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Political Psychology and Foreign Policy

Scholars have developed a number of alternative frameworks to organize explanations of foreign policy behavior.[1] Perhaps the most influential is the levels-of-analysis framework, which emerged from Waltz's (1959) distinction between three different images of war in international politics: individual, nation-state, and system. Some scholars disaggregate the national level into separate societal and governmental levels (Rosenau, 1966), and others suggest a small group level (Janis, 1982; 't Hart, 1990). Psychological variables, which are the focus of this essay, originate at the individual level of analysis but interact with causal variables at several other levels in explaining foreign policy decisions and actions.

Psychological variables are also useful for the analysis of behavior at other levels of the dependent variable, or other "units of analysis."[2] They are central to the explanation of individual beliefs, preferences, and decisions, and to decision-making in small groups and organizations as well as states. By shaping foreign policy, psychological variables affect outcomes at the dyadic and systemic levels. They also affect public opinion, nationalism, identity formation, and other variables operating at the societal level. My primary focus in this essay is on the impact of psychological factors on judgment and decision-making by political leaders. The influence of psychological variables on identity formation and intergroup conflict is discussed elsewhere in this book, particularly in chapters 15, 16, 19, and 20.

I begin this essay with some general conceptual issues confronting the application of psychological variables to foreign policy and international relations. After a brief survey of the historical evolution of applications of social psychology to the study of foreign policy, I examine the role of psychological variables in some of the leading paradigms of foreign policy analysis during the last half-century. I argue that psychology had little direct influence on early decision-making models in international relations, and that the turning point in the systematic development of a cognitive paradigm of foreign policy analysis came with Jervis's (1976) seminal study of perceptions and misperceptions in international politics. Jervis's emphasis on the cognitive biases that distort judgment and decision-making have particularly important implications for the study of threat perception, which I discuss in some detail. I examine the concept of misperception and describe common psychological biases and the cognitive heuristics and emotional factors that give rise to them. I then look at the impact of framing effects and loss aversion on decision-makers' evaluation of outcomes and

on risk propensities. I conclude with a brief discussion of some other areas of foreign policy analysis that would benefit from greater attention to political psychology.

Preliminary Conceptual Issues

It would be useful to start with some general limitations on the utility of political psychology for foreign policy analysis. First, psychological variables, which originate at the individual level, cannot by themselves provide a logically complete explanation of foreign policy, which is a state-level dependent variable. Psychological variables must be integrated into a broader theory of foreign policy that incorporates state-level causal variables and that explains how the preferences, beliefs, and judgments of key individual actors get aggregated into a foreign policy decision for the state. True, in a highly centralized state the preferences of the dominant decision-maker may determine state foreign policy, but in that case the centralized nature of the state itself is part of the explanation. This does not preclude the possibility of psychological variables having the most powerful influence on foreign policy, in terms of explaining most of the variance in foreign policy outcomes, but it does require that psychological variables operate in conjunction with variables at the state level of analysis.

Similarly, because war and other forms of strategic interaction are the joint product of the actions of two or more states at the dyadic or systemic levels, psychological variables (or domestic or government-level variables, for that matter) cannot by themselves provide a logically complete explanation for war or for other international patterns. Such explanations require the inclusion of dyadic or system-level causal variables. This is what Waltz (1979) meant when he argued that a theory of foreign policy is not a theory of international politics.

While psychological variables cannot by themselves provide a *sufficient* explanation for state foreign policy behavior, the question of whether they are *necessary* for such an explanation raises a different set of issues. Some argue that because state actions require decisions by political leaders, it is necessary to include decision-makers' preferences and perceptions in foreign policy explanations. Snyder, Bruck, and Sapin (1962, p. 33; quoted in Jervis, 1976, p. 13), for example, argue that if one wishes to probe the *why* questions underlying the events, conditions, and interaction patterns that rest on state action, then decision-making analysis is necessary. The implicit argument is that international structures and domestic forces influence foreign policy only insofar as they are perceived, interpreted, and evaluated by foreign policy decision-makers, and that a theory of foreign policy must explain each link in the causal chain leading to foreign policy decisions and international interactions. The problem with this argument is that it is reductionist, because not all links in the chain necessarily carry causal weight. It also posits an impossible standard, because there is a potentially infinite number of links in any causal chain. As Jervis (1976) notes, "One can always ask for the links between the links" (p. 14).

Our aim as social scientists is not to explain all the links but to explain variations in outcomes, and to do so with theory that abstracts from a "complete" description of reality and identifies the key causal variables and relationships. It is conceivable in principle that international and domestic structures could explain all or almost all of the variation in foreign policy outcomes. Most neorealists, for example, argue that system-level distributions of power and associated variables explain most of the relevant variation in foreign policy and international politics (Mearsheimer, 2001), though Waltz (1979) argues that international structures explain only systemic patterns and not particular state foreign policies.[3]

If it were true that systemic structures explained most of the variance in foreign policy behavior, the question is whether a complete explanation of foreign policy decisions would still require the specification of the intervening causal mechanisms, including the beliefs and perceptions of individual decision-makers. Specifying a complete causal chain, and incorporating the place of individuals in that chain is not the same as saying that individual-level variables have a causal impact on the outcome. If different individuals responded in the same way to similar situations, then individual beliefs and perceptions would be endogenous to (explained by) the situation and have no autonomous causal impact.

Other than neorealists, most foreign policy analysts reject this structuralist claim and argue instead that structural systemic variables cannot by themselves provide a satisfactory explanation of the foreign policy behavior of states. In terms of the psychological variables of interest here, the working assumption is that variations in the beliefs, psychological processes, and personalities of individual decision-makers explain a significant amount of the variation in foreign policy behavior of states in the international system, and that these variables are not endogenous to systemic structures or domestic interests. The contribution of psychological variables to foreign policy analysis rests on their ability to explain significant additional variation in outcomes and not just on their ability to explain more of the "links between the links."

The Evolution of the Study of Psychology and Foreign Policy

The study of foreign policy has evolved in significant ways over the last half-century. Prior to the 1950s, foreign policy analysis was more descriptive, policy driven, and interpretive than theoretical. It typically involved single case studies that were bounded in space and time and that did little to facilitate theoretical generalizations that might be valid for other times

and situations. Foreign policy analysis was also more outcome oriented than process oriented. Scholars were more interested in describing the foreign policies of states and providing general interpretations based on different conceptions of policy goals and strategies for advancing them than in looking inside the "black box" of decision-making and analyzing the processes through which foreign policy is actually made.

To the extent that the study of foreign policy gave much attention to the foreign policy–making process, there was no well-developed, systematic paradigm of foreign policy analysis before the 1960s. Some scholars implicitly adopted a rationalist framework, in which states had certain 'national interests' that political leaders attempted to maximize through a careful weighing of costs and benefits. This framework, which was not fully systematized until Allison (1971) constructed his "rational actor model," allowed no role for political leaders' personalities, emotional states, flawed information processing, or other psychological variables.[4] Other scholars implicitly assumed that there were significant departures from rationality in the formulation of foreign policy, but they made little effort to draw on the literature in social psychology to categorize these deviations or to explain them.

Interest in the psychological dimensions of foreign policy and international relations goes back at least to the 1930s, but most of this work was by personality and social psychologists rather than political scientists.[5] Much of the focus, after the experiences of World War I and then World War II, was on the psychology of war and war prevention. The growing interest in the study of attitudes (Thurstone & Chave, 1929) led to the examination of attitudes toward war, nationalism, and aggression (Droba, 1931; Stagner, 1942). Following Freud's emphasis on aggressive instincts as the root cause of war (Einstein & Freud, 1932),[6] there was considerable interest in applying psychoanalytic perspectives to the study of war (Durbin & Bowlby, 1939). Others adopted general learning frameworks (May, 1943), and there were more specific studies of the sources of tensions and possible means of alleviating them (Cantril, 1950; Klineberg, 1950).

Most of this work had little impact on the study of war and peace in political science.[7] One reason was that psychoanalytic and social learning perspectives focused more on the question of what made war possible, or what explained the general proclivity toward war, rather than on the more social scientific and policy relevant question of the conditions or processes under which war was most likely to occur. Another reason for the lack of influence of the social-psychological literature on war and peace was that it generally extrapolated hypotheses of individual behavior to the international level without attention to the specific causal mechanisms leading to war or the distinctive political and international contexts for cognition and choices about war and peace. As Kelman (1965) concluded in his useful review of the evolution of psychological approaches to the study of international relations, "any attempt . . . to conceptualize the causes of war and the con-

ditions of peace that starts from individual psychology rather than from an analysis of the relations between nation-states is of questionable relevance" (p. 5). As I will show, the study of psychology and foreign policy has not fully transcended this limitation.

By the 1950s and 1960s social psychologists had begun to devote more attention to the study of attitudes toward foreign affairs and the social, demographic, and personality correlates of foreign policy attitudes (Larson, 1985). This was one area in which social psychology had some influence on the political science literature on foreign policy, as illustrated by Almond's (1950) incorporation of social psychological research on attitudes into his classic study of changing "moods" in American foreign policy. Scholars analyzed the psychology of nationalism and of national ideologies more generally and conducted crossnational studies of images and stereotypes of other nations (Campbell & LeVine, 1961). Most of this work focused on the mass level, however, and gave relatively little attention to the mechanisms through which shifting public moods were translated into state foreign policy actions.[8]

The study of personality was another field in psychology that had a clear impact on the analysis of foreign policy in political science in the 1950s and 1960s. One example was the work by political scientists and historians on psychobiography or psychohistory, which relied heavily on psychoanalytic theory and attempted to explain political behavior in terms of early childhood experiences or development crises later in adulthood (Erikson, 1962; George & George, 1956). Psychoanalytic perspectives also influenced some of the early "operational code" analyses of political belief systems (Leites, 1953), a topic I examine later. While scholars continued to show an interest in more general models of personality and foreign policy (Etheridge, 1978; Hermann, 1978; Winter, 2002), interest in personality and especially psychobiographical approaches began to wane by the 1970s, with the development of alternative psychological frameworks and a shift in orientation toward more parsimonious and empirically testable theories.[9]

The 1960s also witnessed new research in social psychology on individual perception and choice, with some applications to foreign policy at both the elite and mass levels (DeRivera, 1968; White, 1968), but most of this research had little impact on decision-making studies in international relations. This research was generally based on laboratory experiments designed to examine typical individuals' responses to relatively simple problems, with little attention to the question of whether experimental findings could be generalized to real-world settings.

One problem is that the kinds of individuals selected into political leadership roles differ from the typical subjects in many experiments, namely college students. In the absence of explicit controls there is a possibility that it is these selection-based differences, not the hypothesized causal variables, that account for observed causal effects in the laboratory. Foreign policy-making also differs from the laboratory in terms of the stakes involved. The

higher stakes facing political leaders as compared to experimental subjects give leaders greater incentives to expend the mental energy to make rational decisions and to learn from their mistakes, but those stakes also create higher levels of stress and (after a certain point) suboptimal performance (Holsti, 1989).

Another limitation on the generalizability of typical experiments in social psychology to foreign policy behavior is that most of these experiments ignore the political or strategic context of decisions. This includes the institutional context within which decisions are made, the accountability of decision-makers to political constituencies (Tetlock, 1992), and the international context and the conflicts of interests between states. The neglect of the strategic context of foreign policy decisions, along with a strong policy interest in reducing international conflict, has often led to a bias toward emphasizing actors' flawed judgments and choices and minimizing the impact of genuine conflicts of interests (Jervis, 1976, pp. 3–4).

The first systematic analysis of decision-making in foreign policy emerged in the mid-1950s with the "decision-making approach" associated with Richard Snyder and his colleagues (Snyder, Bruck, & Sapin, 1954).[10] By this time there was growing dissatisfaction with the rational, unitary, apolitical, and outcome-oriented focus of many existing studies of foreign policy. Snyder and his colleagues acknowledged that states were the major actors in international politics but argued that in order to understand the behavior of states it was necessary to focus on the individuals who make the key decisions in foreign policy and on the intellectual and political processes leading to those decisions.

The decision-making approach focused on political elites, their conception of the national interest, their "definition of the situation," the domestic political contexts in which they operated, and the role of communication and information in those processes. Subsequent elaborations of the decision-making approach gave added emphasis to bargaining among different actors and different interests within the government and generally concluded that foreign policy was driven as much by the aim of gaining agreement among key decision-makers and by the "pulling and hauling" of competing internal interests as by the merits of policy (Huntington 1961; Neustadt, 1960; Schilling, Hammond, & Snyder, 1962).

While the focus on political leaders' definition of the situation and the importance of information and communication in the 'first-wave' decision-making approach (Art, 1973) clearly allowed a substantial role for psychological factors, there was little explicit theorizing about the influence of psychological variables in the foreign policy process. Scholars emphasized political leaders' assumptions about the world but generally treated those assumptions as exogenous and made little attempt to explain the specific social, intellectual, and psychological processes that generated them. As a result, the potential for incorporating psychological processes was only partially fulfilled in early decision-making analyses.

There was even less room for psychological variables in the "second wave" of decision-making studies, which emerged with Allison's (1971) elaboration of the organizational process and governmental politics models of foreign policy. The organizational process model involves organizations implementing preplanned routines or standard operating procedures and provides little room for variations in behavior based on differences in individual belief systems, biased information processing, personalities, or other individual-level attributes.[11] The governmental politics model is based on interest maximization by the heads of different bureaucratic organizations. The preferences of each of the leading bureaucratic actors are determined primarily by those individuals' organizational roles—hence the aphorism "Where you stand is where you sit"—and these preferences are aggregated by bureaucratic bargaining.

It is certainly possible to construct a bureaucratic politics model in which individual or group psychology plays a central role—through political leaders' belief systems, definitions of their interests, conceptions of their roles, or unique skills or styles in bargaining over policy among different bureaucratic actors—but few of the "second wave" bureaucratic models did this.[12] Although Allison's labeling model I the "rational actor model" created some confusion by leading many to infer that his other two models were not rational models, there is little doubt that Allison's (1971) governmental politics model, and most subsequent elaborations on it as well, are rationalist, interest-maximization models (Bendor & Hammond, 1992). The difference is that Allison's model I is a rational unitary model of decision-making, while the governmental politics model is rational but not unitary.[13]

Dissatisfaction with the neglect of psychological variables in the leading paradigms of foreign policy analysis led to a number of more focused, middle-range research projects in which political psychology was central. One particularly influential study was Wohlstetter's (1962) analysis, based on an explicit information-processing framework, of the American intelligence failure at Pearl Harbor. Wohlstetter argued that the problem was not so much too little information but rather the inability to distinguish signals from noise and the compartmentalization of information in different bureaucratic agencies. This study was particularly influential on subsequent research programs on the perception and misperception of threat, and the potential generalizability of its key findings has been enhanced by the identification (in preliminary assessments) of similar patterns in the American intelligence failure of 9/11, sixty years later.

Another major line of inquiry, which originated in Leites (1951, 1953) analysis of Bolshevik ideology, focused on the "operational codes" of political leaders. The operational code concept was subsequently reformulated and simplified by George (1969), who eliminated the psychoanalytic component that was prominent in Leites's (1953) work, focused on the cognitive dimensions of the operational code concept, and generally tried to frame the analysis in terms of the cognitive revolution and contemporary

social science analysis.[14] George (1969) argued that an individual's beliefs are interdependent, consistent, hierarchically organized around a small set of "master beliefs," and resistant to change. The anchors of belief systems include philosophical beliefs about the nature of politics and conflict and instrumental beliefs about the efficacy of alternative strategies for advancing one's interests. Images of the enemy are a particularly important component of operational code belief systems.[15]

George's (1969) revised formulation was the basis for studies of the operational codes of a number of political leaders, including John Foster Dulles (Holsti, 1970) and Henry Kissinger (Walker, 1977). Others developed new typologies for operational codes (Holsti, 1977), further grounded the concept in terms of the emerging literature on cognitive schemas and scripts (George, 1979),[16] and, in some cases, began to reincorporate personality elements into the operational code (Walker, 1995). There are debates, however, as to whether the increasing complexity of the operational code concept has significantly enhanced its explanatory power (Walker, 2003), and operational code analysis continues to be confined to a relatively small research community in the field.

Another subject that had begun to attract increasing interest by the mid-1960s, undoubtedly in response to Soviet-American crises in Berlin and Cuba, was crisis decision-making. Researchers gave particular attention to the impact of stress induced by the high stakes, short decision time, and surprise associated with acute international crises (Hermann, 1972; Holsti, 1972, 1989; Holsti & George, 1975). One influential research program on crisis decision-making was the Stanford Project on International Conflict and Integration, known as the 1914 Project, which was novel both in its application of mediated stimulus-response models to international politics and in its use of formal content analyses of diplomatic documents to examine decision-makers' perceptions and the discrepancy between perceptions and reality (Holsti, 1972; North, 1967). Other scholars provided more detailed historical case studies of crisis decision-making (Brecher & Geist, 1980; Stein & Tanter, 1980).

While the 1914 studies demonstrated that political leaders systematically misperceived the capabilities and intentions of their adversaries, these studies were less thorough in specifying the causal mechanisms that drove misperceptions, the conditions under which misperceptions were most likely to occur, the kinds of individuals most likely to be affected, and the actual causal impact of misperceptions on foreign policy choices and international outcomes. These were among the many contributions of Jervis's (1976) classic study *Perception and Misperception in International Politics*. This was, and still is, the most influential study of the role of misperception in foreign policy and international politics, and indeed it marks the beginning of a systematic "cognitive paradigm" of foreign policy analysis.

Jervis (1976) provided a comprehensive synthesis of theory and experimental evidence from many of the leading approaches in social psychology, illustrated by a wide range of historical examples. He also recognized, in a way that earlier social-psychological analysts did not, that many outcomes predicted by psychological models could also be explained by systemic or domestic political models. Jervis (1976) identified these alternative explanations and discussed the types of evidence and research designs that would be appropriate to empirically differentiate among these competing explanations. This attention to alternative explanations, threats to valid inference, and to research designs for dealing with these inferential problems was a major methodological contribution and a significant step forward in the application of psychological models to foreign policy behavior.

Besides generating general interest in the role of psychology in foreign policy and international relations, Jervis's (1976) study helped initiate or accelerate several more specific research programs in this area. One of the most important was the study of threat perception. The evolving study of threat perception (Jervis, 1985; Lebow, 1981; Stein, 1985, 1993) incorporated new research in social psychology on cognitive heuristics and biases (Nisbett & Ross, 1980; Tversky & Kahneman, 1974),[17] while at the same time giving renewed emphasis to emotional factors that had been downplayed as a result of the cognitive revolution in social psychology. I now examine this research program in more detail.

Psychology and Threat Perception

The perception and misperception of threat take many forms and have many sources at all levels of causation—systemic uncertainty, organizational structures and processes, culture and ideology at the organizational and societal levels, small group dynamics, and individual cognition and affect. Here I focus primarily on individual-level psychological variables. First, however, it will be useful to examine some of the analytic problems that complicate the analysis of the role of misperception in foreign policy decisions and strategic interaction between states.

Analytic Problems in the Study of Misperception

Although misperceptions are often associated with "bad" outcomes, that is misleading. Misperceptions can contribute to peace as well as to war. Overestimation of adversary capabilities, for example, may lead a state to refrain from initiating a war that it might otherwise want. In the longer term, the overestimation of adversary capabilities may lead a state to build up its arms, which can trigger an arms race and conflict spiral that increases the likelihood of war. The multiple consequences of misperceptions make it imperative to identify different kinds of misperceptions, the distinct causal paths through which they affect decisions for war or peace, and the conditions and types of states and leaders for which each is most likely to occur. The

most important forms of misperception are misperceptions of the capabiliries and intentions of adversaries and third parties (Levy, 1983).[18]

One methodological problem in the empirical literature on misperception and international conflict is that analysts have looked at wars, intelligence failures, or other undesirable outcomes and then sought to identify the misperceptions and decision-making pathologies leading to those outcomes, while neglecting nonwar outcomes. It is conceivable, however, that misperceptions are just as common and egregious in nonwar outcomes, and the exclusion of this comparison group makes it difficult to demonstrate whether misperceptions have a causal impact or whether their effects are dominated by those of other variables. The study of misperception should include cases that involve "positive" as well as "negative" outcomes (Jervis, 1988, p. 680).

A more basic problem is that misperception is an enormously slippery concept that is difficult to define, identify, and measure. There are two general approaches to the definition of misperception; one treats it as an outcome and the other treats it as a process (Jervis, 1976). In the first a misperception is a discrepancy between perceptions and reality, and in the second a misperception is associated with a decision-making process that deviates from a standard rational model of information processing.

In some cases we might have reliable evidence to determine both an actor's intentions and his adversary's perceptions of those intentions and thus have the information to make a judgment about the accuracy of perceptions. These situations are rare, however, because it is remarkably difficult to determine an actor's intentions (Jervis, 1976). Historians, even with the benefit of hindsight and far more complete information than was available to decision-makers at the time, are often unable to agree on an actor's intentions.[19] Decision-makers have diplomatic, bureaucratic, and domestic political incentives to misrepresent their true perceptions in order to influence others' perceptions and behavior, and their concern for their image in history as well as memory lapses and hindsight biases must be considered in using later autobiographies as evidence. The documentary record itself may be distorted for political reasons (Herwig, 1987).

These and related methodological problems (Holsti, 1976) led Jervis (1976) to set aside the question of the accuracy of perceptions and to focus instead on variations in perceptions across different actors with different backgrounds, roles, and interests. The aim was to use comparative analysis as leverage to get at causation and deal with the problem of alternative explanations without relying on the problematic concept of accuracy.[20]

There are other analytic problems with the concept of intentions. That concept implies that behavior is purposeful and that the actor plans to act in certain ways under various future contingencies. But individuals are not always aware of their preferences; preferences may not be stable over time; and preferences may be influenced by irrelevant options or information, as Kahneman and Tversky (1979) argue in their analysis of framing effects.

These problems are compounded for collective decision-making bodies, where preferences may be cyclical and unstable and where decisions are often determined by bureaucratic bargaining, small-group dynamics, and domestic political pressures (Allison, 1971; Janis, 1982), each of which is inherently difficult to predict.

In the context of uncertainty, rational actors rarely make point predictions about the capabilities and intentions of adversaries or third states. Rather, they anticipate a range of possible outcomes with approximate probabilities attached to each, and thus actors have subjective probability distributions over likely outcomes. Low probability outcomes occasionally occur, and when they do we should not necessarily conclude that the actor misperceived reality because she believed that another outcome was more likely.

The more appropriate question is whether the actor's subjective probability distribution of outcomes was reasonable in the first place. We can often answer this question where we have a larger number of comparable observations and where we can compare the distribution of actual outcomes with the actor's subjective probability distribution,[21] but many issues of security policy involve relatively small numbers of cases of a given class of events. "The rape of history runs only once," as Tetlock (1998, p. 870) argues, so it is not really possible to compare the accuracy of some expected distribution of outcomes with the distribution of actual outcomes. Thus if we treat perceptions of adversary capabilities and intentions as subjective probability judgments, and if we have a small number of observations, then a single observation does not necessarily invalidate one's expectations, and the concept of misperception becomes very problematic.[22]

Intractable problems such as these lead many scholars back to a process-oriented conceptualization of misperceptions. As Jervis (1976) argues, we may ask not "Was this perception correct?" but "How was it derived from the information available?" (p. 7). The standard for evaluation is how closely the actual decision-making process conforms to a "rational model" of information processing. There is no single accepted conception of rationality, of course, and attempts to define the concept are complicated by the fine line between rationality and "bounded rationality" (Jones, 1999; March, 1978; Simon, 1957) and by strategic behavior that can produce counterintuitive incentives (Wagner, 1992). Many decision-making pathologies produce such substantial deviations from rationalist expectations, however, as to leave little doubt about their deviation from most conceptions of a rational decision-making process.

Common Errors and Biases

The basic premises of what Tetlock (1998) calls the "cognitive research program" in world politics are that the world is extraordinarily complex, incoherent, and changing, while people are limited in their capacities to process information and fully satisfy standards of ideal rationality in their

attempts to maximize their interests. People adopt a number of cognitive shortcuts or heuristics that help to impose some degree of simplicity and orderliness on a complex and uncertain world in order to make that world more comprehensible. These heuristics may serve people very well in a wide variety of situations, but they are also the source of significant errors and biases. In this model of "cognitive economy," people may try to act rationally, but they do so within their simplified mental representations of reality (Jervis, 1976; Nisbett & Ross, 1980; Tversky & Kahneman, 1974). The resulting biases are "unmotivated" because they are the result of "cold cognitions" and not influenced by affective or motivational considerations.

The other main class of biases is "motivated biases," which focus on individuals' psychological needs, fears, guilt, and desires (Janis & Mann, 1977). Motivated biases are most likely to manifest themselves in decisions involving high stakes and consequential actions that might affect important values or tradeoffs among important values, and the resulting stress from threats to basic values often leads decision-makers to deny those threats or the need to make tradeoffs between values (Holsti & George, 1975). Resulting judgments are often rationalizations for political interests or unacknowledged psychological needs and for the policies that serve those interests and needs (Jervis, 1985, p. 25).

Cognitive biases and motivated errors generate some of the same pathologies of judgment and decision, and they often work to reinforce each other. Often the same behavior can be explained either in terms of unmotivated or motivated biases, and it is often difficult to empirically differentiate between the two.[23] These different sources of biases have yet to be integrated into a single analytic framework, and for that reason I organize them separately hereafter. The literature over the last quarter-century has given greater attention to cognitive biases, and I follow that emphasis here, though by the 1990s scholars had renewed their attention to motivated biases and emotions (Crawford, 2000; Hermann, 2002; Marcus, 2000).

Cognitive Biases

The most basic unmotivated bias is the impact of an individual's prior belief system on the observation and interpretation of information. While beliefs simplify reality and make that reality more comprehensible, they also create a set of cognitive predispositions that shape the way new information is processed. The central proposition is that people have a strong tendency to see what they expect to see on the basis of their prior beliefs. They are systematically more receptive to information that is consistent with their prior beliefs than to information that runs contrary to those beliefs. This "selective attention" to information contributes to the perseverance of beliefs (George, 1980). There is a related tendency toward "premature cognitive closure." Rather than engage in a complete search for information relevant to the problem at hand, people tend to terminate their information search

when they get enough information to support their existing views. In various ways, information processing is more theory driven than data driven (Jervis, 1976).[24]

This "selective attention" to information and the perseverance of beliefs raise questions about rational models of learning. In particular, individuals update their beliefs more slowly than a rational Bayesian model would predict, and initial judgments (or "priors"), because they are slow to change, serve as a conceptual anchor on beliefs. Whereas in Bayesian models beliefs quickly converge in response to new information, regardless of initial prior beliefs, there is considerable evidence that in reality the adjustment process is inefficient, and that different starting points often result in different outcomes. This is the "anchoring and adjustment" heuristic (Tversky & Kahneman, 1974). I return to this point later.

These biases have important implications for foreign policy and international relations. If you believe that the adversary is fundamentally hostile yet at the same time responsive to external threats and opportunities, you may perceive the adversary's aggressive actions as reflecting its innate hostility and its conciliatory actions as reflecting its response to your own resolute actions. This "inherent bad faith model" (Holsti, 1970) of the adversary is difficult for actors to disconfirm by the evidence and can lead to missed opportunities for conflict resolution (Tetlock, 1998).[25]

Alternatively, erroneous beliefs that the adversary's intentions are benign can render decision-makers insensitive to signals of an impending military attack. A major cause of the Israeli intelligence failure in 1973, for example, was Israeli leaders' strong beliefs that Egypt would not go to war unless it was able to mount air strikes deep into Israel in order to neutralize Israel's air force. This assumption, along with others, came to be known as "the conception." Israeli leaders did not correctly evaluate evidence of an impending Arab attack because of their doctrinaire adherence to "the conception" (Shlaim, 1976, pp. 352–353) and because of their proclivity to discount the unprecedented magnitude of Syrian and Egyptian deployments at the front lines as evidence merely of routine Egyptian military exercises and Syrian defensive moves (Stein, 1985).

While there is a bias toward the perseverance of beliefs, individuals do change their beliefs if the discrepant information is sufficiently strong and salient, if it arrives all at once, if there are bottom-line indicators of successful outcomes that provide an objective baseline for the evaluation of the accuracy of beliefs, and if decision-makers are self-critical in their styles of thinking or when they operate in "multiple advocacy" decision-making units (George, 1980; Jervis, 1976; Tetlock, 1998, p. 880).

When belief change occurs, it generally follows the cognitive-consistency principle of least resistance (McGuire, 1985; Tetlock, 1998, p. 880). When people are faced with repeated inconsistencies between their belief systems and the world they observe, they first change tactical beliefs about the best means to particular ends. They change their strategic as-

sumptions and orientation only after the failure of tactical solutions, and they reconsider their basic goals or objectives only after repeated strategic failures. Change in fundamental beliefs is often so psychologically difficult that it is likely to occur only in conjunction with a major change in personnel or regime (Tetlock, 1991, pp. 27–31).

Another source of erroneous threat assessment relates to the fundamental attribution error, the tendency for people to interpret others' undesirable behavior in terms of internal dispositional factors, as opposed to external environmental constraints (Nisbett & Ross, 1980). This often leads to significant overestimations of threat in international politics. Actors discount the extent to which their adversary's security policies might be driven by external threats to the adversary's interests and instead attribute those actions to the adversary's hostile intentions. As a result, actors tend to underestimate the security dilemma in international politics—the fact that actions taken to increase one's security often result in the decrease in the security of others, who respond with actions to enhance their own security. As a result, all states are less secure.

The overestimation of adversary threat is compounded by actors' tendencies to explain their own behavior in terms of situational factors rather than dispositional factors (the actor-observer discrepancy). The logic is that if we take security measures because we have no choice, presumably others recognize this and understand that we are no threat to them, so that if they buy arms or mobilize forces it must be because they have hostile intentions, which leads to conflict spirals. One consequence of the fundamental attribution error is the tendency to perceive the adversary's regime as more centralized than it actually is and to underestimate the impact of domestic political and bureaucratic constraints on adversary leaders (Jervis, 1976). Actions intended to pacify domestic constituencies may be misinterpreted as the first steps in a deliberate policy of aggression and lead to a conflict spiral.[26]

Several of these processes are fueled by a lack of empathy, an inability to understand others' worldviews, definitions of their interests, threats to those interests, and possible strategies for neutralizing those threats. The inability to empathize and see the world as the adversary sees it is compounded if the two actors have different cultural, ideological, or religious orientations. The Chinese-American war in Korea in 1950 was driven in part by the failure of the United States to understand how threatening a United States–backed regime in North Korea would be to China. The Israeli intelligence failure in 1973 was influenced in part by their failure to imagine that Egypt might anticipate political gains from an unsuccessful war (Jervis, 1985; Stein, 1985). Israeli leaders also failed to recognize that the Egyptians might have an intermediate strategy between doing nothing and launching an all-out war, and that the Israeli strategic "conception" of the necessary conditions for war was inappropriate for a less ambitious Egyptian military action involving a limited crossing of the Suez Canal.

Another reason for Israeli leaders' intelligence failure in 1973 was their belief that war could easily arise from a conflict spiral driven by fears and misperceptions (Stein, 1985). This view was influenced in part by a reevaluation of the lessons of the 1967 war and by the growing belief that the Israeli preemptive attack that initiated the earlier war had not been absolutely necessary. In 1973, Israeli leaders worried that preparatory measures to counter Arab military activities would fuel a conflict spiral, raise the risk of a preemptive first strike by Egypt, and risk undercutting American diplomatic support (and military resupply). These concerns led Israeli decision-makers to avoid potentially provocative actions and refrain from measures that might have reinforced deterrence (Jervis, 1985; Stein, 1985).

The reliance on the "lessons of the past" and on particular historical analogies to help shape judgments of current situations is commonplace and has attracted considerable attention in the literature (Jervis, 1976; Khong, 1992; Levy, 1994; May, 1973; Vertzberger, 1990). Analogical reasoning is often used as a cognitive shortcut by actors who face a complex and uncertain world and who lack a good theory to simplify that complexity. This is often linked to the "availability" heuristic, in which judgments of probability are shaped by events that are familiar and salient and come easily to mind (Tversky & Kahneman, 1974). The problem, of course, is that these events do not constitute a scientific sample for the purpose of drawing inferences, and consequently judgments based on availability are often quite misleading.

With respect to learning from history, the basic questions are what lessons people learn, the processes by which they learn, and the impact of those lessons on subsequent policy preferences and decisions. There are countless historical analogies from which individuals might learn, but there is a tendency to learn from events that have a major impact, affect the individual or his society directly, occur recently in time, and are observed firsthand and at a formative period in a person's life (Jervis, 1976).[27] Most analysts conclude that learning is oversimplified and insensitive to the context of the historical analogy, the impact of that context (as opposed to the causal hypothesis being learned) on the outcome, and how that context might differ from the current situation. As Jervis (1976) argues, "People pay more attention to *what* has happened than to *why* it has happened. Thus learning is superficial, overgeneralized. . . . As a result, lessons learned will be applied to a wide variety of situations without a careful effort to determine whether the cases are similar on crucial dimensions" (p. 228).

While hypotheses on learning provide potentially powerful explanations of political leaders' beliefs and judgments, empirical research on learning must be sensitive to the possibility that the causal arrows are reversed or spurious (Jervis, 1976; Levy, 1994; Tetlock, 1998, p. 879). Current policy preferences might lead decision-makers to select those analogies that support their positions, either subconsciously because of cognitive consistency or motivated biases, or deliberately for leverage in political debates. Alterna-

tively, an individual's beliefs may simultaneously shape her selection and interpretation of a particular historical analogy and her preferences on a current issue, leaving no causal connection between analogy and preference. Researchers are increasingly aware of these threats to valid inference and have tried to construct research designs to deal with these potential problems (Khong, 1992; Snyder, 1991).

Motivated Biases

Whereas unmotivated biases result from the use of cognitive shortcuts in an attempt to make a complex and ambiguous world more comprehensible, motivated biases refer to individuals' psychological needs to maintain their own emotional well-being and to avoid fear, shame, guilt, and stress. Whereas unmotivated biases generate perceptions based on expectations, motivated biases generate perceptions based on needs, desires, or interests (Janis & Mann, 1977; Lebow, 1981). Unmotivated biases are pervasive, while motivated biases are most likely to arise in highly consequential decisions.

One key proposition arising from motivated biases is "wishful thinking." Whereas rational models of decision-making assume that the probability and utility of an outcome are analytically distinct, in wishful thinking probabilities are influenced by values: desirable outcomes are seen as more likely to occur while undesirable outcomes are seen as less likely.[28] If the success of a particular strategy is seen as necessary for highly valued goals to be attained, wishful thinking can lead to an exaggeration of the probability of success of that strategy. In his study of offensive military doctrines in World War I, Snyder (1984) found a tendency for military organizations "to see the necessary as possible" despite objective circumstances that might have induced more caution about the efficacy of offensive war plans. The tendency to exaggerate the probability of success of aggressive diplomatic or military policies may also result from political leaders' domestic political interests and the motivated biases generated by those interests (Lebow, 1981). These processes are reinforced by a tendency for preferences for a particular strategy to influence judgments of enemy intentions and capabilities. British estimates of Germany's capabilities in the 1930s went up as Chamberlain pursued his appeasement policies, but once Britain recognized the seriousness of the threat and began to prepare for war, their estimates of Germany's capabilities began to decline (Stein, 1993, p. 379). In this case, perceptions of threats served to rationalize existing policy rather than inform and shape that policy.

Because actors with different interests have different policy-motivated biases, we can sometimes test for the presence of these biases through a comparative study of different actors in different roles with different policy preferences and consequently different motivated biases. This is sometimes referred to as the "third party criterion" (Lebow, 1981). It is often argued,

for example, that German misperceptions of British intentions in World War I (Fischer, 1988) were due to German motivated biases: German leaders' *hopes* that Britain would not intervene led them to *expect* that Britain would not intervene. The motivated bias interpretation of German misperceptions is weakened, however, by the fact that the opposite motivated biases of French and Russian leaders did not lead them to expect British intervention; instead they were also highly uncertain about how Britain would respond.

The third party criterion can be misleading if the different observers have access to different information, because differences in assessments might be based on informational asymmetries rather than motivated biases. This has important consequences for research design. While it is possible for the experimenter in the laboratory to control for information and for different conditions likely to lead to certain biases, it is much more difficult to do this in empirical studies of foreign policy behavior. It requires a sensitivity to alternative explanations, a carefully constructed research design to discriminate empirically among these explanations, and intensive data collection to conduct empirical tests.

A good example of such an effort is Kaufman's (1994) analysis of alternative explanations of how political actors update their belief systems in response to new information.[29] Kaufman included models of motivated defensive avoidance based on psychological commitment, information salience based on the availability heuristic, and belief system defense based on the resistance of core beliefs to change. Kaufman (1994) applied these models to German decision-making in the 1905–6 Moroccan crisis, carefully controlled for interests and information, and tested these models against a competing model of rational Bayesian updating. He concluded that variations in rates of belief change were hard to reconcile with rational Bayesian updating but were consistent with the predictions of the three psychological models, especially the motivated defensive avoidance hypothesis.

Heuristics and biases help to explain how political leaders judge their adversary's intentions and relative capabilities, which help shape the expected probabilities of various outcomes. Psychological variables also help to explain how leaders respond to probabilistic outcomes by influencing the values that individuals attach to outcomes and their willingness to take risks. I shall now consider recent work on loss aversion, framing, and risk propensity and their implications for foreign policy.

◤ Loss Aversion, Framing, and Risk Propensity

Whereas expected-utility theory posits that individuals act to maximize their expected utility, there is growing evidence that people systematically depart from the predictions of this core theory of rational decision making. Many of these anomalies are incorporated into prospect theory (Kahneman &

Tversky, 1979), an alternative theory of choice under conditions of risk that scholars have begun to apply to foreign policy and international relations (Davis, 2000; Farnham, 1994; Jervis, 1992; Levy, 1997, 2000; McDermott, 1998; Stein & Pauly, 1992).

Prospect theory posits that people are more sensitive to changes in assets than to net asset levels, in contrast to expected-utility theory's definition of value in terms of net assets or levels of wealth. People "frame" choice problems around a reference point (reference dependence), give more weight to losses from that reference point than to comparable gains (loss aversion), and engage in risk-averse behavior with respect to gains and risk-acceptant behavior with respect to losses.[30] Individuals' strong aversion to losses, particularly to "dead" losses that are perceived as certain (as opposed to those that are perceived as probabilistic), induces them to take significant risks in the hope of avoiding loss, even though the result may be an even greater loss and even though the expected value of the gamble may be considerably lower than the value of the certain loss. In addition, people value what they have more than comparable things not in their possession (the endowment effect), which in turn makes actual losses hurt more than foregone gains (Kahneman & Tversky, 1979).

As a result of the sensitivity to changes in assets, how people identify their reference points and hence frame a choice problem is critical, because gains and losses are measured with respect to deviations from the reference point. A change in reference point can lead to a change in preference (preference reversal) even if the values and probabilities associated with possible outcomes remain unchanged. People facing decisions over medical treatments, for example, respond differently to the idea of a 90 percent survival rate than to a 10 percent mortality rate, although the two are logically equivalent.

Most experimental work on framing and almost all of its applications to international relations focus on the effects of framing on choice rather than on the sources of framing and gives little attention to the question of why individuals select one reference point rather than another. While people often frame choice problems around the status quo, they are sometimes influenced by expectation levels, aspiration levels, and social comparisons to select a different reference point. There is substantial evidence, for example, that people "renormalize" their reference points after making gains faster than they do after incurring losses (Jervis, 1992; Kahneman, Knetsch, & Thaler, 1990, p. 1342).

These basic principles lead to a number of important propositions about foreign policy and international relations (Levy, 2000). (1) When states define their reference points around the status quo, there is a "status quo bias," which is stabilizing. If actors frame their choices around a reference point that is preferred to the status quo, there is a "reference point bias," a tendency to move away from the status quo toward the reference point, that is destabilizing. (2) State leaders take more risks to maintain their international positions, reputations, and domestic political support against potential losses than they do to enhance their positions. (3) Domestic publics punish their leaders more for losses than for the failure to make gains. (4) After suffering losses, political leaders have a tendency not to adjust to the new status quo but instead to take excessive risks to recover those losses. After making gains, political leaders tend to renormalize their reference points and to take excessive risks to defend the new status quo against subsequent losses. As a result, both sides engage in more risk-seeking behavior than expected-utility theory predicts. (5) Because people are slow to accept losses, sunk costs frequently influence decision-makers' calculations and state behavior, contrary to microeconomic theory. (6) Deterring an adversary from making gains is easier than deterring that adversary from recovering losses or compelling him to accept losses. (7) It is easier for states to cooperate in the distribution of gains than in the distribution of losses; political leaders will take more risks and bargain harder to minimize their share of the costs than to maximize their share of the gains.

While many of these hypotheses resonate well with common understandings of international politics, they reflect the generalization of robust findings for individual behavior in simple choice problems in the laboratory. Much more research is necessary to apply these hypotheses to collective decision-making bodies and to strategic interaction between states, and to construct convincing empirical tests of these hypotheses against competing explanations in settings where controlling for other sources of risk propensity and choice is extraordinarily difficult. One particularly critical task is to construct better research designs to determine how actors identify their reference points. While process tracing through case studies might be very useful for this task (Davis, 2000; McDermott, 1998), we should also explore the potential utility of more formal content analysis (Levi & Whyte, 1997) or other methodological approaches. More fundamental, however, is the need to reconceptualize risk orientation for situations in which the key variables of interest (power, reputation, security, and identity, for example) cannot easily be measured on an interval-level scale (O'Neill, 2001).

▲ Conclusions

By any standard, the analysis of the role of psychological variables in foreign policy and international relations has progressed enormously over the last half-century. Fifty years ago much of the research on the psychology of foreign policy and war was conducted by psychologists who gave little attention to the political and strategic contexts in which foreign policy decisions were made or to the methodological problems of generalizing from experimental findings in the laboratory to the more ill-defined contexts of foreign policy and international relations. While early decision-making frameworks in foreign policy analysis allowed for a potentially important

role for psychological variables, researchers did not explore the origins and impact of these variables in any great detail.

Since the mid-1970s, however, we have witnessed the emergence of an increasingly influential cognitive research program. It has built on new developments in social psychology, including theories of attribution, schemas, and heuristics and biases, and it has begun to emphasize affective as well as strictly cognitive variables in response to a revival of interest in the importance of emotions, first in social psychology and then in political science. The literatures on cognition and affect are still basically distinct, however, and we know more about the separate effects of unmotivated and motivated biases than about how cognitive and affective factors interact to shape judgment and decision. We know that errors and biases are pervasive, but we do not understand the specific conditions under which they are most likely to arise.

While scholars have taken some steps to make applications of social psychology to foreign policy more sensitive to the political and strategic contexts in which foreign policy decisions are made, this is more advanced in some areas—learning and deterrence, for example—than in others (Herrmann & Fischerkeller, 1995), and we still have a long way to go. Social psychologists have not generally incorporated controls for key political variables into their experimental work, and few foreign policy analysts have been willing to test their more integrated hypotheses through experimental designs.[31] We have many historical case studies of threat perception that emphasize the political and strategic context of judgments and decision, but controlling for the relevant variables and ruling out alternative explanations remains a difficult and data-intensive task. The growing use of carefully matched comparative case studies have made important contributions in this direction, but more multimethod studies would provide greater confidence in the validity of our hypotheses.

One particularly important area for future research on threat perception lies at the intersection of political psychology and game theory. My discussion of threat perception, like nearly all such studies in the literature, has been one-sided, in that it has focused on how one state perceives adversary intentions and/or capabilities while ignoring how the adversary attempts to influence the way it is perceived by others by strategically manipulating the images it projects.[32] There is a substantial literature on "signaling" (Banks, 1991; Fearon, 1994), but this literature is almost exclusively rationalist and ignores the literature on the psychology of threat perception.[33] This is a serious limitation, because neither is really complete without the other (Jervis, 2002).

Game-theoretic "signaling models" incorporate the behavior of both sender and receiver, but they assume that signals are perceived and interpreted as the sender intends.[34] The theoretical and empirical literature on threat perception suggests, however, that the receiver's prior belief system, emotional needs, political interests, and organizational culture often lead to

significant distortions in the way she interprets those signals.[35] The manipulation of images will be most effective if the sender understands the psychology of threat perception and shapes his projection of images to exploit the proclivities of the receiver. At the same time, threat assessment will be more accurate if it incorporates the adversary's incentives to influence the way others perceive them. An integrated theory of signaling and threat perception—which includes the manipulation of images, the psychology of threat perception, and the strategic interaction between them—and which is tested against the evidence through multiple methodologies—is a potentially fruitful area for future research.

The potential utility of integrating psychological theories of threat perception and game-theoretic models of signaling can be generalized. With the increasing emphasis in applied game theory on information, beliefs, and learning (Fudenberg & Levine, 1998; Hirshleifer & Riley, 1992), there are expanding possibilities for using game theoretic concepts and propositions to inform the psychology of strategic interaction, and perhaps also for the incorporation of "psychological" variables into game-theoretic models. One innovative example is O'Neill's (1999) game-theoretic analysis of honor, symbols, and war.

Although I have focused on the political psychology of threat perception, there are many other questions of foreign policy and international relations that could be much better understood by incorporating political psychology. Consider liberal international theory and in particular the common argument that ideas have an important impact on outcomes. Many of those interested in the effects of ideas express no interest in the sources of those ideas and make no effort to explore the role of learning or psychological variables more generally (Goldstein & Keohane, 1993, p. 7). It is difficult to assess the impact of ideas, however, without understanding their origins. If ideas change in response to changing international structures or shifting domestic or bureaucratic interests, those ideas do not have an autonomous causal impact on policy outcomes. Hypotheses on the causal influence of ideas would be more convincing if they were linked theoretically to a model of how ideas originate and change and were tested empirically against the evidence.

The social constructivist literature on international politics (Wendt, 1999) could also benefit from greater attention to the literature on political psychology. The emphasis on the *social* construction of identities and worldviews tends to give priority to the social and cultural sources of identity formation but to downplay the individual psychological needs that are satisfied by those identities and that systematically shape the social construction of identities (Kowert & Legro, 1996). As Goldgeier (1997) argues, "social psychological needs . . . constrain the construction of identities in a way which the analysis of cultural or institutional variables does not capture" (p. 142). The incorporation of psychological variables and their interaction effects into social and cultural explanations of identity would create a better

balance between social structures and individual agency in constructivist research.

The literature on the diversionary theory of war (Levy, 1989) is another area in which greater attention to political psychology would be quite beneficial. Divetsionary theory is based on the idea that conflict with the outgroup enhances cohesion within the ingroup and that the anticipation of this effect often tempts political leaders to initiate military conflict with external adversaries in order to benefit from a domestic "rally 'round the flag" effect. The literature on divetsionary theory incorporates no theory of the enemy, however, and says little about which outgroups make optimal targets or generate the strongest and most long-lasting rally effects for political leaders. More fundamentally, diversionary theory does not incorporate a theory of the formation of identity groups. This may have been a modest limitation for traditional applications of diversionary theory to well-defined territorial states, but it is a glaring weakness for applications of diversionary theory to contemporary ethnonational conflicts, where identity is a key variable. Studies of diversionary behavior could benefit enormously by building on theories of identity formation and the role of the "other" in studies of ethnonationalism and in constructivist theory more generally.

Still another area in which greater attention to political psychology could enhance our understanding of foreign policy and international relations is foreign economic policy and international political economy. This field has been dominated by structural approaches that basically ignore individual-level sources of behavior and indeed the decision-making process itself (Caporaso & Levine, 1992; Gilpin, 2001). There is good reason to believe, however, that there is substantial variation in political and economic leaders' belief systems, the lessons they draw from history, their priorities among different economic values, their perception of threats to those values, their time horizons and the kinds of tradeoffs they are willing to make between current and future costs and benefits, and consequently in their economic policy preferences. Some might argue that structural theories of economic policy generate stronger predictions than do structural theories of security policy, leaving a smaller role for psychological variables, but this is an empirical question that needs to be investigated rather than assumed a priori.

This leaves a broad agenda for future research on the political psychology of foreign policy. We need to pay more attention to the interaction effects between psychological variables and the political and strategic conditions under which they have the greatest impact on foreign policy decisions and international interactions. Although some applications of social psychology attempt to contrast analytically distinct psychological models of foreign policy and international relations with alternative realist or domestic political models, this is probably not the most useful way to proceed in the long term. Psychological models alone do not provide complete explanations for foreign policy because they fail to explain how international and domestic conditions shape preferences and beliefs, or how the policy process aggregates individual preferences and beliefs into policy outputs for the state. Cognition and affect mediate between international and domestic structures and processes and the foreign policy decisions of political leaders, and we need to explain the nature of those reciprocal linkages by integrating psychological variables into more comprehensive theories of foreign policy and strategic interaction.

Notes

1. International relations theorists have traditionally distinguished between the actions and interactions of states in the world system. The study of foreign policy concerns the actions of states and the primary influences on those actions, while the study of international relations concerns the structural characteristics of the international system and the patterns of interactions between states. These two approaches basically focus on different dependent variables, or different units of analysis. In terms of Waltz's (1979) distinction, foreign policy analysis attempts to explain unit level behavior, while international politics attempts to explain system-level patterns.

2. The fact that the levels-of-analysis framework can be applied to both independent variables and dependent variables (to the former as a system for the classification of causal variables and to the latter as a description of the units of analysis whose behavior is to be explained—individual, organization, state, dyad, system) has created some confusion, and scholars are not always explicit about how they are using the concept.

3. Waltz (1979) is not always consistent on this matter, and one can find unambiguous statements about foreign policy behavior in his work (Elman, 1996, pp. 10–11).

4. Steinbrunner's (1974) "analytic paradigm" was another useful, though perhaps less influential, effort to systematize a rational model of decision-making.

5. An important exception was Lasswell's (1930) study *Psychopathology and Politics*.

6. By the mid-1940s many scholars, reacting against Freud, argued that there was little evidence in psychology or anthropology to support the argument that war was rooted in human nature and consequently inevitable (Allport, 1945).

7. In his comprehensive *Study of War*, for example, Quincy Wright (1942) gave far less attention to the psychology of war than to the military, technological, economic, or political dimensions of war. One important exception was Osgood's (1962) influential model of the graduated reduction in international tensions (GRIT).

8. For reviews of early social-psychological studies relating to foreign policy and international relations see Klineberg (1950, 1965), Osgood (1962), Kelman (1965), and DeRivera (1968).

9. For a general discussion of the psychobiographical approach see Lowenberg (1969). For a critique see Tetlock, Crosby, and Crosby (1981). For a more general treatment of the impact of personality on politics see Greenstein (1975).

10. For a useful review of the decision-making approach see Rosenau (1967).

11. The organizational process model rarely stands alone, and its key features are usually incorporated into an expanded governmental or bureaucratic politics model (Halperin, 1974).

12. For a combination of a political model of bureaucratic politics with a social psychological model of small group dynamics, see 't Hart (1990).

13. Model II raises a difficult set of questions with regard to classification. The emphasis on following routines or rules rather than maximizing interests based on a careful cost-benefit calculation may differ from the consequentialist logic of rationalist models and may fit some aspects of a constructivist paradigm, particularly the logic of rule-following based on social identity and social norms (Goldgeier & Tetlock, 2001, pp. 82–83; March & Olson, 1989). Rational choice theorists respond that the development of these rules and routines in the first place is a rational response to the uncertainty and complexity facing organizational actors.

14. George (1969, p. 195) urged analysts to focus on those beliefs that "can be inferred or postulated by the investigator on the basis of the kinds of data, observational opportunities, and methods generally available to political scientists." Note that some of George's earlier work was more psychodynamic in orientation (George & George, 1956) and that some scholars emphasize George's willingness to incorporate links between cognitive and personality elements of the operational code (Walker, 2002).

15. Images of the enemy are also central in scholarship outside of the operational code research program (Boulding, 1959; Finlay, Holsti, & Fagen, 1967; Holsti, 1967; White, 1968), including constructivist analyses of "self" and "other." For a summary and evaluation of research on images see chapter 9.

16. On schemas and scripts see Fiske and Taylor (1991) and Lau and Sears (1986).

17. See the discussion in chapter 2 of decisional heuristics that individuals use in their voting decisions.

18. While much of the literature on misperceptions suggests that political leaders have a bias toward the overestimation of external threats, which leads to the escalation of conflict spirals, another important line of research focuses on the underestimation of threats and the sources of intelligence failure (Bar-Joseph & Kruglanski, forthcoming; Betts, 1978; Handel, 1977; Shlaim 1976; Wohlstetter, 1962).

19. A good example is the origins of World War I, where the release of most of the relevant diplomatic documents has fueled rather than settled ongoing debates.

20. Rational choice theories of conflict also emphasize the importance of perceptions but sidestep the question of the accuracy of perceptions. While *differences* in perceptions have profound consequences (two unitary actors with complete information cannot rationally go to war; Fearon, 1995), the question of which set of perceptions is most accurate is basically irrelevant.

21. We can judge the accuracy of weather forecasts, for example, by examining the frequency of rain as a function of various forecasts of the likelihood of rain. If it rains about 70 percent of the time a forecast calls for a 70 percent chance of rain (and similarly for other estimates), we can conclude that forecasts are accurate.

22. Whether political decision-makers do in fact treat their perceptions of adversary capabilities and intentions as something comparable to a subjective probability distribution over possible outcomes is an interesting research question. There is some evidence that people downplay or deny the probabilistic nature of their estimates of adversary capabilities and intentions, because of tendencies toward overconfidence, bolstering to avoid value-tradeoffs, and other psychological mechanisms (Kahneman, Slovic, & Tversky, 1982; Nisbett and Ross, 1980).

23. For an integrated model of "motivated reasoning" that includes both cognition and affect, see Redlawsk (2002).

24. While most scholars interpret these various manifestations of theory-driven observation as nonmotivated, it is also possible to incorporate them into a framework of motivated biases. In cognitive dissonance theory (Festinger, 1957), for example, the discomfort of maintaining a belief system composed of inconsistent elements motivates people to reduce or eliminate those inconsistencies or to prevent them from arising. Selective attention, belief perseverance, and the principle of least resistance are each useful in this regard (Janis & Mann, 1977). I thank David Sears for raising this issue.

25. See the discussion in chapter 9 of enemy stereotypes.

26. For an application of attribution theory to the role of reputation in international politics, see Mercer (1996).

27. It is sometimes said that people learn more from failure than from success (Stein, 1994, p. 173). This may be true, but this pattern may reflect a bias toward emphasizing lessons that lead to policy change and hence are more observable and salient than lessons of success that reinforce existing policy.

28. The wishful thinking effect is exacerbated if decision-makers have an "illusion of control" (Langer, 1975) and exaggerate the degree of influence they have over the course of events. Students of crisis escalation and crisis management have explored beliefs and feelings about the "loss of control" and their often self-fulfilling character (George, 1991, pp. 545–566; Lebow, 1987, chs. 2–3).

29. For an alternative research design for studying perceptions see Herrmann (1988).

30. See O'Neill (2001) for a critique of common conceptions of risk propensity in international relations.

31. One of the more interesting exceptions is a study of the dynamics of foreign policy strategy selection that uses a computer-based "process tracer" (Mintz, Geva, Redd, & Carnes, 1997). For a study of the dynamics of voter decision-making in election campaigns using a similar methodology, see Lau and Redlawsk (1997).

32. The literature on intelligence failure includes some discussion of the role of strategic deception (Shlaim, 1976; Whaley, 1962).

33. Jervis's (1970) study of how states project images gave some attention to the symbolic and psychological dimensions of signaling but was primarily rationalist in orientation. It anticipated the logic of signaling games before the analytic tools for specifying and solving those games had been developed, and it preceded the emerging literature on heuristics and biases (Tversky & Kahneman, 1974) and on the psychology of threat perception (Jervis, 1976).

34. Signaling models are sequential games in which an uninformed player A, who is uncertain about her adversary B's "type" (hawk or dove, for example), makes inferences about B by observing B's behavior and then updating her prior probabilities about B's type. B understands this and behaves in such a way as to influence A's perceptions of B. Each understands that the other is behaving strategically to maximize its utility. Each understands also that the only behavior that is informative is that which is costly to the sender ("costly signals," as opposed to "cheap talk"), so that there are certain behaviors that one type but not the other would be willing to adopt. For a conceptually useful application of a signaling game model to an important historical case, see Wagner's (1989) analysis of the Cuban missile crisis.

35. See the discussion in chapter 9 of the limitations of rational models of signaling and deterrence.

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