
1. International relations theory: learning and regimes

Will stable nuclear deterrence last forever? Human fallibility suggests that it will not. Various schemes have been proposed to deal with this problem. Most prominent have been proposals that focus on weapons. Less thought has been given to transforming the U.S.–Soviet political relationship, yet the hostility in that relationship, not the existence of nuclear weapons per se, presents the gravest threat. Moreover, even technical solutions to the nuclear dilemma will require major improvements in the U.S.–Soviet political relationship if they are to have a stabilizing effect on deterrence.

The dominant Realist strand of international relations theory is not encouraging about the prospects of transforming U.S.–Soviet relations. Realism, which traces its roots to Thucydides, portrays an anarchic world in which states compete for power in the context of an intense security dilemma. The steps they take to enhance their military security make the competitors feel more insecure. A balance of power is essential, but difficult to maintain. An important part of Realist theory focuses on power transitions in which shifts of relative power among rising and declining states tend to precipitate major wars. There have been a dozen such general wars since the consolidation of the modern state system almost four centuries ago. If this theory still holds in the nuclear era, the prognosis for the future is
gloomy. A more optimistic version of Realism stresses the structural stability of bipolar systems, but this theory tends to be quite static and tells us little about how change may occur. Moreover, even stable bipolarity does not preclude the breakdown of deterrence through accident.

In a domain as complex as international relations, it is not surprising that the power of theories is limited. Generalizations are based on a small series of events which have multiple causes at several levels of analysis. Strategic interaction is inherently indeterminate, and we must consider domestic as well as systemic causes. Realism is the most parsimonious and may be the most useful first approximation, but it does not take us very far. Even at the structural level, it needs to be supplemented with other theoretical models. Few structural explanations have sufficient power to allow us to ignore the domestic nature of the states in the system. The most interesting explanations usually involve the interaction between the constraints of the international system, the nature of the domestic societies, and the policies of the major states.

A secondary but important strand of international relations theory is the “Liberal tradition,” which stresses interactions among states and societies, and the development of norms and institutions. In their simplest forms, Liberal theories have been easily discredited. The proposition that the gains from commercial transactions would overcome the problems inherent in the security dilemma and make war too expensive were belied in 1914. Hopes that a system of international law and organization could provide collective security, which would replace the need for self-help inherent in the security dilemma, were disappointed in 1939. Nonetheless, the sharp opposition between Realism and Liberal theories is overstated. In fact, the two approaches can be complementary. Sophisticated versions of Liberal theory address the ways states develop international norms, which interact with domestic politics of the states in an international system so that they transform states’ definition of their interests. Transnational and interstate interactions and norms lead to new perceptions of interests and new coalition possibilities for different interests within states.

The issue of how states define their interests and how their interests change has always been a weak point in Realist theory. One of the most interesting questions in international relations is how states learn. How do national interests become defined and how do those definitions change? Can cooperation be learned? Realist theories maintain that states learn by responding to structural changes in their environment, or, to put it in game theory terms, they adjust their behavior to changes in the payoff matrix.

When mutual interests or the long shadow of the future suggests that rewards for cooperation are great, states may alter the strategies by which they pursue their interests. In this sense, cooperation can be learned. Although this is often a satisfactory and parsimonious explanation, its shortcoming is that it does not show how interests themselves may be redefined. Successive governments or different leaders may perceive the same situation in totally different ways. Bismarck and the Kaiser defined very different answers to similar geopolitical situations. Nor does Realist theory focus on how groups within societies can use partners in transnational coalitions or transnational norms and institutions to advance or retard the learning of new interests by their own governments. The more sophisticated variant of the Liberal theory can provide a useful supplement to Realism by directing attention to the ways domestic and international factors interact to change states’ definitions of their interests. To say that states act in their self-interest is merely tautological unless we can reasonably account for how such interests are perceived and redefined. Both Realism and Liberalism can contribute to such an account. On the principle of Ockham’s razor, one should “try Realism first.” But sometimes satisfactory explanation requires that Realism be supplemented by Liberal theories.

The major developments in the Liberal tradition of international relations theory in the post-1945 period occurred in regional integration studies. Karl Deutsch studied the development of pluralistic security communities—groups of states which develop reliable expectations of peaceful relations and thus overcome the security dilemma that Realists see as characterizing international politics. Ernst Haas focused on the uniting of Europe and the transformation of Franco–German hostility into a postwar economic and political community. Subsequent scholars extend these perspectives to other regions. What these studies have in common is a focus on how increased transactions and contacts change attitudes and transnational coalition opportunities, and how institutions help foster such processes. In short, they focus very directly on the political processes of learning and the redefinition of national interests, and on the ways that institutional frameworks and regimes foster such processes.

In a sense, the development of regional integration theory outstripped the development of regional communities. Predicted changes were slower than expected. This discrepancy may account for the declining academic interest in the subject during the 1970s. However, the transformation of Western Europe into a pluralistic security community is real, and many insights from integration theory transferred to the growing and broader dimensions of international economic interdependence in the early 1970s. Studies in trans-

national relations and interdependence broadened the conceptions of how national interests are learned and changed. Some studies explicitly addressed the conditions under which assumptions of Realism were sufficient or needed to be supplemented by a more complex model of change. They devoted a good deal of attention to the role of international institutions rather than focusing primarily on the formal and universalistic organizations such as the United Nations. The concept of regime was borrowed from international law and broadened to incorporate the whole range of principles, norms, rules, and procedures which constrain states' behavior and around which actors' expectations converge within a given issue. A rich set of studies applied the concept of regimes to a broad range of behavior in international political economy.

2. Security regimes

Current political concerns have always strongly affected international relations theory. The early 1980s proved no exception. With worsening U.S.–Soviet relations and increased fears of nuclear war, military studies again became the central focus of attention. Some even argued that the focus on interdependence and regimes in the 1970s was mistaken. In fact, the progress of the theoretical studies of interdependence and international regimes continued, but tended to be applied only to the area of international political economy. The field of international politics split into two literatures, one in military security rooted in the Realist tradition, and the other in international political economy, incorporating some insights from the Liberal tradition. Each tended to ignore the concerns of the other. Only recently have there been efforts to bring these two back together.

Most theorizing about international regimes occurred in the area of international political economy, and so had unfortunate effects for application to security studies. For example, the concern with the role of the dominant actor within an N-person game ("hegemonic stability theory") made the theory seem irrelevant to bipolar U.S.–Soviet relations. The concept of a regime became identified with Liberal international relations theory, although it could also fit easily with Realist theory. Egoistic self-interest can lead states to create regimes in security as well as economic issues. The difficulty of ascertaining intentions and the large stakes at risk in case of

8. See the special issue of World Politics 38 (October 1985), edited by Kenneth Oye.
defection may be higher in most security issues than it is in most economic issues, but this is not always true. Such differences are matters of degree. A successful security regime must involve “timely warning” of major changes so that states are not totally vulnerable to defection; but regimes are not confined only to economic issues.

A few interesting attempts have applied the concept of international regimes to the U.S.–Soviet relationship. But the concept has often been used loosely. Practices and policies were not always distinguished from norms and rules. We are told that a regime of primitive rules (“no direct conflict between the superpowers,” “no use of nuclear weapons,” “respect for spheres of influence”) has helped explain the absence of nuclear war. But the rules are more tacit than explicit. Their existence is inferred from the absence of war, which is, in turn, attributed to the existence of such rules. Thus this concept risks tautology by using the same evidence to establish both the cause and the effect of the regime.

Robert Jervis has attacked such efforts to categorize the U.S.–Soviet security relationship as a regime. If cooperation can be explained on the basis of short-run self-interest, such as avoiding the disproportionate costs of nuclear war, then regimes become a redundant explanation. In Jervis’s view, “the links between states’ restraint and their self-interest are too direct and unproblematic to invoke the concept.” The rules and practices of prudence which characterize the U.S.–Soviet relationship are both too vague and too directly related to their obvious short-run self-interest to merit being categorized as rules of a regime. Moreover, he argues that the participating nations’ preference for the status quo is a necessary condition for a security regime, and that the United States’ and Soviet Union’s different perspectives in ideological interpretation of events make the independent restraining force of rules highly improbable.

However, the skeptics’ judgment may be premature. The critiques are justified when applied to the overall U.S.–Soviet relationship. But the existence of regimes is a matter of degree. There are variations in scope, adherence, duration, and degree of institutionalization. Even in the economic area, regimes are far from perfect. The existence of tariffs, quotas, and protectionist sentiments does not mean that the GATT (General Agreement


on Tariffs and Trade) regime has not had a significant impact on international trading behavior. Rather than focusing on whether the overall U.S.–Soviet relationship can be categorized as a security regime, we should more fruitfully consider it as a patchwork quilt or a mosaic of subissues in the security area, some characterized by rules and institutions we would call a regime and others not. Differentiating by subissue facilitates comparative observations about how regimes affect state behavior. It also allows us to raise interesting questions about the dynamics of both learning and redefining interests; questions which skeptics tend to neglect in their categorical judgments about the nonexistence of a regime in the overall U.S.–Soviet security relationship.

Skeptics might still object that it makes no sense to use the regime concept when dealing with the relations between a status quo power and a revolutionary power. Skeptics say that the notion of a regime is a status quo concept which attracts U.S. theorists because they are attracted to stability.13 From a Marxist point of view, if regimes delay dynamic forces of history, there can be no agreement upon international regimes. It is interesting that the Soviets have increasingly used the term in the last decade.14 However, the critical question is whether Soviet behavior can be consistent with the rules and institutions of a regime.

In this regard, one has to address the debate about the nature of Soviet goals and the role of ideology in the Soviet system. The best judgment must be mixed. To describe the Soviet Union as a rigidly ideological and totalitarian society does not fit current reality. Seweryn Bialer sees it as not yet traditional authoritarian, but no longer totalitarian. As Richard Pipes describes, its leadership has become bureaucratized and its ideology has eroded.15 The role of the party and state in mobilizing the society has greatly diminished since the Stalinist days, when the concept of totalitarianism was originally formulated.

At the same time, ideology still plays a role in legitimizing the Soviet political elite and in providing many categories through which they approach the world. One of the most interesting developments in the last decade, however, has been the adaptation of Western concepts into Soviet thinking about international relations. This does not mean that the Marxist categories have been discarded, but they have been supplemented by more flexible concepts and categories. Joanne Gowa and Nils Wessell argue that “as the

U.S.S.R. acquired a stake in the stable operation of the international political system and particularly as it relied on treaties as an instrument of its foreign policy, its leadership came to value the role international agreements play in the defense of established interests.¹⁶ The Soviet view of international politics is far more differentiated and complex today than it was in Stalin's day. For example, it is hard to imagine a Soviet leader today abolishing an entire institute of world economy as Stalin did simply because he was displeased by its accurate but optimistic description of the prospects of the capitalist economies.¹⁷

Nor is it helpful to see the Soviet Union as a purely revolutionary or purely status quo actor in international politics. Because of the role of ideology in legitimizing, if not always motivating, the political elite, there is often a revolutionary and expansive tone to Soviet foreign policy pronouncements and sometimes to its behavior. But it is also worth noticing that Soviet behavior is far more cautious and risk-averse than its pronouncements make it sound. Support for proletarian revolutions has always come second to the safety of the Soviet state. In Europe, which the Soviets still see as the heart of the global balance of power, the Soviets tend to be a status quo more than a revolutionary actor in the short term of decades. In a sense, both the United States and the Soviet Union were the great winners of World War II. Neither is eager to reverse the partition which took the German problem off the front burner of international politics. Neither wants a nuclearized Germany. Neither has made strenuous efforts to reverse the de facto division of Europe into spheres of relative interest.

If Hitler's Germany is the example par excellence of a revolutionary world power for which the concept of security regime is totally meaningless, then clearly the Soviet Union is quite some distance from the revolutionary end in the continuum between revolutionary and status quo powers. Caspar Weinberger does not see "any real change or any real possibility of modification of their basic policies,"¹⁸ but this need not prevent limited cooperation on security regimes. Such cooperation can be based on risk aversion without requiring agreement on the long-term course of history. In the words of Brent Scowcroft, "the Soviets, whatever their view of history and the 'inevitable outcome' which 'history' promises—are very cautious and very conservative."¹⁹ On this basis, cooperation on security is possible, though it will remain limited by ideology and competition. One should expect the concept of regimes to be more useful when potential risks are high and the Soviet

Union is nearer the status quo pole and is willing to approach issues in less ideological terms. In fact, as we shall see, these conditions do affect their behavior.

This situation does not mean that the application of the concept of regime to the U.S.–Soviet relationship is a perfect fit. Ideological differences set limits on behavior consistent with regimes. The structure of nuclear bipolarity heightens the nature of the security dilemma as perceived by the leaders of the two countries. Lastly, the secretive nature of the Soviet society and governmental system makes tracing the effectiveness of regimes on domestic political learning highly problematic. But notwithstanding these difficulties, students can use the regime concept in conjunction with both Realist and Liberal theories to glean fresh insights about the nature of the U.S.–Soviet relationship and its prospects over time.

3. Learning

Perception of national interests may change in several ways. The most obvious occurs after domestic shifts in power. An election, coup, or even generational change can cause leaders with quite different perceptions of national interest to replace old ones. In other words, some changes in "national interest" depend not upon new affective or cognitive views in the society at large, but merely on changes of political elites. Such political change may occur because of domestic issues largely unrelated to foreign policy. National interest may also be redefined through normative change. The practices or interests of one period become downgraded or even illegitimate in a later period because of normative evolution. Changed views of slavery or colonialism are examples.

A third way in which national interests may change is through cognitive change or learning. In this sense, to learn is to develop knowledge by study or experience. New information alters prior beliefs about the world. Learning often involves a shift from overly simple generalizations to "complex, integrated understandings grounded in realistic attention to detail."20 Learning occurs internationally when "new knowledge is used to redefine the content of the national interest. Awareness of newly understood causes of unwanted effects often results in the adoption of different, and more effective, means to attain one's ends."21 In such instances, a simple power or pressure model of policy change may be highly misleading. To take a case from my personal experience, in the mid-1970s, the United States wanted

France to cancel its sale of a plutonium reprocessing plant to Pakistan. France refused for some time on the grounds that the plant was for civil purposes. But France decided to cancel the sale in 1977 when the United States provided new information that the plant would be misused. Most press accounts attributed the change to U.S. arm-twisting, but they were wrong.

The alteration of beliefs by new information does not always increase effectiveness. Sometimes new information can be misleading or wrongly applied. Misread “lessons of history” and inappropriate analogies have often prevented leaders from attaining their goals. Large macrohistorical analogies such as “Munich” or “Vietnam,” laden with emotional and domestic political content, can be particularly misleading. Neither individuals nor societies are clean slates. New information affects prior beliefs, but its reception and interpretation are also affected by those prior beliefs. The extent and accuracy of learning depends upon the strength of the prior beliefs and the quantity and quality of the new information. Some beliefs may be so strong that new information is ignored and no learning, or only highly distorted learning, occurs. Psychological studies of perception and misperception help us to understand such barriers to learning, but so do political and institutional factors. Cognitive change is important, but it rarely stands alone. Learning is often blocked or distorted by affective and power variables. Russell Leng has shown, for example, that in crisis bargaining, experiential learning from the outcome of the last crisis is not a powerful predictor of behavior in the next crisis until it is combined with prior beliefs about the importance of demonstrating power and resolve.

Learning can be a slippery concept for two reasons. One problem is the tendency to build effectiveness into the definition. For simple situations, this connotation is intuitively obvious. It seems odd to say that one has “learned” that two plus two equals five. But the situation is different with complex social phenomena. The Keynesian revolution in economics meant that some “laws” learned in the 1920s were wrong in the 1930s. Some economists today believe that early Keynesian formulations about inflation were far too simple. The effectiveness of altered cognitive beliefs is sometimes only known with great delay, and sometimes not at all. A second problem is that learning sometimes has a positive evaluative connotation: when the observer approves of the new conception of self-interest, it is called “learning”; disliked changes are not. But by my definition, negative,

as well as positive, learning can occur. The question is whether the new information or skills have enabled the actors to achieve their purposes better, regardless of whether the observer likes those purposes or not. Of course, choices of definition are to some extent arbitrary, but the danger of building effectiveness and positive value into the definition of learning is that it inhibits one’s ability to observe variation. The spare definition chosen here is designed to avoid these pitfalls, and provides a more useful research tool in an important but murky area.

There are also different degrees of learning along a continuum of ends–means relationships, from very simple to highly complex. Simple learning uses new information merely to adapt the means, without altering any deeper goals in the ends–means chain. The actor simply uses a different instrument to attain the same goal. Complex learning, by contrast, involves recognition of conflicts among means and goals in causally complicated situations, and leads to new priorities and trade-offs. Simple learning is relatively easy for an observer to assess, but complex learning is often more elusive when changes in deeper goals may have occurred. This distinction helps us avoid needless semantic disputes over whether or not changes in behavior are examples of learning. For instance, most changes in nuclear behavior are adaptations to changed circumstances. Only a few involve the readjustment of goals and the development of new norms. Both types of learning are important, but complex learning may be more so. At the same time, complex learning is sometimes difficult to ascertain objectively, because perceptions and ideology play a larger role in assessing consequences when human affairs have long and complex causal chains. Thus, complex learning often involves evaluative ambiguity, and we must be explicit about the values involved.

The Bay of Pigs episode in 1961 helps illustrate the distinctions. Khrushchev seems to have learned (incorrectly) that Kennedy would respond weakly, and this interpretation may have led him to the risky actions that brought on the Berlin and Cuban missile crises. Kennedy seems to have learned very important but simple lessons about managing bureaucracy and crises. Whether he “failed” to learn more complex lessons, which would have effectively altered his goals in Cuba, is more controversial. Even if he had, we must admit there would be a higher ideological evaluative component in assessing whether complex learning led to greater or lesser effectiveness in the achievement of his higher priority goals.

Some events seem to have a larger effect on statesmen’s learning than others. Robert Jervis argues that leaders’ firsthand experiences early in life which have consequences are particularly important. He also notes the


26. See Etheredge, Can Governments Learn? for this interpretation.
power of analogies and overgeneralization when leaders do not have the experience of alternative explanations. They usually have sharper reactions to failure than they have learning about the limits of success.27 Sometimes nothing fails like success.

Finally, individual learning is a necessary, but insufficient, basis for organizational learning. Societies and governments are complex entities. Not everyone learns the same lessons or at the same rate. Shifts in social structure and political power determine whose learning matters. In organizations, there must be an institutional memory and procedures which affect old and new members throughout the organization. In James Rosenau’s terms, they are pools of habits.28 As John Steinbruner points out, organizations tend to divide complex problems and reduce uncertainty so that their cybernetic learning is slower and more constrained than analytic causal learning.29 Finally, in societies, one needs to understand not only the social and generational divisions over the interpretation of common experiences, but also the transmission belts between mass public opinion, societal groups, and political elites.

Skeptics may argue that we know too little about internal Soviet processes to be able to apply such theories of learning. Certainly the secretive nature of Soviet society makes this task difficult, but it is not impossible. In terms of the simple learning criterion, one can observe Soviet responses to experience and new information. With regard to complex learning, one can also see glimpses of more sophisticated thought which go deeper into the chain of ends—means relationships, even if it does not challenge ultimate ideological goals. As Thane Gustafson argues, “there is evidence from many different fields that the scope and quality of specialists’ advice to policy makers . . . have increased.”30 Alexander Dallin sees “a learning process that has led to growing sophistication and ‘emancipation’ from doctrinal stereotypes on the part of a relatively small number of members of the intellectual and political elite. . . .”31 Rose Gottemoeller notes an increased complexity of Soviet decision-making for arms control.32

Soviet writings about nuclear weapons in world politics have also become more detailed and sophisticated.33 An interesting anecdote is Arkady Shev-

29. Steinbruner, Cybernetic Theory, pp. 78–79.
chenko’s description of the strategem by which Foreign Minister Andrei Gromyko involved the reluctant Soviet military in arms control negotiations. He lobbied to have rising young officers placed on the Soviet delegation and insisted on a unique procedure by which all seven delegates had to sign cables to Moscow. "‘It’s hard to discuss the subject with the military,’ Gromyko told me, ‘but the more contact they have with the Americans, the easier it will be to turn our soldiers into something more than just martinets.’ ”

The Soviets have often understated the degree to which their positions change and tend to stress continuity almost as much as Americans emphasize evolution and change. Organizational learning is likely to be slower in centralized systems with limited access to outside information and a concern for doctrinal continuity. But if one expects the Soviets to be slower to learn, one should also expect the Americans to be quicker to forget. Because of the frequent turnover of political officials, the American government has a weak institutional memory, and new leaders often have to relearn old lessons.

4. Nuclear learning

One difficulty we encounter when we evaluate nuclear learning relates to the uncertainties of deterrence. No one knows for certain exactly what weapons are necessary for deterrence. Moreover, deterrence of conventional war or political aggrandizement demands capability and credibility greater than what is needed to deter a strike against one’s homeland. Thus, much of what passes for nuclear knowledge rests upon elaborate counterfactual argument, abstractions based on assumptions about rational actors, assumptions about the other nation’s unknown intentions, and simple intuitions. The ambiguous structure of nuclear knowledge makes it difficult for new information to alter prior beliefs. Obviously, this combination leaves lots of room for spurious knowledge, false learning, and occasional forgetting as coalitions shift in domestic politics. The uncertainties of deterrence also block transitions from simple to more complex learning. The difference in political and military cultures means that divergent prior beliefs tend to lead each country to learn different lessons from new information. It is particularly interesting when common lessons are learned despite varying prior beliefs.

Over the past four decades, new information about nuclear weapons and experiences with their handling have altered prior beliefs. In several areas, it has even created a core of consensual knowledge that both countries share to a large extent. Both sides share a greater knowledge about the destructive power of nuclear weapons. The discovery of the power of the hydrogen bomb in the 1950s meant that whole societies were henceforth vulnerable.

Despite technical and doctrinal efforts at damage limitation and precision targeting, collateral damage is likely to be high. More recently, public attention has focused on the unintended environmental consequence of nuclear war. While the early alarms about nuclear winter destroying the earth may have been spurious learning, the existence of large and unpredictable environmental effects now seems to be widely accepted. One result of this learning is that we recognize assured destruction as a present condition, even though we still have doctrinal differences about its desirability or the effectiveness of long-term efforts to escape it by building perfect defenses.

A second area of common knowledge is the command and control of nuclear weapons and the incumbent dangers of escalation. In the early days of few weapons, each side put nuclear control in the hands of a separate civilian agency (the Atomic Energy Commission in the United States and the KGB in the Soviet Union). As nuclear weapons systems became more numerous and complex, such simple solutions no longer worked. More elaborate technical and political procedures have been developed to cope with problems of control and to reduce risks of inadvertent nuclear war.

A third area in which common knowledge has developed is in the spread of nuclear weapons to more countries. Both the United States and the Soviet Union acted somewhat naively during the 1950s and 1960s, when they believed that sharing nuclear technology with allies could be controlled, and that peaceful nuclear exports could be kept from military use. Better scientific knowledge and diplomatic experience has changed these attitudes and policies.

A fourth area involves forces and the volatility of the arms race. Some early illusions have been dispelled, such as the fallacy of the last move—that is, the belief that a technological innovation will not soon be acquired by the other side. The Soviets seem to have learned that they can tolerate some degree of "open sky surveillance," which they rejected in the 1950s. Both seem to have accepted the language of parity and recognized the link between offense and defense, though each appears at times to hanker after the superiority it has officially forsown. Both seem to have learned the practice of formal arms control negotiations. Nonetheless, they have disagreed about the value of arms control, and both have been reluctant to make major changes in force structures. In this fifth area, which includes the forces needed for deterrence, the ambiguities and uncertainties of nuclear deterrence doctrine seem to have blocked further learning. Both sides recognize the value of having invulnerable forces for crisis stability, but neither is willing to forego the desire to put the other sides' forces at risk as a means of deterring political aggrandizement.

Table 1 summarizes the four areas in which considerable nuclear learning has occurred, as well as the fifth area, in which learning has been more limited. In the first three areas, learning rests upon fairly concrete new information such as scientific, technical, and diplomatic experience. The
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<tr>
<th>Area of common knowledge</th>
<th>Resulting beliefs</th>
<th>When learned</th>
<th>How known (type of information)</th>
<th>Were regimes created?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Destructive power</td>
<td>Assured destruction, inherent deterrence, and no-use</td>
<td>1950s H-bombs, 1980s environmental effects</td>
<td>Nuclear tests, theory, and some data</td>
<td>yes, in part</td>
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<tr>
<td>2. Control problem</td>
<td>Crisis management practices, Accidents Agreement, PALs, and redundant sensors</td>
<td>Berlin, Cuba crises; 1957–61 accidents and false alarms, 1970s alarms</td>
<td>Diplomatic experience, false alarms, accidents</td>
<td>yes</td>
</tr>
<tr>
<td>4. Arms race stability</td>
<td>Interaction of force-structure choices, acceptance of parity and offense-defense link; acceptance of surveillance</td>
<td>1960s buildup 1970 SALT I and SALT II</td>
<td>Diplomatic experience</td>
<td>yes, but eroding</td>
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fourth area rests largely upon diplomatic experience. The fifth rests mostly upon theoretical studies and perceptions of strategic interactions. This type of new information provides a less clear-cut basis for judging complex causal chains, and it is less likely to alter prior beliefs than to be distorted by them. Nonetheless, changes in force structures have occurred, some of them convergent. The United States moved to flexible response in the 1960s, and the Soviets replied with a similar development of conventional capabilities in the 1970s. The Soviets developed significant counterforce options in the 1960s, and the United States replied with the countervailing strategy of the 1970s. Whether these changes in doctrine and structure enhanced and stabilized deterrence is more difficult to ascertain. In this area, though learning led to some concurrence in beliefs, it did not lead to explicit cooperation.

Moreover, much learning in the fifth area of force structure and deterrence seems to have been simple rather than complex. For example, the invulnerability of one's own forces was stressed more than the development of a norm of mutual invulnerability. Robert McNamara's welcoming of the news that the Soviets were hardening their silos in the 1960s and the Brooke Resolution, which tried to limit improvements in missile accuracy in 1969 and 1970, bore no fruit. Because of the complex notions of nuclear stability, both sides continue their attempts to threaten the other's forces. That situation sets limits on the development of norms and explicit cooperation. Yet in the other four areas, learning and convergent knowledge did lead to explicit, albeit limited, cooperation. In the first three areas, regimes were established, as we shall see when we look at each of them in greater detail. In turn, these regimes helped to "lock in" and develop the learning that had occurred in the first three cases. In the fourth area—arms control, where the nature of the information is less firm and strategic bargaining has a powerful impact—the regime has eroded and cooperation has become more problematic. Comparing the five areas, it seems that the extent to which cooperation is learned does indeed depend upon the strength of the prior beliefs (and who holds them) and the quantity and quality of the information.

I shall look at these five areas in greater detail. First, regarding destructiveness and non-use of nuclear weapons, both the American and Soviet governments have learned something during the nuclear era. Nuclear weapons were invented to be used. Yet today, both sides frequently discuss them as though they are not usable or that they are useful for deterrence only. In the words of the Geneva communique of November 1985: "[T]he sides have agreed that a nuclear war cannot be won and must never be fought. Recognizing that any conflict between the Soviet Union and the United States could have catastrophic consequences, they emphasize the

importance of preventing any war between them whether nuclear or conventional. They will not seek to achieve military superiority.”

Non-use was not always the received nuclear wisdom. The United States actively considered using nuclear weapons at a high level several times in the 1950s (Korea, Dienbien Phu, Taiwan). During one of the first National Security Council meetings in 1953, President Eisenhower and Secretary of State John Foster Dulles worried that public campaigns against nuclear weapons might hinder their usability as weapons of war. Since the early 1960s, however, hardly any evidence shows high-level consideration of the deliberate use of nuclear weapons to achieve a political purpose (although the United States worried that nuclear weapons might be used in a crisis). While overt incidents of coercive nuclear diplomacy also declined. Public opinion became more skeptical about the use of nuclear weapons during the 1950s. While the United States has refused to make an open declaration of “no first use” of nuclear weapons (because of the requirements of the doctrine of flexible response for extended deterrence in Europe), many observers believe that the de facto position is no first use. When, in the early years of the Reagan administration, officials began to discuss the possibility of protracted nuclear war, public opinion forced them to revise the declaratory policy eventually stated in the Geneva communiqué.

A similar evolution occurred in Soviet declaratory policy. Under Stalin, nuclear weapons were seen as military instruments of bombardment within an ideological context which declared the inevitability of war between the two great camps. When Georgii Malenkov tried to alter this doctrine in 1954, Khrushchev used it to help defeat him in his bid for the succession. Nonetheless, by the twentieth party conference in 1956, Khrushchev had adopted Malenkov’s position that war between the two camps was no longer inevitable in the nuclear age. Khrushchev bluff open with nuclear weapons after the major action had concluded during the Suez crisis of 1956 and the Taiwan Strait crisis of 1958, but the dangers of nuclear war in the latter case clearly enhanced Soviet caution. This caution contributed to the Sino-Soviet split. In the early 1960s polemics between the Soviet and Chinese Communist Parties, the Soviets declared that nuclear weapons do not

observe the class principle. These positions developed further in the various SALT-related agreements of the 1970s, in Brezhnev's Tula speech of January 1977, which cautioned against the belief in the usability of nuclear weapons, and again in a series of statements by Andropov and Chernenko in the early 1980s.

In short, the two countries have changed their declared position about the usability of nuclear weapons. How significantly this change affects operational doctrine is an open question. For example, declaratory policy affects American strategic targeting plans (with certain lags), but they have always involved a more mixed set of targets than pure declaratory policy would suggest. On the Soviet side, most analysts distinguish between the political and the operational levels of strategic doctrine, the former enunciated by party leaders and the latter by military officers. In general, the political doctrine has become more defensive; nuclear weapons will not be used unless the Soviet Union is attacked. In 1982, Soviet leaders formally declared a doctrine of no first use. On the other hand, the military doctrine is preemptive. If an attack appears imminent, it is better to strike first than second. These two positions are not necessarily contradictory, but it is important to note the limits of declaratory policy. Nonetheless, knowledgeable experts report that the Soviets cannot maintain two completely separate audiences, and changes in declaratory policy have an influence. Soviet policy changes sometimes start because of tactical or propaganda advantage, and later take on a life of their own. To the extent that declaratory policy does have an influence, the changing definitions of interest, as reflected in declaratory policy in both societies over the past three decades, are of considerable interest.

In contrast to the apparent learning and development of some common norms at the level of rhetoric, much less learning has occurred in the fourth and fifth areas (arms control and deterrent force structures). Both countries continue to develop new nuclear systems, including those designed for prompt attack against the other's hardened nuclear forces. Yet while the sides may not hold common norms, similar simple learning seems to have occurred and some convergent views exist. Both sides have gone to considerable expense to develop forces which are relatively invulnerable to a first strike. This development may be explained simply as prudent adaptation; it may also have been affected by American efforts to persuade the Soviets of the value of a seaborne deterrent during arms talks in the 1970s. While the Soviets have placed far fewer of their warheads at sea, they have invested heavily in developing a submarine-based force which can be held in pro-

ected sanctuaries. Similarly, while some Americans speak nervously about our nuclear vulnerability because of concern for the survivability of fixed land-based missiles, it is worth remembering that the ICBMs constitute only a quarter of American strategic warheads. In contrast to their leaders' rhetoric, both sides have made heavy investments in redundant and invulnerable second-strike capabilities, which contribute to stability in a time of crisis.

Why, then, do both sides resist agreement on a common norm of second-strike forces only? Why do they continue to invest in forces which present a capability for first strike against missile silos? Some observers explain that both sides have totally different concepts of what constitutes nuclear stability. Certainly differences in force structures reflect conceptual and historical differences. However, both countries face some very basic similarities in the situation. The classic usability dilemma has blocked the development of a norm about non-use and building it into force structures on both sides. If no one believes nuclear weapons can be used, they lose their deterrent value. Yet if used, they may destroy the values they are supposed to protect. This dilemma creates ambivalence in both countries and limits the development of the doctrine of non-use. Instead, both sides have developed a complex nuclear stability which trades off different values.

Crisis stability refers to the absence of incentives to preempt in time of crisis. Arms race stability refers to the absence of incentives to accelerate the development of new arms. Political stability refers to the absence of incentives to take political actions that might lead to crises or nuclear war. When the Soviets are pressed to explain why they have invested so much in the development of large, vulnerable, land-based missiles which threaten American ICBMs, they often reply that such missiles frighten the Americans and deter Washington from taking risky actions which might lead to war.

One hears similar arguments from Americans. For example, Defense Department officials justify the placement of MX missiles in silos by arguing that they threaten the Soviets and keep them from risky political actions. As one U.S. Air Force officer put it: "Deterrence is more important than survivability." Both countries have groups stressing one dimension of stability more than another. Both countries' force structures and doctrines have become more similar over time. In fact, the Soviet force structure strongly


45. Conversations at Offut Air Force Base, February 1986. A Soviet example occurred in 1965, when General Talenskii concluded that "in our days there is no more dangerous illusion than the idea that thermonuclear war can still serve as an instrument of politics," while Lt. Col. Rybkin warned that "any a priori rejection of the possibility of victory is harmful because it leads to moral disarmament, to a disbelief in victory and to fatalism and passivity." Quoted in Holloway, Arms Race, p. 164.
affected the development of the American countervailing strategy of the late 1970s.\textsuperscript{46} While important differences remain (most notably in air defense), both countries practice a policy of investing heavily in crisis stability—albeit as a unilateral goal for their own forces rather than for their adversary. The Soviets are developing mobile land-based missiles and increasing the capabilities of their submarine forces, while the Americans debate the prospect of mobility and enhance their submarine forces.\textsuperscript{47}

The result, of course, is not always helpful for arms race stability. But to argue that no learning has occurred in arms race stability and deterrent force structures is an overstatement. Both sides seemed to have learned the importance of maintaining invulnerable second-strike retaliatory capabilities, but they differ somewhat internally and with each other over the allocation of investment between these three dimensions of strategic stability. In arms race stability, there has also been some learning. Both sides have eschewed superiority, at least at the declaratory level. This is a change from earlier postures. Neither has developed as many nuclear weapons as it is physically capable of doing. As Ernest May has shown in the American case, this has been caused partly by the broadening number of groups involved in nuclear decision-making.\textsuperscript{48} Similarly, on the Soviet side, one can argue that the participation in arms limitation talks during the detente also helped broaden the number of actors involved in the weapons acquisition process. More recently, a greater civilian involvement in military affairs has occurred. It is interesting to note that a clause in the 1986 Party Program “breaks ground by reserving for party leaders the right to formulate Soviet military doctrine, which includes forecasting the probability of war.” When Marshall Ogarkov wrote in 1985 of analogies to the 1930s, Gorbachev contradicted him at a Moscow rally, telling the crowd that “the present world is absolutely unlike that of the 1930s.”\textsuperscript{49}

Fourth, we can discern nuclear learning in the postwar period in the area of avoiding inadvertent and accidental nuclear war. If one divides the forty-year period, the first half involved far more serious crises (such as those over Berlin and Cuba) than the latter half. Alexander George has argued that during such crises, as well as those in Korea, Hungary, Suez, and the Middle East, the two sides learned de facto rules of prudence.\textsuperscript{50}

\textsuperscript{47} In the area of mobility, the Americans learned by observing the Soviets. The U.S. Air Force finally decided that garrison basing for rail-mobile missiles might be safe enough after they observed the Soviets using that system for their new SS-24 missile. Interview, Pentagon official, 1987.
Brzezinski's words, they are "a code of reciprocal behavior guiding the competition, lessening the danger that it could become lethal."51 These rules include avoiding direct fighting with each other (which hasn't occurred since Soviet pilots manned MIGs over Korea in 1950); no use of nuclear weapons even in limited wars; the importance of communication during crisis (as Eisenhower signalled to Khrushchev in 1956); not pressing each others' clients to the wall in such regions as the Middle East; and rough respect for areas of primary interest to the other side. During informal discussions with the Soviets, both sides have acknowledged common rules of prudence, although exact formulations and the length of the list are still ambiguous.

There has also been learning in the area of avoiding accidental sources of nuclear war. This is not necessarily obvious and easy. The prospect of accidental use can help deterrence. As one Soviet put it, "such measures are like having perfect seat belts in cars. They may encourage reckless driving. Since we believe your president has a tendency for reckless driving, the last thing we want to do is provide him with the belief that he has a perfect seat belt." At the same time, another Soviet explained the other side of the same dilemma: "Nuclear accidents are so frightening that nobody will believe in perfect safety belts. Safety measures are critical."52 In general, given American proclivities for technical solutions and Soviet preferences for political solutions, Americans have often pressed such measures more than the Soviets. In addition, the Soviets find some advantage in stimulating concerns about accidents as a way of draining confidence in the West while controlling the Soviet domestic audience.53

Despite these differences, both sides agree upon a number of measures. The most frequently cited is the hotline, or direct communication link, which has become so widely accepted that it is hard to remember that many Americans once opposed, thinking it might sap deterrence.54 In the early 1970s, the two sides signed the Accident Measures Agreement, which led to working out codes and procedures for communication during crises; more recently, it has led to an understanding on consultations to occur in the event of nuclear terrorism. A particularly interesting agreement is the one governing incidents at sea; it has had a strong (though not perfect) effect on reducing the number of dangerous incidents between the navies of the two countries, and it has attained a considerable degree of support in the U.S. Navy. In the area of surveillance and inspection, which can help limit misperceptions, change has also been gradual. Although Soviet secrecy is still pervasive, they accept

52. Conversations with academicians in Moscow, January 1984.
satellite surveillance and are flirting with on-site inspection, which differs greatly from their earlier positions.

Not all cooperation in this area has been formal. For example, after the Americans developed the electronic safety devices called permissive actions links (PALs), they deliberately leaked information to the Soviet Union, hoping that they would begin to develop similar devices. By the time the question of such devices was raised in formal negotiations in 1970 and 1971, the Soviets told the Americans that they did not need their assistance. It seems reasonable to believe that, in this case, informal cooperation was successful. Despite difficulties in prior beliefs and initial positions, nuclear learning has occurred as new information altered prior beliefs and definitions of interest over time.

Finally, learning has been particularly impressive in efforts to slow the spread of nuclear weapons to new countries. Although this seems to be an obvious common interest, both sides took nearly a decade to appreciate it. Even after they learned its significance in the early 1950s, both sides tried unilateral efforts at restriction. Then, in the mid-1950s, both sides turned to a policy of sharing nuclear technology with allies. When Khrushchev found that this policy involved higher risks with Chinese nuclear weapons than he originally intended, he tried to control his Chinese ally by confronting the American opponent and proclaiming his leadership of the Sino-Soviet alliance. At the same time, the United States was trying to balance two concerns: 1) sharing operational control of nuclear deterrence with its allies, and 2) the desire to develop broader norms for slowing the spread of nuclear weapons. Only after these unilateral efforts of the mid-1950s and early 1960s failed did the two sides turn to cooperative solutions, developing international institutions to slow the spread of nuclear weapons. Once again, learning occurred: initial beliefs and definitions of interest altered as a result of new information and experience.

5. The incomplete mosaic of security regimes

As Robert Jervis has argued, it is difficult to describe the overall nature of the U.S.–Soviet security relationship as a security regime. But Jervis stopped short. The two countries largely agree upon broad and specific injunctions in a number of subissues within the security relationship, and one can argue that a jointly recognized regime exists in such areas. Table 2

57. I agree with Keohane that principles, norms, rules, and procedures shade into each other and are best distinguished as broad and specific injunctions. After Hegemony, p. 59.
TABLE 2. U.S.–Soviet security regimes

<table>
<thead>
<tr>
<th>Area of common knowledgea</th>
<th>Specific injunctions (principles and norms)</th>
<th>What effects?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Constrain short-run self-interest</td>
<td>Reshape long-run self-interest</td>
</tr>
<tr>
<td>1. Destructive power</td>
<td>Limit competition to avoid war</td>
<td>Yes</td>
</tr>
<tr>
<td>A. Europe</td>
<td>Berlin agreements, CSCE</td>
<td>Yes</td>
</tr>
<tr>
<td>B. LDCs</td>
<td>Only vague or tacit</td>
<td>No</td>
</tr>
<tr>
<td>2. Control problems</td>
<td>Reduces risk of accident; crisis manage-</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>ment and prevention</td>
<td>Yes</td>
</tr>
<tr>
<td>3. Proliferation</td>
<td>Slow the spread; priority to non-</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>proliferation</td>
<td>Yes</td>
</tr>
<tr>
<td>4. Arms race stability</td>
<td>Accept parity; limit offense and defense</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>ABM Treaty</td>
<td>uncertain</td>
</tr>
<tr>
<td>5. Deterrent forces</td>
<td>Ambivalence prevents significant limits</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>on counterforce and conventional threats</td>
<td></td>
</tr>
</tbody>
</table>

a. See Table 1

portrays this incomplete mosaic in terms of the five areas of nuclear learning, whether a regime exists, and what evidence we have of its effect on state behavior. The columns represent the operational definitions for a regimes’ existence (the ability to identify agreed-upon broad and specific injunctions) and a regime’s effects (whether it constrains short-run and reshapes long-run definitions of self-interest).

Structural factors and ideological differences lead the two countries to compete politically, but the awareness of nuclear destructiveness makes them avoid war with each other. One can even identify, as described earlier, certain basic rules of prudence (no direct fighting, no nuclear use, communication during crisis, and so forth). But aside from the multilateral United Nations, which has limited effects on the relationship, one does not find
stable bilateral institutions, such as regular summitry or fully worked-out agreements for codifying the ambiguous rules and for managing the overall competition. There is no agreement on the legitimacy of the overall status quo. It is doubtful whether the rules constrain the short-run self-interest of the participants. Prudence sufficiently explains the effect. Whether these rules affect states’ reshaping of their long-run self-interest or provide a point around which expectations can converge is uncertain, although some learning may occur from the formal and informal discussions of such principles.

In general, Jervis’s judgment holds at the overall level, that is, we can most easily understand the observed cooperation in terms of prudential pursuit of short-range self-interest. It is difficult to ascertain an independent causal effect of the rules of prudence.

In the most important area of the political competition, however, some broad and specific injunctions constrain behavior. One can argue that at least a weak regime exists in Europe and that its broad principles and norms are the division of Germany, the legitimate role of the United States and the Soviet Union in European security, and mutually recognized spheres of concern. The implications and implementation of these principles are spelled out in various ways, including the Berlin agreements and the Final Act of the Conference on Security and Cooperation in Europe.

The early efforts at establishing a postwar peace treaty or settlement for Europe failed. The early negotiations did not aim to divide Germany or to leave an anomalous Berlin in the midst of East Germany,58 but it was impossible to agree upon a set of rules and institutions for a united Germany and a European peace treaty. However, both the United States and the Soviet Union gradually redefined their interests away from their early positions in the postwar negotiations and their expectations gradually converged around the existing principles. The 1958–61 Berlin crisis raised nuclear fears which reinforced the importance of adhering to these principles. Subsequently, the specific agreements laid out the rules and the institutional framework for meeting to discuss the issues in a manner which fits the description of a partial security regime.

The rules and institutions help constrain the short-range self-interest of the United States and the Soviet Union in Europe. Despite the vagaries and vicissitudes of the overall political relationship, both sides have closely adhered to cooperation on access to Berlin, the neutrality of Austria, and the de facto division of Germany. The 1985 slaying of an American major was noteworthy because it occurred in the gray area of what is permissible in intelligence gathering, and because it did not severely disrupt or change either state’s behavior in this issue. Similarly, the brief efforts of East Ger-

man authorities to restrict diplomats' freedom of access in Berlin in 1986 were not sustained.

It is more difficult to ascertain whether this partial regime has provided a point around which expectations converge, and thus reshaped both sides’ definitions of their long-range self-interest. While high American officials have occasionally given speeches about reversing the Yalta agreement and Soviets have occasionally complained about revanchism in West Germany, the main lines of expectations have apparently converged around the rough status quo, at least since the agreements of the early 1970s. At the same time, the European regime has limitations. Formal cooperation on disarmament has been elusive, although tacit cooperation may have occurred. When it looked as if the American Congress might compel a unilateral withdrawal of U.S. troops, Brezhnev made a speech in Tblisi suggesting talks on conventional forces; his speech helped the Nixon administration successfully oppose Congress. 59 Eastern Europe remains an area of potential instability which could disrupt a neutralization regime. The Helsinki Agreement of 1975 is at best a de facto rather than de jure peace treaty for the region.

In contrast, no regime limits the political competition in the rest of the world. As for broad injunctions, the Basic Principles of Agreement signed in 1972 are ambiguous and vague. They did not agree about the legitimacy of the status quo, the legitimacy of each other's actions in support of particular groups, or for wars of national liberation. They had little effect on Soviet or American behavior in the Third World. As for specific rules and institutions, prudent practices have aided the management of crises, particularly in the Middle East. But as Alexander George has noted, simple rules of crisis management are easier to learn than the complex changes involved in crisis prevention. Agreements to meet to discuss regional issues have had little effect. In general, there is little evidence of rules or institutions that constrain both sides' short-range self-interest or that help to reshape their definition of their long-range self-interest.

The area of managing the arms race has also seen mixed results. For at least a decade, the SALT agreements formed a partial security regime based on the acceptance of parity, recognition of mutual vulnerability, and agreement to limit both offense and defense. 60 These principles and norms were supplemented by specific rules in treaty form and in an institutional framework called the Standing Consultative Commission (SCC) for discussing issues of compliance. Both sides redefined their short-run interest by adhering to rules (such as not interfering with the national technical means of verification) and by dismantling nuclear systems that exceeded treaty restraints. Given Soviet proclivities for keeping redundant systems and given


the American debate over dismantlement of Poseidon submarines, these actions constitute observable evidence that the rules and institutions indeed affect the definition of short-range self-interest. Moreover, bureaucratic definitions of self-interest have evolved. As a former chairman described the Joint Chiefs of Staff: "As we got deeper into arms control came recognition of its increasing importance—that neither side could gain through a nuclear war." During debates about whether or not to abide by SALT II early in the Reagan administration, "the arguments not to undermine SALT II were by these military officers."61 On the Soviet side, William Jackson argues that the SALT regime tipped the balance between contending long-run expectations about the United States in Soviet Politburo politics in the moderate direction. Shevchenko confirms that the arms control process broadened the thinking of the Soviet military.62

On the other hand, the SALT regime's definition of long-range self-interest and the convergence of expectations gradually eroded—at least among part of the American political elite. This erosion had several causes. One was their inability to insulate the SALT regime from political competition in the Third World, which helps explain why SALT II was not ratified. Soviet advances in the Third World, as well as intrinsic issues, weakened it. Brzezinski's comment that SALT II died in the sands of the Ogaden may have been premature, but Afghanistan doomed its ratification.

A second cause of erosion was the worsening U.S.–Soviet relations and the confrontational manner used to discuss issues of verification and compliance. Soviet compliance frequently rested on narrow interpretations of the letter of the agreements and seemed to violate their spirit. Their behavior came closer to the specific than to the diffuse end of the spectrum of reciprocal behavior, which suggests a weak regime.63 Nonetheless, in the 1970s the Soviets changed their behavior after contentious issues were raised in the SCC. The main charges of Soviet non-compliance in the 1980s—the Krasnoyarsk radar, the second new land-based missile, and the encryption of telemetry—might have been dealt with by the SCC in a quieter period, but the deterioration in the overall political relationship allowed groups opposed to the arms control regime to turn these peripheral questions into central issues, which were used as a litmus test of Soviet reputation and intentions. This development suggests that a third cause of erosion was the political power shift in the United States. The 1980 election brought to power elites who had learned different lessons about arms control. In contrast to the Joint Chiefs of Staff, the new political elite assimilated information about

Soviet arms control behavior in a way that led to negative assessments. Then director of the Arms Control and Disarmament Agency, Eugene Rostow, for example, argued that the Soviets used arms control to seek superiority in the 1970s. Assistant Secretary of Defense Richard Perle argued that "far from learning from the experience of 1972, we will simply repeat it."64

Finally, the regime eroded because changes in technology and politics began questioning the basic principles of parity, mutual vulnerability, and the offense/defense relationship which reflected the conditions of the early 1970s. The prospects of space-based defense pose special challenges to the ABM Treaty. If the current erosion continues, and no new agreements are reached, the strategic arms control regime may turn out to be not only limited, but also short-lived. While it lasted, however, the SALT II regime constrained short-range self-interest.

The problem of control has been more successful: there is a regime for avoiding accidental nuclear war. The broad injunction of the regime is to reduce risk of accidental nuclear war; the specific rules and institutions are the Accidents Measures Agreement, the Hot Line, and the obligation to consult and communicate. These rules and institutions have constrained the short-range self-interest of states in a limited way. As argued earlier, short-range self-interest could have led to Soviets to play the danger of accidents for short-run political advantage in the West. Cooperation to avoid accidental nuclear war is not as clear or easy as it might at first appear. These rules and institutions probably also helped to reshape the long-run self-interest of the two states. The continued discussions and gradual development of additional agreements in this area suggest that both countries take the issue seriously.

A particular subset of the regime to prevent accidental nuclear war is the regime to regulate and prevent incidents at sea. In addition to reducing risks, it is a way to reduce costs to the two navies. The two bureaucracies have elaborated quite specific rules and a series of regular meetings to implement the agreement. When one looks at the change in naval behavior on both sides before and after the 1972 agreement, one can argue that interests were redefined and that the rules and institutions have constrained the short-range self-interest of the two states.65

Another successful area is the regime for non-proliferation of nuclear weapons. The key injunctions are to slow the spread of nuclear weapons and weapons Usable technologies to third parties and to place non-proliferation concerns before political advantage with allies or third parties. A number of specific rules and institutions have been developed to implement these

64. Eugene Rostow and Richard Perle quoted in Charlton, Star Wars History, p. 60, 114.
norms—for example, the Non-Proliferation Treaty, the International Atomic Energy Agency, and the Nuclear Suppliers' Group. While these are multilateral institutional devices, they are supplemented by regular bilateral non-proliferation talks between the United States and the Soviet Union. Moreover, these rules and institutions have constrained short-range self-interests. In a number of instances, the Soviet Union could have gained impressive short-range political advantages with third countries, but decided to forego them (for example, over South Africa in the United Nations in 1978, or over the issue of a test ban at the 1985 NPT Review Conference). Even when overall political relations between the Soviet Union and the United States worsened in the early 1980s and Soviets cut off other forms of arms negotiations after the deployment of the new NATO missiles in 1983, the non-proliferation talks continued. In the words of a high-level participant: "Our early discussions were somewhat rigid regarding the hard cases, but after seven or eight meetings, they have become more frank. They now give us detailed information, and when they bring up our hard cases, it is not in the old rhetorical way. The talks definitely improved with time."66

The rules and institutions not only constrained short-range self-interest, but they helped to reshape long-range self-interest so that non-proliferation has become a major interest for both states. This is quite a contrast to President Reagan's initial statements (as a candidate in 1980), when he declared that non-proliferation was none of our business. It also indicates that regular meetings in an institutional framework help disconnect an issue from the vicissitudes of the overall political relationship. The hostility of the 1980s generally overwhelmed the cooperation that had been established earlier, but in some cases, such as non-proliferation, the superstructure of regime made the area of cooperation less vulnerable to the rising tide of hostility.

Finally, limited regimes, such as agreements on neutralization, are not related to nuclear learning, but they have some effect on the security relationship. The basic principles and norms of these regimes isolate certain areas from the overall U.S.–Soviet competition. The specific rules and institutions vary. For example, an effective multilateral agreement in Antarctica prohibits the implanting of nuclear devices on the seabed. Other specific regimes neutralize particular countries, such as Austria. One can also find evidence that such rules and institutions have constrained the short-range self-interests of states. For example, Deborah Shapley shows how the Antarctica regime helped reshape the long-range self-interest of states from relatively incoherent positions to longer-term cooperation.67

In short, one can argue that, while no overall U.S.–Soviet security regime constrains or reshapes the two countries' definition of self-interest, some evidence suggests that partial security regimes exist in Europe, in strategic

66. Interview, U.S. State Department, October 1986.
arms control, accidental nuclear war, non-proliferation, and for neutralizing certain issues. Moreover, some evidence (independent of that used to identify the regimes) suggests that the regimes have shaped both countries' security behavior. Further, their behavior in areas where regimes have been identified differs from their behavior in the overall security relationship. While additional evidence of internal processes within the Soviet Union would help determine how significant a role regimes play in Soviet learning and redefinition of interest, this information will be hard to get. On the other hand, arguing from observable behavior and counterfactual history, agreed rules and institutions have helped to make the security relationship in some issues different from areas without regimes.

6. Regimes and learning

I have shown how learning may lead to the creation of regimes. In turn, regimes may promote further learning. Such learning is often difficult to trace in detail. It occurs through complex psychological processes. Not only do individuals misunderstand or misapply new information, but when dealing with large bureaucracies, one must consider complexities of political as well as psychological processes. Learning is frequently blocked by the affective or power aspects of prior beliefs. Nonetheless, new information can lead not only to convergent knowledge, but also to the learning of cooperation and the creation of regimes. What difference do such regimes make to further learning?

Some learning is discontinuous or "lumpy." Large groups or generations may learn by crises or major events which serve as metaphors for organizing diverse sets of experiences. Learning may also occur incrementally, as bureaucracies or groups learn that certain approaches or procedures do not work. In turn, they may adapt their behavior. But such adaptation may be hindered by the rigidities of personality, bureaucratic politics, or ideology.

International regimes probably play a larger role in incremental learning than in discontinuous learning. Nonetheless, even with discontinuous learning, the institutions may crystallize the learning of a particular period or group, and contact within regimes may help to spread a common interpretation of large events. In short, regimes may foster organizational learning by creating or reinforcing institutional memory. The reason that regimes play a larger role in incremental learning is because they establish standard operating procedures, constrain certain ideologies and reward others, and provide opportunities for contacts and bargaining among leaders.

One should not start by assuming that regimes make a difference, however. The most parsimonious explanation of governmental learning is that leaders notice changes in the structure of the situation which affects their effectiveness, and they adapt their behavior as a result of anticipation or
experience. Starting with the simplifying assumption that states are unitary actors, we can ask whether experience in playing a game leads to learning. The experience of playing iterated games of prisoner's dilemma in situations with a long shadow of the future may lead players to learn the value of cooperation to maximize their pay-offs over time. Or learning may occur simply through perceptions of change in the structure of the situation. For example, the weakening of alliances and the perceived erosion of bipolarity in the mid-1960s may have helped the United States and the Soviet Union learn that they had a common interest in cooperation as a means of slowing proliferation of nuclear weapons. One need not think of regimes or even overt negotiation to imagine conditions in which cooperation between countries can be learned. Changes in the structure of power can produce learning without the intervening variable of regimes. Cooperation can evolve as a choice of unitary rational actors who are redefining their self-interest in response to changes in the structure of the game—and that is itself an optimistic conclusion.

In some instances, however, the existence of a regime may affect learning. Its principles, rules, and institutions may have two types of effects. First, they may restrain state behavior. In this sense, one can seek evidence of restrained behavior either in external changes or arguments used in domestic processes. Do the specific injunctions cause states to act differently than if they merely followed their short-run self-interest? Second, the injunctions of a regime may create a focal point around which expectations converge. One can look at the behavior of states to see to what extent interests and expectations are redefined around such principles, norms, and rules. Has the expectation of rule-governed behavior become so firm that self-interest is defined in a way that takes the existence of the regime as given?

These two different effects of regimes on behavior can be illustrated by the example of the SALT regime's partial failure. One can look at observable Soviet behavior, for instance, and see that weapons were dismantled according to the SALT rules. But it is much harder to know whether their long-term interests were redefined to converge around the SALT regime. Access to internal political arguments in the Soviet Union is particularly difficult, and thus their development is hard to trace. But the problem is not merely on the Soviet side. For example, for six years the United States observed the unratified SALT II rules regarding dismantlement. However, the U.S. declaration of intent to explore space-based defenses in 1983 and its eventual breach of the SALT II limitations in 1986 suggests that the United States was, for a time, constrained by the SALT regime, but that expectations had


not converged on it. More specifically, in light of the political furor stirred by President Reagan's 1986 announcement of intent to cease observing the SALT II limits, some American expectations had converged around continuation of the regime, but those of the party in power had not.

Even though imperfect and short-lived, however, the SALT regime did have some impact on learning. For example, it led to a broader sharing of information on the Soviet side. Early in SALT, Soviet leaders complained about the American habit of discussing sensitive military information before civilian members of the Soviet delegation. The Soviet delegation showed little understanding of American institutions or the role of Congress. Today they are more sophisticated. Arkady Shevchenko cites Marshall Ogarkov as "an example of this changing outlook and temperament" of younger officers on the Soviet delegation, and former Chairman of the Joint Chiefs of Staff David Jones found that in his SALT II discussion with Marshall Ogarkov, "we could get to the specifics without all the dialectical rhetoric." In some instances in SALT I, "transnational" or "transdelegational" partnerships of interest developed. Of course, even if contacts within a regime provide new information which changes policy, false learning is still a danger. Both Shevchenko and Paul Nitze argue that some Americans generalized too much about changes in Soviet intentions from the arms control experience. The important point is that even imperfect regimes such as SALT can affect learning.

Regimes can affect learning and state behavior in several ways. The principles and norms of the regime may be internalized by states or by important groups within states. This process raises the costs of defecting from cooperative solutions and makes it more important to establish a reputation for reciprocity. Secondly, regimes may provide information which alters the way key participants in the state understand their interests, or they may see cause and effect relationships that were not previously understood. Included in this information may be procedures for transparency and timely warning through inspection or verification, which then tend to discourage worst-case assumptions. More specifically, the institutionalization of regimes can: 1) change standard operating procedures for national bureaucracies; 2) present new coalition opportunities for subnational actors and improved access for third parties; 3) change participants' attitudes through contacts within the framework of institutions; and 4) provide means to dissociate a particular issue from changes in the overall political relationship by regular, formal

70. Shevchenko, Breaking with Moscow, p. 271; Jones, quoted in Charlton, Star Wars History, p. 83.
72. Shevchenko, Breaking with Moscow, p. 287; Paul Nitze quoted in Charlton, Star Wars History, p. 51.
73. See the articles in the special issue of World Politics 38 (October 1985), particularly by Oye, Jervis, Axelrod, and Keohane.
meetings. If regimes make a difference, we should see different behavior between those areas of security cooperation where regimes exist and those where they do not. To a large extent, we have found this to be the case.

7. Prospects and problems

Prospects are mixed for the partial regimes in the complex mosaic of U.S.–Soviet security relations. For some, such as the SALT regime, the future does not look promising. Further erosion is likely, but it is uncertain whether a complete collapse of the ABM Treaty will occur, or whether the treaty will be surpassed by a new strategic accord. While the regime established in Europe in the early 1970s seems relatively stable, it has not yet led to significant reduction in nuclear or conventional armaments. Moreover, it may weaken if changes threaten Eastern Europe and tempt the United States to cross the historical dividing line by, for example, assisting those nations’ human rights. The agreements less central to U.S.–Soviet competition may be more durable and better insulated from the vagaries of the overall relationship. These include the regimes for non-proliferation, for avoiding accidental nuclear war, and for neutralizing certain areas and countries.

Looking at the U.S.–Soviet security relationship in terms of learning and regimes does not solve problems. It raises questions. Some learning may be false or maladaptive. Some regimes may reinforce false learning. To focus on the rules and institutions that affect parts of the relationship does not insulate that they will be stable or that they will benefit other areas. But looking at regimes in subissues of the relationship does suggest fruitful avenues for exploration and important questions to ask; these are not always captured by the usual approaches to the U.S.–Soviet relationship. How have the two countries learned in the nuclear area? What causes definitions of interest to change? Why has learning been faster in some areas and slower in others? When has learning been maladaptive? When has learning led to the development of institutions and regimes and when has it not? What difference does it make when such institutions and regimes have been developed? What are the impediments to learning? To what extent are domestic impediments changed when regimes are developed—for example, how are navies transformed from opponents to major defenders of a particular regime? When regimes are created, what accounts for their stability? What accounts for their erosion? When a regime is established in one area, how does its strength affect other areas? What are the dynamics of spillover and spillback from progress and failure in different areas? What are the crucial gaps? To what extent can they be filled? How can incorrect or distorted learning be identified in complex situations with long causal chains? How can learning be accelerated? Can societies plan to take advantage of crises
and discontinuous learning to create new regimes and lock in the learning?  

At this stage, we have more questions than answers, but one task of a good research program is to raise important questions. These questions are different from those usually asked when theorists think solely in terms of a Realist paradigm which either posits the stability of the bipolar world or looks at changes in relative power as the sole significant source of probable conflict and war. I am not arguing that those Realist questions are irrelevant or unimportant. For example, Seweryn Bialer warns against the 1970s view that agreements not backed by power would restrain Soviet policies.  

Realist insight remains crucial, but it is not enough. The concepts of learning and regime can be used with both Realist and Liberal theory. Applying both concepts and both theories to the U.S.–Soviet security relationship opens new questions and provides possible insights on how we can think more broadly about change in that political relationship.

74. See Robert Keohane and Joseph S. Nye, “Two Cheers for Multilateralism,” *Foreign Policy* 60 (Fall 1985).
75. Bialer, *The Soviet Paradox*. 