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Do States Play Signaling Games?

JAMES IGOE WALSH

ABSTRACT

The study of international conflict and cooperation has long drawn on game theory for insights. Recent developments have made the assumptions of game theory more realistic. Particularly important is the development of signaling games, which analyze situations when decision-makers lack complete information about their environment. Signaling game logic has been applied to many areas of international politics in the past decade, including decisions to go to war, crisis bargaining, international economic negotiations, regional integration, and the foreign policies of democratic states. The signaling games approach assumes that states are unitary actors with a single preference ordering and set of beliefs. I relax this assumption by developing an informal model in which decision-makers can hold different prior beliefs and preferences, and investigate this model's usefulness by analyzing how the United States responded to the more cooperative foreign policy signals initiated by the Soviet Union under Gorbachev. This step further deepens the realism of game-theoretic applications to foreign policy by explaining how political conflict among domestic actors influences foreign policy choices.

Keywords: Cold War; game theory; international cooperation; signaling games

Introduction

The study of international politics has long drawn on game theory for insights into the strategic interactions of states. Recent developments have made the assumptions of game theory more realistic. Particularly important in this respect is the recognition that players often lack complete information about important elements of the game, such as the preferences and capabilities of others. In such signaling games, the players form prior beliefs about the element of the game over which they lack complete information. During their interaction, players update their beliefs based on the observed actions of other players. These updated beliefs can be an important reason for changes in foreign policy behavior.

Signaling game logic has been applied to many areas of international politics in the past decade, including decisions to go to war, crisis bargaining, international economic negotiations, regional integration, and the foreign policies of democratic states. A good example is Andrew Kydd's (2000)



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application of signaling games to the end of the Cold War. In his empirical analysis, Kydd argues that the rise to power of Mikhail Gorbachev as leader of the Soviet Union created a dilemma for American leaders. On the one hand, American leaders would benefit from cooperation with the USSR if Gorbachev truly represented a new, more cooperative set of preferences among Soviet leaders. But, on the other hand, cooperating could weaken the United States if Gorbachev was planning to exploit the United States. Kydd argues that Gorbachev's attempts to foster cooperation were only successful when he made 'costly signals', such as the withdrawals from Afghanistan and eastern Europe. These actions indicated a credible commitment on the part of the Soviet Union towards cooperation and led American leaders to update their beliefs to conclude that the Soviet Union preferred cooperation.

As applied to international politics and foreign policy, signaling games typically assume that states are unitary actors with a single set of beliefs and of preference ordering over foreign policy outcomes. I relax this assumption by developing an explanation in which decision-makers can hold different prior beliefs and preferences, and investigate this model's usefulness by re-analyzing how the United States responded to the costly signals initiated by the Soviet Union under Gorbachev. My goal is to deepen the realism of game-theoretic applications to foreign policy by developing a better understanding of how political conflict among domestic political actors influences foreign policy choices.

I develop an informal model of foreign policy decision-making in which two domestic players each have the power to veto policy changes. These players may disagree on how to respond to a foreign signal because they have different beliefs or preferences. This creates the possibility that the state's foreign policy response might differ from that predicted by the unitary actor model, which assumes that the executive's preference ordering represents that of the entire state. In short, the state's response to a foreign signal depends not only on how this signal changes the beliefs of key decision-makers, but also on the interaction of multiple veto players holding different policy preferences.

Consider again the case of American responses to Gorbachev's initiatives in the late 1980s. The United States responded enthusiastically to many of Gorbachev's political initiatives, for example by agreeing to restructure the NATO alliance in a manner that would reassure the Soviet Union. But the United States proved less willing to cooperate on economic matters, which arguably were more important to the Soviet Union and the reformist governments that took power in eastern Europe beginning in 1989. The United States offered only small amounts of foreign assistance and relied heavily on international institutions and states in western Europe to provide aid to the region. Signaling game models have difficulty explaining this divergence between the United States' willingness to cooperate on political matters but reluctance to cooperate on economic matters. The reason is that the unitary state actor assumed by the signaling game model should be equally willing to make concessions on both political and economic issues. But such a divergence in American responses can be explained by the model presented here.

The executive (under the Republican President Bush) and legislature (controlled by the Democrats) held similar preferences regarding political cooperation, which allowed the executive to implement its preferred policies. But in the case of economic cooperation, the executive preferred much smaller concessions to the Soviet Union than did the legislature and was able to block the more accommodating stance advocated by congressional Democrats.

Signaling Games and International Politics

Basic Elements of Signaling Games

Signaling games are a class of games of incomplete information in which at least one player is uncertain about another player's preference ordering over the outcomes of the game. The different possible preference orderings create different 'types' of players. Each player knows her type, but is uncertain about other players' types, and uses Bayes' rule to update their beliefs upon receiving new information (good overviews are Morrow (1994) and McCarty and Meiowitz (2007)). This uncertainty has three important consequences. First, the players' beliefs influence their actions. Game theory is used to analyze situations in which the actions that are optimal for each player depend on the actions of other players. With perfect information, each player can predict with certainty the actions that other players will choose. In contrast, games of incomplete information require that each player form a subjective probability estimate, or belief, about the actions that another player will take. Second, incomplete information can create incentives for players to misrepresent their true type to manipulate others' beliefs. By definition, misrepresentation is impossible in games of perfect information. A good example is bargaining during international crises. Here a state that challenges the status quo has incentives to overstate its resolve for going to war to convince other states to concede without fighting. Misrepresentation can lead to situations in which the players fail to achieve an outcome, such as a negotiated settlement, that each prefers to war (Fearon, 1995). Third, the possibility of misrepresentation creates strong incentives for players to use all available information to form accurate beliefs about other players' types. The most important new information that can signal another player's true type is its actions during the game. In crisis bargaining, for example, the revisionist state may threaten to use military force in order to achieve its aims; the state defending the status quo to form a belief about the resolve of the revisionist state to use force. If the revisionist state is weakly resolved, the defending state should hold firm and resist its demands. But if the revisionist state is strongly resolved, the defending state is better off compromising. The defending state's optimal action thus depends on its beliefs about the revisionist state's true type. A strongly revisionist state willing to use force can influence this belief by taking costly actions that a weakly resolved state would not take. For example, it might spend resources on building weapons or engage in a limited military action.

This costly action serves as a signal of the state's true level of resolve, leading the defending state to revise upward its prior belief that the revisionist state is strongly resolved. Costless signals, such as the movement of a few military assets or diplomatic threats to use force, do not lead the defending state to alter its prior beliefs about the revisionist state's type, since both a strongly and a weakly resolved opponent have incentives to undertake such actions.

Analysts have long recognized the importance of communication and signaling for understanding international cooperation and conflict. Schelling (1960), for example, discussed the distinction between and the importance of cheap talk and costly signals. Osgood's strategy of 'graduated reciprocation in tension reduction' (GRIT) suggested that unilateral cooperative moves could build trust and serve as the starting point for developing mutually beneficial cooperation (see also Etzioni, 1962; Goldstein and Freeman, 1991), and scholars debate the extent to which the end of the Cold War is consistent with the expectations of GRIT (Collins, 1998; Ralph, 1999). Signaling is an important part of Jervis's (1970, 1978) distinction between offensive and defensive dominance in the security dilemma, as it argues that states interested in signaling their desire to preserve the status quo can do so by eschewing the development of offensive forces. Modern signaling games build on and contribute to these approaches in a number of ways. First, signaling games model situations in which players take actions sequentially after observing other players' choices. In many situations this is a more realistic representation of the process of international interaction than in early game theory, which typically was based on the assumption of simultaneous moves. Second, signaling games draw attention to the importance of decision-making under uncertainty about the types of other players. This is particularly important in international politics, where it has long been known that uncertainty can create a security dilemma and lead states to take actions that hinder effective cooperation. Signaling games allow the analyst to directly incorporate such uncertainty into their understanding of the strategic situation facing the players. Third, Bayes' rule is a general formulation of the learning process that can be applied, in principle, to many empirical domains. This is an important distinction from approaches to signaling based primarily on an understanding of decision-makers' psychology, such as Osgood (1962), which have had difficulty developing consistent explanations of what and when individuals learn from signals. Fourth, signaling games show how uncertainty creates incentives for decision-makers to learn from experience and observation and to adjust strategy accordingly. Properly structured signaling games generate specific predictions about the direction in which decision-makers update their prior beliefs when exposed to costly signals. They are thus potentially more falsifiable than models that generate less precise predictions about what decision-makers will learn from signals. Models with these characteristics have been applied to a number of areas in international politics, including war initiation (Fearon, 1995; Powell, 1999), crisis bargaining (Banks, 1990; Bueno de Mesquita et al., 1997), nuclear strategy (Powell, 1990), deterrence (Zagare and Kilgour, 2000), regional integration

(Schneider and Cederman, 1994), international bargaining (Fearon, 1998), arms races (Downs and Rocke, 1990), the democratic peace (Schultz, 1999), and alliance politics (Smith, 1995).

*An Example: The Reassurance Game and the
End of the Cold War*

Kydd (2000, 2005; see also Copeland, 1999) uses the technology of signaling games to explain how American leaders interpreted and responded to cooperative gestures by the Soviet Union in the 1980s. In this two-player game, each player can choose from two possible actions, cooperate *C* or defect *D*, yielding four possible outcomes: mutual cooperation (*CC*), mutual defection (*DD*), unilateral defection (*DC*), and unrequited cooperation (*CD*). The types of players are distinguished from each other based on their preference orderings. 'Nice' types prefer mutual cooperation to unilateral defection ($CC > DC > DD > CD$); 'mean' types prefer unilateral defection to cooperation ($DC > CC > DD > CD$). Each player is uncertain about the other player's type. The players form prior beliefs about each others' types, and these, in combination with their preferences over outcomes, determine the strategies that they play. If player 1 is nice, she will chose *C* if she believes that player 2 is also nice, but will chose *D* if she believes player 2 is mean. The analytical problem is that even if both players prefer cooperation to defection, uncertainty about the other player's true type makes them reluctant to cooperate and risk defection by the other player.

This game draws attention to how each player can use costly signals to change the other player's beliefs and foster trust and cooperation. The central insight is that nice and mean players have incentives to send different types of signals. Consider the most interesting situation where player 1 is nice and player 2 is uncertain about player 1's type. How can player 1 persuade player 2 that she is nice? Player 2 will discount as deceptive 'cheap talk' cooperative gestures that do not impose costs on player 1. However, player 1 can alter player 2's beliefs by sending a costly signal. A nice player 1 is willing to run some risks in order to change player 2's beliefs and bring about mutual cooperation. Thus player 1 should take actions that are costly in the sense that they put her at some risk of defection in order to modify player 2's beliefs. If player 2 is nice, she will exploit this costly signal. But if player 2 is nice, the costly signal leads her to update her beliefs about player 1's true type and to reciprocate with a costly signal of her own.

Kydd uses this signaling game framework to analyze how costly cooperative actions by the Soviet Union altered the beliefs of American leaders. Rather than studying the evolution of the beliefs of a single individual or group of key decision-makers, Kydd tries 'to reflect a broader sample of opinion' of political leaders, commentators and analysts, and newspaper editorials. Kydd concludes that '[t]he main trend of opinion, across a remarkably broad spectrum of opinion from the liberal left to conservatives such as Reagan and Secretary of State George Schultz, is in accord with the model's prediction of increasing trust in response to costly signals' (2000: 341). In particular, Kydd finds that

Soviet signals that were not costly or risky — such as proposals in 1985 to stop nuclear testing and deployment of intermediate-range ballistic missiles — had little effect on American beliefs about Soviet motivations. But costly signals did lead most American decision-makers and analysts to conclude that the Soviet Union preferred mutual cooperation to unilateral defection. Particularly important in this regard was the Soviet acceptance of the Americans' demand for the 'zero option' in intermediate nuclear forces negotiations, the withdrawal from Afghanistan, unilateral reductions in conventional forces, and acceptance of anti-Communist revolutions in eastern Europe.

Beliefs are not Enough: Domestic Political Conflict and Signaling

A problematic assumption of the signaling games literature summarized above is that states are unitary actors in the sense that decision-makers either hold the same beliefs and preferences or one decision-maker — such as the head of the executive branch — controls policy.¹ Relaxing this assumption implies that states may not respond to costly signals in the way that this literature anticipates. My argument is not that explaining how beliefs change — an important contribution of the signaling game approach — is unimportant. Rather, we need to move beyond explaining how beliefs change to investigate how and when decision-makers are able to translate their new beliefs into policy commitments. A complete understanding of state interaction must be able to explain both why beliefs change *and* the conditions under which new beliefs do and do not influence policy. Signaling games provide a parsimonious model of the first process but are silent on the second.

As the literatures on two-level games and veto players emphasize, changes in policy usually must be ratified not just by the leader of the executive branch but also by domestic veto players such as the legislature, independent judiciary, government bureaucracies, or interest groups. Policy choice is a compromise between the ideal points of the veto players. This means that when veto players exist and hold different ideal points, policy choices will differ from that which would be implemented by a unitary state with a single preference ordering (Putnam, 1988; Evans et al., 1993; Garrett and Lange, 1996; Milner, 1997; Moravcsik, 1997; Rogowski, 1999; Tsebelis, 2003). This implies that we need to model the domestic decision-making process to better understand how states respond to costly foreign signals.

Veto players may wish to respond to foreign signals in different ways for two reasons. First, veto players may hold different prior and posterior beliefs about the other state's true type, leading them to advocate different policy responses. This is the essential difference between hawks and doves in the foreign policy community; hawks hold a prior belief that another state's type is mean, while doves' prior belief identifies the other state as nice. To the extent that veto players hold different prior beliefs about the other state's type, each might block a change in foreign policy that its beliefs lead it to conclude will fail. The belief-driven conflict between hawks and

doves is mitigated when the foreign state consistently sends costly signals that its true type is nice. The reason is that both hawks and doves should update their prior beliefs according to Bayes' rule. To the extent that Bayes' rule accurately describes the process of belief change, a consistent stream of credible evidence about the other state's type should lead them to arrive at broadly similar posterior beliefs.

A second reason that veto players may advocate different policies is because they hold different preference orderings over the outcomes of international interaction. Any change in foreign policy is likely to produce benefits such as lower military spending, altering the threatening behavior of another state, and so on. Such changes also redistribute the costs of policy. The distribution of these costs and benefits may differ across the veto players, leading those who would accrue net benefits to advocate a particular policy choice, while those who would incur net costs to oppose the same choice. Earlier we saw that consistent signals from a foreign state leads veto players' beliefs to converge over time and produce a consensus over the most appropriate policy response. This is less likely to occur when veto players hold different preferences because the foreign signal does not alter the distribution of costs and benefits among them. Thus differences in preferences among veto players can make it more difficult for the executive to get agreement on implementing its preferred policy than do differences in prior beliefs.

Figure 1 summarizes this discussion of beliefs and preferences to develop specific hypotheses about how a state will respond to a costly signal. The vertical axis distinguishes between situations in which the beliefs about another state's type held by two or more veto players are similar or different, while the horizontal axis differentiates cases in which veto players hold similar or different preferences over the likely outcomes of a change in foreign policy.

Similar Preferences and Beliefs: Compared to cases that fall in the other three cells of Figure 1, agreement among veto players on the appropriate response to a foreign signal should be easiest when they share similar beliefs and preferences. The fact that veto players share similar beliefs

		Preferences of veto players	
		Similar	Different
Beliefs of veto players	Similar	Consensus on means and ends	Consensus on means; conflict over ends
	Different	Consensus on ends; conflict over means	Conflict over means and ends

FIGURE 1
Veto Players, Beliefs, and Preferences

means that they agree about the other state's true type, the best means of responding, and the likely outcomes that will result from a proposed change in foreign policy. The fact that they share similar preference orderings over these outcomes — that they have similar ends — reduces the possibility of conflict over the distribution of the costs and benefits of a new policy. In situations such as this, debate among veto players should be brief, consensual, and focus on second-order issues of tactics rather than strategy. Signaling games that assume a unitary state actor are consistent with the situation described by this cell, but have not been designed to address the situations described by the remaining three cells.

Similar Preferences and Different Beliefs: Here veto players hold similar preferences regarding the desirable ends of foreign policy but have different beliefs about the other state's true type. This means that debate and negotiation among the players will focus little attention on the distributional consequences of a proposed new policy and more activity on the likelihood that such a proposal is the best means to a shared end. We should observe veto players using evidence to persuade each other that their beliefs are more accurate.

Different Preferences and Similar Beliefs: Cases in this cell are similar to pluralist models in which players focus exclusively on the distributional consequences of a proposed change in foreign policy. Unlike in the case where players hold similar preferences but different beliefs, attempts at persuasion should be ineffective since all of the players share the same belief about the consequences of a foreign policy change. Instead of trying to persuade each other, veto players try to devise side-payments among themselves that will distribute the costs and benefits of a change in foreign policy in a manner acceptable to all of their counterparts.

Different Preferences and Beliefs: Situations in which veto players hold different preferences and beliefs make it most difficult to achieve agreement on and to implement a new foreign policy for two reasons. First, their different beliefs lead them to disagree about the possibility that a change in foreign policy will achieve its goals. Second, their different preferences over outcomes makes it difficult for them to achieve consensus regarding which players should pay the costs of a new policy. Agreement on a compromise policy should be most difficult in this situation and policy debate will be characterized by arguments over the other state's true type as well as the costs and benefits of different policy proposals.

American Foreign Policy and the End of the Cold War

To evaluate these hypotheses, I compare the American policy response to nice signals from the Soviet Union in the late 1980s in two issue areas: security policy, with a focus on German unification and the American role in NATO, and economic policy, especially foreign assistance to countries in eastern Europe and the role of international institutions in promoting economic reform. I used three principles in selecting these cases for analysis. First, these

cases hold constant factors that might influence the American response other than variation in American veto players' beliefs and preferences. Particularly important is the fact that both cases involve responses to the same set of cooperative signals from the Soviet Union. This helps ensure that the differences in the outcomes in the two cases are not due to variation in the strength and timing of the signal from the foreign state. It also holds constant across the cases of many other plausible influences on policy choice, such as the relative power of the two countries. Second, I selected cases that varied in terms of the beliefs and preferences of domestic veto players. I compare a case in which veto players had similar posterior beliefs and preferences — German unification and the American role in NATO after the Cold War — with the case of economic assistance to eastern Europe and the Soviet Union, where the veto players held different preferences. For each case I describe the beliefs and preferences of the veto players and how their interaction produced the resulting policy choices.

The third principle of case selection is data availability. Carrying out the research design described above requires reasonably detailed knowledge of the identity of the veto players, their beliefs about the other state's true type, and their policy preferences. Sufficient information is available about these variables for the United States in the 1980s, as American policy during this period was subject to close analysis by journalists at the time and has since then been the subject of many analytical works by scholars as well as the memoirs of key participants. In an ideal world, it would be possible to conduct a similar analysis for the other state involved in these interactions, the Soviet Union. Game theory seeks to explain situations where the decisions of one player depend on those of the other player. While signaling games in general, and the explanation developed here of how states respond to foreign signals, allow us to model such strategic interactions, the empirical record is too thin to test these interactions in the case at hand. The reason is that we lack as much detailed information about Soviet decision-making during the end of the Cold War. Fewer, and less detailed, contemporary analyses of Soviet debates and actions were produced, and the subsequent debate about the end of the Cold War among specialists on Soviet decision-making has been more politicized than it has been among comparable specialists on American decision-making. Furthermore, the flux in Soviet political institutions in the late 1980s and the opacity of decision-making at the time make it unclear which domestic actors did and did not have true veto power over foreign policy decisions. This inability to directly evaluate the interdependent nature of decision-making is an important limitation of this article, and future research might investigate how such interdependence influences the responses to signals from other states.

*Security Policy: German Unification and the
Role of NATO*

Central goals of American foreign policy during the Cold War were to achieve German unification and to remove Soviet influence and military

forces from central Europe. This goal effectively was achieved in a remarkably short period of time in 1989 and 1990, when the Soviet Union allowed non-Communist governments to take power in eastern Europe and pledged to remove most of its troops from the region. This substantially strengthened the belief among American officials that the Soviet Union held cooperative preferences. At the same time, American officials recognized that they had to be careful not to exploit the situation. The Bush administration soon concluded that it preferred that the United States continue:

... to play a significant role in European security [and that the] vehicle for that role must be NATO. The alliance was the only way the United States could keep forces in Europe as a visible commitment to its security and stability. In addition, a united Germany as a full member of the alliance was key to our presence. Germany held our bases; if it left the alliance, it would be difficult if not impossible to retain American troops in Europe. (Bush and Scowcroft, 1998: 230)

These preferences led the Bush administration to press for commitments from the German government that it would remain in NATO and for Soviet acceptance of this outcome, but also led them to take steps that would reassure the Soviets that such a development would not threaten their core security interests. They implemented this strategy in two steps. First, administration officials tried to persuade the Soviets that a unified Germany in NATO was the best possible outcome for all states on the continent. American officials reassured the USSR that a unified Germany that adopted West German institutions would not have hostile intentions towards the Soviet Union, and that Germany's continued membership in the NATO alliance would give the United States a strong voice in curbing any temptations the Germans might feel about pursuing a more unilateral foreign policy. Second, the Bush administration promised to fundamentally reform NATO's goals and strategies. They emphasized that a reformed alliance would continue to be defensive in nature, would reduce the size and posture of its forces that the Soviet Union might find threatening, and would open itself up to greater communication and cooperation with the Soviet Union.

None of these new beliefs attracted substantial opposition from veto players within the administration or from the Democrat-controlled Congress. None questioned the desirability of keeping a united Germany in NATO, maintaining an American military presence on the continent, or changes to NATO's mission. Instead, Congressional Democrats focused their criticisms on the military requirements needed to meet these goals. On the one hand, even centrist congressional Democrats such as Senator Sam Nunn argued that the Bush administration was slow in adapting its thinking to the new reality in Europe, and called for the elimination of ground-based nuclear weapons from the continent, scaling back defense spending by the United States and more equitable 'burden sharing' among the allies, and reducing (but not eliminating) the number of American troops in Europe. At the same time, however, leading congressional Democrats did not advocate the complete withdrawal of American troops

from Europe and did not criticize the President's approach to handling German unification or the proposed reforms to NATO's structure (see the excerpts from Nunn's speech reprinted in *The New York Times*, 20 April 1990, B 6; see also Goshko, 1990).

By mid-November 1989, senior officials had come to support the right of the German states to determine their future relationship, while insisting that a unified Germany remain a full member of NATO. In early December, Secretary of State James A. Baker III gave a speech in Berlin which promised a continuing American role in European politics and also called for NATO to take on a new, more political, role that would include forging formal ties with states in central and eastern Europe and trying to prevent regional conflicts and the spread of weapons of mass destruction (Hutchings, 1997: 100; Zelikow and Rice, 1995: 113, 143).

Thereafter, the Bush administration worked to garner international support for its principles regarding the security architecture of Europe. Their goals regarding German unification were to get the West German government to commit itself to bringing a united Germany into NATO and to reassure the Soviet Union that this step would not threaten its security. In November 1989, German Chancellor Helmut Kohl announced his ten-point plan for achieving German unification. American officials concluded that they had to support Kohl in this effort, while pressuring him to make a solid commitment to keeping a unified Germany in NATO (Zelikow and Rice, 1995: 166–7). In early February 1990, Bush and Baker sent letters to Kohl expressing unequivocal support for rapid unification and German membership in NATO, keeping American troops and nuclear weapons in Europe. Later that spring, Bush and Kohl met, with Bush successfully pressing Kohl to agree publicly that all of Germany would be included in NATO; that German participation in NATO's integrated military command would be continued; that American troops would be retained in a unified Germany; and that the territory of the former East Germany would be granted a still-undefined 'special military status' within the alliance (Zelikow and Rice, 1995: 185–7, 213–16).

During the same period, the Bush administration tried to persuade the USSR that a united Germany in NATO would not pose a threat. It proved difficult to get the Soviets to agree to accept that a reunified Germany should be a full member of NATO. In the meetings with Shevardnadze and Gorbachev, Baker argued that German membership in NATO was the best outcome for the Soviet Union. He pointed out that a neutral and 'militaristic' Germany, not the United States, posed the greatest potential danger to the USSR, and that a neutral Germany might feel compelled to develop nuclear weapons while a Germany in NATO had foresworn such forces (Zelikow and Rice, 1995: 177–184). At the Washington summit in May 1990, Bush tried to persuade the Soviets to accept German membership in NATO. Bush argued [to Gorbachev]:

We don't want a Soviet Union that is threatened by any power. We may have very different ideas about the future of Germany. Will they return to their old ways, or have they learned and paid their dues? I am of the latter view. (Bush and Scowcroft, 1998: 280)

He also offered a number of limited concessions, including offering to consider limits on the size of the German armed forces, accelerating talks on short-range nuclear forces, allowing Soviet troops to remain in Germany for a transition period, having a united Germany guarantee not to change its borders, and reforming NATO so that it had a more political orientation. Gorbachev initially proposed that Germany be a member of both NATO and the Warsaw Pact, but then conceded that Germany be allowed to determine its alliance membership (Beschloss and Talbott, 1993: 219–20; Zelikow and Rice, 1995: 275–85).

The administration began preparing to follow through on its promise to the Soviets to reform NATO shortly before an alliance summit meeting in London in July 1990. Bush and his most senior advisors believed that a rapid and thorough-going reform of the alliance was necessary in order to maintain public support and to reassure the Soviets that a NATO with a united Germany as a full member would not pose a threat. Specific reforms that Bush successfully proposed for reforming the alliance included inviting states from central and eastern Europe to send permanent representatives to NATO and signing non-aggression pacts with individual states in the region, creating an integrated multinational command, replacing the alliance's doctrine of 'forward defense' against a possible Soviet attack with one that emphasized the mobility of forces, having Germany commit to limiting the size of the German army as part of a comprehensive agreement on Conventional Forces in Europe (CFE) negotiations, and declaring that NATO would scrap its nuclear artillery and treat nuclear weapons as 'truly weapons of last resort' (Beschloss and Talbott, 1993: 235–6; Hutchings, 1997: 135–6; Zelikow and Rice, 1995: 303–13).

Economic Policy: Foreign Assistance to Eastern Europe and the Soviet Union

Changed Soviet behavior led many individuals inside and outside of the administration to advocate providing greater economic assistance to the Soviet Union and to states in central and eastern Europe. The purpose of such aid would be to reward reformist political leaders in the region and provide incentives for further cooperative steps. Within the executive branch, this view was most strongly held by individuals in the National Security Council and the State Department, who recognized that economic assistance was a crucial part of the program of confidence-building measures between the United States and the Soviet Union. The belief in the desirability of greater economic assistance was also widely held outside of the administration. Yet others in the administration, ultimately including the President, argued against large-scale aid to the region. Their opposition was driven in part by the belief that the aid would not be effective. But a more important rationale for opposing a large-scale aid plan was that they preferred to contain government spending at a time of very large budget deficits.

The debate over economic assistance was engaged in early 1989, when the Polish government lifted its ban on the Solidarity trade union movement

and both the Polish and Hungarian governments negotiated power-sharing arrangements with opposition groups. Officials at the State Department and the National Security Council argued that the United States should respond by offering Poland significant amounts of foreign assistance. Senior State Department officials, including Secretary Baker, joined with NSC officials Condoleezza Rice and Robert Blackwill to argue that the Warsaw round-table agreement was an important step towards the American goal of ending the division of Europe and that American economic assistance would promote further reforms. National Security Adviser Brent Scowcroft took this line in a meeting with the President, countering the argument that the United States could not afford greater assistance by stating that 'what we really can't afford is to let this opportunity go by' (Beschloss and Talbot, 1993: 53–4; Hutchings, 1997: 63). In contrast, Secretary of the Treasury Nicholas Brady argued that the United States should provide assistance only in response to far-reaching economic, rather than political, reform in Poland; otherwise the aid would be wasted as it had been in the 1970s. President Bush concluded that:

[Although] the deficit tied our hands ... rhetoric would do little to guarantee their [the Poles] movement toward greater political change and openness. Although the economic conditions in Eastern Europe were so bad that the usefulness of aid might be limited, we had to try. (Bush and Scowcroft, 1998: 48–9)

Yet Bush also acknowledged that the federal budget deficit prevented him from authorizing an economic assistance program as large as he otherwise would have wanted. Bush and Scowcroft would later describe the economic assistance program for Poland as 'embarrassingly meager' and concluded:

[T]he long shopping list of incentives for reform [in Poland] ... made embarrassingly obvious our lack of resources ... any serious observer would see that the response was not really enough to address the magnitude of the problem. (Bush and Scowcroft, 1998: 51–2, 114)

Given these constraints, the aid packages subsequently offered to Poland and Hungary stressed measures that would not have a budgetary impact. These included support for rescheduling Poland's foreign debt and for World Bank loans and, in the case of Hungary, access to the Generalized System of Preferences program and granting Most-Favored Nation trading status after the legislature passed a law allowing free emigration. The administration was eager for its allies to bear a disproportionate share of the responsibility for economic assistance. As Bush and Scowcroft (1998: 113) pointed out, the strong interest of west European states in promoting stability in the region made it more likely that the United States could successfully propose that they take the lead in this area. At the Group of Seven summit meeting in the summer of 1989, the Bush administration agreed that the European Community would coordinate western assistance to eastern Europe, a concession it saw as necessary to 'augment our own slight assistance to Eastern Europe' (Bush and Scowcroft, 1998: 128; Hutchings, 1997: 69). Parts of the program that increased government spending were

quite small and included trade credits via the Overseas Private Investment Corporation, the creation of a \$100 million fund to promote private enterprise, and \$15 million to clean up pollution in Krakow. Funds allocated to Hungary were even more meager, including only a \$25 million enterprise fund and \$5 million for the creation of an environmental center.

It soon became clear that the Congress was willing to appropriate larger amounts of aid than the administration was proposing. Congressional Democrats criticized the President's foreign assistance program for eastern Europe as inadequate, and on 20 September 1989 the Senate Foreign Relations committee approved a \$1.2 billion three-year package for Hungary and Poland. The committee proposed to take these funds from the Department of Defense research and development budget. If successful, such efforts threatened not only to increase the amount of economic assistance beyond the level that the President favored, but also to break down the administration's prohibition against moving funds from one area of the budget to another. Many within the administration still supported a more generous assistance program for eastern Europe. Scowcroft, for one, was 'uncomfortable to have to argue against more funding than we were requesting when the need for additional resources was plainly apparent'. Officials at State and the NSC wanted a larger aid program and to press the IMF and World Bank to make more loans. However, the Treasury department opposed further assistance until Poland implemented more economic reforms and the Office of Management and Budget insisted that new aid be offset with cuts elsewhere in the budget; the President later recalled that he did 'not recall any enthusiasm on its part for finding a way around the problem or locating suitable offsets'. 'In exasperation', Bush overruled Treasury and OMB and 'decided we would seek to find aid for Poland from the international community rather than rely so heavily on scarce assistance from the US alone'. This included supporting a currency stabilization fund for Poland with \$200 million in American funds, \$50 million in emergency food aid as part of a \$120 international package, and another \$50 million in non-emergency aid for Poland. While the President did overrule his economic advisors in this case by substantially increasing the amount of aid, it did not come close to the sums advocated by many in Congress and the foreign policy bureaucracies of the executive branch (Bush and Scowcroft, 1998: 138–40).

The domestic political limitations on American aid policy became increasingly apparent as the remaining countries in eastern Europe followed Poland and Hungary in removing the Communist Party from power. The already limited amount of American assistance now had to be stretched to include the entire region. A good example of the consequences of this constraint is American participation in the currency stabilization funds established by multilateral agencies and Western countries for most of the countries in the region. Poland was the first to establish such a fund, to which the United States contributed \$200 million in 1990. Later in the year the United States contributed only \$10 million and \$15 million for the stabilization funds for Hungary and Czechoslovakia, respectively, and even less for Bulgaria and Romania (Hutchings, 1997: 209). Analyzing all aid provided to the region during 1990 and 1991 bears out this point. The European Community and its

member states, with an economy roughly the size of that of the United States, provided 74.2% of assistance committed to the region. The United States contributed only 7.7%; even Japan, which had no strategic interests in the region and technically was still at war with the Soviet Union, contributed more (Haggard and Moravcsik, 1993: 254).

The administration was even less willing to appropriate significant sums for foreign assistance to the Soviet Union itself than it was for countries in central and eastern Europe, despite the fact that it recognized economic reform in the USSR was crucial for Gorbachev's ability to remain in power and build domestic support for his foreign policy initiatives. On the one hand, the desire to control public spending played an important part in this case as well; even if the administration had wanted to be more generous, it felt unwilling or unable to expend the political capital necessary to secure more aid for the Soviet Union. On the other hand, foreign assistance to the Soviet Union involved additional problems that did not exist in the rest of the region. The amount of aid that would be needed in order to have a real impact in the Soviet Union was much larger than that needed for countries such as Poland and Hungary. Furthermore, Gorbachev never convincingly demonstrated that he was serious about instituting thorough-going economic reform, leading many in the Bush administration to conclude that any direct assistance to the Soviet Union would be wasted and ineffective. The relationship between Moscow and the Baltic states also contributed to the reluctance to earmark aid for the Soviet Union. By spring 1990, Bush administration officials and many members of Congress feared that Gorbachev either might cave in to Soviet hardliners or be replaced by them and institute a crackdown on the Baltic independence movements.

These additional factors help explain why the administration was unwilling to send significant amounts of aid to the Soviet Union. But they also reveal how the domestic conflict over fiscal priorities constrained the American response. The conditions for the successful use of economic assistance were much better in eastern Europe, particularly Poland and Hungary, than in the Soviet Union. By early 1990, both countries had instituted multiparty democracy and taken some important steps on freeing the economy from state control; given their smaller size they could have benefited from even modest amounts of foreign assistance. Yet even the more propitious conditions in Poland and Hungary were did not persuade Bush to provide such assistance.

Bush and his advisors did recognize the importance of rewarding cooperative Soviet gestures with economic aid. But while the administration was willing to provide Poland and Hungary with small amounts of direct economic assistance from the federal budget, almost no funds went directly to the Soviet Union. For example, at his summit meeting with Gorbachev in Malta in late 1989, Bush overruled the objections of Brady and United States Trade Representative Carla Hills and offered to begin negotiations on a trade treaty, and investment treaty; to discuss with Congress extending Export-Import Bank credits to the Soviet Union and lifting the Jackson-Vanik amendment that barred MFN for the USSR until it loosened its emigration laws; and to support the idea of making the Soviet Union an observer at the General Agreement on Trade and Tariffs

(Oberdorfer, 1998: 376–8). Meeting with Gorbachev in May 1990, the President signed the trade treaty (after extracting a promise from Gorbachev that he would not use force to repress the independence movements in the Baltics; see Beschloss and Talbott, 1993: 223). At the Group of Seven summit meeting that July, Bush rebuffed proposals from Kohl and French President Mitterrand to consider a Soviet request for \$15–20 billion in Western aid over three years. Instead, he proposed sending advisors to the Soviet Union who would help rebuild transport and communications networks, improve food storage and distribution, and so on. The leaders meeting at the summit sent Gorbachev a letter promising to study further the issue of foreign assistance described by two close observers as ‘a polite but thinly disguised rejection of the kind of large-scale, concrete assistance Gorbachev was looking for — and a vivid indication that there were limits to how far Bush would go in propping up his friend in the Kremlin’ (Beschloss and Talbott, 1993: 237).

When in September 1990 Gorbachev announced his intention to go ahead with the ‘Five Hundred Day’ plan to reform the Soviet economy through privatization, dissolving collective and state farms, cutting military and other government spending, and currency and banking reform, Bush ‘merely offered to accelerate the normalization of the American–Soviet economic relationship as he had proposed at Malta’ (Beschloss and Talbott, 1993: 266). Further attempts by some members of Gorbachev’s government to combine promises of significant economic reform with large-scale foreign aid in 1991 — the so-called ‘Grand Bargain’ — also received a tepid reception in Washington (Beschloss and Talbott, 1993: 382–8).

In sum, the case of economic assistance to eastern Europe is one in which the individuals responsible for American foreign policy believed that the behavior of the Soviet Union and the countries in eastern Europe warranted American reciprocation in the form of more foreign aid, but were unwilling to place this goal before that of holding the line on government spending. This position prompted a great deal of worry on the part of the President’s chief foreign policy advisors. Scowcroft, for example, later wrote:

Our biggest single problem with respect to Eastern Europe, aside from trying to gauge the limits of Soviet tolerance, was the lack of funds for aid.... Had the United States been able to provide the reformers with the means to demonstrate to their people that the new changes would in fact result in visible improvements in the material conditions of their lives, they might have received firmer allegiance to the painful process of reform. As it has developed, reform sometimes has become increasingly equated with chaos and disorder rather than economic progress, with the result that reformers have occasionally been replaced by neo-communists promising order and stability. (Bush and Scowcroft, 1998: 181)

In similar vein, during a discussion about foreign assistance, Baker stated that ‘the new world of secure, prosperous, and just democracies is not yet here. It will not arrive automatically. If we fail to support the principles that brought us this far, we could end up living in a future that resembles the past ...’ (Hutchings, 1997: 197). Despite these beliefs about the desirability

of increasing aid to the region, the foreign policy advisors were overruled by the President, who adopted the preference ordering of his domestic policy advisors, especially Brady and Darman, for holding the line on government spending.

Conclusions

In the late 1980s, the Soviet Union sent a number of costly signals indicating its willingness to end the Cold War competition with the United States. These signals led most American policy-makers to believe that the Soviet Union posed much less of a threat to the United States and its allies. American policy-makers also recognized that the long-term success of the Soviet new thinking that gave rise to these signals depended on the United States reciprocating with costly signals of its own that would reassure the Soviet Union of its peaceful intentions. In large measure this is what occurred in the area of European security institutions in the immediate aftermath of the Cold War. The United States government took steps to reassure the Soviets that a unified Germany would not threaten them and to reform NATO to play a more political role in European security. But this sort of reassurance did not occur in the case of economic assistance to eastern Europe and the Soviet Union. While most American leaders came to believe that economic assistance had to be a fundamental part of any strategy to reassure the Soviet Union, the President ultimately decided to give priority to domestic economic considerations over increasing foreign assistance.

Such different responses to the same foreign signals constitute an important puzzle for theories of international interaction based on signaling games. My argument is that the tendency in the signaling games literature to treat states as unitary actors obscures such differences. These differences are the result of political conflict between veto players who hold different beliefs about the other state's true intentions or different preferences regarding the outcomes of international interaction. Signaling games are appropriate tools when foreign policy veto players hold similar preferences and beliefs, but must be supplemented by an analysis of domestic political conflict when these restrictions do not hold.

Notes

1. There is a partial exception to this generalization. Some applications of signaling game technology do consider situations in which the state is composed of more than one player. Schultz (1998), for example, models a situation in which a state that wishes to revise the status quo is composed of a government and opposition party. Support from the opposition for the use of force reveals that the state is strongly resolved to use force, while opposition forces the government to restrain its threats against another state. This is an important first step in showing how domestic political conflict can influence the credibility of a government's signal. My article investigates the related question of how domestic politics influences how decision-makers interpret and respond to another state's signal.

References

- Banks, Jeffrey S. (1990) 'Equilibrium Behavior in Crisis Bargaining Games', *American Journal of Political Science* 34: 599–614.
- Beschloss, M. and Talbott, S. (1993) *At the Highest Levels: The Inside Story of the End of the Cold War*. Boston, MA: Little, Brown.
- Bueno de Mesquita, Bruce, Morrow, James D. and Zorick, Ethan R. (1997) 'Capabilities, Perception, and Escalation', *American Political Science Review* 91: 15–27.
- Bush, G. and Scowcroft, B. (1998) *A World Transformed*. New York: Vintage.
- Collins, Alan R. (1998) 'GRIT, Gorbachev, and the End of the Cold War', *Review of International Studies* 24: 201–19.
- Copeland, Dale C. (1999) 'Trade Expectations and the Outbreak of Peace: Détente 1970–74 and the End of the Cold War, 1985–91', *Security Studies*, 15–58.
- Downs, G. and Rocke, D. (1990) *Tacit Bargaining, Arms Races, and Arms Control*. Ann Arbor, MI: University of Michigan Press.
- Etzioni, Amitai (1962) *The Hard Way to Peace: A New Strategy*. New York: Crowell-Collier Press.
- Evans, P., Jacobson, H. and Putnam, R., eds (1993) *Double-Edged Diplomacy: International Bargaining and Domestic Politics*. Berkeley, CA: University of California Press.
- Fearon, James (1995) 'Rationalist Explanations for War', *International Organization* 49: 379–414.
- Fearon, James (1998) 'Bargaining, Enforcement, and International Cooperation', *International Organization* 52: 269–305.
- Garrett, Geoffrey and Lange, Peter (1996) 'Internationalization, Institutions, and Political Change', in Robert O. Keohane and Helen V. Milner (eds) *Internationalization and Domestic Politics*, pp. 48–75. New York: Cambridge University Press.
- Goldstein, Joshua and Freeman, John R. (1991) *Three-Way Street: Strategic Reciprocity in World Politics*. Chicago, IL: University of Chicago Press.
- Goshko, Josh (1990) 'Despite Promise of Smaller NATO, Burden-Sharing Still an Issue', *Washington Post*, 15 July, A24.
- Haggard, Stephan and Moravcsik, Andrew (1993) 'The Political Economy of Financial Assistance to Eastern Europe, 1989–1991', in Robert O. Keohane, Joseph S. Nye and Stanley Hoffman (eds) *After the Cold War: International Institutions and State Strategies in Europe, 1989–1991*, pp. 246–85. Cambridge, MA: Harvard University Press.
- Hutchings, R. (1997) *American Diplomacy and the End of the Cold War: An Insider's Account of U.S. Policy in Europe, 1989–1992*. Baltimore, MD: Johns Hopkins University Press.
- Jervis, Robert (1970) 'Cooperation Under the Security Dilemma', *World Politics* 30: 167–214.
- Jervis, Robert (1978) *The Logic of Images in International Relations*. Princeton, NJ: Princeton University Press.
- Kydd, Andrew (2000) 'Trust, Reassurance, and Cooperation', *International Organization* 54: 325–57.
- Kydd, Andrew (2005) *Trust and Mistrust in International Relations*. Princeton, NJ: Princeton University Press.
- McCarty, Nolan and Meirowitz, Adam (2007) *Political Game Theory*. Princeton, NJ: Princeton University Press.
- Milner, H. (1997) *Interests, Institutions, and Information: Domestic Politics and International Relations*. Princeton, NJ: Princeton University Press.

- Moravcsik, Andrew (1997) 'Taking Preferences Seriously: A Liberal Theory of International Politics', *International Organization* 51: 513–53.
- Morrow, J. (1994) *Game Theory for Political Scientists*. Princeton, NJ: Princeton University Press.
- Oberdorfer, Don (1998) *From the Cold War to a New Era: The United States and the Soviet Union 1983–1991*. Baltimore, MD: Johns Hopkins University Press.
- Osgood, Charles (1962) *An Alternative to War or Surrender*. Urbana, IL: University of Illinois Press.
- Powell, R. (1990) *Nuclear Deterrence Theory: The Search for Credibility*. New York: Cambridge University Press.
- Powell, R. (1999) *In the Shadow of Power: States and Strategies in International Politics*. Princeton, NJ: Princeton University Press.
- Putnam, Robert D. (1988) Diplomacy and Domestic Politics: The Logic of Two-level Games. *International Organization* 42: 427–60.
- Ralph, Jason (1999) 'Security Dilemmas and the End of the Cold War', *Review of International Studies* 25: 721–5.
- Rogowski, Ronald (1999) 'Institutions as Constraints on Strategic Choice', in David A. Lake and Robert Powell (eds) *Strategic Choice and International Relations*, pp. 115–36. Princeton, NJ: Princeton University Press.
- Schelling, Thomas (1960) *A Strategy of Conflict*. Cambridge, MA: Harvard University Press.
- Schneider, Gerald and Cederman, Lars-Erik (1994) 'The Change of Tide in Political Cooperation: A Limited Information Model of European Integration', *International Organization* 48: 633–62.
- Schultz, Kenneth (1998) 'Domestic Opposition and Signaling in International Crises', *American Political Science Review* 92: 829–44.
- Schultz, Kenneth (1999) 'Do Democratic Institutions Constrain or Inform? Contrasting Two Institutional Perspectives on Democracy', *International Organization* 53: 233–66.
- Smith, Alasdair (1995) 'Alliance Formation and War', *International Studies Quarterly* 39: 405–25.
- Tsebelis, G. (2003) *Veto Players: How Political Institutions Work*. Princeton, NJ: Princeton University Press.
- Zagare, F. and Kilgour, M. (2000) *Perfect Deterrence*. Cambridge: Cambridge University Press.
- Zelikow, P. and Rice, C. (1995) *Germany United and Europe Transformed: A Study in Statecraft*. Cambridge, MA: Harvard University Press.

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