

CHAPTER 10

PSYCHOLOGY AND FOREIGN
POLICY DECISION-MAKING

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POLITICAL psychology occupies an uncertain space in the study of international relations and foreign policy. Longstanding but gradually receding conceptions of the international relations field as a series of paradigmatic clashes among realist, liberal, Marxist, and constructivist approaches, or even between rationalism and constructivism, leave little if any room for the beliefs, personalities, emotions, perceptions, and decision-making processes of individual political leaders.¹ Many of the leading research programs in the international relations field today—including realist balance-of-power and power transition theories, the bargaining model of war, democratic peace and capitalist peace theories, and a variety of institutionalist theories—give little or no causal weight to the role of individual political leaders. Debates in international political economy generally focus on system, state, and society-centered approaches while neglecting the individual level altogether (Ikenberry, Lake, & Mastanduno, 1988). Constructivist approaches, which should in principle be open to the inclusion of psychological variables, have until recently given little attention to individual agency (Shannon and Kowert, 2012).²

At the same time, however, explanations of many consequential historical events give considerable causal weight to the role of individual political leaders. Few would think of explaining World War II or the Holocaust without Hitler, Soviet policy in the 1930s and 1940s without Stalin, Chinese foreign policy without Mao, or contemporary Russian policy without Putin.³ The decisive role of individual leaders is not limited to autocratic states. Many explanations of the United States' invasion of Iraq in 2003 emphasize the critical role of George W. Bush. These and countless other examples have led some IR scholars to acknowledge that "who leads matters" (Hermann, Preston, Korany, & Shaw, 2001) and to emphasize the important role of psychological variables in foreign policy decision-making and international interactions.

These different perspectives reflect a tension between the goals of constructing parsimonious and generalizable theoretical explanations of international behavior and of providing nuanced and descriptively accurate explanations of individual historical

episodes. Many would agree that the inclusion of psychological variables seriously complicates the first task but is necessary for the second task. It is not coincidental that the majority of applications of psychological models to foreign policy and international relations have involved case studies of a small number of historical cases.

Psychology can affect foreign policy in a number of ways and at a number of different stages in the policymaking process. My primary focus is on the impact of psychology on judgment and decision-making on foreign policy issues by political leaders. I say relatively little about the important topics of heuristics and biases, emotions, personality, images of the adversary, threat perception, crisis decision-making, or psychobiography, which are discussed by Sears and Brown, chapter 3; Chong, chapter 4; Condor, Tileagă, and Billig, chapter 9; Stein, chapter 12; Dyson and 't Hart, chapter 13; Winter, chapter 14; Post, chapter 15; and Fisher, Kelman, and Nan, chapter 16, in this volume; or about the psychological aspects of societal-level variables influencing foreign policy—political culture, public opinion, nationalism, and other forms of mass attitudes and behavior—which are covered in chapters on socialization, group identity, public opinion, intractable conflict, and conflict management.

I begin this chapter with some general conceptual issues confronting the application of psychological variables to foreign policy and international relations. I then undertake a brief survey of the evolution of applications of psychology to the study of foreign policy. I argue 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. After noting important subsequent developments, including the incorporation of motivation and affect, I turn to a more detailed discussion of particular research traditions. I examine longstanding research programs on historical learning and on prospect theory. I then consider more recent developments, including the Rubicon model of war, poliheuristic theory, and research on time horizons. I conclude with a brief discussion of some other areas of foreign policy analysis that would benefit from greater attention to political psychology.⁴

1. CONCEPTUAL ISSUES

My brief introductory remarks alluded to the influential "levels of analysis" framework, which is most often used as a typology of causal variables for explaining foreign policy behavior. Most treatments include the individual as well as societal, governmental, and nation-state levels of analysis.⁵ Although Waltz (1959) conceived of the individual image in terms of a universal human nature, and although most evolutionary approaches fit this framework (Thayer, 2004; Sidanius & Kurzban, chapter 7, this volume), most subsequent treatments of the individual level focus on factors varying across individuals. These include belief system, personality, emotional makeup, political socialization, learning from history, information processing, leadership style, attitude toward risk, time horizons, gender, and other factors. The working assumption is that individual

leaders have a causal impact on outcomes. The counterfactual implication is that if a different individual with different characteristics had occupied a key leadership position, the outcome might very well have been different.⁶

One source of confusion in the literature derives from the fact that the levels-of-analysis framework can be applied to both independent and dependent variables—to the former as a system for the classification of causal variables, and to the latter as an identification of the units whose behavior or patterns is to be explained—individual, organization, state, dyad, system. The problem is compounding by scholars' failure to highlight how they are using the concept.

The fact that independent variables at one level can influence dependent variables at various levels highlights some analytic limitations in psychological explanations for foreign policy behavior and international outcomes. First, individual-level psychological variables 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 the leading decision-maker (along with those of other key actors) get aggregated into a foreign policy decision for the state.⁷ Psychology cannot be divorced from politics in explanations for foreign policy.

Similarly, because war and other forms of strategic interaction are the product of the joint actions of two or more states at the dyadic or systemic levels, individual-level psychological variables (or societal and governmental-level variables) cannot by themselves provide a logically complete explanation for war or for other international patterns. Such explanations must be subsumed within a theory of bargaining or strategic interaction that includes dyadic or system-level causal variables.

This logic served as the basis for Kelman's (1965, pp. 5–7) critique of some of the early work by psychologists and psychiatrists on war and peace. Kelman argued that this work was "removed from the interaction between nations" and that

it makes little sense to speak of a psychological theory of war or of international relations. There cannot be a psychological theory that is complete and self-contained. . . . There can only be a general theory of international relations in which psychological factors play a part, once the points in the process at which they are applicable have been properly identified. Within such a framework, however, psychological—and, particularly, social-psychological—analyses can potentially make a considerable contribution.

These conceptual problems inherent in assessing the relationship between psychology and foreign policy are compounded by methodological problems. The psychological theories from which foreign policy analysts draw are based on carefully controlled experimental studies with extensive replication. Although there are ongoing debates about the internal validity of many of these studies, which lead to continuing refinements and increasingly robust results, problems of internal validity pale in comparison to problems of external validity that plague any effort to generalize to the complex world

of foreign policy decision-making (Holsti, 1976; Herrmann, 1988; McDermott, 2004, chap. 2).

One problem is that individuals selected into political leadership roles differ from the college students that typically serve as subjects in many experiments. In the absence of explicit controls there is a possibility that selection-based differences, not hypothesized causal variables, account for observed causal effects in the laboratory (Sears, 1986). 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 create higher levels of stress—and the suboptimal performance that generally follows from it (Holsti and George, 1975)—that are difficult or impossible to duplicate in the laboratory.⁸ Moreover, real-world decisions generally involve a series of judgments and decisions over time, which are difficult to replicate in more restricted laboratory experiments.

Another limitation on the generalizability of typical experiments in social psychology to foreign policy behavior is that most of these experiments ignore the political and strategic context of decisions. This includes the organizational and institutional contexts within which decisions are made, the accountability of decision-makers to domestic constituencies, and the international context, which includes conflicts of interests between states, bargaining to resolve those conflicts, and multiple diplomatic audiences. The neglect of the strategic context of foreign policy decisions often leads to an overestimation of the impact of actors' flawed judgments and choices and underestimation of the role of genuine conflicts of interests and domestic constraints (Jervis, 1976, pp. 3–4).

International relations scholars have attempted to get around the limitations of experiments through the use of historical case studies. They often have difficulty, however, in finding comparable cases for the purposes of controlled comparison and ruling out alternative interpretations. In addition, the universe of cases for many of the things we want to explain—major wars or revolutions, for example—is relatively small and context dependent. As Tetlock (1998, p. 870) notes, "The tape of history runs only once."

2. THE EVOLUTION OF THE STUDY OF PSYCHOLOGY AND FOREIGN POLICY

It would be useful to put applications of psychology to foreign policy into the broader context of the study of foreign policy, which has evolved in significant ways over the last half-century.⁹ Prior to the 1960s, foreign policy analysis (now the common name for the subfield) was more descriptive and prescriptive than theoretical. It typically involved single case studies that were bounded in space and time and that did little to facilitate broader theoretical generalizations. The most widely used text in the field for many years (Macridis, 1958) organized the subject around countries, not around analytic themes.

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 those goals, than in looking inside the "black box" of decision-making and analyzing the processes through which foreign policy is actually made. There was no well-developed paradigm of foreign policy analysis.

Many scholars implicitly adopted a rationalist framework in which states have certain "national interests" that political leaders attempt to maximize through a careful weighing of costs and benefits. This framework was not fully systematized, however, until Allison (1971) constructed a rational unitary actor model of foreign policy. Allison's "Model I" emphasized the specification of state goals, the identification of alternative strategies for achieving those goals, the assessment of the consequences of each strategy, and the selection of the strategy that maximized state goals. This model left no role for political leaders' distinctive beliefs, experiences, personalities, or emotional states.

It was social psychologists and personality theorists, rather than political scientists, who demonstrated the greatest initial interest in the psychological dimensions of international relations.¹⁰ This went back to the 1930s and 1940s, a context defined by the experiences of the two world wars. Not surprisingly, the focus 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; May, 1943).

Following Freud's emphasis on aggressive instincts as the root cause of war (Einstein & Freud, 1932), there was considerable interest in applying psychoanalytic perspectives to the study of war (Durbin & Bowlby, 1939). Much of the focus was on "human nature" as an intractable cause of war. The concept of human nature raised some difficult conceptual and causal questions, however, and within a decade psychologists began emphasizing the cultural sources of war and the changes in attitudes and institutions that might alleviate war (Allport, 1945). Later, scholars began arguing that the proper question was not aggression per se but the political and international contexts under which war as politically organized violence was most likely to occur, the processes that contributed to war, and the place of psychology in these broader contexts (Kelman, 1965). As a consequence, analyses of the role of human nature, and much other early work by psychologists and psychiatrists as well, had little impact on the study of war and peace in political science.¹¹

Psychoanalytic studies that implied variation across individuals, however, continued to have some influence. This often took the form of psychobiography or psychohistory, which attempted to explain political behavior in terms of early childhood experiences or development crises later in adulthood.¹² One of the first such studies was Walter Langer's ([1943] 1972) psychobiography of Hitler (see Post, chapter 15, this volume). The most influential study was George and George's (1956) analysis of Woodrow Wilson, which provided a psychodynamic explanation of Wilson's life and political career, including his decisive role in the US debate about the League of Nations. The Georges argued that Wilson's low self-esteem and repressed anger toward his demanding father led Wilson

to a compensatory drive for power and refusal to compromise.¹³ Psychoanalytic perspectives also influenced some of the early "operational code" analyses of political belief systems (Leites, 1951).

Interest in psychobiographical approaches began to wane by the 1970s, however, with a shift in orientation toward more parsimonious and empirically testable theories and with the development of alternative psychological frameworks. Despite the decline of psychobiography, scholars continued to show an interest in more general (and more easily testable) models of personality and foreign policy (Greenstein, 1975; Etheridge, 1978; Hermann, 1980; Winter, 1992; this volume, chap. 14; George and George, 1998; Post, 2003).

Meanwhile, by the 1950s and 1960s social psychologists had begun to move away from a reductionist perspective that traced causality in international affairs exclusively to individual needs, motivations, and tendencies, and toward a view that recognized the political and international context of foreign policy behavior. In doing so, they started having more of an impact on the study of foreign policy in political science. The influence of social psychologists' studies of foreign policy attitudes and their social, demographic, and personality correlates is evident in Almond's (1950) classic study of changing "moods" in American foreign policy. Scholars analyzed the psychology of nationalism and of national ideologies more generally and conducted cross-national studies of images and stereotypes of other nations (Campbell & LeVine, 1961). Most of this work focused on the mass level, however, and still gave relatively little attention to the mechanisms through which shifting public moods were translated into state foreign policy actions.¹⁴ It was not until the late 1960s that social psychologists began focusing on elite perceptions and choice in foreign policy (DeRivera, 1968; White, 1968).

By this time, the first really systematic analysis of foreign policy in the international relations field had emerged, the "decision-making approach" of Snyder, Bruck, & Sapin ([1954] 1962). Reflecting the growing dissatisfaction with the rational, unitary, apolitical, and outcome-oriented focus of many existing studies of foreign policy, Snyder and his colleagues argued that understanding state behavior required focusing on political elites—and especially their conceptions of the national interest and "definition of the situation," the domestic political contexts in which they operated, and the nature of information and communication. Although this "first-wave" decision-making approach (Art, 1973) allowed a substantial role for individual psychology, there was little explicit theorizing about the influence of psychological variables in the foreign policy process. Scholars incorporated political leaders' worldviews but generally treated them as exogenous and made little attempt to explain the social, intellectual, and psychological processes that generated them. Psychological variables were given even less attention in the "second wave" of decision-making studies. These studies emerged with Allison's (1971) elaboration of a organizational process model based on standard operating procedures, and a governmental politics model based on bargaining between the heads of different agencies with different policy preferences and different degrees of power and influence.

Growing dissatisfaction with the neglect of psychological variables in the leading paradigms of foreign policy analysis led to a number of studies in which political

psychology was central. One was Wohlstetter's (1962) analysis of information processing in the American intelligence failure at Pearl Harbor. Overturning the conventional wisdom that the primary source of intelligence failure was the lack of adequate information, Wohlstetter argued that the real problem in 1941 was not the lack of information but the excess of information and the inability to distinguish informative signals from background noise. She also emphasized the compartmentalization of information in different bureaucratic agencies. Wohlstetter gave relatively little attention, however, to the particular cognitive mechanisms contributing to the inability to distinguish signals from noise.

Whereas Wohlstetter (1962) focused on information processing, George (1969) focused on the content of individual belief systems in his study of the "operational codes" of political leaders. Influenced by the cognitive revolution in social psychology, and shifting away from the psychobiographical approach that he had done much to advance, George reformulated Leites's (1951) earlier work on the operational code of the Politburo. He eliminated the psychoanalytic component, focused on the cognitive dimensions, and generally tried to shift the focus toward a more social scientific orientation. He 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" (p. 195).

George 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.¹⁵ Images of the enemy are a particularly important component of operational code belief systems.¹⁶

This new 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, 1969), and, in some cases, began to reincorporate personality elements into the operational code (Walker, 1995). Some question, however, whether the increasing complexity of the operational code concept has significantly enhanced its explanatory power (Walker, 2003). Other scholars adopted other frameworks for the study of leaders' belief systems, including cognitive mapping (Axelrod, 1976).

By the late 1960s, in response to Soviet-American crises over Berlin and especially over Cuba, scholars began examining crisis decision-making. They 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 & George, 1975). One influential research program was the Stanford project on International Conflict and Integration. This "1914 project" 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).

The 1914 studies demonstrated that political leaders misperceived the capabilities and intentions of their adversaries in systematic ways. They did little, however, to specify the causal mechanisms that drove misperceptions or to assess the 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*. Jervis provided a comprehensive survey of theory and experimental evidence from many diverse areas of cognitive and social psychology bearing on questions of perception and misperception in international relations, illustrated by a wide range of historical examples.

Jervis also provided a framework for thinking about the role of psychological variables in a way that avoided the "overpsychologizing" of earlier social-psychological approaches. Jervis identified alternative systemic and domestic explanations for the observed behavior 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 an important methodological contribution to the application of psychological models to foreign polity behavior, complementing Jervis's many theoretical contributions.

Jervis' (1976) study symbolized the coming of age of a systematic "cognitive paradigm" of foreign policy analysis, and it contributed significantly to the growing interest in psychological approaches to international relations.¹⁷ The basic premises of the cognitive approach are that the world is extraordinarily complex, incoherent, and changing. People are limited, however, in their mental capacities to process information and fully satisfy standards of ideal rationality in their attempts to maximize their interests. They adopt a number of cognitive shortcuts or heuristics (Kahneman, Slovic, & Tversky, 1982; Kahneman, 2011) 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. These are cognitive or "unmotivated" biases, and they occur independently of emotions or interests. People may try to act rationally, but they do so within their simplified mental representations of reality, and their behavior is best described as "bounded rationality" (Simon, 1957; March, 1978; Jones, 1999; Redlawsk & Lau, chapter 5, this volume; Chong, chapter 4, this volume).

A central proposition of the cognitive paradigm is that an individual's cognitive predispositions or mindsets play a disproportionate role in shaping his or her perceptions. This leads to a general tendency to selective attention to information, to premature cognitive closure, for people to see what they expect to see based on prior beliefs and world-views, and consequently to the perseverance of beliefs. In other words, perception is more theory-driven than data driven (Jervis, 1976).¹⁸

Jervis (1976) wrote at the peak of the "cognitive revolution" in social psychology.¹⁹ His discussion of the role of emotion or motivation in perception was limited to one

chapter on the influence of people's desires and fears on judgment and decision-making. These factors, in contrast to those associated with a purely cognitive view, lead to "motivated biases," or motivated reasoning (Kunda, 1990; see, in this volume, Sears & Brown, chapter 3; Condor, Tileagă, & Billig, chapter 9; Taber & Young, chapter 17). Motivated biases are driven by people's emotional needs, by their need to maintain self-esteem, and by their interests—diplomatic, political, organizational, or personal. The result is "wishful thinking": people what they *want* to see rather than what they *expect* to see. Motivated reasoning serves to rationalize policies that support one's interests and emotional needs.

Motivated biases are most likely to manifest themselves in decisions involving high stakes and consequential actions that might affect important values or trade-offs among important values. The resulting stress from threats to basic values often leads decision-makers to deny those threats or the need to make trade-offs between values (Holsti & George, 1975). Although judgments of the probability and utility of outcomes should be made independently in any rational calculus, in fact the desirability of an outcome often influences the perceived likelihood that it will occur. Many argue, for example, that the George W. Bush administration's strong preferences for war against Iraq in 2003, in conjunction with the belief that the existence of an Iraqi nuclear weapons program constituted the best way to mobilize domestic support for war, led through motivated biases to exaggerated perceptions that Iraq had nuclear weapons (Duelfer and Dyson, 2011).

Attention to the role of affect and motivation in judgment and decision-making began to grow after the publication of *Decision Making* by social psychologists Janis and Mann (1977).²⁰ International relations scholars soon began to incorporate these factors into their theories, but only gradually (Cottam, 1977; Lebow, 1981; Jervis, 1985; Stein, 1985). Cognitive and motivated biases generate some of the same pathologies of judgment and decision, and it is often difficult to empirically differentiate between the two. The belief that a cognitive model was more parsimonious and more easily testable led most international relations scholars to continue to give priority to cognitive over motivational explanations.²¹

This began to change by the end of the 1990s, following a shift toward a greater emphasis on emotions in social psychology and in the study of American politics (see, in this volume, Chong, chapter 4; Condor, Tileagă, & Billig, chapter 9; Taber & Young, chapter 17). Accompanying this change in emphasis was a conceptual transformation from the view that emotions are a source of deviation from rationality to a view in which emotions were necessary for rationality (Damasio, 1994). This argument was reinforced by the development of neuroscience and the ability to distinguish centers of cognition and emotion in the human brain (Marcus, 2012). In international relations, Mercer (2005) rejected the common view that psychology can only explain deviations from rationality and argued that psychology should be used to explain accurate judgments as well as erroneous ones. He also argued that many beliefs—including trust and credibility—are based on emotion as much by cognition.

There has been a lot of work in the last decade on the impact of emotion on foreign policy decision-making (Crawford, 2000; Rosen, 2005, chap. 2; McDermott, 2004,

chap. 6). More recently, McDermott (2008) looked at the impact of illness, including its emotional consequences, on presidential decision-making. Lebow (2010) and Lindemann (2010) each emphasize the political psychology of recognition, the drive for self-esteem, and the impact of past humiliations in the processes leading to war. Many other research programs incorporate motivational mechanisms. Most variants of the diversionary theory of war (Levy, 1989) emphasize political leaders' use of military force externally to invoke the symbols of the nation, engage mass emotions, and generate a rally round the flag effect to bolster their political support. Many civil war theorists emphasize the impact of symbolic politics and emotions at the mass level in the outbreak and evolution of civil wars (S. Kaufman, 2006).

Many of the applications of social psychology to international relations in the last three decades have followed Jervis (1976) and focused on the psychology of threat perception, with particular attention to the role of cognitive and motivated biases. The literature on threat perception, which I surveyed in my chapter in the first edition of the *Handbook*, is covered in detail by Stein (chapter 12, this volume). Consequently, I will direct my efforts elsewhere in the remainder of this chapter. I focus on a number of specific research areas: learning, including both the updating of beliefs and learning from historical analogies; the application of the Rubicon model of action phases to overconfidence in judgments about war; prospect theory; poliheuristic theory; and time horizons, including applications of discounting models and of construal-level theory.²²

3. SOME SPECIFIC RESEARCH PROGRAMS

3.1. Learning and Foreign Policy

There are at least two different ways in which scholars have applied social psychology to questions of learning in foreign policy judgment and decision-making. One involves the general question of how beliefs change in response to new information.²³ The other involves the use of historical analogies.

Most conceptions of rational learning are based on Bayesian updating, which involves the revision or updating of prior probability assessments (priors) in response to observed events according to Bayes's rule.²⁴ Rational learning is efficient, in that the successive updating of prior beliefs generates revised estimates that quickly converge to the "true" value, regardless of the accuracy of one's priors. Experimental and field research has demonstrated, however, that people systematically deviate from the normative Bayesian standard by giving disproportionately more weight to prior beliefs and less to new information. As a result, updating is often slow and inefficient. This pattern is explained by the cognitive bias literature in terms of the perseverance of beliefs due to selective attention, cognitive dissonance, and other biases. It is explained by the literature on decisional heuristics by the "anchoring and adjustment" heuristic. Prior beliefs serve as a cognitive anchor that impedes appropriate and efficient updating based on new information. This robust pattern is demonstrated in many carefully

controlled experimental studies on anchoring and adjustment (Kahneman et al., 1982; Kahneman, 2011).

Anchoring has important implications for threat perception. Once beliefs that the adversary is either hostile or benign are formed, they are resistant to change.²⁵ An illustrative example of the resistance to the updating of beliefs in response to new information is the Israeli intelligence failure in 1973. The leading interpretation of that failure emphasizes that Israeli political and military leaders and the intelligence community shared the belief that (1) 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, and that (2) Syria would not go to war without Egypt. The first condition of this "conception" was not satisfied, so evidence of large Syrian and Egyptian deployments near Israeli borders was interpreted not as preparations for an attack but instead as routine Egyptian military exercises and Syrian defensive moves. Israel's Agranat Commission (1974) attributed the intelligence failure to the "persistent adherence to 'the conception'" (Shlaim, 1976; Stein, 1985).²⁶

This is not to say that beliefs never change. Beliefs can change if information deviating from prior beliefs is strong and salient, if it arrives all at once, if there are relatively objective indicators to provide a baseline for the evaluation of the accuracy of beliefs, if decision-makers operate in "multiple advocacy" decision-making units, and if they are self-critical in their styles of thinking (George, 1980; Jervis, 2010; Tetlock, 1998, p. 880). Moreover, when belief change occurs, it generally follows the cognitive-consistency principle of least resistance. 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 assumptions 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 line of research on learning focuses on the question of how political leaders learn from history. In the absence of well-defined theories to guide decision-makers in making inferences about likely outcomes, they often turn for guidance to "lessons of the past" from historical analogies. It is often said, for example, that generals are always fighting the last war, and that political leaders are always trying to avoid the mistakes of the past. One of the most influential analogies for the last half-century of international relations is the "Munich analogy," associated with the "lesson" that appeasement never works. The Munich analogy had a profound effect on American decision-making in the Korean War, the Vietnam War, and the 1990–1991 Persian Gulf War (May, 1973; Khong, 1992). Similarly, the "Vietnam analogy," which many interpret to suggest that any US intervention involves a strong risk of ending up in a quagmire, itself had a significant impact on American foreign policy for decades.

The phenomenon of learning from history has attracted considerable attention among international relations theorists (Jervis, 1976; Vertzberger, 1990; Khong, 1992; Levy, 1994; Stein, 1994). The learning process is often explained in terms of analogical reasoning, which is often linked to the "availability" heuristic, in which judgments of probability are shaped by events that are familiar, salient, and that come easily to

mind (Tversky & Kahneman, 1974; also Sears & Brown, chapter 3, this volume; Condor, Tileagă, & Billig, chapter 9, this volume). The problem is that these events do not constitute a representative sample for the purpose of drawing inferences, and consequently judgments based on availability are often quite misleading.

The number of historical analogies from which individuals might learn is enormous, 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 that are observed firsthand and at a formative period in a person's life. People tend to ignore the role of contextual factors and draw universal lessons rather than conditional lessons. As Jervis (1976, p. 228) argued, "People pay more attention to *what* has happened than to *why* it has happened. Thus learning is superficial, overgeneralized. . . . 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."

The lessons an individual learns from a historical analogy can also be significantly shaped by the extent to which she or he thinks counterfactually about the analogy, and these counterfactual assumptions may themselves be shaped by preexisting theoretical assumptions (Tetlock, 2005). The "Munich analogy" is based in part on the counterfactual assumption that standing up to Hitler at Munich would have prevented war. Most historians regard that proposition as highly unlikely (Steiner, 2011), and the fact that appeasement failed against Hitler does not mean that appeasement will never work against any opponent under any circumstances.

Hypotheses on learning provide potentially powerful explanations of political leaders' beliefs and judgments, but demonstrating that leaders actually learn from history (accurately or otherwise) and that lessons learned have a causal impact on behavior is often a daunting task. It is also possible that the causal arrow is reversed: instead of learning from history, political leaders may use history to gain political support for their preexisting policy preferences, reversing the causal arrows. There are two possible mechanisms here. In the strategic use of history, leaders deliberately select certain historical analogies and interpret them in a way to influence others to support the leader's preferred policy. Alternatively, motivated biases may subconsciously lead an individual to search for historical analogies that reinforce his or her preexisting policy preferences. It is not a surprise, from this perspective, that opposite sides of a policy debate emphasize different historical analogies or interpret the same analogy in different ways, as illustrated by how the Vietnam analogy was used in subsequent political debates in the United States. Researchers need to construct research designs that facilitate the ability to distinguish between genuine learning and both the strategic use of history and the role of motivated biases (Jervis, 1976; Khong, 1992; Levy, 1994).

3.2. The Rubicon Model of War

Many of the biases discussed in the last section contribute to overconfidence in probability judgments. In fact, many scholars have pointed to the overconfidence of political

and military leaders on the eve of war, leading them to inflated expectations not only of victory but of a relatively quick victory with tolerable costs (White, 1968; Jervis, 1976; Levy, 1983; Johnson, 2004). Much has been written, for example, about the "short-war illusion" prior to World War I and US overconfidence in Vietnam, Iraq, and other wars. Yet we also know that fear, insecurity, and anxiety are a persistent feature of international politics and that leaders often exaggerate the capabilities and hostile intentions of their adversaries, frequently resulting in arms races and dangerous conflict spirals. This pattern of fear and insecurity, on the one hand, and military overconfidence, on the other, presents a puzzle, especially if we have reason to believe that information about relative capabilities is relatively constant. Johnson and Tierney (2011) have attempted to resolve this puzzle through an argument based on Heckhausen and Gollwitzer's (1987) "Rubicon model of action phases."

The theory of action phases, which has been influential in psychology (Gollwitzer, 2011) and which has important implications for conceptions of rationality and for decision-making in a wide variety of contexts, is that processes of judgment and decision-making vary over time. In the predecision phase, people tend to adopt a "deliberative" mindset, where alternative options and their possible consequences are carefully compared. In the postdecisional or implementation phase of decision-making people shift from making a decision to thinking about how to implement it. In this latter phase they are more vulnerable to psychological biases, including diminished receptivity to incoming information, and increased vulnerability to selective attention, tunnel vision, cognitive dissonance, self-serving illusions, and illusion of control. Consequently, people are generally prone to overconfidence and to engage in increasingly risky and aggressive actions.²⁷ With respect to war, when leaders come to believe that war is imminent (and thus cross a psychological Rubicon), they switch from a "deliberative" mindset to an "implemental" one, and from a more neutral analytic perspective to an overconfident one (Johnson and Tierney, 2011).

The Rubicon model is a potentially important contribution to our understanding of decision-making in international relations and elsewhere. It provides an overarching framework for integrating a diverse set of psychological biases, and its central proposition that processes of judgment and decision may vary over different stages in the decision-making process or in different contexts is quite plausible.²⁸ The Rubicon model appears to resolve the puzzling combination of insecurity and overconfidence in the processes leading to war, and it provides a useful contrast to rationalist bargaining models that assume that decisions on all aspects of policy are driven by the same rational processes.

In answering some questions, however, the Rubicon model raises others. Whereas the Rubicon model posits that overconfidence is reinforced by an illusion of control in the final phase of decision-making and implementation, earlier research points to common feelings of the loss of control over events (Langer, 1975). A number of IR scholars have emphasized that a sense of the loss of control as war approaches is common and consequential because it can lead decision-makers to abandon attempts to manage the crisis to avoid war and instead to prepare for war, which generates a momentum of its

own (Lebow, 1987, chap. 3; Jervis, 1989, 153–164). We need to know which pattern is more likely, for what kinds of individuals in which contexts, for decision-making in general and for war in particular. There is also a need for more empirical work to ascertain the extent to which political and military leaders become more overconfident as war approaches. Leaders sometimes grow more pessimistic as the reality of war approaches, but calculate that inaction would only lead to a worsening of their position and poorer odds in the future.

3.3. Prospect Theory

For many years scholars explained individual choice behavior by the normative expected-utility model (Redlawsk and Lau, chapter 5, this volume; Chong, chapter 4, this volume), and they assumed that nonrational behavior was too unpredictable to model. The development of prospect theory (Kahneman and Tversky, 1979) posed a powerful challenge to expected-utility theory by providing a systematic and tractable explanation for a variety of seemingly nonrational behaviors.²⁹ Prospect theory is now the leading alternative to expected utility as a theory of choice under conditions of risk. It is influential in many social science disciplines, and it has played an important role in the development of behavioral economics. In political science, prospect theory has been particularly influential in international relations, in part because the choices of individual leaders have a greater impact than in domestic policy. Here I summarize the theory and briefly mention some of its implications for foreign policy and international relations.³⁰

Whereas expected-utility theory defines value in terms of net assets, prospect theory posits that people are more sensitive to changes in assets than to net asset levels. 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 make risk-averse choices when possible outcomes are positive and risk-acceptant choices where possible outcomes are negative (the “domain of losses”).³¹ Their strong aversion to losses, particularly to “dead” losses that are perceived as certain (as opposed to those that are perceived as probabilistic), lead them to take significant risks in the hope of avoiding a certain 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 things in their possession more than comparable things not in their possession (the “endowment effect”). Consequently, actual losses hurt more than do forgone gains.³²

Because value is defined in terms of gains and losses relative to a reference point, how people identify their reference points is critical. 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 likelihood of a 90% survival rate than to a 10% mortality rate, although the two are mathematically equivalent.

Almost all applications of framing to political science focus on the effects of framing on choice rather than on the sources of framing, and thus give little attention to the question of why people select one reference point rather than another. One thing we do know, however, is that although 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 much faster than they do after incurring losses. This helps to explain why people go to such lengths to recover "sunk costs," contrary to the prescription of microeconomic theory to think on the margin and ignore sunk costs.³³ Renormalizing after making gains, and treating subsequent retreats from those gains as losses, helps to explain why, in the words of Daryl Hannah's character in the 1987 movie *Wall Street*, "When you've had money and lost it, it's much worse than never having had it at all."

Applications of these basic principles to foreign policy and international relations have led to a variety of interesting and intuitively plausible propositions.³⁴ (1) Because decision-makers usually take the status quo as their reference point, and because the costs of moving away from the status quo are treated as losses and overweighted relative to the benefits (gains) of doing so, states have a greater-than-expected tendency to remain at the status quo (the "status quo bias").³⁵ This helps to explain policy continuity.³⁶ (2) State leaders take more risks to maintain their international positions, territory, and reputations against potential losses than they do to enhance their positions. As Dennis Ross (1984, 247) argued, Soviet leaders were willing to engage in the "use of decisive and perhaps risky action far more readily for *defending* as opposed to *extending* Soviet gains." (3) domestic publics punish political leaders for incurring losses more than they reward them for making gains (Nincic, 1997).

(4) Leaders of declining states tend to frame reference points around their current position, define inaction and continued decline as a loss, and take excessively risky³⁷ actions in attempt to avoid losses and restore current position. This reinforces incentives for declining states to adopt preventive war strategies (Levy, 2008a), as illustrated by Japan's decision to attack an increasingly powerful United States at Pearl Harbor in 1941 (Taliaferro, 2004). (5) The fact that people are slow to accept losses and take risks to eliminate losses makes sunk costs important and contributes to entrapment in escalating conflicts (Brockner & Rubin, 1985), as illustrated by the United States in Vietnam and in Iraq and the Soviet Union in Afghanistan (Taliaferro, 2004).

With respect to strategic interaction between states, (6) if one state makes gains at another's expense, the winner generally renormalizes its reference point and takes excessive risks to defend the new status quo against subsequent losses. The loser does not adjust to the new status quo but instead takes excessive risks to recover its losses and return to its reference point. As a result, both sides engage in riskier behavior than a standard expected value calculus predicts. (7) Detering an adversary from making gains is easier than deterring it from recovering losses or compelling it to accept losses.³⁸ (8) Reaching a negotiated settlement is more difficult than expected-utility theory predicts because people overweight what they concede in bargaining relative to what they get in return. This

“concession aversion” is comparable to the status quo bias in individual decision-making. (9) It is easier for states to cooperate in the distribution of gains than in the distribution of losses, because political leaders will take more risks and bargain harder to minimize their share of the costs than to maximize their share of the gains. This explains why distributive issues are easier to resolve than redistributive issues.

Many of these hypotheses resonate well with common understandings of international politics, but validating them empirically raises difficult conceptual and methodological problems (Levy, 1997; O’Neill, 2001). Although hypotheses on reference dependence, loss aversion, and preference reversals have been systematically validated in laboratory experiments involving individual behavior in simple choice problems, generalizing them to the world of international relations raises a host of new issues. The key variables of interest in international relations—relative power, reputation, and the external security of states and the internal security of political elites, among others—are extraordinarily difficult to measure on an interval scale. This makes it difficult to demonstrate convincingly that choice is determined by framing, loss aversion, and risk orientation instead of by the maximization of expected value, as the conventional wisdom suggests.

Proponents of prospect theory also face the important task of developing hypotheses on how actors identify their reference points. Prospect theory remains a reference-dependent theory without a theory of the reference point (Levy, 1997).³⁹ Although standard process tracing through case studies can be useful (Davis, 2000; McDermott, 1998; Taliaferro, 2004), scholars should also explore the potential utility of more formal content analysis (Levi & Whyte, 1997) or other methodologies. It is also important to think about alternative sources of risk orientation (Sitkin & Pablo, 1992), including individual personality and experience (Kowert & Hermann, 1997), culture and ideology, gender, and leadership selection in different regimes.

Whereas prospect theory is a theory of individual choice under conditions of risk, international relations involve decisions by collective decision-making bodies who must act strategically in anticipation of the strategic behavior of adversaries and allies and also the reactions of domestic audiences. In addition, the world of international relations involves choices under conditions of uncertainty (where probabilities, and even the set of feasible outcomes, are unknown), rather than risk (where the probabilities of all possible outcomes are known). Former US Secretary of Defense Donald Rumsfeld is often ridiculed for his statement that “There are known knowns... known unknowns... [and] unknown unknowns,” but Rumsfeld succinctly captured some important analytic distinctions.⁴⁰

3.4. Poliheuristic Theory

Expected-utility theory and prospect theory are each compensatory theories of decision. Positive outcomes along one dimension can compensate for negative outcomes along another dimension. If decision-makers value one dimension so highly that they refuse to consider any strategy that falls below an acceptable level on that dimension,

regardless of the benefits along another dimension, they have "lexicographic" preferences and follow a noncompensatory decision rule (see Redlawsk & Lau, chapter 5, this volume).⁴¹ Mintz (1993; 2004) incorporated this decision rule into his "poliheuristic theory" of decision, which now constitutes a lively research program in international relations.⁴² The decision problem is usually framed as one in which one state actor faces a threat from another and has several policy alternatives or strategies from which to choose, including doing nothing, breaking diplomatic relations, imposing economic sanctions, or a range of military actions. Each of these alternatives has consequences along several value dimensions—military, economic, domestic political, reputational, and so on.

Poliheuristic theory posits a two-stage decision-making process. In the first stage actors eliminate all strategies that are expected to lead to unacceptable outcomes on a particular dimension.⁴³ In the second stage they select the strategy with the highest expected utility. Mintz and his colleagues initially left it open as to which was the noncompensatory dimension. Subsequent experimental and case study research soon revealed that it was domestic dimension that is generally given primacy in a wide range of international contexts. This is intuitively quite plausible: political leaders often reject any strategy that might jeopardize their domestic positions.

To explore and test poliheuristic theory, Mintz and his colleagues have used both historical case studies and a computerized "decision-board." The latter is an important methodological innovation in foreign policy analysis because it facilitates the tracing of information search and decision-making processes under different conditions (Mintz et al., 1997).⁴⁴ Decision boards can be used, for example, to see whether individuals organize their information search by examining one strategy at a time and determining its consequences for different values before moving on to the next strategy, or whether they focus on different interests or values (such as domestic politics) and look at how each strategy might affect that dimension.

Poliheuristic theory provides an important alternative to compensatory models of decision-making and to utility-based models. The two-stage character of the model, which incorporates a noncompensatory decision rule in the first stage and a compensatory expected-utility decision rule in the second stage, is intriguing. It captures a basic intuition about the unwillingness of political leaders to do anything that might significantly threaten their domestic political positions. One question it raises, however, is whether all foreign policy decisions are truly noncompensatory—whether, for example, particularly acute external threats to national security interests might induce some leaders in some kinds of regimes to incur "unacceptable" domestic political costs to safeguard state interests.

3.5. Time Horizons

Scholars and other observers have long recognized that the time horizons of political leaders influence their foreign policy decisions. Just like individuals in their personal lives, political leaders must make choices involving trade-offs between current benefits

and future costs (or current sacrifices for future benefits), both for the country and for their own political fortunes. How they make those trade-offs is profoundly affected by their time horizons. It is often said, for example, that political decision-makers have short time horizons, and that those time horizons are shortened further by acute international and domestic crises (Holsti, 1989). Decisions about whether to initiate a preventive war against a rising adversary are significantly influenced by the trade-offs one is willing to make between the risks of war now and the risks of war under increasingly unfavorable circumstances later (Levy, 2008a).

Yet the concept of time horizons remains remarkably undertheorized. Time horizons are rarely incorporated into most models of foreign policy or strategic interaction. One important exception is Axelrod's (1984) influential model of cooperation in iterated Prisoner's Dilemma games. In contrast to the single-play game Prisoner's Dilemma game, in which rational players should not cooperate, cooperation in the iterated game is rational if the "shadow of the future" (discount factor) is sufficiently high. Axelrod follows the standard practice in economics of using an exponential discounting model based on the assumption that the discount rate is constant from one period to the next.⁴⁵ Recent econometric models in political science have begun to incorporate exponential discounting.

A growing body of experimental and field research in behavioral economics and social psychology on discounting behavior, however, has found that individual discounting behavior differs from the assumptions of the standard exponential discount function (Loewenstein, Read, & Baumeister, 2003). More specifically, discount rates for most people tend to decline over time rather than remain constant. What this means is that people discount the immediate future more, but the distant future less, than the exponential discounting model suggests. That is, a descriptively accurate discount function is steeper for the near future and flatter for the more distant future.

One consequence of declining discount rates is that what is expected to happen tomorrow matters less than standard discount models predict (for a given discount rate). Another consequence is dynamic inconsistency and preference reversals. An actor may prefer to receive x now to receiving y tomorrow, but prefer y in t periods from now to x the period before. I may prefer to get up early and work on this paper, and set my alarm early to facilitate that, but when the alarm goes off prefer to sleep a while longer.

Actual discounting behavior can be better captured by a hyperbolic function than by an exponential function. In contrast to the constant-rate exponential discounting function, which is mathematically tractable (converging, and avoiding troubling preference reversals), the more descriptively accurate hyperbolic discounting model is not tractable: in addition to its dynamic inconsistency, it does not converge. Consequently, it does not permit analytic solutions to many economic models. This helps to explain the persistence of the exponential discounting model despite its descriptive inaccuracy.

This problem has led some to propose a "quasi-hyperbolic discount function" (Laibson, 1997), which incorporates a steep drop in the first period but constant-rate discounting after that. This function provides a closer fit to the data than does the exponential function, and it converges and permits analytic solutions. Streich and Levy

(2007) demonstrate that if actors behave as quasi-hyperbolic discounters rather than as exponential discounters, cooperation in iterated Prisoner's Dilemma games is more difficult than Axelrod's (1984) model implies.

Research has uncovered additional patterns that run contrary to the assumptions of the standard exponential discounting model (Loewenstein et al., 2003; Streich & Levy, 2007). Discount rates are lower for large payoffs than they are for small payoffs, which means that people give proportionately greater weight (in terms of discounted present value) to large future payoffs than to smaller future payoffs. There are also framing effects related to reference points. People tend to discount future gains more than they do future losses, and thus give more weight to future losses than to comparable future gains. This is another demonstration of the disproportionate and enduring psychological effects of losses relative to gains. This pattern reinforces the concession aversion and the impediments to negotiated solutions because it leads people to overweight the future costs from current concessions relative to their future benefits. Still another pattern, which runs contrary to the standard economic assumption that people prefer positive payoffs sooner rather than later, is that people often prefer improving sequences.⁴⁶ Theories of negotiation, bargaining, and conflict resolution would do well to incorporate some of these patterns.

Time horizons involve more than just the shape of an actor's discount function. Studies of discounting, whether economic or behavioral, implicitly assume that although people apply different weights to outcomes in the near future and more distant future, they basically reason in the same way about those outcomes. This assumption is questioned by an important line of research in social psychology, *temporal construal theory*, or *construal-level theory* (Liberman & Trope, 1998; Trope & Liberman, 2000). The theory, which is backed by substantial experimental evidence, posits that people think about near-term outcomes or strategies in relatively low-level and concrete terms embedded in a particular context, but that they think about more distant outcomes and strategies in more abstract and decontextualized terms.

This is consequential. More abstract and less context-specific representations generally lead to more optimistic expectations because they exclude "the devil in the details." Lower-level representations of the immediate future include more details and lead to more pessimistic assessments. Those details also facilitate assessments of the consequences of various actions and hence the feasibility of achieving short-term goals. The absence of these concrete details in distant outcomes make such assessments more difficult. Consequently, whereas outcomes in the immediate future are evaluated in terms of their feasibility, more distant outcomes tend to be evaluated in terms of their desirability. This implies that calculations about the immediate future are more likely to be based on expected-utility (or prospect-theoretic) calculations than are calculations about the distant future.⁴⁷

The implications of construal-level theory for foreign policy and international relations are quite profound but neglected until recently. Rapport (2012/13) uses the theory to explain the widely recognized tendency for states to underestimate the long-term costs of military interventions and to fail to engage in extensive planning for the ending

phases of a war, including occupation. Scholars have spent a fair amount of effort trying to explain the systematic underestimation of long-term costs and the absence of planning—by the United States in Iraq, the Soviet Union in Afghanistan, and numerous other cases. Rapport proposes a novel psychological explanation based on construal level theory.

Rapport shows that the absence of planning cannot be traced to high discounting of the future, because political leaders and military planners vary in their time horizons. They just think differently about the immediate and distant futures. Rapport demonstrates that those actors with long time horizons think about the future in abstract terms and tend to emphasize the desirability of future goals while neglecting their feasibility and the details of implementation, just as construal-level theory predicts. Those who place less weight on the future tend to focus on operational details and the feasibility of various strategies.

Krebs and Rapport (2012) apply temporal construal theory to several central questions in the international relations field—international cooperation, preventive war, and coercion. They argue that temporal construal makes international cooperation somewhat less difficult than standard cooperation theories suggest. Actors are more focused on the desirability of distant outcomes than on their feasibility, which generates greater optimism about the future, less concern about the future enforcement of current bargains, and a greater willingness to reach a negotiated settlement.

4. CONCLUSIONS

By any measure, the study of psychology and international relations has progressed enormously over the last half-century. Five or six decades 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 are made. International relations theorists were beginning to develop political decision-making frameworks that incorporated a potentially important role for psychological variables, but they did not construct specific testable hypothesis or explore their underlying psychological mechanisms. By the mid-1970s, however, IR scholars had started to develop a more systematic cognitive research program that built on new developments in social psychology and that recognized the importance of the political context of individual decision-making. Within a few years, scholars gradually began incorporating motivational and affective dimensions of judgment and decision-making.

One can now identify a variety of research programs on the political psychology of foreign policy and international relations. They build on different psychological theories, apply their models to a wide variety of substantive contexts, and make varying degrees of effort to integrate individual decision-making into more general frameworks of foreign policy and strategic interaction. They use different methodologies, including

individual and comparative case studies, quantitative content analyses and surveys, aggregate data analysis, and, increasingly, experiments.

Each of these methods has its own advantages and limitations. Experiments are most effective in imposing scientific controls, but the problems of generalizing to the high-stakes and high-stress world of elite decision-making in international relations are formidable. Historical case studies are immersed in that world, but they face the problem of ruling out alternative explanations. Historical case studies are also more susceptible to the influence of the analyst's own theoretical biases on his or her interpretation; analysts are as susceptible as actors to the tendency to see what they expect to see or want to see. Threats to internal validity can be minimized by clearly specifying alternative interpretations and by applying the same standards of evaluation to alternative interpretations as to one's own (George & Bennett, 2005). The problem of generalizing from a handful of detailed case studies remains, but that problem can be reduced by identifying a carefully matched set of cases, by constructing "hard" tests, and by employing multimethod research designs.⁴⁸

There are a number of different directions for future research that have the potential to make significant contributions to our understanding of foreign policy and international relations. My selection of specific research programs to survey in some detail in this chapter suggests some that I think are important but underdeveloped. A leader's willingness to take risks has undeniable importance in decisions for war, but IR scholars have given relatively little attention to this critical variable. Formal decision and game-theoretic models recognize that risk propensities are important but treat them exogenously and often assume either risk neutrality or risk aversion. Prospect theory provides a plausible account of the conditions under which risk acceptance is likely to emerge, but it ignores the possibility that risk attitudes might vary across individuals, cultures, or ideologies, or that political recruitment mechanisms in certain kinds of states might favor individuals with a particular kind of risk orientation.⁴⁹

In addition, whereas prospect theory, like expected-utility theory, assumes that probabilities are known, decision-makers make choices in a world in which probabilities are unknown, which introduces an additional level of complication. This leads George and Smoke (1974, p. 528) to distinguish between calculable and incalculable risks and to argue that deterrence is probably more effective against an actor who perceives incalculable risks than high but calculable risks. This hypothesis draws support from evidence in experimental economics suggesting that people have an aversion to incalculable risks (Camerer, 1995, pp. 644–646).⁵⁰ People are more risk averse in response to "unknown unknowns" than they are to "known unknowns." We need more exploration of how different kinds of decision-makers respond to uncertainty and ambiguity as well as to risk under different conditions. We also need more work on the evaluation of potential events with extremely low probabilities (Taleb, 2007).

One particularly important area for future research on threat perception lies at the intersection of political psychology and game theory. Most discussions of threat perception focus primarily how one state perceives adversary intentions or capabilities or both while ignoring how the adversary attempts to influence the way it is perceived by others

by strategically manipulating the images it projects. The game-theoretic literature on "signaling" (Banks, 1991; Wagner, 1989; Schultz, 1998) incorporates the behavior of both sender and receiver, but it assumes that signals are perceived and interpreted as intended by the sender. It ignores the psychology of threat perception and the substantial evidence that the way signals are perceived and interpreted is significantly shaped and distorted by the receiver's prior belief system, emotional needs, political interests, and organizational culture, often leading to significant distortions in the way she interprets those signals.

This is an important omission for policy as well as for theory. 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 that includes the manipulation of images, the psychology of threat perception, and the strategic interaction between them is a potentially fruitful area for future research (Jervis, 2002), one that would be advanced by attention to experimental research in behavioral game theory (Camerer, 2003).

There are other bodies of literature in international relations that could be enriched by incorporating political psychology. Liberal international theories give considerable attention to the importance of ideas and their impact on outcomes (Goldstein & Keohane, 1993), but they generally treat ideas exogenously and give little attention to the sources of ideas and how they might change. It is difficult to assess the causal impact of ideas, however, without understanding their origins. If ideas change in response to changing international structures, 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, which should be informed by the political psychology of belief updating.

Similarly, constructivist theories of international politics could also benefit from greater attention to the literature on political psychology (Shannon & Kowert, 2012). The emphasis on the *social* construction of meanings, identities, and worldviews gives priority to the social and cultural sources of identity formation while minimizing the role of psychology. Among other things, it downplays the individual psychological needs that are satisfied by those identities and that systematically shape the social construction of identities (Kowert & Legro, 1996; Goldgeier, 1997). 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.

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. As I noted earlier, levels-of-analysis frameworks in international political economy omit the individual level. Yet it is hard to look at

governmental and nongovernmental responses to the financial crises of 2008–2009 and the European debt crisis a couple years later without concluding that individual belief systems, judgments, and decision-making played a key role in shaping those responses, and that other individuals in the same positions might have made different decisions with different consequences. We need more research on how decision-making on economic issues is shaped by actors' beliefs about the international political economy, the economic lessons they draw from history,⁵¹ their priorities among different economic values and perceptions of threats to those values, their time horizons and the kinds of trade-offs they are willing to make between current and future costs and benefits, and consequently in their economic policy preferences.

This leaves a broad agenda for future research on the political psychology of foreign policy and international relations. We need to pay particular attention to the interaction effects between psychological variables and the political and strategic context of decision-making. Although some applications of psychology attempt to contrast analytically distinct psychological models of foreign policy with alternative realist or domestic political models, this is probably not the most useful way to proceed. Psychological models alone do not provide complete explanations for international relations 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. The psychology of judgment and decision-making in foreign policy interacts with the political context, which varies in complex and contingent ways. Psychology plays an important role in foreign policy decision-making, but analyzing the psychological sources of foreign policy is too important to leave to the psychologists.⁵²

NOTES

1. Realists focus on states or groups trying to maximize power and security in an anarchic system lacking an authoritative decision mechanism. Liberals emphasize the role of domestic interests, institutions, information, and values, along with patterns of economic relationships, in shaping state goals and interactions. Constructivists emphasize the importance of identities, ideas, norms, and meanings, and how they are socially constructed, reproduced, and changed through repeated interactions. There are numerous variations within each approach. For competing theoretical perspectives, see Carlsnaes, Risse, & Simmons (2013).
2. Constructivism's neglect of individual psychology is reflected in standard typologies of systemic, norm-centric, rule-based, and societal forms of constructivism (Hopf, 2002). Alexander Wendt (1999), the most influential constructivist in international relations, explicitly adopts a state-as-unitary-actor framework that neglects domestic and individual-level influences.
3. A stronger statement of this argument is the "great man theory": history is shaped primarily by heroic individuals through their wisdom, power, charisma, and skill (Carlyle [1840] 1888; Hook [1945] 1992).

4. For a more complete survey of the wide range of applications of social psychology to foreign policy and international relations, see Tetlock (1998) and McDermott (2004). On judgment and decision-making see Gilovich and Griffen (2010).
5. Waltz (1959) distinguished among individual, nation-state, and system-level "images" of war; Singer (1961) coined the phrase "levels of analysis"; Rosenau (1966) disaggregated the nation-state level into distinct societal and governmental components; and Jervis (1976) constructed a separate decision-making level. Other disciplines employ similar distinctions. Attribution theory's distinction between situational and dispositional sources of behavior (Nisbett & Ross, 1980) is comparable to system and unit-level variables, the latter referring to the aggregation of factors internal to the nation-state (Waltz, 1979).
6. Criteria for assessing such counterfactual propositions are discussed in Levy (2008b).
7. In a highly centralized state the preferences and perceptions 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. The fact that non-psychological variables are a necessary part of the explanation does not preclude the possibility that psychological variables carry the greatest causal weight in explaining particular foreign policy behavior or international outcomes.
8. Higher stakes also give leaders greater incentives to expend the mental energy to make rational decisions and to learn from their mistakes. Behavioral economists have constructed experimental designs to compensate for this effect (Camerer, 1995).
9. For surveys see Hudson (2007) and Mintz & DeRouen (2010).
10. Lasswell (1930; 1935) was an important exception.
11. In his comprehensive and interdisciplinary *Study of War*, for example, Quincy Wright (1942) gave far less attention to the psychological dimensions of war than to anthropological, sociological, economic, or political perspectives.
12. For useful reviews see Tetlock, Crosby, and Crosby (1981), Loewenberg (1982), McDermott (2004, chap. 6), and Post (chapter 15, this volume).
13. The power motive was developed more systematically by Winter (1973).
14. For reviews of early social-psychological studies relating to foreign policy and international relations see Klineberg (1950; 1965), Kelman (1965), and DeRivera (1968).
15. On the various ways George incorporated political psychology into theories of foreign policy decision-making, deterrence and coercive diplomacy, and crisis management, see Renshon & Renshon (2008) and other articles in that special issue of *Political Psychology*.
16. Images of the enemy are also central in scholarship outside of the operational code research program (Finlay, Holsti, & Fagen, 1967; Holsti, 1967; White, 1968; Herrmann, chapter 11, this volume).
17. Steinbrunner's (1974) "cybernetic" and cognitive models of decision making were also important.
18. Although most scholars interpret these various manifestations of theory-driven observation as cognitive, they can also be motivated. The emotional discomfort of maintaining a belief system composed of inconsistent elements leads people to reduce or eliminate those inconsistencies (Festinger, 1957).
19. For a discussion of relevance of the cognitive revolution for political science see Larson (1985).
20. Earlier, Janis (1972) developed a model of "groupthink," a tendency toward concurrence-seeking and conformity within cohesive groups driven by social pressure and individual insecurities. See 't Hart (1990) and the discussion by Dyson and 't Hart (chapter 13, this volume).

21. For a good attempt to empirically differentiate between cognitive and motivated biases in threat perceptions in the period leading to World War I, see Kaufman (1994).
22. Readers interested in more extensive surveys of the literature on political psychology and international relations should consult Goldgeier (1997), Tetlock (1998), Mintz and Derouen (2010), and McDermott (2004).
23. It is useful to distinguish "diagnostic learning" about values of certain parameters, such as adversary hostility, from "causal learning" about the validity of causal propositions, such as the likelihood that military threats work to induce compliance (Levy, 1994).
24. For an accessible discussion of Bayesian updating see Anderson and Holt (1996).
25. See the discussion of enemy stereotypes in Herrmann's chapter in this volume (chapter 11).
26. For an alternative interpretation, which emphasizes not the shared beliefs of the Israeli establishment but instead the idiosyncratic beliefs, personality, leadership style, and (non) actions of the Israeli director of military intelligence, see Bar-Joseph and Levy (2009). For general theoretical studies of intelligence failure, see Kam (1989) and Jervis (2010).
27. Much earlier, Janis (1968) posited a similar model of decision stages and emphasized the dissonance-reducing functions of overconfidence.
28. This is also a central theme of dual-process theories (Chaiken & Trope, 1999; Kahneman, 2011), which have been influential in social psychology but which have yet to have much influence in international relations.
29. Wakker (2010, 2), conceiving of theory as formal theory, described prospect theory as "the first rational theory of irrational behavior."
30. For theoretical developments, experimental tests, and applications of prospect theory in many disciplines, see Kahneman and Tversky (2000).
31. For example, when given a choice between \$40 for certain and a 50/50 chance of getting nothing or \$100, most people prefer to lock in the certain gain of \$40. When given a choice between a \$40 loss and a 50/50 chance of no losses and a \$100 loss, most people prefer the gamble in the hope of avoiding the certain loss. In each case, they choose the option with the lower expected value.
32. For example, people generally get more upset when they fail to sell a stock that then goes down, than when they fail to buy a stock that then goes up by the same amount.
33. This helps explain why a basketball player is most likely to commit a foul immediately after he or she loses the ball or makes another mistake.
34. For applications to international relations see Jervis (1992), McDermott (1998), Davis (2000), Taliaferro (2004), and the June 1992 and April and June 2004 special issues of *Political Psychology*. For applications to American politics and the law, see Levy (2003). I focus on prospect theory's treatment of value. For its treatment of probabilities see Kahneman & Tversky (1979; 2000).
35. "Greater than expected" is measured relative to the predictions of expected-utility theory for a risk neutral actor.
36. At the domestic level, citizens often prefer a barely acceptable status quo to risking change. One commentator on the Russian election of March 2012 argued that for economically struggling Russians, "any desire to live better is outweighed by a persistent fear of living worse" (Schwartz, 2012, A6).
37. Relative to the predictions of expected-utility theory for a risk-neutral actor.
38. This represents a modification of (and explanation for) Schelling's (1966) argument that deterrence is easier than compellence.
39. For research in psychology see Frisch (1993).
40. Department of Defense news briefing, February 12, 2002.

41. This is an extreme form of loss aversion.
42. For an extensive bibliography see <http://portal.idc.ac.il/en/PADA/publications/Pages/Bibliography.aspx>.
43. This is reminiscent of Tversky's (1972) "elimination by aspects" model (Redlawsk & Lau, chapter 5, this volume).
44. See also Redlawsk and Lau (chapter 5, this volume), who have successfully applied decision boards in the study of voting behavior.
45. The discount rate r is inversely related to the discount factor δ , so that $\delta = 1/(1 + r)$. The lower the discount rate, the less one discounts the future, the higher the discount factor, and the greater the "discounted present value" of future payoffs.
46. This might be the result of an "anticipation effect," in which the process of waiting and thinking about a positive future payoff creates a positive utility (Loewenstein, 1987). It might also result from reference dependence, in that declining benefits might be perceived as losses relative to the initial reference point.
47. A key question is how distant the distant future has to be before these patterns are evident (Rapport, 2012/13).
48. An ideal form of a hard test, if it can be found, is through a "least likely" case design, for which prior theoretical expectations lead one to believe that the case is unlikely to support one's preferred hypothesis (and, ideally, is likely to support the leading alternative). Allison (1971) examined the Cuban Missile Crisis because the severity of threats to the national interests made it a least likely case for his organizational process and governmental politics models and a most likely case for his rational unitary actor model. The support of a hypothesis by a least likely case provides confidence in the more general validity of a hypothesis. Least likely case logic is based on what I call the "Sinatra inference": if I can make it there, I can make it anywhere (Levy, 2008c, p. 12). The inverse logic applies to a "most likely" case.
49. Risk orientation also varies across gender, with men being more risk acceptant than women in most task domains (Harris, Jenkins, & Glaser, 2006). Men also tend to be more overconfident than women, though this is highly dependent on task domain (Lundeberg, Fox, & Puncochar, 1994; Barber & Odean, 2001).
50. What this means is that "subjects would rather bet on known probabilities p than on known probability distributions of probability (compound lotteries) with a mean of p " (Camerer, 1995, p. 646).
51. For a study of economic decision making in 2008–2013, for example, it would be useful to explore the impact of historical analogies drawn from the Great Depression and the recession of 1937.
52. Undoubtedly psychologists have a similar view about leaving the study of politics to political scientists.

REFERENCES

- Agranat Commission. (1974). *The Agranat report*. Tel Aviv: Am Oved. (Hebrew)
- Allison, G. T. (1971). *Essence of decision: Explaining the Cuban Missile Crisis*. Boston: Little, Brown.
- Allport, G. W. (1945). Human nature and the peace. *Psychological Bulletin*, 42, 376–378.
- Almond, G. A. (1950). *The American people and foreign policy*. New York: Harcourt Brace.
- Anderson, L. R., & Holt, C. A. (1996). Classroom games: Understanding Bayes' rule. *Journal of Economic Perspectives*, 10, 179–187.

- Art, R. J. (1973). Bureaucratic politics and American foreign policy: A critique. *Policy Sciences*, 4, 467-490.
- Axelrod, R. (1984). *The evolution of cooperation*. New York: Basic Books.
- Axelrod, R. (Ed.). (1976). *The structure of decision: The cognitive maps of political elites*. Princeton, NJ: Princeton University Press.
- Banks, J. S. (1991). *Signaling games in political science*. New York: Routledge.
- Barber, B. M., & Odean, T. (2001). Boys will be boys: Gender, overconfidence, and common stock investment. *Quarterly Journal of Economics*, 116, 261-292.
- Bar-Joseph, U., & Levy, J. S. (2009). Conscious action and intelligence failure. *Political Science Quarterly*, 124, 461-488.
- Brecher, M., & Geist, B. (1980). *Decisions in crises: Israel, 1967 and 1973*. Berkeley: University of California Press.
- Brockner, J., & Rubin, J. Z. (1985). *Entrapment in escalating conflicts: A social psychological analysis*. New York: Springer-Verlag.
- Camerer, C. F. (1995). Individual decision-making. In J. H. Kagel & A. E. Roth (eds.), *The handbook of experimental economics* (pp. 587-703). Princeton, NJ: Princeton University Press.
- Camerer, C. F. (2003). *Behavioral game theory: Experiments in strategic interaction*. New York: Russell Sage.
- Campbell, D. T., & LeVine, R. A. (1961). A proposal for cooperative cross-cultural research on ethnocentrism. *Journal of Conflict Resolution*, 5, 82-108.
- Carlsnaes, W., Risse, T., & Simmons, B. A. (2013). *Handbook of International Relations* (2nd ed.). London: Sage.
- Carlyle, Thomas. ([1840] 1888). *On heroes, hero-worship and the heroic in history*. New York: Stokes & Brother.
- Chaiken, S., & Trope, Y. (Eds.). (1999). *Dual-process theories in social psychology*. New York: Guilford Press.
- Cottam, R. W. (1977). *Foreign policy motivation: A general theory and case study*. Pittsburgh, PA: University of Pittsburgh Press.
- Crawford, N. C. (2000). The passion of world politics: Propositions on emotion and emotional relationships. *International Security*, 24, 116-156.
- Damasio, A. (1994). *Descartes' error: Emotion, reason, and the human brain*. New York: Putnam.
- Davis, J. W., Jr. (2000). *Threats and promises*. Baltimore, MD: Johns Hopkins University Press.
- DeRivera, J. H. (1968). *Psychological dimension of foreign policy*. Columbus, OH: Merrill.
- Droba, D. D. (1931). Effect of various factors on militarism-pacifism. *Journal of Abnormal and Social Psychology*, 26, 141-153.
- Duelfer, C. A., & Dyson, S. B. (2011). Chronic misperception and international conflict: The U.S.-Iraq experience. *International Security*, 36, 73-100.
- Durbin, E. F. M., & Bowlby, J. (1939). *Personal aggressiveness and war*. London: Kegan Paul.
- Einstein, A., & Freud, S. (1932). *Why war?* Paris: International Institute of Intellectual Cooperation.
- Etheridge, L. (1978). *A world of men: The private sources of American foreign policy*. Cambridge, MA: MIT Press.
- Festinger, L. (1957). *A theory of cognitive dissonance*. Stanford, CA: Stanford University Press.
- Finlay, D., Holsti, O. R., & Fagen, R. (1967). *Enemies in politics*. Chicago: Rand McNally.
- Frisch, D. (1993). Reasons for framing effects. *Organization Behavior and Human Decision Processes*, 54, 399-429.
- George, A. L. (1969). The "operational code": A neglected approach to the study of political leaders and decisionmaking. *International Studies Quarterly*, 13, 190-222.

- George, A. L. (1980). *Presidential decisionmaking in foreign policy: The effective use of information and advice*. Boulder, CO: Westview.
- George, A. L., & Bennett, A. (2005). *Case studies and theory development in the social sciences*. Cambridge, MA: MIT Press.
- George, A. L., & George, J. L. (1956). *Woodrow Wilson and Colonel House: A personality study*. New York: John Day.
- George, A. L., & George, J. L. (1998). *Presidential personality & performance*. Boulder, CO: Westview.
- George, A. L., & Smoke, R. (1974). *Deterrence in American foreign policy*. New York: Columbia University Press.
- Gilovich, T. G., & Griffen, D. W. (2010). Judgment and decision making. In S. T. Fiske, D. T. Gilbert, & G. Lindzey (eds.), *Handbook of social psychology* (5th ed., vol. 1, pp. 542-588). New York: Wiley.
- Goldgeier, J. M. (1997). Psychology and security. *Security Studies*, 6, 137-166.
- Goldstein, J., & Keohane, R. O. (1993). *Ideas and foreign policy*. Ithaca, NY: Cornell University Press.
- Gollwitzer, P. M. (2011). Mindset theory of action phases. In P. A. M. Van Lange, A. W. Kruglanski, & E. T. Higgins (eds.), *Handbook of theories of social psychology* (vol. 1, pp. 526-545). London: Sage.
- Greenstein, F. I. (1975). *Personality and politics*. New York: Norton.
- Harris, C. R., Jenkins, M., & Glaser, D. (2006). Gender differences in risk assessment: Why do women take fewer risks than men? *Judgment and Decision Making*, 1, 48-63.
- Hart, P. (1990). *Groupthink in government: A study of small groups and policy failure*. Amsterdam: Swets and Zeitlinger.
- Heckhausen, H., & Gollwitzer, P. M. (1987). Thought contents and cognitive functioning in motivational versus volitional states of mind. *Motivation and Emotion*, 11, 101-120.
- Hermann, C. F. (Ed.). (1972). *International crises: Insights from behavioral research*. New York: Free Press.
- Hermann, M. G. (1980). Explaining foreign policy behavior using the personal characteristics of political leaders. *International Studies Quarterly*, 24, 7-46.
- Hermann, M. G., Preston, T., Korany, B., & Shaw, T. M. (2001). Who leads matters: The effects of powerful individuals. *International Studies Review*, 3, 83-132.
- Herrmann, R. K. (1988). The empirical challenge of the cognitive revolution: A strategy for drawing inferences about perceptions. *International Studies Quarterly*, 32, 175-203.
- Holsti, O. R. (1967). Cognitive dynamics and images of the enemy. *Journal of International Affairs*, 21, 16-29.
- Holsti, O. R. (1970). The "operational code" approach to the study of political leaders: John Foster Dulles' philosophical and instrumental beliefs. *Canadian Journal of Political Science*, 3, 123-157.
- Holsti, O. R. (1972). *Crisis, escalation, war*. Montreal: McGill-Queens University Press.
- Holsti, O. R. (1976). Foreign policy formation viewed cognitively. In R. Axelrod (ed.), *The structure of decision: The cognitive maps of political elites* (pp. 18-54). Princeton, NJ: Princeton University Press.
- Holsti, O. R. (1977). *The "operational code" as an approach to the analysis of belief systems*. Final Report to the National Science Foundation, Grant No. SOC 7515368. Duke University.
- Holsti, O. R. (1989). Crisis decision making. In P. E. Tetlock, J. L. Huberman, R. Jervis, P. C. Stern, & C. Tilly (eds.), *Behavior, society, and nuclear war* (vol. 1, pp. 8-84). New York: Oxford University Press.

- Holsti, O. R., & George, A. L. (1975). The effects of stress on the performance of foreign policy-makers. In C. P. Cotter (ed.), *Political science annual* (pp. 255-319). Indianapolis: Bobbs-Merrill.
- Hook, Sydney. ([1945] 1992). *The hero in history*. New Brunswick, NJ: Transaction.
- Hopf, T. (2002). *Social construction of international politics: Identities and foreign policies, Moscow, 1955 & 1999*. Ithaca, NY: Cornell University Press.
- Hudson, V. M. (2007). *Foreign policy analysis*. Lanham, MD: Rowman & Littlefield.
- Ikenberry, G. J., Lake, D. A., & Mastanduno, M. (1988). Introduction: Approaches to explaining American foreign economic policy. *International Organization*, 42, 1-14.
- Janis, I. L. (1968). Stages in the decision-making process. In R. P. Abelson, E. Aronson, W. J. McGuire, T. M. Newcomb, M. J. Rosenberg, & P. H. Tannenbaum (eds.), *Theories of cognitive consistency: A sourcebook* (pp. 577-588). Chicago: Rand McNally.
- Janis, I. L. (1972). *Victims of groupthink: A psychological study of foreign-policy decisions and fiascos*. Boston: Houghton Mifflin.
- Janis, I. L., & Mann, L. (1977). *Decision making: A psychological analysis of conflict, choice, and commitment*. New York: Free Press.
- Jervis, R. (1976). *Perception and misperception in international politics*. Princeton, NJ: Princeton University Press.
- Jervis, R. (1985). Perceiving and coping with threat. In R. Jervis, R. N. Lebow, & J. G. Stein, *Psychology and deterrence* (pp. 13-33). Baltimore, MD: Johns Hopkins University Press.
- Jervis, R. (1989). *The meaning of the nuclear revolution*. Ithaca, NY: Cornell University Press.
- Jervis, R. (1992). Political implications of loss aversion. *Political psychology*, 13, 87-204.
- Jervis, R. (2002). Signaling and perception: Drawing inferences and projecting images. In K. R. Monroe (ed.), *Political psychology* (pp. 293-312). Mahwah, NJ: Erlbaum.
- Jervis, R. (2010). *Why intelligence fails: Lessons from the Iranian revolution and the Iraq war*. Ithaca, NY: Cornell University Press.
- Johnson, D. P. (2004). *Overconfidence and war: The havoc and glory of positive illusions*. Cambridge, MA: Harvard University Press.
- Johnson, D. P., & Tierney, D. (2011). The Rubicon theory of war: How the path to conflict reaches the point of no return. *International Security*, 36, 7-40.
- Jones, B. D. (1999). Bounded rationality. *Annual Review of Political Science*, 2, 297-321.
- Kahneman, D. (2011). *Thinking, fast and slow*. New York: Farrar, Straus and Giroux.
- Kahneman, D., Slovic, P., & Tversky, A. (Eds.). (1982). *Judgment under uncertainty: Heuristics and biases*. Cambridge: Cambridge University Press.
- Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47, 263-291.
- Kahneman, D., and Tversky, A. (Eds.). (2000). *Choices, values, and frames*. New York: Cambridge University Press.
- Kam, E. (1989). *Surprise attack*. Cambridge, MA: Harvard University Press.
- Kaufman, C. D. (1994). Out of the lab and into the archives: A method for testing psychological explanations of political decision making. *International Studies Quarterly* 38, 557-586.
- Kaufman, S. J. (2006). Symbolic politics or rational choice? Testing theories of extreme ethnic violence. *International Security*, 30, 45-86.
- Kelman, H. C. (1965). Social-psychological approaches to the study of international relations: Definition of scope. In H. C. Kelman (ed.), *International behavior: A social psychological analysis* (pp. 3-39). New York: Holt, Rinehart and Winston.
- Khong, Y. E. (1992). *Analogies at war*. Princeton, NJ: Princeton University Press.
- Klineberg, O. (1950). *Tensions affecting international understanding*. New York: Social Science Research Council.

- Klineberg, O. (1965). *The human dimension in international relations*. New York: Holt, Rinehart and Winston.
- Kowert, P. A., & Hermann, M. G. (1997). Who takes risks: Daring and caution in foreign policy making. *Journal of Conflict Resolution*, 41, 611-637.
- Kowert, P., & Legro, J. (1996). Norms, identity, and their limits: A theoretical reprise. In P. J. Katzenstein (ed.), *The culture of national security: Norms and identity in world politics* (pp. 451-497). New York: Columbia University Press.
- Krebs, R. R., & Rappoport, A. (2012). International relations and the psychology of time horizons. *International Studies Quarterly*, 56, 530-543.
- Kunda, Z. (1990). The case for motivated political reasoning. *Psychological Bulletin*, 108 (3), 480-498.
- Laibson, D. (1997). Golden eggs and hyperbolic discounting. *Quarterly Journal of Economics*, 112, 443-477.
- Langer, E. J. (1975). The illusion of control. *Journal of Personality and Social Psychology*, 32, 311-328.
- Langer, W. C. ([1943] 1972). *The mind of Adolf Hitler: The secret wartime report*. New York: Basic Books.
- Larson, D. W. (1985). *Origins of containment: A psychological explanation*. Princeton, NJ: Princeton University Press.
- Lasswell, H. D. (1930). *Psychopathology and politics*. Chicago: University of Chicago Press.
- Lasswell, H. D. (1935). *World politics and personal insecurity*. New York: McGraw-Hill.
- Lebow, R. N. (1981). *Between peace and war*. Baltimore, MD: Johns Hopkins University Press.
- Lebow, R. N. (1987). *Nuclear crisis management*. Ithaca, NY: Cornell University Press.
- Lebow, R. N. (2010). *Why Nations Fight: Past and Future Motives for War*. New York: Cambridge University Press.
- Leites, N. (1951). *The operational code of the Politburo*. New York: McGraw-Hill.
- Levi, A. S., & Whyte, G. (1997). A cross-cultural exploration of the reference dependence of crucial group decisions under risk. *Journal of Conflict Resolution*, 41, 792-813.
- Levy, J. S. (1983). Misperception and the causes of war. *World Politics*, 36, 76-99.
- Levy, J. S. (1989). The diversionary theory of war: A critique. In M. I. Midlarsky (ed.), *Handbook of war studies* (pp. 259-288). London: Unwin-Hyman.
- Levy, J. S. (1994). Learning and foreign policy: Sweeping a conceptual minefield. *International Organization*, 48, 279-312.
- Levy, J. S. (1997). Prospect theory, rational choice, and international relations. *International Studies Quarterly*, 41, 87-112.
- Levy, J. S. (2003). Applications of prospect theory to political science. *Synthese*, 135, 215-241.
- Levy, J. S. (2008a). Preventive war and democratic politics. *International Studies Quarterly*, 52, 1-24.
- Levy, J. S. (2008b). Counterfactuals and case studies. In J. M. Box-Steffensmeier, H. E. Brady, & D. Collier (eds.), *Oxford handbook of political methodology* (pp. 627-644). New York: Oxford University Press.
- Levy, J. S. (2008c). Case studies: Types, designs, and logics of inference. *Conflict Management and Peace Science*, 25, 1-18.
- Liberman, N., and Trope, Y. (1998). The role of feasibility and desirability considerations in near and distant future decisions: A test of temporal construal theory. *Journal of Personality and Social Psychology*, 75, 1: 5-18.
- Lindemann, T. (2010). *Causes of war: The struggle for recognition*. Colchester, UK: ECPR Press.

- Loewenberg, P. (1982). *Decoding the past: The psychohistorical approach*. Berkeley: University of California Press.
- Loewenstein, G. (1987). Anticipation and the valuation of delayed consumption. *Economic Journal*, 97, 666-684.
- Loewenstein, G., Read, D., and Baumeister, R. F. (2003). *Time and decision: Economic and psychological perspectives on intertemporal choice*. New York: Russell Sage.
- Lundeberg, M. A., Fox, P. W. & Puncchohar, J. (1994). Highly confident but wrong: Gender differences and similarities in confidence judgments. *Journal of Educational Psychology*, 86, 114-121.
- Macridis, R. C. (1958). *Foreign policy in world politics*. Englewood Cliffs, NJ: Prentice-Hall.
- McDermott, R. (1998). *Risk-taking in international politics: Prospect theory in American foreign policy*. Ann Arbor: University of Michigan Press.
- McDermott, R. (2004). *Political psychology in international relations*. Ann Arbor: University of Michigan Press.
- McDermott, R. (2008). *Presidential leadership, illness and decision making*. New York: Cambridge University Press.
- March, J. G. (1978). Bounded rationality, ambiguity, and the engineering of choice. *Bell Journal of Economic Management Science*, 9, 587-608.
- Marcus, G. E. (2012). *Political psychology: Neuroscience, genetics, and politics*. New York: Oxford University Press.
- May, E. R. (1973). *Lessons of the past*. London: Oxford University Press.
- May, M. A. (1943). *A social psychology of war and peace*. New Haven, CT: Yale University Press.
- Mercer, J. (2005). Rationality and psychology in international politics. *International Organization*, 59, 77-106.
- Mintz, A. (1993). The decision to attack Iraq: A noncompensatory theory of decision making. *Journal of Conflict Resolution*, 37, 595-618.
- Mintz, A. (2004). How do leaders make decisions? A poliheuristic perspective. *Journal of Conflict Resolution*, 48, 3-13.
- Mintz, A., and DeRouen, K., Jr. (2010). *Understanding foreign policy decision making*. New York: Cambridge University Press.
- Mintz, A., Geva, N., Redd, S. B., & Carnes, A. (1997). The effect of dynamic and static choice sets on political decision making. An analysis using the decision board platform. *American Political Science Review*, 91, 553-566.
- Nincic, M. (1997). Loss aversion and the domestic context of military intervention. *Political Research Quarterly*, 50, 97-120.
- Nisbett, R., & Ross, L. (1980). *Human inference: Strategies and shortcomings of social judgment*. Englewood Cliffs, NJ: Prentice-Hall.
- North, R. C. (1967). Perception and action in the 1914 crisis. *Journal of International Affairs*, 21, 103-122.
- O'Neill, B. (2001). Risk aversion in international relations theory. *International Studies Quarterly*, 45, 617-640.
- Post, J. M. (2003). *The psychological assessment of political leaders*. Ann Arbor: University of Michigan Press.
- Rapport, A. (2012/13). The long and short of it: Cognitive constraints on leaders' assessments of 'postwar' Iraq. *International Security*, 37, 133-171.
- Renshon, J., & Renshon, S. A. (2008). The theory and practice of foreign policy decision making. *Political Psychology*, 29, 509-536.

- Rosen, S. P. (2005). *War and human nature*. Princeton, NJ: Princeton University Press.
- Rosenau, J. N. (1966). Pre-theories and theories of foreign policy. In R. B. Farrell (ed.), *Approaches to comparative and international politics* (pp. 27-92). Evanston, IL: Northwestern University Press.
- Ross, D. (1984). Risk aversion in Soviet decisionmaking. In Jiri Valenta and William Potter (eds.), *Soviet Decisionmaking for National Security* (pp. 237-251). London: Allen & Unwin.
- Schelling, T. C. (1966). *Arms and influence*. New Haven, CT: Yale University Press.
- Schultz, K. A. (1998). Domestic opposition and signaling in international crises. *American Political Science Review*, 92, 829-844.
- Schwartz, M. (2012). For struggling Russians, fear of return to hardship of '90s fuels support for Putin. *New York Times*, March 4, p. A6.
- Sears, D. (1986). College sophomores in the laboratory: Influences of a narrow data base on psychology's view of human nature. *Journal of Personality and Social Psychology*, 51, 515-530.
- Shannon, V. P., & Kowert, P. A. (Eds.). (2012). *Psychology and constructivism in international relations: An ideational alliance*. Ann Arbor: University of Michigan Press.
- Shlaim, A. (1976). Failures in national intelligence estimates: The case of the Yom Kippur War. *World Politics*, 28, 348-380.
- Simon, H. A. (1957). *Models of man*. New York: Wiley.
- Singer, J. D. (1961). The level-of-analysis problem in international relations. *World Politics*, 14, 77-92.
- Sitkin, S. B., & Pablo, A. L. (1992). Reconceptualizing the determinants of risk behavior. *Academy of Management Review*, 17, 9-38.
- Snyder, R. C., Bruck, H. W., & Sapin, B. (Eds.). ([1954] 1962). *Foreign Policy Decision-making*. New York: Free Press.
- Stagner, R. (1942). Some factors related to attitude toward war, 1938. *Journal of Social Psychology*, 16, 131-142.
- Stein, J. G. (1985). Calculation, miscalculation, and conventional deterrence, II: The view from Jerusalem. In R. Jervis, R. N. Lebow, & J. G. Stein (eds.), *Psychology and deterrence* (pp. 60-88). Baltimore, MD: Johns Hopkins University Press.
- Stein, J. G. (1994). Political learning by doing: Gorbachev as uncommitted thinker and motivated learner. *International Organization*, 48, 155-184.
- Stein, J. G., & Tanter, R. (1980). *Rational decision-making: Israel's security choices, 1967*. Columbus: Ohio State University Press.
- Steinbrunner, J. D. (1974). *The cybernetic theory of decision*. Princeton, NJ: Princeton University Press.
- Steiner, Z. (2011). *The triumph of the dark: European international history, 1933-1939*. New York: Oxford University Press.
- Streich, P., & Levy, J. S. (2007). Time horizons, discounting, and intertemporal choice. *Journal of Conflict Resolution*, 51, 199-226.
- Taliaferro, J. W. (2004). *Balancing risks: Great power intervention in the periphery*. Ithaca, NY: Cornell University Press.
- Taleb, N. N. (2007). *The black swan: The impact of the highly improbable*. New York: Random House.
- Tetlock, P. E. (1991). Learning in U.S. and Soviet foreign policy. In G. W. Breslauer & P. E. Tetlock (eds.), *Learning in U.S. and Soviet foreign policy* (pp. 20-61). Boulder, CO: Westview.
- Tetlock, P. E. (1998). Social psychology and world politics. In D. Gilbert, S. Fiske, & G. Lindzey (eds.), *Handbook of social psychology* (4th ed., pp. 868-912). New York: McGraw-Hill.
- Tetlock, P. E. (2005). *Expert political judgment: How good is it? How can we know?* Princeton, NJ: Princeton University Press.

- Tetlock, P. E., Crosby, F., & Crosby, T. L. (1981). Political psychobiography. *Micropolitics*, 1, 191-213.
- Thayer, B. A. (2004). *Darwin and international relations: On the evolutionary origins of war and ethnic conflict*. Lexington: University Press of Kentucky.
- Thurstone, L. L., & Chave, E. J. (1929). *The measurement of attitude*. Chicago: University of Chicago Press.
- Trope, Y., & Liberman, N. (2000). Temporal construal and time-dependent changes in preference. *Journal of Personality and Social Psychology*, 79(6), 876-889.
- Tversky, A. (1972). Elimination by aspects: A theory of choice. *Psychological Review*, 79(4), 281-299.
- Tversky, A., & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. *Science*, 185, 1124-1131.
- Vertzberger, Y. Y. I. (1990). *The world in their minds*. Stanford, CA: Stanford University Press.
- Wagner, R. H. (1989). Uncertainty, rational learning, and bargaining in the Cuban missile crisis. In P. C. Ordeshook (ed.), *Models of strategic choice in politics* (pp. 177-205). Ann Arbor: University of Michigan Press.
- Wakker, P. P. (2010). *Prospect theory: For risk and ambiguity*. New York: Cambridge University Press.
- Walker, S. G. (1977). The interface between beliefs and behavior: Henry Kissinger's operational code and the Vietnam War. *Journal of Conflict Resolution*, 11, 129-168.
- Walker, S. G. (1995). Psychodynamic processes and framing effects in foreign policy decision-making: Woodrow Wilson's operational code. *Political Psychology*, 16, 697-717.
- Walker, S. G. (2003). A cautionary tale: Operational code analysis as a scientific research program. In C. Elman & M. F. Elman (eds.), *Progress in international relations theory* (pp. 245-276). Cambridge, MA: MIT Press.
- Waltz, K. N. (1959). *Man, the state, and war*. New York: Columbia University Press.
- Waltz, K. N. (1979). *Theory of international politics*. Reading, MA: Addison-Wesley.
- Wendt, A. (1999). *Social theory of international politics*. New York: Cambridge University Press.
- White, R. (1968). *Nobody wanted war*. New York: Doubleday.
- Winter, D. G. (1973). *The power motive*. New York: Free Press.
- Winter, D. G. (1992). Personality and foreign policy: Historical overview of research. In E. Singer & V. Hudson (eds.), *Political psychology and foreign policy* (pp. 79-101). Boulder, CO: Westview.
- Wohlstetter, R. (1962). *Pearl Harbor. Warning and decision*. Stanford, CA: Stanford University Press.
- Wright, Q. (1942). *A study of war*. Chicago: University of Chicago Press.