on social schemas, including stereotypes of out-groups whose intentions and expected reactions to one's own actions affect one's own decisions, Susan Fiske and Shelley Taylor draw two conclusions: On the one hand, schemas often win out over informational inputs; but, on the other hand, the influence of misleading schemas can be coun-

important

tered if corrective information is sufficiently unambiguous and impressive.

. . . [P]eople tend to make the data fit the schema, rather than vice versa. However, when there is a partial fit, the perceiver may not apply the schema with complete confidence . . . [and], probably will make less stereotyped inferences. . . .

. . . Discrepant information is most likely to cause schema change when the lack of fit is undeniable, that is, considerable, unambiguous, memorable, and stable. (Pp. 177 and 178)

If subsequent research indicates that these conclusions hold not only for ordinary citizens but also for many policymakers as well, the efficacy of the vigilant problem-solving strategy for avoiding errors may prove to be somewhat greater than is implied by my comments earlier in this chapter about cognitive schemas that form the policymakers' "mind-set." After all, potent discrepant information of the type to which Fiske and Taylor are referring is most likely to be encountered by policymakers if they adopt a vigilant problem-solving strategy. Every once in a while—although perhaps not very often—vigilant leaders of large organizations will be exposed to impressive discrepant information that could induce them to change a stereotype of opponents or an attitude or belief about efficacious ways to deal with a threat, as apparently occurred in the examples I cited of changes observed in U.S. crisis managers. Consequently, the harmful effects of applying oversimplified and misleading cognitive schemas to frame complex policy problems might occasionally be mitigated when a policymaking executive or group engages in vigilant information search and appraisal.

My expectation would be that when a chief executive makes faulty judgments about a vital policy issue based on ideological presumptions, stereotypes, or operational-code beliefs, the probability that those misjudgments will be corrected as a result of being exposed to discrepant information will significantly increase if he or she engages in vigilant problem solving. In line with the hypothesis stated earlier, the probability will be further increased if the chief executive discusses the policy issues with an advisory group whose members engage in vigilant problem solving and are moderately heterogeneous in pertinent attitudes and beliefs. The group's heterogeneity would affect both the collection and interpretation of discrepant information because some members would be likely to express skepticism and push for an alternate view at meetings when the advisory group

discusses essential questions such as: Which experts should be consulted? What types of intelligence data are pertinent? How should a piece of evidence that is startlingly inconsistent with the chief executive's expectations be interpreted? How much weight should be given to each of the seemingly persuasive facts, analytic conclusions, and educated guesses that support the chief executive's views and how much to each of those that do not?

If a moderately heterogenous group of policy advisors does *not* engage in vigilant problem solving, however, the group's potential for constructive skepticism is less likely to be realized. The chief executive and those advisors who share practically all of his or her basic views and values are less likely to correct their conceptual errors because they are less likely to encounter impressive information that is discrepant with their misleading cognitive schemas.

Once again, however, it must be emphasized that while the vigilant problem-solving strategy may reduce somewhat the likelihood of serious errors arising from faulty preconceptions and from other sources of misjudgment, it certainly cannot be expected to eliminate all of them. The advantages of that strategy are extremely limited when policymakers have insufficient knowledge or cannot obtain crucial information essential for making a sound policy decision. For some policy issues, existing knowledge and information may be so restricted that the problem remains unsolvable even if the best-quality procedures were to be used by the best-qualified decision-makers. Sensing that this is the case, many national leaders may steer clear of extremely complicated policy problems, such as those posed by the threats of nuclear war and other worldwide ecocatastrophes in the not-too-distant future. In order to maintain the requisite level of motivation for devoting time, energy, and organizational resources to working out policy plans that are bound to be error-prone, policymakers and their staffs might perhaps need to adopt a somewhat optimistic outlook about solving the crucial problems. Fiske and Taylor make the following comment after discussing the limited prospects for preventing the conceptual errors that arise from oversimplified schemas: "We will likely muddle through, as we have in the past, with the hope and expectation that nothing too dire will result from the errors and biases to which we are so curiously oblivious." Perhaps by accepting that view, with its faint note of optimism, policymakers can maintain their motivation, especially if they realize that they can minimize errors by using a vigilant problem-solving strategy.

Geniuses? Grand Masters?

Are there geniuses extraordinarily adept at policymaking who can avoid errors and surmount crises to such an extent that, unlike most other policymakers, they practically never need to count merely on muddling through? Can we identify grand masters of policymaking, qualitatively superior to all the others, as in chess—the game that Voltaire said “reflects most honor on human wit”? Are there at least a few people who are extraordinarily talented in the sphere of policymaking, as in the arts, mathematics, science, and various fields of technological invention?

So far in my case studies of four decades of foreign policymaking by heads of states and their high-level advisors, I have spotted a few nominees but no really strong candidates for grandmastership. Among the American nominees were a President and a Secretary of Defense who are regarded by many of their associates and a few political scientists as extremely talented. There was also a Secretary of State who, in effect, has nominated himself in his two huge volumes of memoirs, with the approval of quite a few admirers. But while all three may have been well above average in generating clever courses of action and in critically evaluating the options, they also made avoidable errors, some of which ended up as major foreign policy fiascos. Among leaders of other nations, the President of Egypt who declared war on Israel but later came to confer in Jerusalem and Camp David has enjoyed a great reputation for having initiated highly innovative policies that broke through the confines of traditional ideology and perspective. But again, despite achieving a few dazzling diplomatic successes, his overall track record with regard to avoidable errors is not impressive, especially since it includes starting an avoidable war with a neighboring state that brought his nation to the very brink of total military defeat.

Perhaps there are geniuses somewhere out there who are grand masters of policymaking, but all of them are smart enough to avoid leadership positions requiring them to make foreign policy decisions. The right places to look for grand masters might be in the directorship of major corporations and public welfare organizations; possibly, too, in the judiciary and in positions of responsibility for public policy on *domestic* issues in the legislative and executive branches of local, state, and federal governments.

It seems worthwhile to search for grand masters because by studying their policymaking behavior we may learn something about cre-

ative intuition and decisionmaking procedures of the very highest quality that might modify or replace some of the steps of vigilant problem solving shown in Figure 5-1. Even if grand masters cannot be identified, psychologists and other social scientists could pursue the line of inquiry I have in mind for future research agendas by comparing policymakers who are rated by knowledgeable observers as most proficient with those rated as mediocre and poor, to find out what they do differently when confronted with a policy problem. Important leads for such inquiry can be gleaned from research on proficiency and expertise among chess players and people in skilled occupations and also from observations and speculative theories about creative processes among innovative artists and scientists.⁸ For example, many of the latter studies suggest that innovators are less hampered in generating imaginative solutions to problems because their thinking is less confined to what common sense says is the reasonable thing to do. Is this characteristic of superior policymakers? George Bernard Shaw thought so when he said in *Man and Superman* that reasonable people adapt themselves to the world, whereas unreasonable ones do not and therefore all progress depends on unreasonable people.

But however creatively unreasonable a policymaker might be, he or she would have to combine the capability of taking off into outer space on flights of imagination, which might be essential for inventing new solutions to difficult policy problems, with the capability of making a reentry back down to earth where the critical work needs to be done to meet mundane requirements that are also essential. Some such combination of capabilities is alluded to in a statement by Thornton Bradshaw, chief executive of one of America's largest business corporations (RCA) in 1984. Commenting about the extraordinary attributes of New York financier Felix Rohatyn, whom he and many others in the business world regard as a master policymaker on business ventures and financial aspects of public policy issues, Bradshaw said that the reason he values Rohatyn's advice on crucial decisions so highly is because it "has always been a combination of real imagination, reaching beyond the immediate situation, and good solid common sense. And he's honest. It's the most marvelous combination, and it's very rare."

The search for rare marvelous combinations might be productive for discovering how the most masterful policymakers differ from those who are merely competent. Such discoveries would be espe-

cially impressive if it turns out that when the best policymakers are compared with their less talented but equally experienced colleagues in well-controlled psychological studies, very substantial differences are found in imaginative capabilities, in repertoire of stored knowledge, in effective chunking and retrieving of perceptual patterns, and in other plausible components that might form part of the masterful combination.

Of course, none of the comparative studies I am proposing for the research agendas of social scientists can be carried out if no policymakers can be found who are consistently better than their peers across the broad spectrum of policy decisions that leaders of large organizations typically have responsibility for initiating or approving. Nevertheless, even if there are no master policymakers and the category of "superior policymakers" proves to be a null category, the main line of the proposed research need not die out altogether because there is still at least one branch line that will be worth nurturing to keep alive. Although there may be no single individual who functions as a master policymaker there still could be superior *teams* of policymakers who collectively function as grand masters. To put it more specifically, one hypothesis to be considered is that there are specially talented persons who can perform consistently in a superior way on certain of the tasks that are components of effective policymaking across a wide variety of problem areas, although none of the individuals can do consistently well on the entire set of required tasks. Thus, for example, one person might be extraordinarily gifted at intuitively surmising a good diagnosis of the problem whenever a vital challenge confronts the group; another might be wonderful at generating hunches about the best direction to move toward a solution; still another might be especially good at critiquing the hunches and modifying them constructively with successive approximations that get closer and closer to a good solution; etc.

It is quite conceivable that factor analyses of talent and achievement in policymaking performance will reveal relatively independent distributions of individual differences that correspond roughly to the four main steps of vigilant problem solving represented in Figure 5-1. If so, a "master" team might consist of a number of exceptionally talented specialists: one to formulate the problem; a second to plan and carry out the information search; a third to analyze the incoming information in order to reformulate the problem, to specify additional requirements, and to redirect the information search; a fourth

to evaluate the pooled information and to select the best alternative. A fifth specialist might be needed whose expertise is working out implementation and contingency plans.

An alternative possibility is that there are policymaking teams that function as grand masters not because each member is especially proficient in carrying out one particular step of problem solving but because of the way the members interact when working together on all the steps. The members might mutually stimulate each other to perform at their very best. In their discussions they may mutually correct each others' misjudgments when answering each of the twelve key questions listed in Figure 5-1.

If it is possible to identify teams of executives who are consistently proficient in carrying out the steps of vigilant problem solving, their performances could be investigated intensively in research inquiries similar to those that could be pursued if individual grand masters can be identified: Which decision rules, if any, do they regularly use as shortcuts? Do they use any special procedures for carrying out the steps of vigilant problem solving in an inventive and efficient way? For example, do they use some form of narrowing-down process, similar to the logic employed in the Twenty Questions game (such as Tversky's elimination-by-aspects approach, which examines each requirement one at a time and drops from consideration any of the alternatives that fails to meet the requirement)? In what ways, if any, do they use intuition to facilitate their mental activities? When, if ever, do they allow themselves to indulge freely in flights of imagination? When, if ever, do they adopt a critical mental set to scrutinize innovative ideas analytically?

Evidence from subsequent research of the type I am proposing on individual differences could have practical implications not only for suggesting how the less proficient policymakers might improve their performances by emulating those who are more proficient but also for selecting personnel to fill high-level leadership positions. (The topic of individual differences is elaborated further in Chapter 9, in which I present specific hypotheses concerning personality attributes that are expected to characterize the most proficient policymakers.)

Comparative studies of the quality of policymaking in different types of organizations would probably bring to light some crucial environmental background conditions that enable proficient individual leaders or teams to function at their highest levels of capability as policymakers. Such studies might reveal the facilitating role of certain organizational structures and norms that provide the neces-

sary resources for carrying out each of the steps of vigilant problem solving, that permit disagreement among participants without incurring recriminations, and that keep all the other potentially interfering constraints to a minimum. The findings might indicate what changes an organization could make in order to enable its top-level policymakers to carry out vigilant problem solving to the very best of their abilities. Pertinent findings can also be expected to emerge from investigations of hypotheses on effective leadership practices (such as those presented in Chapter 10), which have direct implications for organizational norms that promote high-quality policymaking.

Use of Rules of Thumb to Facilitate Problem Solving

The steps of vigilant problem solving represented in Figure 5-1, which require the policymaker to ask and answer twelve key questions (some of them several times), can be conceptualized as a complex set of decision rules. These rules put heavy emphasis on eliciting and critically evaluating informational feedback.

In addition to the decision rules implied by the sequential steps and the feedback loops represented in Figure 5-1, vigilant problem solvers are likely also to use as auxiliary aids many of the simple decision rules described in Chapters 2, 3, and 4. Going through the essential steps of problem solving in a way that meets the criteria for high-quality decisionmaking does not by any means preclude the use of those cognitive, affiliative, or egocentric rules, as I have indicated earlier. The difference between a simplistic strategy like one that relies primarily on "satisficing" (exemplified in Figure 2-1) and the vigilant problem-solving strategy (depicted in Figure 5-1) is *not* that cognitive decision rules or heuristics are used only in the former and never in the latter. Rather, the difference lies in the *degree* to which decisionmakers *rely* upon the heuristics they use. A seat-of-the-pants approach is *dominated* by the use of simple decision rules, whereas the vigilant problem-solving approach is *not*. In the latter approach, the quick-and-easy solutions or judgments suggested by the decision rules and by various guiding principles⁹ are regarded merely as preliminary ideas to be looked into further. When thinking about the key questions shown in Figure 5-1, the vigilant decisionmaker uses such rules and principles to generate *tentative* answers, which he or she then carefully checks out with whatever pertinent factual information or informed opinions can be obtained.

When chief executives or members of an executive committee adopt a vigilant problem-solving strategy, they save considerable time and effort by using simple decision rules, but without displaying any of the symptoms of defective decisionmaking. That happens because they limit the use of those rules to a subsidiary function of generating tentative hypotheses. Any of the simple cognitive, affiliative, and egocentric rules may be used to formulate such hypotheses when the policymakers are answering certain of the questions shown in Figure 5-1, including those concerning requirements that might need to be met, specific alternatives that might be worth looking into, the kinds of information to obtain, possible pros and cons of the outcomes to be expected, the alternative that might be better than any of the others, and possible ways of minimizing potential costs and setbacks that might result from implementing the chosen course of action. In this respect, vigilant problem solving can be facilitated by "intuitive thinking" as described by Kenneth R. Hammond, which is geared to dealing with uncertainties and involves making rough-and-ready guesses. As the vigilant policymakers examine incoming information and deliberate, each of these guesses or hypotheses is subjected to critical scrutiny and is modified if it does not check out well. The policymakers remain open to new information and are ready to change if it does not bear out the expectations based on the simple decision rules they initially employed to guide their problem-solving activities.

In contrast, if the same policymakers were to adopt a quick-and-easy strategy, they would depend almost completely on simple decision rules to arrive at a final choice, without carrying out hardly any information search or critical appraisal. As a result, their decisionmaking would be characterized as *premature closure* and they would display all seven symptoms of defective decisionmaking.

The contrast I have just mentioned can be regarded as referring to extreme ends of a continuum, ranging from very poor-quality decisionmaking, rated as defective with regard to *all seven symptoms*, to extremely good-quality decisionmaking, for which *none of the symptoms* is present. Of course, there are many intermediate cases, including the fairly frequent instances of policy decisions based on what can be called a *quasi* problem-solving approach, when most of the steps of vigilant problem solving are carried out adequately but one or another of them is not. A quasi problem-solving approach, which involves partial reliance on simple decision rules, is often adequate for eliminating most of the symptoms of defective decision-

making by the time the choice is made, although not all. (For further elaborations of intermediate or mixed strategies, see the discussion of Table 7-2 in Chapter 7.)

Variability in the Way a Policymaker Arrives at a Decision

In contrasting the two extremes, I deliberately referred to instances of the *same* chief executive or executive committee using either a very crude simplistic approach or a highly sophisticated problem-solving approach. One of my assumptions, as indicated in Chapter 1, is that the vigilant problem-solving strategy as well as simplistic strategies, along with various intermediate or mixed strategies, are in the repertoire of almost every policymaker. Consequently, although executives may make most decisions by the seat of the pants, it should not be at all surprising that from time to time they use a vigilant problem-solving approach. Almost all executives who arrive at top-level positions in corporations like those on the *Fortune* 500 list, in government, or in large public welfare organizations are likely to know how to carry out the essential steps of problem solving as a result of having had ample opportunities to learn from all sorts of socialization training in our culture, including on-the-job apprenticeship training as junior executives, even if they have not taken any formal courses in management.

A highly competent policymaker would also know how to screen potential challenges, to determine how much time and effort to invest in dealing with each of them by considering what might be at stake, using various cues to judge how important the problem might be. (See the discussion of determinants of perceived importance in Chapter 7.) A top-level leader would be likely to delegate to subordinates many problems he or she judges to be of minor importance. For the minor ones requiring his or her personal attention, the executive would be inclined to make rapid decisions using a simplistic approach.

Most executives would probably use a mixed strategy for problems they judge to be of moderate importance, either when working on the decisions themselves or when reviewing the recommendations made by subordinates to whom the bulk of the work had been delegated. Only when they encounter a challenge that they judge to be of major importance because it could affect vital interests of the organization, such as a new venture that could result in bankruptcy if

it fails, would they be inclined to take the trouble personally to go through all the essential steps of vigilant problem solving and to make use of their power to mobilize their staffs and other personnel to prepare intelligence reports, to carry out detailed analysis, and to participate in deliberative meetings.

After calling attention to the contradictory findings from many different studies in management sciences, James March has concluded that there is no universal way that executives arrive at decisions. (See Note 2 for Chapter 1.) According to March, the available evidence does not consistently support either those theorists who say that executives generally adhere to a "rational" problem-solving model or those who argue that they do not because "satisficing" or some other oversimplified approach is what executives typically resort to. It seems to me that there is nothing puzzling about this lack of agreement among empirical observations. That is exactly what would be expected if the assumption is correct that practically every policymaker shows considerable *variability* in the way he or she arrives at policy decisions—often relying almost entirely upon "satisficing" and other cognitive heuristics, sometimes giving priority to affiliative rules, sometimes to egocentric (self-serving or emotive) rules; at still other times using a mixed approach with partial reliance on simple decision rules; once in a while carrying out all the essential steps of vigilant problem solving. This variability assumption is a basic postulate of my theory of policymaking. According to this assumption, even the most compulsively legalistic bureaucrats who try to make practically every decision on the basis of precedent, and even the most laid-back executives who pride themselves on using their power to make important decisions intuitively or according to their whim of the moment, are capable of using the vigilant problem-solving approach and, in fact, will be found to do so when certain circumstances arise. What are the crucial circumstances? Under what conditions do policymakers fail to use a vigilant problem-solving strategy when it is prudent to do so? What are the major sources of error when policymakers are judging whether or not a policy issue deserves to be given full problem-solving treatment? Under what conditions are those sources of error most likely and least likely to occur when a policymaker confronting a new threat or opportunity is choosing how to decide? These are central questions to which I shall return in Chapter 7; the answers are at the very core of my theory of policymaking processes.

Does a "Nonrational Actor" Model Hold True for Practically All Policy Decisions?

My variability assumption contradicts an assumption that seems to be fairly widely held among social scientists who write about organizational management. Their assumption is one that I regard as an overgeneralization stemming from valid critiques that have challenged the old "rational actor" model, which used to be accepted by large numbers of economists, political scientists, and management scientists. The current overgeneralization represents an extreme pendulum swing in the opposite direction from the old model. Some of the extreme antirationalists evidently believe that Aristotle was completely wrong, man is *not* a rational animal, certainly not when making policy decisions. Among many social scientists, the old comfortable notion that the policymakers who decide our fate generally behave like rational actors, making full use of their resources to obtain information and to appraise the pros and cons of available alternatives, seems to have been replaced by the extremely uncomfortable assumption that policymakers practically *never* do so. This assumption, in effect, replaces the obsolete "rational actor" model with a "nonrational actor" model that supposedly holds true for almost all policy decisions.

Those who take the "nonrational actor" model seriously as universally valid are likely to be surprised when they discover that a chief executive, not at all noted for pursuing an analytic intellectual approach, demonstrates his capability of obtaining very high ratings on the criteria for sound decisionmaking that go along with a vigilant problem-solving strategy. President Dwight D. Eisenhower, for example, showed considerable variability in the way he arrived at major policy decisions. Often he relied upon a simplistic approach but not always. In *The Hidden-Hand Presidency*, Fred Greenstein's revisionist analysis of Eisenhower as a national leader, we get a picture that is completely at odds with the popular image of Ike as a pleasant but fuzzy-minded chief executive, unwilling to read any memorandum longer than one page and unable to explain his policies, except in terms of vague platitudes worded ungrammatically. Here is Greenstein's summary of the new evidence:

The Eisenhower library files contain many letters and memoranda he composed, some marked "private and confidential," others classified for security purposes, reflecting

the clean, hard writing, and, by extension, thinking. . . . They include dispassionate, closely reasoned assessments of contemporary issues and personalities that belie the amicable, informal, and often vague usages of his press conference discourse. Startlingly, for a man who seemed, to as acute an observer as Richard Rovere, to have an "unschematic" mind, many of his confidential writings display geometric precision in stating the basic conditions shaping a problem, deducing their implications, and weighing the costs and benefits of alternative possible responses.

Eisenhower's reasoning ability and method are best revealed in one of his confidential analyses of a particularly complex, controversial issue, a six-page single-spaced letter to his one-time chief of staff, then NATO Commander Alfred Gruenther, on the "offshore islands" dispute. This dispute, a legacy of the Chinese civil war, mainly concerned Quemoy and Matsu, which are immediately adjacent to the Chinese coast. . . .

. . . His statement to Gruenther of his reasoning is carefully elaborated and tightly organized; he approaches this emotional issue with analytic detachment; and his use of language reveals both experience with political analysis and a jaundiced view of Chiang Kai-shek and his friends and enemies which, if publicized, would have undermined the image of simple Ike Eisenhower, incapable of seeing flaws in his contemporaries.

Eisenhower begins by listing and characterizing the foreign and domestic actors implicated in any possible action that might be taken on the offshore islands, in effect positing axioms from which his analysis follows. (Pp. 20-21)

Eisenhower then turned to the likely consequences of the solution that Chiang and his American supporters urged—that the United States "state flatly" that it would defend Quemoy and Matsu. . . .

[He describes the] . . . delicate balance of pros, cons, and contingencies. . . .

Anchoring his analysis, Eisenhower stressed, was the root premise "that nothing could be worse than global war." (P. 23)

The letter to Gruenther reveals more than Eisenhower's rhetorical and cognitive style; it indicates that he had a capacity for practical political thought. He assessed the political

motivations of others, anticipating their likely responses to alternative courses of action, and had an explicit decision-making criterion—a decision must be in the long-term public interest *and* must be acceptable domestically so that congressional support can be assured. In short, the Eisenhower who was widely thought of as nonpolitical . . . employed reasoning processes that bespoke political skill and sensitivity. (Greenstein 1982, p. 25)

Other examples can be cited of high-quality decisionmaking by well-known statesmen and executives who engaged in vigilant problem solving. A prime example is the development of the Marshall Plan in 1947 by government leaders in the State Department, which was largely the work of an analytic problem-solving group headed by George Kennan, whose deliberations I have analyzed in a detailed case study. Such examples, however, would be surprising only to those who believe that satisficing, creeping incrementalism, and other “nonrational” processes are so pervasive in organizational decisionmaking that an analytic problem-solving approach is hardly ever used.