

The Theory and Practice of Foreign Policy Decision Making

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Central to Alex George's work was a concern with the psychology of presidential decision making. Our analysis focuses on George's work at the intersection of leadership psychology and the psychology of judgment in the making of consequential foreign policy decisions, specifically those dealing with issues of war and peace. We begin with a review of the fundamental dilemmas of political decision making, focusing on the various factors that present challenges to leaders seeking to make high-quality decisions. We then move to an analysis of the nature of judgment and the ways in which it both shapes and is shaped by cognitive dynamics and conclude by examining a number of steps designed to help leaders avoid the most damaging blind spots of their own psychologies and cognitive biases.

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How accurately do world leaders and their close advisors understand both the international system in which they operate and the strategic options that are available to them? The available evidence leads to a pessimistic outlook. That is because what leaders see is, to a substantial extent, filtered through the multiple, though inconsistent, lenses of their own psychologies and beliefs, subject as well to significant cognitive limitations. This necessarily introduces a very basic set of subjective elements into the foundation of a decision process already permeated by high stakes, enormous uncertainty, and, as a result of these elements, substantial risk. These basic perceptual facts raise the question of how it is possible for decisions makers to arrive at "high-quality" decisions and, given the basic perceptual and emotional alterations that are built into the fabric of decision making,

what that term means. Further, if psychological limitations enter into the decision process at its most basic levels, are there any steps that can be taken to aid decision makers in reaching such preferred decision outcomes? These broad framing questions are central to Alexander George's work over a lifetime and to our analysis here.

We focus on the intersection of leadership psychology and the psychology of judgment in the making of consequential foreign policy decisions, specifically those dealing with issues of war and peace. "Leadership psychology" refers to the varied psychological elements and assumptions that every leader brings to the decision process. A leader's experience over time leads to the development of stable patterns of choice as well as a stable outlook on the nature and operation of the international system. These are the domains of character psychology, strategic worldview, and operational codes. Yet, every leader must also confront, to some degree, the real circumstances in which they find themselves. They must obtain and assess the facts of the situation. They must appreciate the relationship of these facts to a host of other matters including the views and intentions of others who are involved, the histories of these issues and their meaning, as well as the range of options available and their implications. In short, leaders must gather and process the information at hand to reach an appropriate decision or judgment—one that fits with both the facts and the circumstances—strategic and political. How a leader gathers such information, how this information is framed and understood, the cognitive aids that are used in so doing, and their accuracy and effectiveness profoundly affect the course of world politics.

Alexander George came to the analysis of decision making from an unusual dual perspective. He was well acquainted with the usefulness of dynamic psychology (psychoanalytic theory) for understanding how character psychology and motivation influenced decision making. Yet, he was also a pioneer in appreciating the ways in which a leader's framing of foreign policy issues through the lens of belief systems had a profound impact as well. And he sought to diminish the gaps that arise in analyzing these relationships; between dynamic and cognitive psychology, between the leader's psychology and information processing, and between the theory of high-quality decisions and their actual accomplishment.

Our analysis follows Alexander George's pioneering path, taking note of the ways in which recent developments in both dynamic and cognitive psychology have provided a fuller picture and in some cases new perspectives on the central questions that informed his life's work. We begin with a review of the dilemmas of decision making, focusing on the process of the various factors that present challenges to leaders seeking to make high-quality decisions. We then move to an analysis of the nature of judgment and the ways in which it both shapes and is shaped by cognitive dynamics. We conclude by examining a number of steps designed to help leaders avoid the most damaging blind spots of their own psychologies and cognitive biases.

Framing National Security Judgments: The Fundamental Decision Dilemma

Historically, the study of international relations has understandably focused on patterns of conflict and cooperation.¹ And while system-level variables help to explain or predict broad historical trends, no crisis or war is understandable without direct reference to the decision making of individual leaders. The psychological study of decision making adds to this assumption that leaders make decisions based less on their objective circumstances than their perceptions of those circumstances. For instance, in examining Anthony Eden's decision to initiate the Suez War in 1956, it is not enough to focus on the fact that England was a great deal more powerful than Egypt; one must also factor in Eden's belief that England had entered a period of decline relative to other powers and needed to act to preserve its great power status.

Cognitive shortcuts, biases, and psychological distortions are, of course, not confined to the decisions to use force. Though they certainly deserve special attention in these types of decisions, they are ever present in our daily lives as well. In fact, as Bob Jervis (2006, p. 650) notes, "the world is so complex and our information processes so limited that in significant measure people must be theory [belief] driven." There in a nutshell is the empirical basis for what we term the "*Fundamental Decision Dilemma*": The enormous complexity of the real world, coupled with our inability to apprehend much less understand all its elements, leads to, indeed requires, methods of complexity reduction.² If we add to this that most real-world decisions must be made in a relatively short time frame, and the need to simplify the complex circumstances and make them cognitively manageable, then the unrealistic nature of the analytic rationality model becomes obvious.

The psychological and cognitive vehicles by which reality is simplified are legion. They include mechanisms rooted within an individual's character and psychology, sets of assumptions that buttress inferences (usually studied as belief systems or operational codes), and the everyday shortcuts taken in information processing. Indeed, many of the distortions so rife in information processing are the result of a very basic self-referential framing posture in which the decision maker's own views, values, history, psychology, and understandings are the starting point and prism of information perception and processing. From this perspective, the surprise is not so much that scholars can raise legitimate questions about how accurate decision makers were in coming to their judgments about the use of

¹ Such questions, of course, do not exhaust the range of consequential foreign policy decisions that are made.

² In fact, this is adaptive for the most part. Hundreds of thousands of years of evolution have given us the ability to quickly size up a situation and draw inferences based on past experiences. By and large, these abilities serve us rather well, and it is not our contention that all cognitive shortcuts are necessarily errors. However, there is the potential for a "mismatch" in the context of political decision making, where the consequences of biased judgments are arguably more severe than they were in our evolutionary past.

force, but rather that, given the ubiquity of distortions that attend the decision process, more crisis situations don't deteriorate into shooting wars.

One critical but difficult to make distinction is between motivated bias and non-motivated cognitive errors. A motivated bias is a systematic distortion of information acquisition or appraisal caused by the decision makers' psychological investment in a certain view or understanding regardless of the facts. The somewhat misleading conventional terms "cognitive error" or "bias," in contrast, are not motivated by any desire to reduce cognitive dissonance or maintain well-being. There does not seem to be any motivational foundation, for instance, in the various errors that individuals make in interpreting and judging probabilities. Instead, they reflect the general hazards that accompany decision making owing to the need to manage complexity, ambiguity, and the limits of individual cognitive capacities.³

Motivated biases have their origins in either character psychology or belief. In the first, a leader may become invested in a particular policy or analysis that owes much of its impetus to psychological needs—for self-validation, approval, or a host of other motives, or because it fits comfortably with already established and consolidated beliefs. As noted, one aspect of the *fundamental decision dilemma* is that expectations often underlie inferences and, as a result, people are primed to see what they expect. Leaders also reach conclusions that feed into their own sources of self-validation.

The second types of motivated biases—those associated with belief systems—owe their potency to the fact that beliefs provide powerful frames for understanding the world. They are also instrumental in shaping how people process information. If people have strong beliefs about a matter, it is likely to affect *what* they see and *how* they weight that information.

Stress and Decision Making

One of the most important elements of political decision making—and one that exacerbates what we before termed the "Fundamental Decision Dilemma"—is the constant factor of stress. Stress can be conceptualized as an excess of demands over capacities. It can be induced by the following variables, either alone or in combination: threat to important values, sleeplessness, anxiety, or severe time pressure.⁴ Those involved in political decision making, from executives to

³ Both of these terms are conceptually distinct from "heuristics," though biases can result *from* heuristics or "cognitive shortcuts."

⁴ It is worth noting here that recent studies in the biology of human behavior have demonstrated rather conclusively that individuals have different physiological responses to different types of stress. There is, for instance, a difference between sleep deprivation (which can lead to elevated adrenaline and noradrenaline levels) and threats, pain, or other uncontrollable external stimuli (which lead to elevated cortisol levels; Rosen, 2005, pp. 110–117). These results demonstrate the utility of incorporating recent work on the biology and neurobiology of human behavior into political psychology, which has to date generally focused almost exclusively on cognitive and psychodynamic processes.

intelligence analysts, face these conditions on a daily basis. And in a crisis, these factors may be exacerbated even further and contribute to poor decision processes.

There is, however, debate between those who believe that high-stakes/high-stress situations are likely to force decision makers to rise to the occasion and perform well under pressure and those who believe that stress is likely to negatively impact individual performance during crisis situations. The first school of thought is epitomized by President Richard Nixon (1962, p. xvi), who wrote that only in crises does the decision maker “discover all the latent strengths he never knew he had.” This position is defended by others as well, including Daryl Press (2005, p. 6), who argues that “in high-stakes military crises people move beyond the quick-and-dirty heuristics that serve them so well in mundane matters; they model the current situation much more carefully.”

In contrast, George (among others) argued that stress is much more likely to have deleterious effects on decision making. He (George, 1980, p. 49) listed four major effects of stress upon decision making: (1) impaired attention and perception, (2) increased cognitive rigidity, (3) shortened and narrowed perspective, and (4) shifting the burden to the opponent. Holsti (1984, p. 68) concluded (based on his reading of laboratory evidence and case studies from international crises) that elevated stress levels are likely to reduce the search for information and policy alternatives. Similarly, Gordon and Arian (2001, p. 96) concluded that while in most situations individual reactions are guided by both rational processes and emotions, in high-threat situations emotions dominate the decision process.

There is at least partial support for George and Holsti's position. One documented effect of stress seems to be to impel decision makers to prematurely cut short the search for information and alternatives. In one experiment, the threat of electric shock (the “stress condition”) led to a significant tendency to offer solutions before available alternatives had been considered and to scan alternatives in a “non-systematic” fashion (Keinan, 1987; Keinan, Friedland, & Ben-Porath, 1987).

Time Pressure. Another factor closely associated with stress and crisis situations is the presence of time pressure. This may take the form of a short deadline for a decision, or more likely, an uncertain deadline that is believed to necessitate a quick decision. Mann and Tan (1993, p. 197) conducted an experiment in order to isolate the effects of *perceived* time pressure on decision making. Two groups were given the exact same amount of time to complete a task, but were given different verbal cues regarding whether or not that time would be sufficient. Those who were given hints such as “you'll have to hurry, 25 minutes is not that much time” generated fewer alternatives and gave less thought to the consequences of their decisions compared to the control group. One can imagine that in crisis situations, where the time pressure is real and not merely suggested by verbal cues, the effects may be even more pronounced. This suggests that the psychological capacity to “keep cool” under pressure and manage decision anxieties is a substantial asset to decision makers.

The typical context of making consequential choices is high-stakes decision compression rather than languid development. Even after the immediate crisis is over, top-level decision makers often must deal with a wide range of unfolding events. During the perjury trial of Scooter Libby, who served as chief of Staff for Vice President Cheney, testimony emerged about the issues with which he dealt on a “normal” day. The range and potential national security implications of each item were substantial.⁵ Not all of these required full-scale decision processes as described above, but all of them required some assessment and judgments about the meaning, relationship to, and implications for ongoing national security problems.

Compressed time, high stakes, enormous uncertainty about other actors’ motives, beliefs, and calculations clearly make arriving at high-quality decisions difficult. As Bob Jervis notes, “So many issues come up that decision makers have to act on instinct.”⁶ When it is used to characterize high-level decision makers, instinct here refers to their basic strategic worldviews,⁷ operational codes,⁸ heuristic preferences, leadership strategies, and psychological proclivities of the high-level decision makers, all subjective, not necessarily wrong, but certainly inconsistent with the rational actor model.

It is tempting to think that subjectivity is minimized by rational calculation when decision makers have more time to reach judgments, but this is clearly not the case. Five years after 9/11 there was enormous disagreement among knowledgeable people about how to characterize the threat of catastrophic terrorism and

⁵ The stipulation focuses on one single day, June 14, 2003, and during the briefing, “Libby was presented with info concerning: “Bomb diffused . . . explosions . . . E African extremist network . . . Info on possible AQ attack in US . . . concern about specific vulnerability to terrorist attack . . . Proposed ME plan, Israeli military action . . . Country’s security affecting AQ . . . International Org’s position concerning country’s nuke program . . . Iraq’s porous borders present security threat . . . Demonstrations in Iran turn violent . . . Israeli offer of cease fire to Palestinians . . . Memorandum assessing Iranian’ pres’ view on terrorism . . . Problems in leadership in PLO . . . Foreign media analysis concerning Egyptian treatment on Palestinian conflict . . . Media, opposition of Israeli public to attacks . . . Info on Egypt process ME peace process . . . Palestinian groups and Israel . . . Constraints on Israeli military . . . Saddam Hussein published on website . . . Memo in Iraqi WMD . . . Housing shortage in Iraq . . . Info on 1920 Mesopotamia and insurgency on modern-day Iraq . . . Potential effect of improved governance in Iraq. . . .” In addition, the terror threats listed for that day were: (1) Concern over possible suicide information to hijacked airplane by al-Qaeda-linked group; (2) Concern about terrorists providing support for business transaction by al-Qaeda; (3) Potential suicide attacks against U.S. forces in Iraq; (4) Potential terrorist attacks against Americans in Karbala by unspecified means; (5) Potential attack in Ethiopia; (6) Potential attack in Nairobi; (7) Potential attack in Kabul, Afghanistan, and Pakistan; (8) Concern over surveillance in Beirut and attack against embassy vehicles; (9) Unspecified terror attack against unspecified; (10) Potential attack in Budapest; (11) Potential attacks in Kabul by unspecified group; (12) Video taping in U.S. university; and (13) Turkish and Pakistani extremists. Confirmation of how ordinary large daily lists of policy issues are is also found in Feith (2008, 147–48).

⁶ Personal communication to the second author September 12, 2006. Professor Jervis is referring here both to his own experience and reporting an observation consistent with it from Professor Steven Krasner who was, at the time, head of the State Department Policy Planning Board.

⁷ See S. Renshon (2009 forthcoming, chap. 4) for an account of this term and its implication for “grand strategies.”

⁸ The most well-known formulation of these “operational codes” is found in George (1969).

what to do about it. The same holds true for long-term problems like Iraq, Iran, and North Korea. Some hold the view that the best defense is a strong offense. Some believe that talks with adversaries can reduce tension; others believe talks can become a form of avoidant procrastination that confers unnecessary legitimacy on despotic and aggressive regimes.⁹

Threat. One oft-mentioned phenomenon of political decision making is known as the “threat-rigidity hypothesis.” This hypothesis states that external threats tend to lead to increased rigidity in decision making, marked by overreliance on standard operating procedures (or previously learned solutions) and increasing “centralization” of decision making. Stress also increases physiological arousal, which can have dramatic effects upon perception: narrowing the range of cues and decreasing sensitivity to peripheral cues (Staw, Sandelands, & Dutton, 1981, p. 505; see also Rosen, 2005).

However, not all aspects of the “threat-rigidity” hypothesis are maladaptive. For instance, the tendency for the number of people involved in a decision process to decrease under crisis conditions has long been noted by scholars (Hermann, 1963, p. 70). Support for this has been found in international crises as well as business firms under threat (Holsti, 1973; Paige, 1972). Increasing centralization of authority in decision making seems likely to increase the efficiency of the decision process and facilitate rapid responses to fast-developing situations.

We must also be careful to distinguish between *known* and *hypothesized* effects of stress. There are some effects for which we have good empirical evidence from some combination of laboratory results and case studies of crisis decision making. “Cognitive rigidity” falls into this category. There are other effects, however, for which we have little hard evidence. For example, Post (1991, p. 475) argues that there is an increase in the tendency to commit attribution errors in crisis situations. George made this argument as well when he listed the tendency to “shift the burden to the opponent” as one major effect of stress (George, 1980, p. 49). Yet, we have no data to corroborate this hypothesis. It is of course possible that the tendency to commit attribution errors might increase with increased environmental stress, such as is present in political crises. However, it is also possible that other factors that are present in crises (such as the fact that crises almost always involve adversaries who have given us some reason to be suspicious of their behavior in the past) are more important in explaining an increasing tendency to commit attribution errors. It is further possible, of course, that stress and crises have *no* significant effect on attribution errors. This is exactly the type of question toward which future research should be directed.

⁹ There is research suggesting that the magnitude of some biases (particularly overconfidence) can be decreased when individuals are in a “deliberative mindset.” So-called “positive illusions” are greatly amplified when individuals are focused on planning, or implementing goals, as opposed to when they are merely *setting* those goals (Johnson, 2004; Taylor & Gollwitzer, 1995). However, we argue that an elongated time frame for the decision process guarantees neither a “deliberative mindset” nor a process free of bias or subjectivity.

One caveat here is that individuals are likely to have different reactions to similar levels of stress. Their reactions are likely to be conditioned by both their tolerances for stress and their preferred coping strategies. Thus, in considering the overall effect of stress on decision making, we must take into account general tendencies as well as individual thresholds. For example, a study on the integrative complexity of leaders during crises revealed that, in contrast to *every other leader examined*, the integrative complexity of Soviet Foreign Minister Andrei Gromyko increased during crises (Wallace & Suedfeld, 1988). Some leaders thrive on crisis, others are debilitated by it.

The things that trigger stress reactions—lack of sleep, the unpredictable nature of politics, anxiety, high levels of threat—are inherent in high-level political decision making. Though we know that individuals placed in situations of extreme stress are better able to cope with their environment if the stress is *predictable*¹⁰, the very nature of international conflict and crises makes it difficult to prepare leaders for the unexpected.

Trade-offs

As noted above, leaders face numerous demands in making decisions. They must search for a decision that is practical and works within the constraints they face at both the domestic and international levels. They must reach that decision in the minimum amount of time and in an environment of conflicting and often ambiguous information. How leaders allocate their time and energy (and that of their advisors) can thus be conceptualized as a study in trade-offs.

In his work on the importance of trade-offs in the political decision-making process, Alex gave to us the concept of “political rationality” (George, 2006, pp. 64–65). Traditional “analytic rationality” required decision makers to identify and choose “options likely to achieve policy objectives at acceptable levels of cost and risk” (George, 2006, p. 64). That required to decision makers to be “rational actors,” a standard to which, as noted, they might aspire, but were psychologically or cognitively ill-equipped to attain.

The concept of political rationality required decision makers not only to reach “high quality” decisions, but also to do so within the constraining trade-offs imposed by time, resources, and the need for political support (both domestic and international). How much time should be allocated to searching for more information? To discussing possible options? How many people should be involved in

¹⁰ For instance, one study examined the reactions of London residents during the German bombing campaign in WWII. Though the bombing in the city was intense, it was also regular, forcing London residents to go their local bomb shelter almost constantly. In the suburbs of London, air raid sirens were much less frequent, but because of their unpredictability seem to have caused more adverse reactions to the environmental stress, such as more diagnosed cases of ulcers as a result of the stress. (See Stewart & Winsor, 1942, 259–261.)

the decision (taking their time away from other issues)? How much effort should be invested in gaining consensus for a decision with the public and with Congress, and how much policy compromise should be considered in order to gain it?

Until quite recently we had only a very basic understanding of the trade-off process. Of course, trade-offs were always assumed to be necessary as a prerequisite for economic rationality: in order to maximize expected utility, individuals must factor conflicting priorities and values into decision. Yet, that assumption tells us little about how individuals *actually* make trade-offs.

Behavioral decision research has demonstrated that individuals have a very difficult time making trade-offs. There are several explanations for this. The first is that individuals tend to find interdimensional comparisons difficult. "Interdimensional" refers here to comparisons between qualitatively different values, such as freedom and security, or capitalism and social welfare. The difficulty of these "apples and oranges" comparisons leads individuals to utilize heuristics that simplify the trade-off problem, such as the "elimination by aspects" approach (Payne, Bettman, & Johnson, 1992). In this approach to resolving trade-off dilemmas, each possible choice has a number of aspects, which are compared one at a time ("lexicographically") across all possible choices. This process begins with the most important, or salient, aspect and continues until only one alternative remains (Tversky, 1972).

Another difficulty with making trade-offs is emotional. As Festinger (1957) noted, a sense of stress-induced cognitive dissonance may be created when individuals are forced to sacrifice an important value (e.g. liberty, lives, etc.). To deal with this problem, individuals either avoid making difficult trade-offs or else "spread the alternatives" by *post-hoc* rationalizations that exaggerate the importance of the chosen value and denigrate the alternative choices available to them.

Perhaps the most significant stumbling block to making trade-offs is the "constitutive incommensurability" problem noted by Fiske and Tetlock (1997). Interdimensional trade-offs might be difficult, but individuals make them all the time in their daily lives (the choice between apples and oranges, for instance; Tetlock et al., 2000). Tetlock et al. (2000, p. 854) posit that the relevant problem is that our "relationships with others preclude certain comparisons among values." So-called "taboo trade-offs" involve values (sometimes referred to as "sacred" or "protected" values) that evoke moral outrage. The trade-off becomes taboo when we are asked to compare things of finite value (such as money) with things that we are "normatively obligated to treat as infinitely important" such as the lives of fellow human beings.

Why are trade-offs relevant for the study of political decision making and international security? Gelb and Rosenthal claim that with the end of the Cold War, the trade-off between security and ethics became less stark, allowing for the possibility of a moral foreign policy (Gelb & Rosenthal, 2003, p. 5). While we do

not object to the notion of a moral foreign policy in principle, we contest the notion that the trade-off's political leaders' faces have become less stark. Faced with terrorism, illegal immigration, a rising China, a nuclear North Korea, and innumerable other security challenges, leaders will continue to face difficult trade-offs between important values. Presidents will continue to have to balance security, liberty, morality, free-market capitalism, national sovereignty, fairness, and many other "sacred" or protected values.

Decision Structure and Process

Alex George's interest in political decision making naturally led him to the study of small-group dynamics since many consequential decisions at the highest levels often involve several decision makers and advisors. Just as information processing is affected by cognitive and psychodynamic processes, so too is it affected by the structure, internal processes, and management of small groups (George, 1980, p. 82).

Decision structure refers to the ways in which an executive organizes the decision-making process and involves institutional frameworks and procedures as well as the dynamics that characterize the internal debating process. Which agencies or individuals will be involved in the decision-making process, and in what ways? Will individuals simply speak their minds, or will they have predefined "roles"? The answers to these and other questions can exert a profound influence on the consideration of policy alternatives.

Alex's research in this area was originally motivated by the "dysfunctional" aspects of policymaking that, if not fixed or compensated for, would result in poor-quality decision processes. There are two general categories of "dysfunction" that the study of decision structures addresses, both of which concern the consideration of alternative policy options, plans, or ideas. The first concerns which alternatives reach the level of the executive. As many have noted, "bureaucratic politics" can have insidious effects on decision making. As a result of the desire to eliminate uncertainty, individuals seeking to maintain status and organizational control have incentives to negotiate internally with each other *before* presenting options to the executive (George, 1972a, p. 753). The result of this predecision bargaining is that fewer policy options are likely to reach the executive, who is likely to confront a group of individuals already committed to a certain outcome.

A second source of dysfunction in the policymaking process is that organizations are likely to restrict their search for information and policy alternatives in order to make a better case for their preferred solution. This may be done, for instance, by requesting studies from individuals or groups who are likely to come to a desired conclusion. As an example, during the Vietnam War there was a bitter debate as to whether an NIE should be commissioned to assess the progress of the war. Those policy makers who believed that the United States

was faring poorly in the war and favored retrenchment argued that the intelligence community should produce an “impartial” NIE, knowing that those involved in the estimation would come to the conclusion that they favored (Halperin & Clapp, 2006, p. 168).

To illustrate the importance of decision process and structure, consider the vast difference in how the United States formulated its official position with respect to the SALT I agreement under Presidents Johnson and Nixon. President Johnson “refused to be involved” in the process and left the task of formulating an official position largely to Morton Halperin and his *ad hoc* committee. In contrast, Nixon insisted on being provided all viable options and used his large staff primarily to funnel information and options to his office (Rosati, 1981, p. 241).

President Nixon came into office determined to drastically change the organizational and decision-making structure of the Executive Branch. He did so partly by reorganizing the National Security Council. By augmenting its resources and modifying operating procedure and bureaucratic culture, Nixon exerted control over more issues, and at earlier stages in the policy process, than his predecessors had. Though this centralization of power in the hands of the executive did diminish the insidious effects of the two dysfunctions mentioned above, they opened the door to a third. The greater the centralization of power and control, the greater the likelihood for *individual* (as opposed to bureaucratic) biases and shortcomings to adversely affect the decision process.

Alex proposed a number of steps to mitigate the effects caused by defective decision processes, which we discuss shortly. However, before turning to the critical question of how decisions might be improved, it is first necessary to address not only potential structural defects, but also the psychological and cognitive impediments to “high-quality decisions.”

From Good Process to Good Judgment

The Complex Effects of Psychology and Information Processing on Decision Judgments

Questions regarding the effects of personality and cognitive psychology on high-quality decisions are by no means fully resolved. The reason, as George (1980, pp. 5–6) pointed out is, “the interaction between personality, situation and role can take many forms, and it is by no means the case that the impact of personality on performance of the executive role is always deleterious.” In fact, “the opposite may be the case” because “personal motives and needs aroused in a particular circumstance may serve to alert the individual to perceive more acutely the political opportunities (and threats) presented by that situation.” A person’s psychological needs can cut both ways: “a situation that affords [opportunities] for gratifying a personality need may also help to energize the individual to meet

difficult situational tasks and role requirements.” The same is true of the role of beliefs and expectations in reality appraisal. We often see what we expect to see, and in some situations this can lead to disastrous mis-assessments (e.g., the intelligence failure leading to Pearl Harbor; Wohlstetter, 1962). However, as Jervis (2006, p. 650, emphasis ours) also notes, “most *correct* inferences are also strongly influenced by expectations.”

As if all these matters didn’t spell enough trouble for the assumption of analytic rationality, it turns out that “a thorough canvassing of problems, information, and options is not always necessary to arrive at a sound decision” (George, 1997, p. 44). There are a number of reasons this might prove to be true in practice, but among the most important is that “the conscious exercise of leadership in a crisis situation in order to direct the focus of group deliberations away from options already discarded *for good reasons* and towards issues where the executive feels the a particular need for group input is a legitimate response to the constraints on decision making” (p. 45, emphasis in original). George’s example is John Kennedy’s decision during the Cuban missile crisis, reached after careful preliminary analysis focused on the detrimental consequences of an accommodative strategy, to pursue forward-leaning policies.

Perhaps even more startling was George’s (1997 pp. 44, 48–49) assertion that “Sound decisions by executives do not always require vigilance or consensus within the group.” This observation followed the entry of “groupthink” (Janis, 1972) into public discussion and the copious research documenting dysfunctions of the group decision process (‘t Hart, 1994). It also followed George’s (1972a, 1972b) earlier work on the importance of “multiple advocacy” in the group decision-making process to insure a diversity of perspectives. Among Alex’s reasons for not giving the group more importance than its due were: a poor group process is not tantamount to a poor decision process as a whole; while many decisions take place within a group process not all do; and executive decisions do not necessarily depend on group consensus.

This last point brings up the variable role that leadership psychology plays in the importance of group dynamics and decision processes. The traditional formulation of this issue focuses on the ways in which the leader might misuse his advisors to buttress his own emotional doubts and insecurities. George and George (1964) in their classic study of Woodrow Wilson and Colonel House illustrate this phenomenon at work when they examine how dependent President Wilson became on his close friend and advisor for emotional support.

However, this dynamic works in two very different ways that are not always distinguished. First, there are leaders who need emotional buttressing *to reach* a decision. As George (1980, pp. 6–7) notes of William Howard Taft, he was almost paralyzed by the conflicting advice he received from his advisors and adopted a passive stance toward his presidential role. Such a psychological stance is tailor-made for fostering a leader’s dependency on the emotional support of the group.

On the other hand, some leaders use the group to buttress decisions they have *already reached*. This model appears to fit Johnson's Vietnam decision making after he had arrived at the conviction that the United States had to help South Vietnam for a number of strategic reasons. Group consensus did not lead to Johnson's strategic decision; he pressured the group to support it. In this condition, presidents are likely to force group consensus and dampen dissent.

However, there is one more variant of the leader-group relationship that has, to our knowledge, not been conceptualized or examined. That is when it is the group (rather than the leader) that needs to be buttressed in order to perform its functions effectively. This neglected aspect of the leader-group relationship is suggested looking at the Bush Administration's decision to invade Afghanistan in the aftermath of 9/11. According to Bob Woodward (2002, pp. 259–262), Bush saw the need, which he regarded as his responsibility, to buttress his senior advisors. Many of them were fatigued from the extensive meetings that had been taking place since the 9/11 attacks (p. 242). And some of them were anxious and uncertain during the first 19 days of the Afghanistan attack, especially in light of negative new stories that criticized the rate of progress toward the Administration's goals. Bush felt he had to "inject some calcium" into the group backbone and did so by reassuring them he would not hold them personally responsible if their plans ran into difficulties, because this was the nature of even the best-laid plans (p. 261).

The above example is a reversal of the type of leader-group dynamics that are ordinarily studied. To the extent that group members have serious anxieties and doubts, their abilities to raise and address the many issues that need to be resolved can become inhibited. This is not a matter, we hasten to add, of prematurely or inappropriately suppressing doubts to buttress the leader's decision. It is rather to recognize that every possible plan has risks and to avoid being paralyzed by these facts in reaching a course of action and enduring the inevitable anxiety as it plays out. Mr. Bush was not trying to rally his advisors to support a decision he had already made, but rather to buttress his advisors (who had helped to make that decision with him) so that they could continue to give effective assistance in consideration of policy options.

The question of what kinds of leaders are likely to buttress group functioning, for what purposes, and with what effect leads to a new set of questions. It seems clear that leaders with a strong and consolidated sense of self and identity may not be dependent on the group's emotional support, but it also raises the danger that they will feel as if they can dispense with the group's advice. Leaders with strong strategic views and very high self-confidence may simply become their own most trusted advisor, thus depriving themselves of additional perspective. This suggests that such leaders need to have one or more trusted advisors whose perspective differs enough to provide alternative perspectives. Note: this is not the "devil's advocate" position, but rather reflects the need for the president to have persons whom he trusts and will listen to nearby.

High Quality versus Fitting Decisions

The quest for criteria by which to judge the quality of decisions has proved to be complex, necessary, and thus far elusive. Two early candidates as appropriate criteria were the concepts of “national interest” and of “analytic rationality.” In his early writings George (1980, p. 3) pointed out that the “national interest” was frequently used as the benchmark for high-quality decisions about foreign policy although it had a number of serious limitations. Foremost among these limitations was that the national interest is a “nonoperational goal.” That is, the concept cannot be used to measure or compare alternative choices without reference to subgoals that are unspecified in the more general concept.¹¹

What of rationality? Alex argued that this was not very useful as a guide, either to the decisions of other actors in the international system or for that matter for American foreign policymaking. This was true because, “to describe behavior as ‘rational’ was to say little more than that the actor *attempts* to choose a course of action that he *hopes* or expects to further his values” (George, 1980, p. 67, emphasis ours). Moreover, Alex’s work on the psychological and cognitive sources of limitations to rationality undercut (but did not fully negate) its utility as a solid metric for the quality level of decisions. That is, we know there are serious cognitive impediments that seem to preclude describing any decision as fully “rational” (at least in the strict sense of the term). And if no real-world decision can live up to this standard, it ceases to be useful as a benchmark to guide our analysis.

So if robust assumptions of rationality wouldn’t do, if appeals to the “national interest” tend to be idiosyncratic and subjective, and if good procedures do not necessarily result in good decisions, how then are we to evaluate the quality of consequential foreign policy decisions? George (1980, p. 228, emphasis ours) gives us an important clue when he writes: “When the use or threat of force is being contemplated, a carefully articulated *fit* between the interests taken and the actions would be required.” The idea of evaluating decisions on the basis of their fit has much to recommend it, not as an *a priori* criterion, but as analytic tool for reaching a “high-quality” decision.

The primary criterion for “fitting solutions” is implied by the name of the concept itself, that the diagnosis and resulting policies actually and factually fit the issue at hand. A high-quality decision then must begin with an accurate understanding of the problem. Only then can its implications be grasped and the process of finding a “fitting” solution begun. Notice that the word “fitting” has a double

¹¹ Though George (1980, pp. 227–228) did propose three “irreducible” national interests (physical survival, liberty, and economic subsistence), he admitted that this “hardly” solved the problem of using “national interest” as a guide to foreign policy). By specifying these interests so strictly, there existed the (significant) possibility that situations would appear which did not directly involve any of them, thus leaving policy makers no guide as to how to order their priorities. Thus it is probably best to conclude that, at best, these irreducible national interests should serve only as starting points in evaluations of foreign policy choices.

meaning here. It refers to the actual empirical fit between the understanding of the nature and implications of the problem, and it refers to possible responses that might be fitting (i.e., appropriate), given the stakes and risks involved.

So, we must ask of a “fitting” diagnosis: Does it grasp the essential elements of the circumstances that decision makers face in a way that accurately captures their implications? Do the possible nuances, complexities, and ambiguities of the circumstances that might enter into the judgment significantly alter its fundamental insight? It is one thing to consider nuances, but it is another thing to give them too much weight in the analysis. A fitting response, one that makes sense in view of the specific problem at hand and the multiple interests and risks raised by it, depends on a fitting diagnosis at the outset.

An excellent example of a “fitting diagnosis” is President Kennedy’s response to the discovery of Soviet missiles in Cuba in 1962. It is also a useful lesson for decision makers precisely because Kennedy’s initial reaction was anything *but* fitting. In fact, the initial reaction was quite emotional; Robert Kennedy described the atmosphere in the Oval Office as one of “shocked incredulity” (Kennedy, 1999, p. 23). Yet, what followed that immediate reaction is useful to reiterate. That first day of the crisis (Tuesday, October 16, 1962), President Kennedy authorized more U-2 flights to obtain intelligence on what capabilities the Soviet already had in place and what was *en train*, consulted his top advisors, summarized their disparate judgments into several possible responses, and asked penetrating questions of those same advisors (May & Zelikow, 2002). He (and his advisors) also considered a wide range of options, from diplomacy, to a blockade, to a full-scale invasion. And while the President did consider the possible motivations that Khrushchev might have had for the deployment, he did not allow himself to become bogged down attempting to figure out the “root cause” of the crisis.

In short, President Kennedy asked the simple, but important, question that was necessary to obtain a fitting diagnosis: what does the action mean? That is, what are its implications on the various levels (political, military, psychological, etc.)? And, what can be done about it? We do not mean to imply that the Cuban Missile crisis is an example of perfect decision making, and it is probably used too often in our discipline as the holy grail of “good process.” However, the ubiquity of the example should not dilute the important lessons that can be drawn from it.

It is the nature of judgments about initial framing decisions that still leaves a great deal of discretion for “fitting” policy responses. Kennedy’s initial judgment that the United States could not accept nuclear missiles in Cuba still left open a wide range of possible responses. Yet, the initial framing of a situation can exert tremendous influence on policy decisions far into the future. And, needless to say, framings and judgments that fit a situation one moment may be inappropriate under different circumstances. Leaders are often forced to make not just one decision about a given issue, but a series of them over a span of time. Ideally, leaders should specify some reasonable interval at which to re-examine their basic assumptions and framing of issues. Unfortunately, initial framings can be quite

persistent and highly resistant to change, making implementation of this suggestion unlikely, especially under the severe time pressure that accompanies many decisions regarding the use of force.

On Good Judgment

Research on the psychology of political decision making that is evaluated with respect to a “rational model” of decision making may have reached a point of diminishing utility. More controversially, the same might be said for studies that document the myriad ways in which decision makers fail, psychologically and cognitively, to measure up to the rational actor model. It is unlikely that any researcher or critic can go wrong demonstrating how senior decision makers fail to measure up to an iconic and mythical model in which perceptual acuity is unaffected by character psychology cognitive limitations, information processes are not influenced by standard heuristic devices, and problem framing is not influenced by the effects of existing and often strongly held belief systems.

This view, should we embrace it, leaves us with a dilemma: How could we better conceptualize the making of consequential policy choices? In his last book, George (2006, p. 66) recalled an observation made in the early days of RAND (where he worked) by Charles Hitch, a founder of modern systems analysis and the Economics Division there. As Alex recalled, Hitch had said that “the results of even the best systems should be regarded as an aid to the preparation of policy decisions, not as a substitute for the ‘judgment’ of the policymaker.” Alex went on to say that, “I have tried ever since to understand what is meant by judgment in this context.” He noted that psychologists “had written a great deal about the ways in which judgment can be influenced and distorted by cognitive dynamics,” but that “I have not found in them a complete or satisfactory answer to the question of what constitutes the ‘judgment’ of policymakers” (p. 66).

In many of the papers that Alex was referring to that have demonstrated judgment failures, psychologists assess choices against known probabilities that subjects fail to perceive, understand, or act upon. Good judgment then consists of being able to do these things when researcher-provided probabilities are given. But does this really tell us very much about how George Kennan reached the essential understanding that led to containment, or what framing judgment best fits our conflicts with Iran?

One of us (S. Renshon, 1998, pp. 214–216) has proposed a different approach to the psychological study of good judgment in decision making that involves the following set of composite skills, including the ability to: (1) See the framing decision for the crucial choice point that it represents; (2) Understand the essential elements of a problem and their significance and place it within an appropriate judgment framework; (3) Consider and reflect on the range of issues and values raised by the situation in order to adequately deal with the various interests (political, social, and psychological) involved; (4) Consider and reflect on

information which is frequently limited and often discordant in order to reach at least a preliminary sense a fitting response; (5) Make use of, but not be subservient to, feeling or impulse including the anxiety generated by uncertainty and high risk; (6) Place these considerations in a framework of understanding which adequately assesses the basic nature of the problem and point to a range of responses that preserve, and even perhaps advance, the values and interests at risk to develop a fitting solution; (7) Draw on the understanding of the past and present (point 1) to consider how alternative choices will shape the future (the extrapolation of implications); and (8) Develop, set in motion, and maintain a series of steps to accomplish purposes consistent with one's understanding of the issues raised and values at risk: the steps should accomplish these goals with minimal possible or necessary harm.

This list includes both analytic and reflective skills. Some of these capacities are clearly cognitive. Others are more clearly affective. Some require the leader to translate effective thought into effective policy. All, taken separately and certainly together, would seem to improve the chances of what Alex termed "high-quality" decisions.

In spite of the barriers imposed by cognitive limitations, worldview assumptions, and emotional as well as political needs, some choices have proven better than others. Ordinarily, claims of a "good decision" rest on a positive outcome. However, a beneficial end result is neither a necessary nor a sufficient condition for a quality decision. There is simply too much "slippage" between decision and implementation in international politics to measure judgment based solely on an outcome. Some of these sources of slippage are foreseeable, and we hold leaders accountable should they neglect to factor them into decisions. The political world is strategic, in the sense that actors must take into account how their actions will influence the actions of other actors. Yet many sources of slippage will always be both unforeseeable and impossible to account for in an initial judgment.

In retrospect, for example, containment theory has proved to be a very successful fitting diagnosis of a major foreign policy problem and historically a very successful framework for guiding policy derived from it. Yet containment theory evolved over time, and while it was very successful overall, it was not uniformly so. Paralleling "high-quality" decisions, good judgments do not guarantee good or easily achieved policy outcomes. And, it should be observed that sometimes this very successful policy of containment entailed the use of force, coercion, and subversion regularly throughout the Cold War.

Bridging the Gap: Towards Better Judgment

Alex's work was not only focused on detailing the ways in which psychological and cognitive dynamics could distort the decision process, but also on researching practical suggestions to help improve the quality of decisions. Of

these, two stand out: the suggestion of multiple advocacy and the use of the devil's advocate in the advisory process.

Multiple Advocacy

The purpose of the "multiple advocacy" structure is to harness the conflict and disagreement inherent within the decision process and use it to improve the quality of the overall process. This system is best described as a "mixed" structure in that it combines executive initiative and centralized coordination in addition to a multiple actors representing diverse viewpoints (George, 1972).

The conditions necessary for a multiple advocacy system to work are (George & Stern, 2002): (1) advocates should exhibit an "adequate degree of diversity of views"; there are no major discrepancies in the distribution of power (influence), competence and information (relevant to a given policy issue), analytical resources, and bargaining/persuasion skills; (2) there is presidential-level participation to monitor and regulate the advocacy process; and (3) there is sufficient time for adequate debate and "give and take."

These requirements are more difficult to fulfill than it might seem at first. For example, the mere presence of actors with competing interests or viewpoints will not guarantee adequate consideration of all plausible policy options. Those who hold views that dissent from the majority (thus fulfilling the definitional requirement of "adequate diversity of views") might be marginalized, making it "multiple advocacy" only in the most shallow sense of the term.

In order to ensure its smooth functioning, the multiple advocacy system requires two additional roles besides "advocate": the *custodian* and the *magistrate*. The custodian of the decision process (generally a senior assistant or counselor to the executive) is particularly important in situations in which any of the three conditions noted above do not hold. If there is, for instance, an obvious disparity in "bargaining advantages" among advocates, it is the job of the custodian to intervene (George, 1972a, pp. 761–762).

The executive, in addition to ultimately deciding among the options presented to him, may request advocacy from outside sources, or even play the role of advocate himself. However, more generally the executive will take on the "magistrate" role, presiding at the apex of the decision structure, allocating resources, and ultimately, making the final decision. This is essential for two reasons. First, the presence of the magistrate means that the advisors will be competing not against each other, but for his (or her) attention. This helps to prevent the process from devolving into a decentralized free-for-all. Second, and more importantly, the magistrate has the ability to level the playing field on which his advisors advocate their positions. Though George specified that an equal distribution of skills, bargaining abilities, and influence is necessary in theory, in practice it is unlikely to always be the case. The magistrate can compensate for an unequal distribution, thus helping to ensure a better decision process.

Devil's Advocate

Following the Bay of Pigs disaster, which was marked by a seemingly unanimous confidence in the operation before the fact, Robert Kennedy (1999, p. 86) suggested to his brother that thereafter a “devil’s advocate” always be present to give an opposite opinion. Years later, President Carter held the final meeting at which he gave the go-ahead for “Desert One”—the disastrous Iran hostage rescue mission—immediately after the lone skeptic of the mission (Secretary of State Cyrus Vance) had left town (Smith, 1985, pp. 120–121). These two examples suggest the importance of the dissenting or skeptical individuals to call attention to potentially fatal flaws in policy decisions. Unlike “multiple advocacy,” the “devil’s advocate” describes a *role*, not a complete structure of decision making.

While the intuitive logic behind introducing a devil’s advocate role into a decision process is evident, the implementation is complex. Ideally, it would mean that in every important policy discussion, at least one senior advisor hold or take a dissenting position and argue in favor of it. However, a “true dissenter” cannot be counted on to be present in all situations (see above on the Bay of Pigs), and someone charged with the role of dissenter is also understood to be play acting and does not really favor that position. While a “true dissenter” would seek to develop a coalition to block or even to overturn the majority—and bring all their available resources to bear on the issue—a designated devil’s advocate is not likely to do either (George & Stern, 2002, pp. 486–487).

In essence, the presence of a “devil’s advocate” is designed to combat the problems posed by an excessive tendency toward “consensus-seeking behavior,” or group conformity (conventionally referred to as groupthink; George, 1975, pp. 286–287). Yet, while it may serve as a useful corrective against *subtle* marginalization of dissenters, the role of “devil’s advocate” is only useful insofar as the executive empowers the individual in that role. It is not enough, as Shlaim (1976, p. 375) points out, for the individual playing the role to be merely “tolerated.” Just as a leader may marginalize the positions and opinions of a true dissenter (such as President Johnson reportedly did to Undersecretary of State George Ball), a devil’s advocate may suffer the same fate, for a number of reasons (George & Stern, 2002, p. 488).

Debiasing

How likely is it that decision makers can overcome the cognitive and psychological elements that may prevent them from reaching high-quality decisions? The evidence to date does not give us much confidence. Many of the cognitive distortions mentioned earlier have been demonstrated to be surprisingly resistant to what is known as “debiasing.” This process refers to any intervention that has as its goal reducing or eliminating the biases from the cognitive processes of the decision maker (Bazerman, 2006, p. 193). The relevant ques-

tions are: Which biases are susceptible to “debiasing,” how do we do it, and how much impact can we have?

Consider “irrational escalation of commitment.” This occurs when individuals continue to persevere in losing or failing ventures, often pouring more and more valuable resources into them, in the hopes of eventual success. This is “non-rational” because cost/benefit calculations should not include resources *already* expended (i.e., sunk costs), and yet individuals have a very difficult time disregarding this factor. Moreover, there is not yet a consensus on its true cause. For some, the “illusion of control” plays an important part by leading individuals who are committed to a course of action to exaggerate the extent to which they can control its outcome (Staw & Ross, 1989, p. 216; Tyler & Hastie, 1990, pp. 79–80). Others have made a “self-justification” argument in which the culprit is the individuals’ unwillingness to admit that a previous decision or allocation of resources was in vain (Brockner, 1992, p. 39). For others, the most important causal factor is the aversion to certain losses described by prospect theory (Kahneman & Tversky, 1979). This debate is important, since what particular phenomenon causes non-rational escalation has important implications for how pervasive it is likely to be (Whyte, 1986, p. 311). It also has implications for how one might go about trying to mitigate any unnecessary escalation.

Further research on this psychological tendency is necessary in order to determine its root cause. Until then, however, the most pressing issue is how we ameliorate the effects of this particular bias. We know, for instance, that individuals are more likely to engage in escalation of commitment if the need for “external justification” is present. The relevant question then is whether the decision maker is *publicly* or *privately* committed to a course of action. Or in the realm of international politics, we might ask which audience is aware of his commitment. The finding mentioned above suggests just how damaging national security “leaks” can be by exerting a subtle (often unnoticed) pressure on decision makers to escalate commitment instead of reevaluating their options or cutting their losses.

Attribution

The problem of (mis)attribution is a pervasive one in international politics. How a leader understands or explains the actions of adversaries has critical implications for foreign policy decisions. Whether hostile actions were the result of truly aggressive intentions, or a by-product of situational constraints, matters a great deal. And yet, individuals tend to “overattribute” behaviors to disposition and systematically discount the importance of situational context and constraints. Because of its clear importance in organizational and political decision making, significant amounts of effort have been devoted to attenuating the effects of attribution errors, though the results so far have been mixed.

One measure of how robust attribution errors are comes from an experiment in which subjects read a study of how people can make errors in attributions and

then *proceeded to make exactly the same mistake that they had just read about*, predicting behavior on the basis of dispositional (such as religiosity) rather than situational factors (Pietromonaco & Nisbett, 1982, p. 1). More recently, Kramer (1994) found that “rumination” (i.e., spending more time thinking about something) actually increased the tendency to exhibit attribution errors. In line with previous research on the subject, rumination also increased the subjects’ confidence in the accuracy of their judgments (Wilson & Kraft, 1993, p. 10). So, not only did subjects in this experiment misattribute causality, they became more convinced that in doing so they were correct!

However, others have had some success in preventing attribution errors. Tetlock, for instance, found that social accountability had some effect on attribution. Subjects were asked to attribute the behavior of “targets” that had supposedly written pro- or anti-affirmative action essays under conditions of high or low choice.¹² Those that were told beforehand that they would be held accountable for their explanations of behavior were much less likely to commit attribution errors by emphasizing dispositional influences in the low-choice conditions (Tetlock, 1985, p. 232).

However, this effect was produced only when subjects were told *before* the experiment that they would be accountable; for those that were told they would have to justify their attributions after those attributions had already occurred, accountability did not modify the FAE significantly. In addition to testifying to the robustness of the error, this result provides important implications for debiasing attribution errors. Unlike some other cognitive biases, attribution errors do not seem likely to be ameliorated or attenuated by “corrective” or “compensating” measures. In this case, preventive interventions—either through social accountability or some as yet undiscovered mechanism—hold the only hope of marginally improving the accuracy of attributions in international politics.

One intriguing experimental result with implications for debiasing comes from the world of behavioral game theory. Alker (1996, p. 321) conducted a series of asymmetric prisoner’s dilemma games in which he noted and tracked the players’ own strategy and understanding of their opponent’s choices. After time, an interesting phenomenon emerged: the shared understanding of moves changed. While at the beginning defections were treated as indicative of aggressive intent, later on in the game they were understood more often as “mistakes.” Alker attributed this to the change in the social context that occurred after the string of mostly cooperative moves by both players (Alker, 1996, pp. 321–323; see also Johnston, 2001, p. 491). This finding has interesting implications for the process by which adversaries or rivals might change the dynamics of their relationship, a process that is understudied in international relations theory. It also

¹² In the “low choice” condition, respondents were told that the writers of the essays had been given an assignment to argue a particular point of view (either against or in favor of abortion). In the “high choice” condition, respondents were told that that writers had been able to choose which position to argue.

points out a new direction for future research since previous research on attribution errors has focused on single decision points, not repeated interactions.

Positive Illusions

Two areas where intervention seems able to make a difference are overconfidence and unrealistic optimism. There is evidence, for instance, that training participants in negotiations on the pernicious effects of overconfidence improves negotiation outcomes. Bazerman and Neale (1982; see also Neale & Bazerman, 1985) found that training tended to decrease the participants' subjective estimate of success, as well as making them more likely to offer concessions (possibly as a result of a less rosy estimate of their chances of success). On the other hand, the same study found that encouraging participants to consider the other side's perspective in the negotiation actually *increased* their overconfidence and led to fewer concessions (Bazerman & Neale, 1982, p. 546).

One method of compensating or correcting for overconfidence is the "murder board," a tradition in the Pentagon for many years. This *ad hoc* committee is composed of experienced officers and decision makers who review the plans for important missions, with the view of finding enough flaws to kill the mission (Heath, Larrick, & Klayman, 1998, p. 22). There is also evidence that the informal practice of convening such a group before important decisions or presentations has seeped into other areas of government: a science advisor reports that doing so was a "tradition" in Washington before presentations to Congress (Bromley, 1994, p. 21).

In one notable instance, the demand for secrecy and the desire to minimize the number of people aware of a potential mission led decision makers to decide not to convene a "murder board": the result was the disastrous Iranian hostage rescue mission in 1980. The Holloway Report (1980) named the failure to have the plan vetted by independent analysts as a possible cause of the failed mission. In essence, the planners of the mission had been responsible for reviewing and critiquing their own product, a sure recipe for allowing positive illusions to cloud objective judgment.

Preparing Decision Makers: A Psychological Approach

In a paper analyzing the mistakes that intelligence analysts made in not correctly assessing Soviet intentions before the 1962 Cuban missile crisis, one member of that community recalls that *post hoc* assessments of the analytical reasoning that went into those judgments suggested that "many of the pitfalls new analysts in the Intelligence Community are now taught to avoid" were actually "in mind when the [flawed] estimate was written" (Smith, 2007). That is, intelligence analysts in 1962 were aware of many of the cognitive traps to which analysis can fall prey, but made the errors nonetheless. He concludes that "The crucial lesson,

therefore, is that simply being aware of our mental traps is not enough. To reduce the potential for analytic errors, some form of analytic structuring technique must be used to overcome cognitive traps" (Smith, 2007). How that can be accomplished is not easily discerned. The evidence from debiasing experiments suggests that the results are uneven at best. More difficult is the question of when any form of "analytic restructuring technique" will be applied. And, as we noted, senior decision makers are extraordinarily busy, and it hardly seems likely that they will want or be able to interrupt their ongoing responsibilities to attend seminars on these techniques. There is finally the question of which of the many cognitive routes to error will be addressed by "restructuring." The list of such sources of error is long, and life is short.

It seems clear that on-the-job training for high-level decision makers to gain better skills runs up against the problems of time, achieved success ("if I were that bad, would I be here?"), and the consolidation of cognitive preferences and strategic outlooks at this stage of life. All these elements point to the need to start earlier in a person's career, perhaps at the beginning or mid-level. This points to *when*, but does not address the issue of *what*.

The second author of this paper (S. Renshon, 1998, pp. 427–438) has suggested the term "guided self-reflection" for this process to distinguish it from its psychotherapeutic counterparts, on the one hand, and more didactic methods, on the other. The purpose of guided self-reflection would not (indeed, could not) be the impossible task of uncovering or eliminating all the many psychological factors that can interfere with good judgment, but rather to uncover and trace as many connections within the decision makers' policy thinking as possible so that they will be aware of them. This will require attention to at least two levels. The first would include how leaders gather and organize information relevant to solving particular problems. The second would look more closely at leaders' beliefs, assumptions, and inferences as they proceed through the process of reaching a decision about the policy under discussion.

The vehicle for this would be Decision Analysis Seminars that meet a number of times to address a particular national security question, say what to do about Iran. Seminar participants would be charged with developing policy guidelines and a set of cautions and limiting assumptions for the policy dilemma under consideration. Among the illustrative questions the group might take up are: What is the problem; What are the various ways it can be conceived; What is the appropriate frame of analysis; What are the strategic and policy implications of framing the problem in different ways; What are the policy objectives; What are the political, social, ethical, and psychological implications of the alternatives suggested; What measures or indicators, both subjective and objective, of policy failure or success can be developed?

To this point the Decision Analysis Seminar resembles many policymaking groups, but is distinguished by a second Guided Self Reflection Track in which participants are encouraged to consider their own personal decision making styles.

Among the illustrative questions that might be addressed (either outside of or partially within the seminar setting) are the following: On what basis did the participant place the problem into that particular frame? What evidence was used? How did that frame fit or not with their own strategic or operational beliefs about similar matters? What weight was assigned to various elements of evidence? On what basis? On what basis did the participant assess the various policy alternatives that are suggested? What was his or her thinking? Did aspects of this problem remind the participant of any past ones? How is it the same or different? What gaps are there in what you knew? What inferences did you make to fill those gaps in and on what basis?

This partial list of questions is geared to encourage participants to reflect on their own belief systems and decision-making preferences in the context of trying to solve a real-world problem. Each participant might also be asked to keep a “decision journal” of their reactions to the unfolding decision seminar and its processes. They could also be asked to address specific questions in this journal, designed to tap their own values, beliefs, and assumptions. Of particular interest will be the opportunity for participants to reflect on the “lessons” they have learned about policymaking and leadership, and the ways in which these lessons frame their approach to the decision process. Guided self-reflection, away from the high-stakes consequences of real-life national security decisions for people who want to both work in the area and do it well, would tap into the strong motivation currents for becoming better, more conscious decision makers.

Conclusion

The importance of decision making to national security decisions can hardly be overstated, and we are fortunate that a scholar of Alex George’s intelligence, perceptual acuity, and discerning analytic skill made it a cornerstone of his life’s work. In that work, as we have suggested, one can see the evolution both of his thinking and of the field. We can no longer by-pass the fact of the inherent subjectivities built into human decision making in favor of “the *ideal* of analytic rationality” (George, 2006, p. 64, emphasis ours). Good judgments are necessarily subjective yet they can still lead to “high-quality” decisions. We can no longer assume that group processes are necessarily detrimental to sound decisions. Groups can and do provide emotional support, but not every leader needs that. Sometimes the leader buttresses the group, rather than the reverse. Nor does a poor decision process within the group necessarily lead to a poor decision process overall. Savvy executives will not become dependent on one decision group for their options. At the same time, we cannot continue to assume that either “good judgments” or “high-quality” decisions will lead to easy, salutatory outcomes. Other participants have their own, not necessarily compatible, goals and resources.

Finally, in assessing our strategic circumstances, we can no longer assume “rational actors” are the norm either here or abroad. Wars *do* begin in the minds of men, as the UNESCO preamble asserts (UNESCO, 1945), but they are not only the result of mistaken perceptions. There are aggressive tyrants with hegemonic ambitions in the world that see force, coercion, and subversion as legitimate and useful strategies for attaining their purposes. What to do about such leaders and countries remains one of the profound strategic questions of the post-9/11 security environment.

A research paradigm that asks only how we can avoid conflict, and which assumes that more accurate perceptions will allow us to do that, neglects critical questions regarding the motivational psychology and strategic views of some of the leaders and states we must take into account. Decisions about the use of force have a curiously asymmetric quality. Many ask how the conflict could have been avoided. Fewer ask: When might conflict be necessary? Is it possible that a failure to consider the latter is itself an important cognitive or framing error?

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