

CHAPTER 1

Introduction

This book is essentially, and fundamentally, about the nature and structure of risk-taking behavior. Risk is a central feature in everyday life. We all take risks all the time, often in ways we do not even recognize. In many cases, we do not appreciate the extent of the risks we take; in others, we overestimate the risks we encounter. We usually do not think about the risks inherent in driving a car or participating in sports activities, but we actively fear the objectively low-level risks associated with food additives or flying on airplanes.

Risk is often a critical component of choice. One way to think about risk is in terms of a relative threat to values. Risk-taking behavior clearly involves dynamics of strategic interaction between factors that might threaten certain values and factors that might promote other values. Risk-taking enters the equation when we do not know, or do not care about, the impact of these factors on our options prior to our choice.

But the study of risk-taking is not just a sterile academic enterprise. Fear and greed drive risk-taking behavior. By definition, risk implies some fear of losing an important value or failing to obtain some desired goal. Assessments of risk are inherently probabilistic; outcomes may or may not occur, and they may or may not be devastating or beneficial in their effect. Indeed, in many cases, the real value of the outcome is unknown in advance, and the magnitude of its potential effect is unclear as well.

The study of risk is often more precise, however, than a vague sense of potential loss (fear) or gain (greed) would suggest. Obviously, the balance of a particular decision maker's fear and greed varies from situation to situation, just as the nature of these incentives shifts from individual to individual. The likelihood of taking chances in pursuit of certain goals or to avoid costs can be thought of as risk propensity.

Many theories of risk offer formal mathematical treatments of the distribution of outcomes and their relevant utilities and payoff matrices. Other theories are less formal in their descriptions. However, there are some basic tenets that these theories about risk have in common. First, risk is inherent in choice and can substantively affect the decision made among various prospects. Second, it is assumed that options can be

ordered in some meaningful hierarchy of preferences. Last, risk is related to the distribution of the outcomes and how these outcomes are valued by the decision maker.¹

Risk need not be a static concept; indeed, it is much more realistic to think of risk in dynamic terms. As values shift over time in response to internal or external factors, perceptions of threat, and therefore risk, are likely to shift as well. Throughout, perceptions of both value and threat remain critical to a decision maker.

In some psychological studies, risk propensity is seen as a stable personality trait of an individual that influences his or her behavior across situations and over time.² This is not the way risk propensity will be discussed here; rather, risk is understood as a function of the situation, seen in terms of losses (costs or fears) and gains (opportunities or greed), not as a predetermined product of an individual decision maker's personality.

Justification

This study seeks an explanation for certain irregularities in state behavior: why do nations take crazy risks, like the Iranian rescue mission; throw good money after bad, as in Vietnam; forgo easy gains, by terminating the Gulf War before reaching Baghdad; and so on? This study asks how central decision makers perceive and respond to risk in their decisions about foreign policy. Why might a president respond differently when confronting the same decision over time, as Carter did when he considered admitting the Iranian Shah into the United States for asylum? Conversely, why might a president respond similarly to different situations that take place simultaneously, as Eisenhower did by not responding militarily to either the Soviet invasion of Hungary or Nasser's nationalization of the Suez Canal? The answers to these questions all point in the same direction: issues of risk are central to understanding decision making in international politics.

The political problems raised by variations in response to risk encompass some of the central questions that have traditionally preoccupied the discipline of political science. In the arena of international relations, for example, political scientists have long sought to explain such questions as why nations go to war, how arms control treaties are negotiated, what dynamics drive weapons procurement policies, and which strategies can improve crisis management techniques.³

Many seemingly incomprehensible behaviors in international relations share a common element that has been virtually ignored in the existing literature within political science. The key to explaining and predicting these various phenomena lies in understanding the nature of risk-taking

behavior in international politics. Many problems facing central political decision makers are united by the extent to which they involve risky choice. The underlying mechanisms of risk propensity can both explain and predict numerous political phenomena, especially those that take place under conditions of high uncertainty and incomplete information, which are precisely the circumstances which typically characterize high-stakes security decision making.

Risk is inherent in any situation where there is uncertainty, and even more so when the stakes are high or the prize is big. In a sense, any decision made under conditions of certainty is trivial almost by definition, because the outcome and its value are known in advance, or their consequences are not significant. Decisions that are easy, such as what to eat or wear, are often mandated by habit. Few significant political decisions, however, are made under such circumstances. Virtually every important decision involves some element of risk. When confronted with a problem of what to do in a given situation, a decision maker is first faced with the problem of deciding which factors should influence his choice. This assessment alone is inherently subjective and uncertain in nature from the outset.

In fact, difficult decisions are difficult precisely because they incorporate some element of risk. These decisions are not automatic (like those largely governed by habit) or inconsequential. In fact, what most people think of as “decisions” are actually break points in the decision process, representing the times when natural, automatic decision-making processes fail to operate sufficiently well to eliminate the unconscious nature of their standard operation. Decisions are the times when people are forced by the demands of time constraints, the complexity of the task, or the dimension of the stakes to stop, take conscious stock of the available options, and make a best guess as to which choice will lead to the most desired outcome.

A common example of the pervasiveness of risk and uncertainty in decision making involves political campaigning. When a politician runs for office, she must make numerous decisions about the content of her platform, which constituencies to target, how much time to spend fund-raising, and so on. All of these decisions run the risk of alienating a particular constituency or of wasting valuable time and resources. Wrong decisions could end up costing a candidate the entire election. Thus, strategic choices surrounding campaigns involve a significant element of risk in domestic political settings, just as foreign policy decisions can easily run the risk of war in international politics.

Indeed, there exists a copious literature on the problems in decision making that are associated with situations characterized by high stress, high uncertainty, and incomplete information.⁴ This current work fits well within that existing paradigm of bounded rationality. Specifically, this is

an investigation into the effect that specific cognitive biases concerning risk propensity have on central decision makers in the arena of international relations.

This study looks at American foreign policy decisions where the central policymaker is the president. In situations of high stress, such as those that involve acute time pressure, secrecy, or high stakes, the president is in a situation of high uncertainty where he is allowed an unparalleled element of unrestricted choice. Under such circumstances, differences in risk propensity are key to understanding the outcome of decisions.⁵

In addition, this analysis is related to, but does not derive from, well-established work on the fundamental attribution error.⁶ Prospect theory presents a profoundly situationalist analysis: risk-taking behavior is based not on the individual predispositions of a particular leader, but evolves out of a cognitive response to a situation that constrains the way options are interpreted and choice is made.

Many irregularities in official behavior can be explained by systematic differences in assessing and responding to risk. This perspective holds implications for a variety of political phenomena, but is particularly relevant for problems that involve security concerns, such as ethnic conflict, crisis management, arms control, and weapons procurement.

Standard explanations may work well for standard cases, but these cases may not be the ones that are most important for understanding the nature of risk-taking in the international environment. Rather, the extreme or seemingly inexplicable cases may be the most interesting and important for future understanding and intervention. For those anomalous but significant cases, traditional explanations often are inadequate. Where conventional analysis proves unconvincing, prospect theory can offer compelling explanation.

Decision Making

The theory that is used to gain insight into the nature of risk assessment and the dynamics of risk propensity in this study is prospect theory, a psychological model developed by Amos Tversky and Daniel Kahneman.⁷ The particular value of this theory is that it offers a *systematic* way to both explain and predict risk propensity, even under conditions of uncertainty. Put simply, prospect theory predicts that people tend to be cautious when they are in a good position (gains), and more likely to take risks when they are in a bad position (losses). The intuition behind this argument is offered by two simple adages: rich people vote Republican (caution in gains); and desperate people do desperate things (risk in losses). In theoretical terms, prospect theory argues that individuals tend to be risk averse in the

domain of gains, and risk seeking in the domain of losses. Part of what determines whether the situation is considered to be one of “gains” or “losses” depends on how the options are “framed” or constructed prior to choice.

Before describing prospect theory in more detail in the next chapter, some definitions may prove helpful. Most decisions, as we understand them, really involve a couple of different sequential operations. The first is one of judgment, which is essentially an external assessment about the likelihood of certain events taking place in the world. Judgment often takes place under conditions of uncertainty, because people do not always know how likely a certain outcome is in advance. The second is decision making, which is fundamentally an internal evaluation of the value of various options. Decisions often take place under conditions of risk, where something of value may be at stake. Prospect theory is a theory of decision making, not one of judgment. However, decisions are based, at least in part, on judgments that are often inherently subjective in nature. As a result, decision makers are often susceptible to biases in judgment even before they encounter biases in decision making.

As noted, judgments often take place under conditions of uncertainty because they involve assessments of probabilities. In many circumstances, decision making under risk is based on judgments made under conditions of uncertainty.⁸ When probabilities are unknown, the best choice becomes uncertain. Uncertainty is a basic element of the human condition. It is also a major problem in political analysis. At root, decisions are often based on uncertain judgments that may just as easily be true as false, and it may be impossible to know which is which before a decision must be made based on those uncertain judgments.

Most complex choices fall under the framework of judgment under uncertainty *and* decision making under risk because it is impossible to predict the characteristics of many different variables simultaneously in advance, especially when they may have unknown interaction effects. Even the nature of many of the critical variables may be unknown beforehand.

Thus, people are often on their own in making the necessarily intuitive and subjective assessments of their world that are required in order to function efficiently and effectively in a complex environment. Estimating the probability of uncertain events necessarily involves a large, basically subjective element because in many situations such judgments are all people have in order to make guesses about future events. This is especially true in cases where nothing like the uncertain event has happened before, and thus averages of past outcomes can not be used as a basis for prediction, as might normatively be indicated. In the case of such unknown

events, like a nuclear war or global warming, there is no real precedent and so estimates must rely on highly subjective or speculative assessments of the likelihood of events. Indeed, much controversy is generated solely on the basis of experts' disagreements concerning probability assessments about whether certain events, such as global warming, will occur and what effects will result.⁹

Decisions often depend on judgments that fall prey to heuristic biases that are common under such conditions of uncertainty. Heuristic biases are cognitive shortcuts that help people to understand and process information about the world more efficiently; they are judgmental rules of thumb. As noted, decisions, as opposed to judgments, take place under conditions of risk. Risk is about the chance of loss. Thus, risk involves two components, the chance and the loss. Chance is fundamentally about probability, in terms of likelihood or frequency. In this way, assessments of chance can be biased by the judgments on which they are based. Loss is critically a function of magnitude. Thus, risk is about how much of what is lost. When this is related to how much something is valued, it is often expressed in terms of utility. Thus, any investigation into risk must examine both components: the likelihood of outcomes, as well as their relative value.

Judgmental Heuristics

Because decisions are often based on judgments about options that take place prior to choice, biases in these judgmental processes can play an important role in understanding the constructions of the options that are available for decision. In prospect theory, decisions are influenced by how options are first "framed." In this way, uncertainty in judgment prior to choice plays a crucial role in framing options for subsequent evaluation, or decision making. Framing tasks fall prey to systematic judgmental biases that are often labeled "judgmental heuristics." Such biases in judgment can thus substantially affect how options come to be framed.

As noted, people are susceptible to errors in the judgmental processes; these errors are *systematic* in nature. Three of these heuristic biases are representativeness, availability, and anchoring.¹⁰ Each will be discussed briefly in turn.

Representativeness refers to judgments where the probability that one object or event belongs to a particular category is based on their similarity. For example, someone might mention that she went to a talk on arms control that had three-quarters academics and one-quarter artists in attendance. She then describes a questioner who was dressed entirely in black, listened to a Walkman, and wore an earring in one ear and a beret on his

head. The listener is then asked to guess if the questioner was an academic or an artist. Many people might respond “artist” because the *image* of the questioner provides a closer fit with the prototypical image of an artist than that of an academic. While this judgment may be accurate, it fails to take account of the fact that there are many more academics than artists in attendance at an arms control seminar. Thus, any given individual at the talk is more likely to be an academic than an artist, regardless of conformity of appearance to stereotype. In this way, representativeness, while often helpful in facilitating efficient judgment, fails to incorporate adequately the normatively useful base rate, or statistical likelihood in the total population, into judgments of probability. The use of a historical analogy, such as Vietnam, Pearl Harbor, or Munich, being applied to a current situation serves as a good example of this bias operating in a political arena.

A second judgmental heuristic is availability. *Availability* refers to inferences about the frequency of events, where such frequency is judged according to the associations triggered in memory or imagination. So, for example, people often judge homicides to be more frequent than suicides, even though the reverse is true, because examples of homicides are more available in memory due to their disproportionate prominence in the news media. People fail to recognize that perceptual salience may not always provide an accurate reflection of actual frequency.¹¹

The third judgmental heuristic is anchoring. *Anchoring* relates to predictions that are based on initial values, or anchors, that may or may not be adequately adjusted before a judgment is made of a second, possibly unrelated, object or event. For example, an experimenter might give a subject a piece of paper with the number 1,000 on it. She tells her subject that the number should have *no* effect on the following task. She then asks her subjects to estimate the number of hospitals in the United States. Subjects are likely to be unduly influenced by the original number, even if they are *consciously* aware that the number is irrelevant to the task at hand. This effect is particularly dramatic if other people are given the same task with an initial number of 1,000,000. In this case, most of those with the initial value of 1,000 make estimates relatively close to this estimate, while the majority of those with 1,000,000 as their initial number make judgments much closer to this figure. In this example, it is obvious that each group insufficiently *adjusts* from the original anchor in guessing the number of hospitals in the United States.¹²

As noted, these judgmental heuristics can influence the framing of options prior to choice. Framing is a particularly powerful aspect of prospect theory because of its implications for manipulation as well as intervention. If advisors are aware that others are substantively affected

by the manner and order in which options and messages are presented, they might easily manipulate information in such a way as to elicit from others the choices they themselves favor, for possibly irrelevant, malicious, or self-interested reasons. Advocates might do this by adding additional alternatives that favor their perspective, and so on.¹³ In this way, advisors might be able to entice leaders to behave in whatever way is preferred by the advisor, without ever arousing the decision maker's attention or suspicion. Aside from the profound ethical implications the possibility of manipulation raises, recognition of this bias also offers the opportunity for positive intervention. Such an intervention strategy might demand that options be presented to leaders in as many different formats at the same time as possible so that framing effects become more transparent and less insidious in their effects on choice. Options chosen in a situation where framing effects are obvious are more likely to capture true preferences.

Prospect Theory

Prospect theory is a descriptive, empirically valid model of choice. It was originally developed in explicit opposition to normative models of choice, such as those represented by subjective expected utility models. The evidence supporting prospect theory is almost exclusively derived from classroom experimentation, which has also shown the inadequacy of normative models for capturing actual human decision-making behavior.¹⁴ Prospect theory was originally developed in response to overwhelmingly robust findings that demonstrated the profound and pervasive way in which many people systematically violate the most basic axioms of rational decision-making models in their actual choice behavior.

Part of the inherent theoretical value of the experiments on which prospect theory is based is the way in which they empirically invalidate the assumptions upon which subjective expected utility and other rational decision-making models rely.¹⁵ These normative axioms are often systematically violated in actual decision-making behavior, but they are accounted for by the functions of prospect theory. Moreover, prospect theory holds predictive as well as explanatory force, which makes it particularly useful for understanding political decisions made under circumstances of high uncertainty, uniqueness, and complexity. This predictive power also makes prospect theory a serious alternative to more static rational choice models, which fail in their descriptive accuracy and explanatory elegance.

The original studies that demonstrated the descriptive accuracy of prospect theory possessed high degrees of internal validity. The goal of a study such as this is to extend the test of prospect theory's accuracy and

external validity through empirical case-study work from archival sources. This study is designed as part of an effort to establish and demonstrate the empirical validity of prospect theory *outside* the confines of the classroom.

The relevance of this model for political decision making is clear. If the model proves to be an accurate representation of individual political decision making, it then becomes possible to predict risk propensity in certain situations. In other words, once the domain of the situation is classified as one of gains or losses, it then becomes possible to predict individual choice based on that classification, according to the dictates of prospect theory. In this way, the conditions under which risk-averse or risk-acceptant behavior is seen become clear and predictable, no matter how uncertain the surrounding events, how unique the situation, or how complex the environment.

To reiterate, prospect theory can show how domain, in terms of gains or losses, can produce systematic, predictable tendencies in risk propensity. This dynamic can then be used to *explain* the causal mechanisms behind particular choices in the realm of international relations, including issues surrounding bargaining, conflict negotiation, and crisis management. In addition, prospect theory can *predict* risk propensity given prior determination of domain.

Prospect theory is more than a mere transfer of individual psychology into the realm of political behavior. Political decisions are by their very nature highly uncertain, ambiguous, and dynamic. High-risk situations are precisely the conditions under which political decision making most commonly takes place. Prospect theory offers unique explanatory and predictive insight into complex, uncertain decision making under conditions of risk.

Application

Methodologically, this work falls within the scope of what Theda Skocpol and Margaret Somers have called a “parallel demonstration of theory.”¹⁶ The goal of this methodology is to explicate a particular theoretical proposition and then repeatedly demonstrate its utility when applied to a group of historical cases. In this way, historical cases are used to show the applicability of the theory to multiple instances where it should be able to make sense of the relevant data if it is indeed valid. This methodology allows an analyst to demonstrate both the applicability of the theory across a variety of cases and how relevant variables are operationalized and manifested in specific instances. In this case, prospect theory is delineated and then used to order the evidence in a compelling way for four disparate cases: the decision to launch the rescue mission of the hostages in Iran in 1980; the

decision concerning the entry of the Iranian Shah into America; the U-2 affair; and the Suez crisis. All these cases are similar in the ability of prospect theory to illuminate and illustrate the relevant impact of domain on risk propensity.

The parallel demonstration of theory does not only allow for a demonstration of the virtues and applicability of a theory; it also allows the analyst to refine and develop the theory as well. Thus, this study is explicitly designed as such a parallel demonstration of theory and *not* as a contrast of contests or as a macrocausal analysis.

In seeking to apply prospect theory to decisions in the international environment, the United States offers the perfect country for investigation because of its hegemonic status in the immediate post-World War II period. After 1945, the predominant power of the United States led it to confront particularly complex and important foreign policy decisions. Hegemonic status is precisely the condition under which cognitive biases in decision makers would most likely surface and be able to have an impact on choice, because there is less constraint forced by the dynamics of the system itself.

The empirical testing of this model in the international environment presents some interesting challenges. This study focuses on the president's decision-making process. The goal is to test the same president under each domain, both gains and losses, to see if there are any differences in his risk propensity, especially in the direction predicted by the theory. When risk propensity conforms to the predictions of the theory, the results offer support for the applicability of the theory to decisions in international relations. When no differences are found, the lack of correlation between risk propensity and the predictions of the theory provides evidence against the theory and its suitability for, or applicability to, questions of decision making in international politics. When such a failure occurs, it also demonstrates the falsifiability of the theory itself.

The independent variable in this study is domain, which is operationalized in terms of gains or losses. The dependent variable is risk propensity, coded as either averse or seeking. Domain and risk were each measured independently to avoid risk of tautological reasoning.

Domain is classified as one of gains or one of losses. Domain is determined according to a number of different variables that helped define a decision maker's subjective sense of situation. These sources include memoirs, interviews, public opinion polls, number of congressional overrides, and other salient international events. In many cases, domain is a subjective assessment and can be difficult to ascertain. However, in many circumstances, the situation was so obvious as to offer a fairly clear catego-

rization. A good analogy here is one of a thermometer. If it is a hundred degrees outside, you do not need to know a whole lot about a particular individual to assume that he is probably hot.¹⁷ While domain may remain a crude assessment, in many cases it offers an accurate descriptor of the national and international environment that a particular president confronted.

The relative riskiness of a given option was evaluated relative to the variance presented by each choice. In other words, an option with a high potential for either gain or loss constitutes a more risk-seeking choice than an option with more constrained outcome probabilities. In high-risk instances, both the costs and benefits of the outcome values are higher; where more opportunities exist for greed and fear to motivate, more risk becomes possible. This is true even if the more cautious choice does not offer outcomes either as positive or as negative overall as a more risk-seeking choice. In practice, it is often difficult to determine what the outcome possibilities might be or what value each option possesses; such judgments are even more challenging in retrospective reconstruction.

Empirical testing of this model examines Presidents Eisenhower and Carter to determine risk-taking propensity across variations in the independent variable, as coded in terms of gains and losses. Carter offers two almost paradigmatic cases. One of the best illustrations of the theory is provided by the failed rescue mission of the hostages in Iran in 1980. This was clearly a decision taken in the domain of losses. Indeed, the mission itself appears to offer an almost classic example of a gamble with a high chance of failure and a low probability of success taken in the hope of recouping even larger losses.

Carter's decision to exclude the Shah of Iran from the United States between January and October 1979 was a choice made in the domain of relative gains. By the time the Shah was admitted to the country for medical treatment in October, Carter's domain had shifted into one of relative loss, and he then made a riskier decision and let the Shah in. In this case, the shift in relative domain is mirrored by the subsequent shifts in administration policy.

In the U-2 incident, negative press concerning the Soviet downing of the American reconnaissance aircraft placed President Eisenhower in a domain of losses. In this state, he took a risk and publicly lied about the origins and purpose of the aircraft. Severe recriminations, including the cancelling of a carefully crafted summit conference, followed in the wake of the revelation that he had lied.

In the Suez crisis, Eisenhower behaved cautiously while in a domain of gains. In this case, Eisenhower took a sure gain in public opinion in the

Third World over a risky gamble, which offered the possibility of strengthening the Western alliance and intimidating potential aggressors, but also risked instigating a world war with the Soviet Union.

By examining two presidents, each making a decision in both domains, the applicability of prospect theory to explain and predict risk-taking behavior in the international environment is demonstrated through parallel demonstration of theory. By illuminating the kinds of tendencies that pervade central decision-making processes under conditions of complexity, stress, uncertainty, and risk, it becomes easier to design intervention strategies that can be invoked to reduce the more counternormative implications of these findings.

Normative Issues

The empirical nature of prospect theory raises some normative questions. Normative theories developed through the efforts of eighteenth-century French noblemen who wanted to calculate how to gamble most efficiently in order to garner the highest winnings. As a result, they pestered the court mathematicians about probabilities and outcomes, and certain normative ideas grew out of these compulsive gamblers' trials and errors.

Normative approaches look at the best way to make a decision given some specific goal and some particular environment; the goal is thus to maximize the payoff while minimizing the cost. These theories are prescriptive, formal, and deductive; they are based on logic, probability, and statistics, and they are not empirical in nature. Normative theories can be tested, but not derived, empirically.

Descriptive theories, which are based on empirical evidence, look at how people actually do make decisions. These approaches use empirical evidence, often derived from experimental manipulations, to arrive at their conclusions. Historically, formal, normative work preceded descriptive formulations.

The problem with normative approaches is that many problems present no clearly dominant solution; that is why certain concerns become problems. In many cases, the optimal decision depends on the goals, values, and capabilities of the relevant actors; choices can be affected by the various conceptions that different players hold of the situations or options available. The failure of a decision does not necessarily render it wrong or unwise, especially once emotional values, such as regret, are taken into account.¹⁸

On the other hand, descriptive models are not necessarily normative in their implications. This normative discrepancy raises the most impor-

tant distinction between rational choice models, such as subjective expected utility theory and prospect theory. Subjective expected utility theory is a normative theory; prospect theory is a descriptive one. Normative theories describe what people ought to do; in doing so, normative theories can function prescriptively. Descriptive theories refer to what people actually are doing; thus, no normative implications can be drawn from descriptive theories. What people do can be right or wrong; telling them it is better not to act that way does not help change what they actually do. An analyst might argue that normative silence constitutes an inherent weakness of descriptive theories, such as prospect theory. However, normative silence offers greater possibilities for freedom of expression and accuracy of explanation.

In an attempt to reconcile normative and empirical approaches, classical decision theorists have tried to relax some of the basic axioms of normative theory by incorporating various descriptive elements in ways that make subjective expected utility models less rigid and more descriptively adequate. These adjustments are rationalized as offering a broader interpretation of the goals and information available to a decision maker in a choice situation. However, even under these relaxed and minimal guidelines, people fail to adequately conform to normative principles. In this way, it is difficult to conceive of a descriptively accurate theory that would also remain normatively valid in even the most basic and minimal ways.

Indeed, Tversky and Kahneman argue that a complete reconciliation between normative and descriptive theory is not possible given the consistent and fundamental ways in which people violate normative rules.¹⁹ After all, it is not obvious that people *should* make decisions in line with the predictions of prospect theory; it is only clear that they do make decisions this way.

Summary

Prospect theory can both explain and predict risk propensity in the international environment. Prospect theory argues that risk aversion is more likely in the domain of gains and that risk-seeking behavior will tend to occur in the domain of losses. This study seeks to explain variations in foreign policy behavior in terms of the way situational factors interact with cognitive biases. It is precisely those political decisions that take place under conditions of extreme uncertainty and complexity, and that affect the most closely cherished values, that are often most difficult to explain and predict using conventional explanations. However, these are the conditions under which prospect theory proves most illustrative and convinc-

ing. Through the methodology of parallel demonstration of theory, prospect theory will be shown to provide a valuable approach to any analysis of risk-taking in international politics.

In addition, prospect theory potentially constitutes a frontal assault on the dominance of rational choice models for understanding and predicting risk-taking behavior in the international environment. There is no rational choice model that is both descriptively accurate and normatively valid. Prospect theory makes no claim to normative imprimatur, but it provides a descriptively accurate, empirically valid, and predictively powerful instrument of analysis with regard to risk-taking behavior. Any rational choice theorist who wishes to lay claim to the superiority of his paradigm must necessarily come to terms with prospect theory's devastating criticisms of rational choice's descriptive inaccuracies. Even if rational choice models claim robust predictive power, prospect theory can match that power and add descriptive accuracy and explanatory insight to the equation as well. In the end, the superiority of prospect theory renders rational choice models descriptively vacuous, empirically static, and normatively bankrupt with respect to understanding risk-taking in international politics.