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Protecting Weak and Medium-Strength States: Issues of Deterrence, Stability, and Decision Making

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APPENDIX G.3

Protecting Weak and Medium-Strength States: Issues of Deterrence, Stability, and Decision Making[1]

Paul K. Davis, Rand

ABSTRACT

Deterring the invasion or coercion of weak or medium-strength states that are important but not vital interests of major states is a key strategic challenge of the new era. This paper describes strategies for doing so. It begins by using decision-modeling methods to identify factors that would influence the decisions of would-be aggressors, including factors idiosyncratic to individual leaders. It then discusses how both immediate and general deterrence might be strengthened by a variety of political, economic, and military measures. The measures discussed include reasonably capable defensive forces that cannot easily be bypassed, operational arms control to make surprise attack more difficult, forward-deployed protector forces, and formal arrangements through regional security structures that would assure the long-term punishment of aggressors through political and economic isolation and, perhaps, military measures. The paper also encourages identifying and rooting out "dangerous ideas" that increase regional tensions and hatreds, and that could encourage aggression during a crisis. The following pages document the methods described here and include extensive references to relevant literature in political science, psychology, history, and strategy.

INTRODUCTION

A Central Premise

This paper was developed for an international conference dealing with long-term stability and security in a multipolar world. Rather than discussing stability and security in the broad, however, it focuses on the challenges that follow from my central premise that a principal strategic issue for the developed world is how to deter invasion or coercion of weak and medium-strong states

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when the security of the threatened states is important but is not a "vital" national interest of the powers that might be the protectors.

This premise is provocative, primarily because of the reluctance of democracies to face up to challenges that do not clearly affect their truly vital interests. To some, it conjures up images of entangling alliances, world policeman functions, strategic overextension, and quagmires. To others like myself, it seems to be a sober expression of reality. If accepted, it has a considerable impact on how one thinks about foreign policy and defense planning.

Approach

In what follows, I start by illustrating how this deterrent challenge may arise and why it is so difficult. I then describe how deterrence issues can be examined with the aid of an analytic approach that focuses on influencing the decisions of human beings. This includes actually modeling the decisions of such leaders.[2] I next abstract from this discussion a way to summarize deterrence factors in the form of a "success tree" that can help guide the development of strategies. Finally, I draw on insights from the decision-modeling approach to describe potential deterrent strategies that might be recommended to weak or medium-strong states, on the one hand, and strategies that might be recommended to the United States and its partners of the developed world, on the other. Many features of the strategies are familiar from other approaches, but some reflect more uniquely the decision-modeling's emphasis on the perceptions and reasoning of adversaries.

DETERRENCE AT THE BEGINNING OF A NEW CENTURY

Let us begin by considering the challenge of deterrence in rather general terms. Who is to be deterred from doing what, what kinds of deterrence are worth distinguishing, why is deterrence sometimes difficult, and why are there some reasons for believing it is feasible to do better in the future than in the past?

Potential Threats

The major states of the developed world want to deter international aggression as part of maintaining regional stability. Usually, however, the objective is discussed in abstract terms. To be more concrete, consider the following range of threats that might arise in the next 20 years as viewed from one American perspective.[3]

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[2]See Davis (1994a) for the best available summary of the approach. For more details, including applications to issues of nuclear and conventional crisis stability, deterrence, and counterproliferation, see Davis (1987), Davis and Arquilla (1991a,b), and Arquilla and Davis (1994).

[3]For more extensive discussion of possible contingencies, see Kugler (1995).

- The old standbys of U.S. planning: a renewed threat by Iraq against Kuwait and Saudi Arabia, or an invasion of South Korea by North Korea.

- A future invasion (or coercion) of Poland, Ukraine, or the Baltic states by a future Russia gone sour; an invasion of Taiwan, Vietnam, or a unified Korea by a more militant China; or an invasion of Kuwait and Saudi Arabia by a combination of Iran and Iraq.

- Something that might be called "The Next Bosnia," perhaps once again in the Balkans.

None of these is implausible in the long run. Some, however, are more difficult to contemplate than a repeat of Saddam Hussein's invasion of Kuwait. For example, the threats involving Russia or China are uncomfortable because neither state is behaving aggressively today toward its neighbors and there is no interest in labeling either of them as a future "enemy." If matters go well, Russia and China will develop, liberalize, prosper, and interact continuously with other states as partners in developing a better world. On the other hand, that is not guaranteed and the extreme nationalist movement in Russia is certainly a matter of concern, as is the degree of bitterness expressed by some Russian military officers about the state of affairs in Russia and what amounts to the loss of empire. Although Russia's army is currently in disarray, it will remain huge and may pull itself together. It is also unclear whether, in the years ahead, China will view the world in classic balance-of-power terms or take the more liberal perspective reflected in the U.N. charter and the actual behavior of nearly all developed states.

The other complication in thinking about future threats is that many of the threats are to particular weak and medium-strong nations whose security is desirable but is not necessarily a "vital" national interest of the United States or other major states. As a result, it is difficult for governments even to discuss such threats within the context of national defense planning.[4] Nonetheless, any of the aggressions indicated could be a serious affront to broad interests, even if not vital interests. But how do we deal with such threats, especially when they seem so remote and less than vitally important?

In this regard, consider that one of the paramount blunders of the last decade was the judgment by national leaders and strategists as they observed the disintegration of Yugoslavia that a war among the various emerging factions, although highly regrettable, would not strongly affect their own national interests. This view changed grudgingly with CNN's broadcasts of ethnic cleansing, émigrés flowing into neighboring countries, and the partial dashing of

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[4]It has taken several years of debate even to begin the process of expanding NATO to include, e.g., Poland, even though the security of Poland should rather clearly be a vital interest of Western Europe. See, e.g., Asmus, Kugler, and Larabee (1995).

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hopes for a new world order, but it seems clear that current world leaders do not yet know how to deal with threats to less than vital interests. Even if they had personal concepts on the matter, there is great public reluctance to get involved in unnecessary conflicts in foreign lands.

Useful Distinctions

Given, then, the existence of potential challenges, especially to weak and medium-strong states that are not obviously vital interests of the United States or other major states, let us next consider deterrence and what we mean by the term, since it has many variants. In this paper:

- *General deterrence* refers to a continuing influence over a period of years. It may exist whether or not there are crises to demonstrate it.

- *Immediate deterrence* refers to deterring actions at a particular time, as in deterring actions that would create a crisis or escalate it.

- *Direct deterrence* refers to an actor (e.g., nation or coalition) deterring actions against itself.

- *Extended conventional deterrence* refers to an actor deterring actions of a second actor against yet a third actor. It can be general or immediate.

By and large, the security challenges facing the United States and its NATO allies involve extended conventional deterrence. America's ally South Korea, of course, has a direct threat today from North Korea. In the distant future, Korea may have a virtual threat from China. Ukraine, the Baltic states, and Poland see direct threats. In what follows, I shall consider challenges of both direct and extended deterrence, of both the general and immediate varieties.

Sobering Realities

There has been so much said about deterrence that one might think that the issues and necessary strategies are well understood. Nuclear deterrence, to be sure, has succeeded for many decades, and the leaders of major states fully appreciate the reasons for avoiding nuclear warfare. The reality is much less happy, however, when one looks at direct and extended conventional deterrence. Although it seems to have worked for NATO's Central Region, Huth and Russett have demonstrated that immediate deterrence has failed more often than it has succeeded over a large set of crises in the 19th and 20th centuries—even though the aggressor ultimately failed roughly two-thirds of the time, which suggests that deterrence "should" have had a better track record.[5]

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[5]See Huth (1988) and Huth and Russett (1988). This work has stimulated a great debate on whether democracies do not go to war against each other, and whether a no answer can be

That it has failed so often under such circumstances is sobering and even alarming.

Some of the myriad reasons for deterrence having failed are as follows:

- Nations often fail to appreciate their own interests or to make them known adequately to the aggressor ahead of time.

- Potential aggressors often fail to appreciate the capability that can be brought to bear against them when that capability is distant and abstract, as was the British Navy of the 19th century or the U.S. projection forces of 1990 (Arquilla, 1992).

- Sometimes, aggressors believe that the reasons for their actions are compelling. That is, they "have no choice." Such was apparently the Japanese view prior to Pearl Harbor.

- Nations, especially democracies, have difficulty taking decisive action in response to ambiguous strategic warning. Taking such actions can be considered provocative and dangerous, thereby making such actions politically quite troublesome (Davis and Arquilla, 1991b).

- Military leaders are often extremely conservative about taking the kinds of prompt but risky actions necessary to establish or reestablish deterrence in a crisis. They worry about being dragged incrementally into a quagmire, about depending on a trip wire that might be tripped with the loss of their soldiers, or about political authorities acting without first establishing consensus.[6]

Even this list is not long enough. Consider that aggressive personalities such as Saddam Hussein and Slobodan Milosevic still seem to ascend to power all too frequently. Consider also that expectations have changed because of the alleged lesson taught by Bosnia about ethnic and religious differences being enduring and fundamental. And, finally, we should also face up to the sober reality that the United Nations is thoroughly ineffective in dealing with security threats requiring prompt and decisive actions.

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inferred from history. See, for example, Layne (1994), Russett (1995), Spiro (1995), and Doyle (1995), which contain citations to the earlier literature. See also Arquilla (1995), which expresses pessimism about regional deterrence.

[6]This conservatism is discussed sympathetically but critically by Davis and Finch (1993). It can be argued that the uniformed military exaggerated greatly the forces that would be required for intervention in the former Yugoslavia, especially in the early phases when it is plausible that firm military actions such as air strikes and deployments would have convinced Serbia to cease its aggression (Huber, 1994). On the other hand, it can be argued that such actions might not have succeeded and that far greater commitments would then have become necessary.

More Cheerful Considerations

In light of these discouraging observations (see also Watman and Wilkening, 1995, and Arquilla, 1995), is deterrence even feasible in difficult cases? There are in fact several reasons for optimism:

- By and large, potential aggressors usually seek quick and easy conquest with low risks, thereby suggesting that deterrence "should not" be so difficult (Mearsheimer, 1983).

- Invasion is usually difficult without massed armies, indeed, without massed and mechanized armies with extensive logistics. Such armies are now extremely vulnerable to modern weapons unless the aggressor has air superiority. The issue here is not just modern air forces, but also the advent of highly accurate and lethal long-range artillery and shorter-range accurate mortar systems.[7]

- Conquering territory is arguably not as useful as it once was. Further, conquering territory no longer creates international respect.

- The dark side of nationalism appears to be diminishing on average, although events in the former Yugoslavia show how easily it can be uncovered again.[8]

- There are continuing movements toward democratic processes and shared responsibilities rather than dictatorships of conquest-oriented individuals.

To put it differently, despite the Bosnian debacle, one can argue that overall trends are still favorable. We should not focus unduly on exceptional cases.

AN APPROACH TO THE STUDY OF DETERRENCE

Observations and Motivations

Against this background let us now move to a discussion of deterrence theory. Although much has been written on the subject, the usual tendency has been to treat only some aspects of the subject while ignoring or giving short

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[7]See Bennett, Gardiner, and Fox (1994) and Davis (1994b, Ch. 2) for discussion of how the nature of war has been changing and how that affects analysis requirements.

[8]The events in Bosnia were not inevitable (Zimmerman, 1995). Arguably, Bosnia is a tragedy made possible by the wrong thugs having too much military power at a time when no one could or would stand up to them, in large part because the European powers did not yet have any consensus of views (Gompert, 1994). Nonetheless, it could not have happened without the dark side of ethnicity and nationality existing.

shrift to others. There is nonetheless a substantial volume of serious thought on which to draw in considering deterrent challenges and potential strategies.[9]

Over the last decade I have taken a rather different approach to the study of deterrence than has been customary. It focuses on the decision making of leaders and on "natural" variables. The approach is motivated by several observations. First, the incentives and perceptions of aggressors are often intensely personal, as one can appreciate by thinking of Saddam Hussein's 1981 reaction to the threats of Iran's Khomeni, of current-era North Korean leaders who must worry about their personal survival, of Saddam Hussein in 1990 as he compared trends to his self-image, or to Slobodan Milosevic with his dreams of a Greater Serbia. Historically, we might think of Hitler in this century or, for example, Alexander the Great of antiquity.

A second observation here is that "great men of history," whether appropriately identified as such or merely self-proclaimed, are "special." Many do not reason in the same way we think normal political leaders do. Their values are different, their attitudes toward risk are different, and their interpretation of information is different.[10] So also is the reasoning of states dominated by ideological and ethnic-hatred considerations "special."

All of this suggests an approach to deterrence that focuses on influencing the decisions of human leaders or groups of leaders. That is, instead of everything being a matter of abstract power balances, successful deterrence depends on one or more human beings reaching certain conclusions after thinking about the situation and alternatives. The decision makers are attempting to be rational, but an observer might think the reasoning or actions to be "irrational" or "crazy." It is preferable to avoid that terminology because it is misleading and generates the notion that worrying about how to deter will be fruitless.

Modeling the Decision Making of Adversaries

With such motivations in mind, my colleagues and I have developed an approach for modeling the decision making of adversaries. Consider first a view of the proximate issues at the time of a decision. It can be used in group discussions about decision makers, by decision makers themselves, or by analysts reasoning about what opposing leaders are up to.

Assessment of Options

As mentioned above, potential aggressors *attempt* to make rational decisions. The approach represents this in a simple but unusual way by having the modeled adversary consider options and examine likely and possible

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[9]For discussion of conventional deterrence theory, see Mearsheimer (1983), Cimbala (1992), Watman and Wilkening (1995), and, for a survey, Allan (1994). For the related subject of causes of war see Howard (1984) and Blainey (1973).

[10]For a closely relevant analysis critical of western deterrence theory, see Dror (1971).

Table G.3.1 Generic Decision-Table Format for Assessing Options

	LIKELY OUTCOME	MOST FAVORABLE OUTCOME	WORST-CASE OUTCOME	ASSESSMENT
OPTION 1				
OPTION *N*				

consequences of those options, as suggested in Table G.3.1. The format here is that for each option the reasoner estimates the likely outcome, most favorable outcome, and worst-case outcome. He then makes an overall assessment of the options for action based on these estimates. Each outcome is characterized by one of the values Very Bad, Bad, Marginal, Good, or Very Good.[11]

Table G.3.2 illustrates how a table might be filled in for two different models of the same leader viewing a particular situation (not defined here). In the example the two models see the same facts differently. Model 1 is perhaps more pragmatic, risk-averse, and pragmatically incremental. He chooses the incremental option, which has low risks. Model 2 is perhaps more ambitious, more risk taking, and quite unhappy with the status quo and mere marginal improvements. He chooses the aggressive option despite the substantial risks, primarily because he sees great upside potential and also assesses the likely outcome to be at least Good.

This simple representation of the decision can be very useful in thinking about someone else's reasoning or one's own reasoning. In its highlighting of likely outcome and both upside opportunities and downside risks, it is a "natural" representation of what we do every day. It is arguably much more natural than expressions in terms of utilities, for example. At the same time, there is much that is implicit, just as there is much implicit when we make our own decisions.

Information Needed

To understand how a potential opponent might reach individual judgments about, for example, the worst-case outcome (would it be Very Bad, Bad, Marginal, Good, or Very Good?), we need:

- Alternative mental images of the opponent,

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[11]Humans seldom reason in so linear and reductionist a manner, but the assumption here is that, at the end of the day, the decision maker is effectively comparing options by considering the array of judgments shown in Table G.3.2.

Table G.3.2. Illustrative Judgments for Two Models Considering Options

Option	MOST LIKELY OUTCOME		BEST-CASE OUTCOME		WORST-CASE OUTCOME		NET ASSESSMENT	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Bargaining and compromise	Marginal	Bad	Good	Marginal	Bad	Very Bad	Marginal	Bad
Security-threatening coercion	Bad	Bad	Good	Good	Bad	Bad	Bad	Bad
Limited attacks	Bad	Bad	Good	Good	Very Bad	Very Bad	Bad	Bad
Full-scale invasion	Bad	Good	Very Good	Very Good	Very Bad	Very Bad	Bad	Good

- An understanding of what factors are most likely to affect the opponent's reasoning, and

- A way to go systematically from the image and factors to estimates of the opponents' various judgments. This should recognize that reasoning may be psychologically flawed and that the way in which people balance benefits and risks (i.e., their algorithms, not just the factors in the algorithms) depends on their attitudes about the status quo.

Alternative Images

Developing *alternative* images is a crucial antidote to the normal focus on so-called best-estimate thinking. To develop alternative "images" of the opponent's reasoning, one can use a combination of essay writing, attribute lists, influence diagrams, and cognitive maps. As in the example of Table G.3.2, in one image the opponent may be pragmatic and incrementalist; in another he may be exceedingly ambitious and frustrated. Perhaps he will also feel cornered, surrounded by enemies, and desperate. These images may incorporate (Davis and Arquilla, 1991a) a variety of well-known psychological phenomena such as those discussed in the literature under "prospect theory," which may encourage greater or lesser risk taking than deemed rational by students of decision analysis.

To illustrate some of these concepts, Figure G.3.1 shows contrasting cognitive maps or influence diagrams used in a study of Saddam Hussein (Davis and Arquilla, 1991b). They represent different images of Saddam's perceptions about the economic situation in mid-1990. Figure G.3.1a represents the cause-effect relationships emphasized in the intelligence community's "best-estimate"
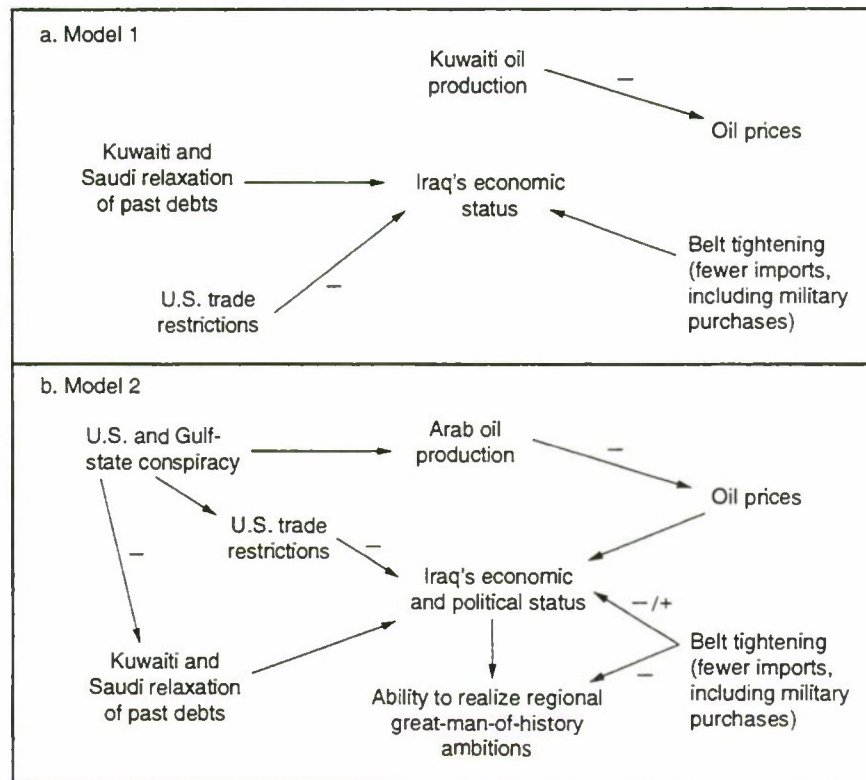
Figure G.3.1 Saddam's image of the 1990 economic situation: two models.

understanding of Saddam prior to the invasion. Figure G.3.1b represents an alternative image that could readily have been formulated and disseminated at the time, except for the pressures to focus on a single best estimate. It includes additional factors such as Saddam's perception that his problems were the direct result of Iraq being squeezed deliberately by his enemies (the United States, Kuwait, and Saudi Arabia among them). It also highlights the connection between his economic travails and his grandiose ambitions.

Although nearly all experts would have agreed on the factors in either diagram being "significant," the dominant mental image (see Figure G.3.1a) gave some of the factors little emotional weight. The diagrams highlighted differences of perspective about how Saddam might be viewing the world. We used a number of such diagram pairs in depicting our two images or models of Saddam Hussein. Although we started our work after the invasion and therefore had no trouble constructing a model to explain it, our work proved both insightful and predictive for Saddam's subsequent behavior through February
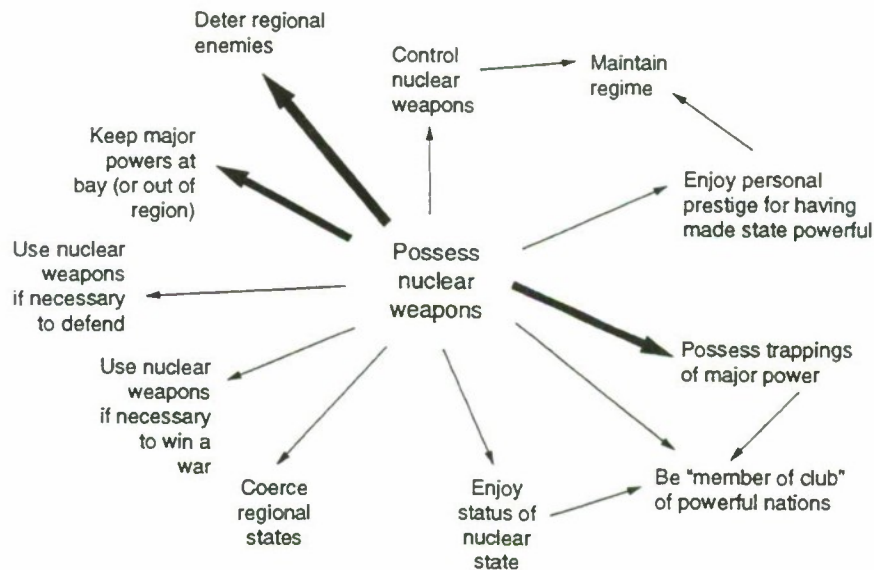
Figure G.3.2 A generic proliferator's cognitive map.

1991 (i.e., his failure to pull out of Kuwait in the kind of compromise American strategists feared).

As a side note, the decision-modeling approach can be applied not only to crisis decision making but also to peacetime decisions. For example, a recent study (Arquilla and Davis, 1994) applied the methods to understanding the decisions of potential proliferators. Figure G.3.2 is a composite cognitive map developed in that study to indicate the factors potentially affecting the reasoning of states considering development of nuclear weapons. Note that in our work the most important factor is security. Other factors may include the desire to keep superpowers (read "United States") out of the region or the desire to coerce neighboring states. More recently, my colleague Zalmay Khalilzad and I applied the methods to assessing strategies for dealing with North Korea (unpublished).

Factors and Judgments

The next step in the approach is to identify the practical real-world factors that dictate judgments about things such as risks (i.e., in the terms of Table G.3.1, about worst-case outcome). For the case of Saddam Hussein before the invasion decision, the factors affecting perceived risks might have been as indicated in Figure G.3.3.

By merely "eyeballing" Figure G.3.3, one can reason about what judgments Saddam would have made given the information available on the various
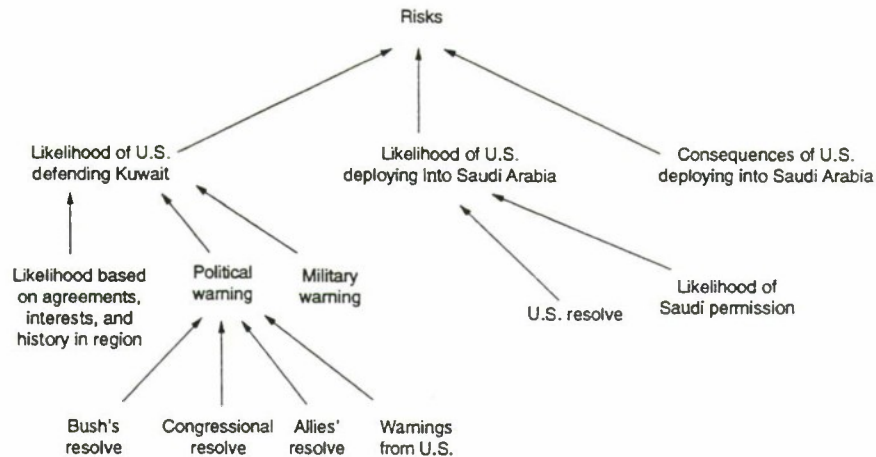
Figure G.3.3 Possible map of Saddam's assessment of risk before invading.

factors. It seems easy to understand why he considered the risks acceptably low. However, if one of the items is not yet sufficiently explicit (e.g., "warnings from U.S." in the bottom center), the hierarchical decomposition can be continued to greater depth. The warnings from the United States included a range of diplomatic communications of varied "firmness," a very small military exercise in the Gulf, and no preparation for large-scale military operations. On balance, Saddam saw the warnings as unimpressive.

One further item deserves mention. In considering what factors affect decisions, it is important to recognize that "everything" can matter—everything from, say, knowledge about the military balance in heavy armor to whether the target of potential aggression has somehow personally insulted the decision maker or his state. Some factors may be moral or cultural, whereas others may be what I call "dangerous ideas," ideas that have a much greater effect on encouraging military action than they "should" have by virtue of logic and reality. Some of these dangerous ideas include deep-seated hatreds and paranoia, as when the target is felt to be the cause of all sorts of troubles.[12]

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[12]Examples here include Hitler's scapegoating of Jews, Saddam Hussein's belief that the Kuwaitis were conspiring with the Americans, or the belief of Crusade leaders that they were on a religious mission with God on their side against evil infidels. I first began to emphasize the role of "dangerous ideas" when studying nuclear crisis stability. My conclusion was that nuclear war was far more likely to start from dangerous ideas, such as the belief that the other side was likely to initiate war out of a misreading of current intelligence on "random events," or a bizarre belief in being able to meaningfully win a nuclear war, than from game-theory calculations of post-first-stike and post-exchange ratios of nuclear weapons (see, e.g., Davis, 1992, which deals with the associated problems of crisis termination).

Abstracting from the Decision-Modeling Approach:
A Success Tree for Deterrence

The decision-modeling approach can be quite rich, building in highly specific information about a particular leader or group of leaders and about the context in which the decisions are being made. For the purposes of this paper, however, let us instead skip the decision modeling itself and leap to a more abstract representation of what emerges as a view about how to affect a decision about invasion.

Figure G.3.4 provides an overview representation in the form of a "success tree" showing the determinants of a "good" decision (not to invade) as a hierarchy of variables, the highest-level factors of which are as follows:

- The absence of strong incentives for aggression;[13]

- Mutual respect, commonality of interests, cultural factors, and tradition (e.g., a U.S. invasion of Canada or a French invasion of the Netherlands is "unthinkable");

- Respect for international norms, notably including the prohibition on military actions that violate another nation's borders, except under highly circumscribed conditions;

- Fear of military defeat, a fear affected by the defender's and protector's military capabilities and readiness, their perceived will, and uncertainties affecting risk;

- Fear of consequences in terms of long, difficult, and costly operations, even if successful; and

- Fear of consequence in terms of longer-term punishment:

    - Through near-term military actions (e.g., bombing of the aggressor's military forces, military infrastructure, or political and economic structure);

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[13]Within a decision model the absence of strong incentives has at least two important effects. First, it means that the assessment of the aggressive options will be less enthusiastically positive than otherwise. Second, it means that the way in which benefits and risks are traded off will be different, with the modeled adversary being more risk-averse than if he had strong incentives, especially a sense of severe threat or a sense of the status quo being altogether unacceptable (perhaps because of grandiose ambitions). In our modeling of decisions we include in the trade-off of benefits and risks explicit psychology-based representations of how humans change their trade-off calculus depending on their incentives or compulsions.

- Through longer-term military actions (e.g., blockades, suppression of airforce and army movements);

- Through political and economic actions: sanctions, boycotts, exclusion from "clubs". . . lost opportunities. . .; and

- Through publicity (international radio, television, newspapers, and the World Wide Web).

I have used the success-tree approach (or its cousin, the fault-tree approach) successfully in a number of strategic studies and models over the last decade. One of its primary virtues is that it highlights visually the various components of the problem on which one may wish to focus while developing strategy, i.e., while identifying ways to influence decisions and actions by one's opponent. A second virtue is that it encourages comprehensiveness and integrativeness (although, in practice, something is usually omitted through inadvertence or misjudgment).

The hierarchical structuring is also important because it demonstrates how one can deal with the analyst's chronic nightmare, the *curse of dimensionality*. The cosmic issues often depend on a vast number of variables, which makes analysis and convergent reasoning very difficult. However, by representing the variables as appearing at different levels of a hierarchy, one is essentially specifying a top-down way to analyze the problem: one starts at a high

Figure G.3.4 Success tree for deterrence seen as a decision.

(relatively abstract) level, works at that level until one runs into difficulties, and then goes to the next level of detail as necessary to understand issues and circumstances. This continues recursively to whatever depth is necessary. Such an approach is useful for simplifying discussion. It is also a natural basis for formal decision modeling.[14]

Discussion

To summarize, there are some useful methods for thinking about deterrence (and other issues such as proliferation) in terms of the decision making of human beings. They encourage us to identify key variables, to order them hierarchically, to identify options, and to assess how, under different mindsets, foreign leaders might evaluate the most likely, best-case, and worst-case outcomes of those options. This can be a systematic way of addressing the issues. Figure G.3.4 is a more abstract representation of the determinants of deterrence, but it can be used as a kind of checklist in thinking about more specific decisions and decision variables. Against this background, let us now turn to what might constitute the principles of good strategy.

DETERRING STRONG NEIGHBORS: STRATEGIES FOR WEAK OR MEDIUM-STRONG STATES

Potential Insights from a Decision-Modeling Perspective

If one takes a decision-modeling perspective, what kinds of insights emerge about how weak or medium-strong states might deter strong neighbors? What kinds of advice might be given to states such as Kuwait, Ukraine, Poland, Taiwan, or a unified Korea in the shadow of China? What advice might be given to even weaker states such as Lithuania, Estonia, and Latvia? In what follows I list the insights that appear to be most important. Many of these could have been derived from a more standard political science/international relations perspective, and I make no claims about the results being unique. At the same time, my experience is that by taking a decision-modeling perspective and attempting to be realistic about how real human beings make decisions, one finds oneself taking much more seriously than otherwise a number of "soft" factors that are consistently ignored or brushed aside in most discussions of deterrence. These include factors such as the "feelings" that the nations at issue have toward one another and the particular objectives and values of individual leaders or groups of leaders, which may have little to do with the objectives and values of their publics.

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[14]There are a number of studies describing this approach applied to nuclear escalation and de-escalation (Davis, 1992) and conventional deterrence (Davis and Arquilla, 1991a,b; Davis, 1994b). The early work included building, within a global analytic war game, large-scale artificial intelligence models of Soviet and American decision making in conventional and nuclear crises. Recently, computerized models based on the approach have been developed and demonstrated in Germany (Helling and Niemeyer, 1995).

In any case, Figure G.3.4 summarizes high-level variables important in a decision-modeling perspective, and if we start from the left and move rightward, the following insights come to mind. They are provided here in the form of advice to weak or medium-strong states.

Minimize Incentives for Invasion or Coercion

Perhaps the most obvious suggestion is to avoid unnnecessarily making an enemy of a strong neighbor and, instead, to take measures to eliminate sources of difficulty. Thus, the suggestions here would be as follows:

- "Respect" your strong neighbor.

- Do not threaten its major interests and do not permit provocative actions (e.g., against ethnic minorities with whom the neighbor is in sympathy). Appreciate the politics of your neighbor's country when assessing whether stances or actions are provocative.

- Increase interdependence.

- Defuse "dangerous ideas," both over time and when they arise in specific troublesome contexts.

The issue of "dangerous ideas" merits special discussion because it is seldom discussed. What I have in mind here ranges from formal religious and otherwise ideological teachings that encourage and perpetuate prejudice and hatred (e.g., teachings about Israel and Jews that can be found in Arab schoolbooks) to misconceptions that are important in particular crises. As an example here, when Yugoslavia began to fall apart, one factor influencing Western Europeans and Americans to stand aside was the widespread and fatalistic notion that the people of the Balkans were backward, tribally oriented, highly disputatious, and still fired with the same ethnic hatreds as in the early part of the century. Civil war might be unfortunate, but it was allegedly inevitable. Would history have been different had Western political leaders and citizenries seen the Balkan people as "real people" who had in fact been living together for many years with substantial suppression of the ancient hatreds? It is impossible to say, but the Western misimpressions were not helpful. They were dangerous ideas that might have been defused by a public relations campaign.

Lay the Groundwork for Favorable Moral and Cultural Considerations

Eliminating sore points is important, but building positive feelings is at least equally so. Interdependence and continual close contact guarantee nothing (in principle they could increase hatreds) but by and large, they help create good relations. The obvious suggestions here are as follows:

- Deal frequently and openly with your neighbor, rather than maintaining an arms-length posture and fostering misperceptions.

- Encourage cultural exchanges and cooperative ventures.

- Attempt to draw your neighbor into organizations and forums that focus on high-minded considerations, repeat the principles of international relations constantly, and lead to joint efforts to solve regional problems.

If Feasible, Maintain a Substantial Defense with Allies

Eliminating incentives for aggression and improving relations are fundamental to improving general deterrence (to the point at which aggression is so "unthinkable" that it is not thought of as something to be deterred). For countries that have a choice, however, there is no substitute for defense, because circumstances and intentions change. The suggestions here go beyond the obvious by specifically highlighting the need to avoid "holes" in the defense. Defense should not be thought of as a "political" issue, but rather a military issue. It is not enough to have an army; a nation also needs to have a sensible strategy, properly prepared forces, and preparations that anticipate clever attacks by the adversary. The admonitions, then, are the following:

- Have a visibly competent defense, even if weak—one that would exact a price and assure against a coup d'état.

- Worry about information warfare and related coups d'état, not just straightforward invasions with stereotyped battles. Avoid rigid defenses that could be bypassed or defeated quickly. Remember that wars have often been won by aggressors who did *not* enjoy a strongly favorable balance of power, but whose leaders were willing to take risks.

- Especially when faced with an aggressively oriented *personality* as the neighbor's leader, maintain high readiness and do not hesitate in a crisis to raise readiness further.[15] Do not imagine that such leaders reason in the same "pragmatic" way as normal leaders or that they merely seek incremental changes.

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[15]See Ronfeldt (1994) for an interesting discussion of the kind of malignant personality that has caused a great deal of trouble historically. He refers to the hubris-nemesis complex, drawing on mythological and literary allusions. Saddam Hussein and Serbia's Slobodan Milosevic fit the pattern. Psychiatrist and professor Jerrold Post has worked on such matters for years, much of it with the Central Intelligence Agency where he did personality profiling. See Olmsted (1994) for a semipopular discussion of profiling in government, including Post's. See Davis and Arquilla (1991b) for the author's cut at such matters.

- Encourage an armed population and prepare for a defense in depth that could exploit an area (including urban, jungle, and forested areas).

- But, to avoid creating provocations or incentives for invasion, develop a defensive posture with minimal capability for aggressive operations over large distances. The criteria here include logistics as well as forces.

- Invest first in ground-based air defenses and lethal indirect-fire systems, rather than, say, high-technology high-prestige air forces that would probably not survive more than a day against a strong neighbor's air forces.

- Have powerful allies and, preferably, formal agreements, perhaps including the neighbor.

- Use, but try to avoid depending on, collective-security arrangements.

- Encourage forward deployment of allied forces, even to the point of prepositioning of material and allowing in-country forces under one rubric or another, since such actions affect the perceived will and capability of allies and greatly enhance practical capability. Encourage joint exercises to make ties stronger and visible. Recognize that over-the-horizon capabilities cannot be redeployed overnight.

Encouraging forward deployment may be a bitter pill politically, but there is no adequate substitute for assuring that one's allies will be perceived as committed.

Use Arms Control to Enhance Military Security and Political Relationships

One of the most fruitful classes of measures generically appears to be arms control focused on how forces are located and postured, rather than on their precise size and configuration. Many proposals for arms control can be counterproductive, but others can substantially improve stability. In particular:

- Seek "operational arms control" agreements to limit and constrain military postures so as to make surprise attack more difficult and defense easier (Davis, 1988).

More controversial is the idea of *nonoffensive defense*:

- Seek formal or informal arms control agreements having the effect of shifting emphasis toward force structures and postures with a lower

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percentage of "offensive" weapons, notably tanks[16] and related support logistics (Møller, 1995).

Don't See Nuclear Weapons as a Panacea

It is difficult to argue from some high moral position that a weak state faced with a large and worrisome neighbor should not have nuclear weapons. Indeed, thoughtful American presidents have for decades chosen to quietly tolerate nuclear activities by Israel. It may have been hypocritical at one level, but the ultimate judgment was sound. The question is how far should this go? Again, what advice would an honest and objective strategist give to a weak, or even a medium-strong, state?

I admit ambivalence and, on bad days, some fatalism about proliferation. Mearsheimer and others arguing the case for the stabilizing role of nuclear weapons have a point (Mearsheimer, 1990). However, the following arguments in the form of advice appear to me persuasive on balance:[17]

- Nuclear weapons will assuredly *create* problems and may or may not solve the security problem. Also, be very skeptical about claims that conventional deterrence is infeasible. Unless the neighbor has strong incentives for invasion, a moderate defense may very well be adequate. Over time, historical and cultural factors will improve general deterrence further.

- Having nuclear weapons guarantees that you will be seen as a threat and targeted in detail by your strong neighbor. In a confusing crisis the urge to "preempt" or to engage in preventive war might be very high for the neighbor.

- Making nuclear weapons survivable is extremely difficult for most states. Even supposedly secure facilities (hardened silos, missiles in caves, etc.) are subject to attacks by special operations forces and missiles or aircraft with specialized weapons. Command and control is likely to be far more vulnerable in reality than its owners will admit.

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[16]The subject of nonoffensive defenses is complex. See, for example, Huber (1990) and Huber and Avenhaus (1993). Recent work (NATO, 1995) tends to dim hopes for finding distinctions between offensive and defensive weapons. For example, it gives simulation results undercutting claims that infantry is more stabilizing than tanks, at least in tactical-level engagements. Nonetheless, there are clear differences at the operational and strategic levels between force structures suited or not suited to large-scale offensives. Further, it is difficult for a weak or medium-strong state to have a force structure that truly threatens a strong neighbor. All this suggests that any negotiation of nonoffensive defense concepts should not focus unduly on weapon-level formulas.

[17]These extend points developed in the spring of 1993 for lectures in Ukraine on defense planning.

- Controlling nuclear weapons is a nontrivial challenge and could be a critical factor if internal conflicts arise (civil war, a military coup, terrorist events).

- To a greater or lesser extent, ownership of nuclear weapons will impose costs. The nuclear-club states, and indeed the Non-Proliferation Treaty states more generally, will discriminate—not completely because of their own self interest, but to some extent, which could be expensive and humiliating. Bucking the system in this respect will make being in "the club" of developed states more difficult.[18]

- Do not imagine that actually using nuclear weapons is so easy as proponents of nuclear deterrence theory sometimes seem to suggest. If one uses nuclear weapons against a neighbor's city, the response will be annihilation. Nuclear weapons arguably do nothing but deter nuclear use. Do you imagine yourself truly capable of a "Samson option?"

None of these arguments is ultimately compelling, but they seem persuasive in most cases of practical interest. Israel still appears to be the obvious exception, primarily because it is so small and its neighbors remain strongly and implacably hostile, despite the continuing peace process, which may change this in time. In a situation where religious or ethnic-hatred issues reign, we should not expect the normal rules of conventional deterrence to apply readily. Ideologues are willing to take greater risks, greater casualties, and even losses in pursuit of their goals.[19]

EXTENDING DETERRENCE IN DEFENSE OF WEAK OR MEDIUM-STRONG STATES

Let us next turn to what major states can do to extend deterrence to weak or medium-strong states. The challenges are great, but there are nonetheless some principles.

Recognize and Express Interests, Including Less-than-vital Interests, Explicitly and Credibly

The recurring problem here has been that nations have been ambivalent in peacetime about whether to get involved in events elsewhere, especially in the absence of an immediate threat, and especially when "getting involved" could

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[18]One of the major factors that influenced Sweden to quit its nuclear weapons program was apparently the desire to be part of the "good-guy club." The issues were both practical and matters of self-image. See Cole (1994).

[19]See Dror (1971) for an early discussion of this and other nonstandard threats such as terrorism.

antagonize another nation with which better rather than poorer relations are desired. This was the problem with the United States deterring Iraqi invasion. We see the same kinds of issues arising today in debates about NATO expansion. NATO expansion could, on the one hand, fill vacuums and establish the interests of the West in the continued security of various eastern and Central European states. On the other hand, it could antagonize Russia and provide fuel for the dangerous Russian nationalist movement.

Interestingly, even the "aggressive" proponents of NATO expansion have so far limited their goals to countries such as Poland. But what about Ukraine and the Baltic states? On the one hand, it is difficult to imagine NATO defending these states in a traditional manner. It is also clear that NATO's interests in Ukraine and the Baltic states are less than "vital." I would argue, however, that aggression against either of them would be altogether unacceptable in the modern world and that their security is very much a matter of NATO interest. Strategy, then, would include expressing those interests frequently.

Prepare Politically and Militarily for Prompt Intervention Given Strategic Warning

If there is a single fatal flaw in extended deterrent strategies based on decisive military moves in a crisis, it is that democracies have a great deal of trouble being decisive in ambiguous circumstances. Even "obviously" prudent military measures such as prepositioning military forces in the region and enhancing states of readiness for deployment are often politically difficult because of concerns about provocation or escalation of tensions.[20]

Such difficulties could perhaps be greatly mitigated by facing up to them in peacetime and developing much of the necessary political consensus, both domestically and politically, by including appropriate people in seriously conducted crisis games. Then, upon receiving strategic warning of a real crisis, the key people (including legislators and major allied leaders) could be brought into such gaming early so that they could themselves work through the logic for acting rather than dissembling. If this were successful, leaders such as the U.S. president could take appropriate hedging measures without being savagely attacked on the political front.

Beware of "Deterrent Actions" Without Backup

Many of those who would support early intervention to deter invasion of weak states or debacles such as in the Balkans tend to assume that a clear show

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[20]A good example of this is the refusal by General Colin Powell to deploy American maritime prepositioning ships from Diego Garcia and elsewhere when strategic warning existed of a possible Iraqi invasion of Kuwait. Apparently, Powell felt that such a move would potentially be a step toward commitment of U.S. forces to a war that did not yet have any political consensus and which did not merit U.S. intervention (Woodward, 1991).

of force would suffice. Often, however, their "clear show of force" would be long on show and short on capability. This is inherently dangerous when the object of attention is a strong and aggressive personality willing to take risks. Such figures tend to be impressed by power, not empty threats. And, indeed, shows of strength by Western European nations or NATO might well be empty because there might not be the political support for going further. An important distinction here is shows of force that do and do not put that force in harm's way, with the latter being far more effective than the former because they reduce the room for dithering if war begins. To put it differently, there is still a role for trip wires. However, when dealing with risk-taking aggressors, wise leaders will not deploy trip wires without starting the process of providing massive followup. Military conservatism on this score is well justified.

Enhance the Credibility of Defense with Forward Presence

Continuing the theme of the importance of communicating credibly the willingness to fight, it seems important to increase rather than decrease forward deployments, preferably in forms that cannot be readily bypassed.

Important alternatives to permanent stationing of trip wires include (1) prepositioning equipment in the country at issue to permit rapid reinforcement in crisis; (2) creating other infrastructure to facilitate rapid reinforcement; (3) conducting frequent joint exercises in the country to remind everyone of security ties, even if informal; and (4) maintaining naval and air forces in the region.

Plan to Supplement the Defender's Defenses Quickly and Optimally

If we turn from abstractions to specifics, considering the real or virtual threat to a particular weak or middle-strength state, it is usually the case that quick substantial enhancements of defense capability are possible if merely the right basis is laid in advance. This, however, may involve extensive coordination in the realm of command and control, logistics, and combined operations. Further, it may involve deploying tailored capabilities, some of them in short supply, rather than mere masses of equipment. Often, "smart" intervention is likely to mean providing air forces with precision-strike capability and superb theater-level reconnaissance and intelligence capabilities, along with the necessary command and control to exploit it.

Another form of "smart" intervention might be to supplement the defender's forces with high-quality indirect fire weapons that would greatly increase the vulnerability of attacker tanks and permit a kind of defense in depth (see also Kelley, Fox, and Wilson, 1994).

Deter Use of Weapons of Mass Destruction

An important element of extended deterrence is avoiding self-deterrence, as well as coercion of regional allies. The problem, again, is weapons of mass

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destruction (WMD). Although defense against the WMD threat is essential, the preferred strategy here is to *deter* use of WMD, essentially by credibly threatening massive response (see, e.g., Gompert, Watman, and Wilkening, 1995). With today's precision weapons, such a response could be conventional. Further, it could have a "countervalue" or "counterforce" character, depending on needs. Countervalue attacks could be quite discriminating.

Use Arms Control and Other International Mechanisms to Limit Forces and Constrain Force Postures in Ways Promoting Stability

Here there is a complete commonality with the advice offered to countries concerned about direct deterrence. Operational arms control in particular (e.g., limits on the deployment locations and states of readiness) of forces can drastically alter the quality of strategic warning, even to the point of making justified preemptive attacks plausible. This, in turn, is becoming increasingly important as the result of the proliferation of weapons of mass destruction and missiles: were the United States to intervene in a regional crisis 5 or 10 years from now, there might be a high premium on early and decisive counterforce attacks on the aggressor's means for delivering nuclear, chemical, and biological weapons.

Develop Theater Missile Defenses

WMD issues are becoming so important that it seems clear that defenses against WMD are now essential. In this context defense includes counterforce, post-boost intercept, terminal intercept, and passive measures such as dispersal and hardening. Without such defenses, the option for intervention and, therefore, the credibility of extended deterrence may be severely undercut.

Seek Alternatives to Current U.N. Mechanisms

With very few exceptions, it seems exceedingly unlikely that the United States or its allies will be willing to intervene in regional conflicts without clear legitimacy in the international community. Unfortunately, the United Nations currently is incompetent in dealing with military crises, especially when competence includes speediness and decisiveness in circumstances of ambiguity. Further, the prospect of depending on U.N. military operations, as distinct from U.N.-sanctioned operations led by the United States or some other major power, should be sobering for anyone thinking about the challenges of successful immediate deterrence. The major nations need to develop alternative ways of legitimizing and conducting the necessary actions. Ideally, this would mean changes within the U.N. structure and decision making, but that may not prove feasible.

RECOGNIZING THAT IMMEDIATE EXTENDED DETERRENCE MAY FAIL

A key element of deterrence planning should be recognition that immediate deterrence, however important, is a slender reed on which to base security. Immediate deterrence has failed too many times in the past, and the reasons for it having failed are still salient. It follows that in addition to plans for military and other measures in a crisis, an overall strategy of extended deterrence should:

- Seek to accomplish as much as possible through *general* extended deterrence—e.g., creation of security ties, interdependence, etc.; also, reduction of the causes of conflict.

- Make it plain (e.g., through prior security agreements) that aggressors will be severely punished by the international community, whether or not their invasions are successful. The punishments could be military (including countervalue attacks), political (pariah-state status), and/or economic (e.g., isolation), but they should be certain and tough, even if not perfectly enforced.

- Punishment options should be tailored to address what matters to the decision makers of interest.

- Military planning should recognize the potential necessity of operations to restore lost territory, perhaps over a period of many months or years, and perhaps with operations launched over many hundreds of kilometers away because of the original invasion having been successful and established defenses. Potential aggressors should not believe that a quick success ends the game.

Punishment as a Strategic Option

Because immediate deterrence may fail, especially with respect to attacks on weak or medium-strong states, defense of which does not represent vital interests of potential protectors, the United States and the civilized and forward-looking world community as a whole should worry more about developing and advertising credible options for severely punishing aggressor states—not just in the immediate aftermath of an attack, but for many years thereafter. Perhaps the metaphor should be of "putting aggressor states in jail" for terms of, say, 5 to 10 years. In other instances, an appropriate response might include military attacks to destroy substantial portions of the aggressor's military forces or infrastructure (e.g., its navy) or appropriate elements of the civilian value structure, all with conventional weapons. With sufficiently high accuracy and targeting, such attacks could be relatively discriminative. The attacks could be one-time events, "punishment," but not the start of a continuing war. There need be no quagmire.

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The principal issue here is that of credibility. Would the world community or leader states punish militarily a successful aggressor that also possessed nuclear capabilities and the means to delivery nuclear weapons against their own countries (either by missiles or by terrorists smuggling devices into them)? The initial reaction of many observers is "decidedly not," unless there were vital interests at stake. Although the argument is plain enough, its implications seem puzzling in instances in which the potential punisher states have escalation dominance in every dimension and the aggressor is rational, however unpleasant. Certainly, military punishment options would be risky, but the long-run stakes could be high.

The argument is unlikely to be resolved, but a few observations appear to be objectively valid. In particular, *general* deterrence by threat of punishment options could be much enhanced by (1) missile defenses; (2) well-exercised and advertised military *options* for selective but severe punishment, coupled into long-term isolation activities politically and militarily; and (3) pooling of risk by international cooperation (e.g., a punishment option by NATO might be better than a punishment option only by the United States).

This enhancement of general deterrence seems to be a good investment. Enhancement of immediate deterrence through threat of punishment will be a risky proposition, but competition in risk taking is hardly a new issue.

CONCLUSIONS: CHALLENGES FOR SECURITY STRATEGY, DEFENSE PLANNING, AND CRISIS DECISION MAKING

What, then, can be said in summary about deterrence in defense of weak states, especially when one takes the perspective that deterrence is ultimately about influencing decisions? The principal conclusions of this paper are as follows:

- Successful deterrence depends on a net assessment by human decision makers of many different factors. The "soft" factors, such as the quality of relations between the states in question, matter as much as the "harder," military factors.

- Conventional deterrence should not in most instances be particularly difficult for medium-strong states so long as they can deny the potential invader high confidence in a quick and relatively painless victory. The principal exception is when the potential invader sees compelling stakes, usually in the form of a very serious threat to itself. The stakes may be "personal" rather than national, which implies the need to model the leaders as well as the situation.

- The ingredients of a deterrent defense include avoiding major vulnerabilities such as vulnerability to surprise attack, attack from a

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nonstandard direction, or a sudden breakthrough of a brittle front line with no depth.

Although nuclear capability could enhance deterrence, it is also likely in most instances to excacerbate tensions and assure that careful military plans will be laid for attack. Nuclear capabilities are likely to be vulnerable and therefore might be destabilizing in a crisis.

- Nations such as the United States and its major allies can extend conventional deterrence to less-than-vital interests, but it is not trivial to do so. Tactics that can help include forward-basing, prepositioning, joint exercises to supplement the defender's capabilities with specialized high-leverage capabilities such as air power, precision strike, and information dominance.

- The likely effectiveness of conventional deterrence and extended conventional deterrence could be greatly enhanced by "operational arms control" constraining the location and readiness of offensively capable forces. Arms control could also help shepherd the movement of force structures toward compositions more suitable for defense of borders and internal-security actions than for long-distance offensive force projection.

- Because immediate deterrence will not always work, especially if it depends on denial capability or prompt actions such as the dispatch of trip wires backed up by protector states, the United States and the international community more generally need to focus more on the development of credible and effective punishment options. These should include the ability to destroy both military and civilian infrastructure, as well as military forces, but they should also consider mechanisms for highly certain political and economic isolation (e.g., prior agreement within regional security frameworks to punish aggressors in such ways).

- Extended deterrence's credibility will depend increasingly on the ability of the protector states to trump threatened use of weapons of mass destruction. The trumps may include the threat of massive conventional retaliation, nuclear retaliation, preemption against WMD and delivery means, and the capacity to defend forces and allied countries, at least significantly, with missile defenses.

- When thinking both of general and extended deterrence, it is fruitful to model the reasoning of the states to be deterred, developing alternative models to reflect different mind sets that may well be at work. Such models can be very helpful in assessing alternative strategies by making it easier to understand their likely and possible effects on the

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thinking of human beings with personal agendas, many misperceptions, and a range of options that include not invading.

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