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Force or Friendship? Explaining Great Power Nonproliferation Policy

MATTHEW KROENIG

Why do great powers take such different approaches to the issue of nuclear proliferation? Why do states oppose nuclear proliferation more vigorously in some cases than in others? In short, what explains great power nonproliferation policy? To answer these questions, this article tests two competing theories of nonproliferation policy. The first, political relationship theory, suggests that states oppose nuclear proliferation to their enemies but are less concerned when friends acquire nuclear weapons. The second, power-projection theory, argues that states oppose the spread of nuclear weapons to states over which they have the ability to project military power because nuclear proliferation in those situations would constrain their military freedom of action. In contrast, states will be less likely to resist, and more likely to promote, nuclear proliferation to states against which they cannot use force. To test these hypotheses, this article uses evidence from great power nonproliferation policy from 1945 to 2000. While both theories find some support, the power-projection theory performs significantly better. The findings of this article have important implications for international relations theory and US nonproliferation policy.

In 1952 Israel embarked on a nuclear weapons production program, and by 1967 Israel had succeeded in assembling two nuclear weapons for possible delivery against its adversaries in the Six-Day War.1 In just fifteen years, Israel had gone from a state with no meaningful nuclear infrastructure to

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become the world’s sixth nuclear-armed state. During this time period, the great powers showed remarkable diversity in their responses to Israel’s nuclear development. After discovering the existence of Israel’s covert program in 1958, the United States applied a variety of diplomatic, intelligence, and military tools designed to dissuade Israel from its nuclear course. The Soviet Union was very concerned about the prospect of Israeli proliferation and drew up contingency plans for a possible military attack against Israel’s nuclear facilities. Great Britain publicly opposed nuclear proliferation in the Middle East but did not take an active role in countering Israeli proliferation. The Chinese appeared indifferent to Israel’s imminent nuclearization, refraining from even taking a public stance on the issue. Meanwhile, France actively aided Israel’s nuclear development, providing Israel with sensitive nuclear assistance that was essential to the rapid development of Israel’s nuclear program.

We often hear that nuclear proliferation poses a general threat to international peace and security and, for this reason, the great powers can work together to combat the spread of nuclear weapons. Yet, in every historical instance of nuclear proliferation, from Israel, India, and Pakistan in the past, to Iran and North Korea today, the great powers have differed in their approaches. Some states are willing to do almost anything, including use military force, to prevent nuclear proliferation. Other states appear to be largely unbothered by the spread of nuclear weapons and are reluctant to do much to stop it. And still other states have actively promoted nuclear proliferation, helping other countries acquire nuclear weapons. Why do great powers take such different approaches to the issue of nuclear proliferation? Why do states oppose nuclear proliferation more vigorously in some cases than in others? In short, what explains great power nonproliferation policy?

To answer these questions, this article tests two competing theories of nonproliferation policy. The first, which I call “political relationship” theory, maintains that nonproliferation policy depends on a state’s relationship with the potential proliferator. In short, it holds that states oppose proliferation to their enemies but are less concerned about, and are even willing to promote, nuclear proliferation to their friends. I test this theory against “power-projection theory,” which argues that great power nonproliferation policy is determined by a state’s ability to project military power over the potential proliferator. It holds that states oppose nuclear proliferation to states

2 Cohen, Israel and the Bomb.
over which they can project power because proliferation in those situations constrains their military freedom of action. On the other hand, states are less bothered by, and may even support, nuclear proliferation to states over which they are unable to project power because nuclear proliferation in such a context would not constrain them, and might even have the benefit of constraining other states.

To test the political relationship and power-projection theories, this article uses evidence from great power nonproliferation policy from 1945 to 2000. In particular, it examines the policies of the five permanent members (P-5) of the United Nations Security Council (UNSC), China, France, Russia (formerly the Soviet Union), the United Kingdom, and the United States, toward three separate nuclear nonproliferation issue areas: support for the Nuclear Nonproliferation Treaty (NPT), the provision of sensitive nuclear assistance to nonnuclear weapon states, and responses to Israel’s nuclear development in the 1950s and 1960s. While both theories find some support, the power-projection theory performs significantly better. Among the great powers, it was the militarily most powerful that were most likely to: be among the early supporters of the NPT, refrain from providing sensitive nuclear assistance to other states, and take the most active measures to keep Israel from the bomb. On the other hand, less powerful states were slower to sign the NPT, more likely to provide sensitive nuclear aid to others, and less worried about halting Israel’s nuclear progress. There is little evidence to support the argument that patterns of amity and enmity greatly affected how the great powers responded to the issue of nuclear proliferation.

This article offers important implications for US nonproliferation policy. US approaches to nuclear proliferation are often predicated on the notion that Washington can cooperate with other great powers to stop the spread of nuclear weapons. The findings of this article, however, demonstrate that great power unity on the question of nuclear proliferation is the exception rather than the rule. Nonproliferation policies, therefore, that depend heavily on great power cooperation will be unlikely to succeed. For this reason, the United States might increasingly be forced to choose between adopting unilateral measures to prevent nuclear proliferation or preparing to live in a more highly proliferated world.

This article is divided into six main sections. I first discuss the political relationship and power-projection theories, and the research design and case selection criteria. In the second, third, and fourth sections, I use evidence from great power nonproliferation policy in three issue areas—support for the NPT, sensitive nuclear assistance, and Israel’s nuclear program—to assess the political relationship and power-projection theories. The fifth section

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6 See, for example, “Joint Statement by President Barack Obama of the United States of America and President Dmitry Medvedev of the Russian Federation on Nuclear Cooperation,” White House, 6 July 2009.
addresses two potential counterarguments to this analysis. The last section discusses the implications of these findings for US nonproliferation policy.

THE POLITICAL RELATIONSHIP AND POWER-PROJECTION THEORIES OF NONPROLIFERATION POLICY

The political relationship theory posits that a state’s nonproliferation policy depends on whether nuclear weapons spread to friends or foes. A state will attempt to stop enemy states from acquiring nuclear weapons. But states will be more willing to turn a blind eye to, and even to aid, allies in pursuit of the bomb.

According to this theory, the threat of nuclear proliferation varies greatly depending on a country’s political relationship with the proliferator. States are most troubled by the spread of nuclear weapons to enemy states because these are the countries with which armed conflict is likely. On the other hand, because armed conflict with allied states is much less likely, nuclear proliferation to allied states is not particularly threatening. Indeed, because nuclear weapons in the hands of allied states increases the overall capabilities of the alliance, nuclear proliferation to allied states might even be desirable.

Espousing this point of view, Richard Haass, president of the Council on Foreign Relations, has argued in favor of a double standard for US nuclear nonproliferation policy because he claims that the United States is more threatened by nuclear-armed foes than it is by nuclear-armed friends. Using deductive logic to analyze US nonproliferation policy, Peter Feaver and Emerson Niou agree that US nonproliferation policy should depend on the political relationship between Washington and the proliferator, concluding “assistance is an appropriate option when friendly countries . . . cross the nuclear threshold.” But, in contrast, they claim, “when confronting a small, enemy proliferator that is on the cusp of crossing the nuclear threshold, the United States must decide between executing a military strike to destroy the nuclear arsenal or simply upholding the nonproliferation regime with continued sanctions.” Similarly, Eugene Gholz, Daryl Press, and Harvey Sapolsky have advocated that the United States provide nuclear weapons to Germany and Japan so that these allies can defend themselves, allowing Washington to pursue a strategy of military restraint.

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7 For a theoretical treatment of friendship and the friend/enemy distinction in international politics see, for example, Carl Schmitt, The Concept of the Political (Chicago: University of Chicago Press, 1996).
9 Peter Feaver and Emerson M. S. Niou, “Managing Proliferation: Condemn, Strike, or Assist?” International Studies Quarterly 40, no. 2 (Summer 1996): 211.
The power-projection theory, in contrast, posits that nonproliferation policy is a function of a state’s ability to project military power over the potential proliferator.\textsuperscript{11} States will most vigorously oppose the spread of nuclear weapons to states over which they have the ability to project military power but will be less concerned about, and may even aid, nuclear proliferation to states over which they lack the ability to project force.

States have the ability to project power over a state when they possess the ability to fight a full-scale, conventional, military ground war on the territory of a potential target state.\textsuperscript{12} To project power, a state does not necessarily require the ability to decisively win a military conflict, but it must at least be able to put up a serious fight. The ability to move a token contingent of forces into another country does not constitute a force-projection capability. Similarly, the ability to bomb a state alone, without a corresponding ability to put boots on the ground in that state’s territory, is not a sufficient power-projection capability.\textsuperscript{13}

According to power-projection theory, the spread of nuclear weapons threatens states primarily when it constrains their conventional military power. States can use their military might to threaten or promise to protect other states. As nuclear weapons spread, however, the value of conventional military threats and promises are much less valuable.\textsuperscript{14} The spread of nuclear weapons to states against which one once had the option of using conventional military force erodes a source of strategic advantage.

In particular, there are five ways that nuclear proliferation to a state over which one can project military power can constrain one’s military freedom of action. Nuclear weapons can deter states from using military force to achieve geopolitical interests. They can reduce the effectiveness of coercive diplomacy because threats to use force against nuclear-armed states are inherently less credible. Nuclear proliferation can cause regional instability that could potentially draw one into the resulting conflict. It can reduce the value of security guarantees; if allies acquire nuclear weapons they have less need for external military protection, and if adversaries acquire them

\textsuperscript{11} For an exposition of this theory as it relates to the specific problem of sensitive nuclear assistance, see Matthew Kroenig, \textit{Exporting the Bomb}, 10–49.

\textsuperscript{12} It is important to note that this is a relative definition of power. Power-projection capability can only be assessed in the context of a dyadic relationship. Some states may be able to project power over every other state in the entire international system, but most states will have the ability to project power over some states but not others.

\textsuperscript{13} I follow other theorists of international relations in emphasizing the importance of ground forces. For instance, according to John Mearsheimer, “armies are the central ingredient of military power, because they are the principal instrument for conquering and controlling territory—the paramount political objective in a world of territorial states.” Mearsheimer, \textit{The Tragedy of Great Power Politics} (New York: W. W. Norton, 2001), 43.

\textsuperscript{14} Even advocates of the stability-instability paradox maintain that nuclear weapons place limits on the use of force because large-scale conflicts are more likely to trigger a nuclear exchange. See Glenn H. Snyder, “The Balance of Power and the Balance of Terror,” in \textit{The Balance of Power}, ed. Paul Seabury (San Francisco: Chandler, 1965).
TABLE 1 Power-Projection Capability and the Effects of Nuclear Proliferation

<table>
<thead>
<tr>
<th>Nuclear Proliferation Effects</th>
<th>Great Power Possesses the Ability to Project Power over the Proliferator</th>
<th>Great Power Lacks the Ability to Project Power over the Proliferator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deters military intervention</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Reduces effectiveness of military coercion</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Entraps states in regional nuclear disputes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Undermines alliance structures</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Sets off further nuclear proliferation within a relevant sphere of influence</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

Allies will doubt the credibility of promises to come to their defense if they are attacked by a nuclear-armed state. In addition, nuclear proliferation to one state can cause other states to pursue nuclear weapons in response, compounding the above effects.

On the other hand, states are less threatened when nuclear weapons spread to states over which they lack the ability to project military power, and they can sometimes even benefit. In these situations, states lack the strategic advantages provided by conventional military power whether nuclear weapons are present or not, so nuclear proliferation does not further erode their strategic position. States will not be deterred from using military intervention to secure their interests as nuclear weapons spread; they are too weak to intervene whether nuclear weapons are present or not. The effectiveness of their coercive diplomacy will not be reduced against new nuclear states; they lack the conventional military power that could have allowed them to use threats of military force to their advantage in the first place. States will not become entrapped in conflict involving regional nuclear powers; they lack the ability to operate their military forces in and around the new nuclear-armed state. Nuclear proliferation will not undermine their security guarantees; they are too weak to promise military protection as a way to cement their alliances. Finally, states will be less threatened by the prospect that proliferation could spur further proliferation. Since they lack the ability to project power over a potential nuclear weapons state, if that state’s nuclearization also sends its neighbors down the nuclear path, it is likely that the state will not be able to project power over, and will not be constrained by nuclear proliferation to, the neighbors either.

For these reasons, nuclear proliferation is most threatening when it occurs in states over which one has the ability to project power. A summary of these differential effects of nuclear proliferation is provided in Table 1.

Moreover, not only are states less threatened when nuclear weapons spread to states beyond their own military sphere of influence, but nuclear
proliferation in such situations can actually improve one’s strategic environment. Nuclear proliferation constrains the military freedom of action of the other states that once had the ability to project power over the proliferator. As nuclear weapons spread, therefore, other states are less able to use conventional military power in a manner that potentially threatens one’s interest. Indeed, to the degree that the strategic costs of nuclear proliferation are concentrated on others, states can exploit the payoff structure to their advantage. States that lack the ability to project power over a particular state can promote the spread of nuclear weapons to that state with the intention of imposing strategic costs on the other states that have a relevant power-projection capability.

According to power-projection theory, a country’s nonproliferation policy does not depend on its political relationship with potential proliferators. The spread of nuclear weapons, even to a friendly state, can still cause many problems for states that have the ability to project power against that state. Nuclear proliferation could devalue promises of military protection to defend the allied state, could lead to instability between the ally and a regional rival that could cause one to become involved in regional conflict, and could cause enemy states to pursue nuclear weapons in response to allied proliferation. On the other hand, according to power-projection theory, states do not need to worry much when nuclear weapons spread to an unfriendly state over which they lack the ability to project military power. Nuclear proliferation in these situations will not impose any direct military constraints, but it will disproportionately constrain the freedom of action of other states.

In sum, political relationship theory posits that a state’s nonproliferation policy is based on its political relationship with the potential proliferator. Power-projection theory holds that a state’s ability to project power over the potential proliferator determines its nonproliferation policy.

Testing Theories of Nonproliferation Policy

To test these two theories, I use evidence from great power nonproliferation policy from 1945 to 2000. I focus on the five permanent members (P-5) of the UNSC, China, France, Great Britain, Russia (formerly the Soviet Union), and the United States. These five states are appropriate for study for a variety of reasons. As the only recognized nuclear weapon states according to the 1968 Nuclear Nonproliferation Treaty (NPT), some have argued that they share a strategic incentive to keep other countries from joining the nuclear club. As permanent members of the UNSC, they vote on nonproliferation issues
referred to them by the International Atomic Energy Agency (IAEA) Board of Governors (BOG).\footnote{16} And, as great powers, they are the states with the military, economic, and political power to affect nonproliferation outcomes in other states. Understanding their nonproliferation policy, therefore, is important for explaining the past and predicting future patterns of nuclear proliferation.

To assess these states’ nonproliferation policies during the nuclear era, I focus on three issue areas: NPT ratification, provision of sensitive nuclear assistance to nonnuclear weapon states, and response to Israel’s nuclear development from its inception in the early 1950s until nuclear acquisition in 1967. These issue areas provide a diverse set of tests of the two competing theories. Assessing a state’s support for the NPT, a treaty designed to prevent countries from acquiring nuclear weapons, sheds light on a state’s commitment to halting nuclear proliferation to other states. An analysis of patterns of sensitive nuclear assistance illuminates the degree to which the great powers were willing to help other states in their pursuit of nuclear weapons. These first two indicators focus on broad relationships and facilitate pattern matching analysis, applying the method of congruence, between relevant independent and dependent variables.\footnote{17} In addition to the method of congruence, the third issue area, responses to Israel’s nuclear development, permits me to trace the process by which these variables influenced the nonproliferation policies of each of the great powers in a specific case.\footnote{18} Israel’s nuclear program is the ideal case for this analysis because it was the first country, after the P-5, to develop nuclear weapons and is therefore the first simultaneous test of all five great powers’ approach to nuclear nonproliferation. In addition, it provides substantial variation on the key independent and dependent variables.\footnote{19} In this time period, Israel had both friendly and hostile relations with different great powers. Some great powers had the ability to project power over Israel, while others lacked it. And, variation in response to Israel’s nuclear program ranged from actions designed to stop the program to those intended to advance it.


\footnote{16} The empirical analysis focuses on the nonproliferation policies of the People’s Republic of China, a nuclear power since 1964, even though the Republic of China occupied China’s seat on the UNSC from 1945 to 1971.

\footnote{17} On the method of congruence, see Alexander L. George and Andrew Bennett, \textit{Case Studies and Theory Development in the Social Sciences} (London: MIT Press, 2005), 151–204.


TABLE 2 Great Power NPT Signature Dates

<table>
<thead>
<tr>
<th>Great Power</th>
<th>NPT Signature</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>1992</td>
</tr>
<tr>
<td>France</td>
<td>1992</td>
</tr>
<tr>
<td>Russia (Soviet Union)</td>
<td>1968</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>1968</td>
</tr>
<tr>
<td>United States</td>
<td>1968</td>
</tr>
</tbody>
</table>

SUPPORT FOR THE NPT

After months of international negotiations, the NPT was opened for signature on 1 July 1968. The treaty was designed first and foremost to prevent the spread of nuclear weapons to additional countries. The NPT recognized the five states that had already tested nuclear weapons, the United States, the Soviet Union, the United Kingdom, France, and China, as Nuclear Weapon States (NWS). All other states party to the treaty would join as Nonnuclear Weapon States (NNWS). In exchange for foreswearing the right to develop nuclear weapons, the NNWS received from the NWS a pledge for assistance with nuclear technology for peaceful purposes and a promise from all states to pursue negotiations in good faith toward eventual global nuclear disarmament.

Currently, the NPT remains the cornerstone of the broader nuclear nonproliferation regime. The NPT enjoys near-universal membership and has been called by some the most successful international treaty in history. Despite predictions in the mid-1960s that dozens of states would soon possess the bomb, by 2014 only nine states possessed nuclear weapons.

The treaty is inherently discriminatory in nature, granting only five states the lawful right to possess nuclear weapons. It would seem, therefore, that the NWS should have been active boosters of a treaty that locked in and legitimated their strategic nuclear advantage. Yet, there was great variation among the great powers in terms of their support for the NPT.

As we can see in Table 2, the United States, the Soviet Union, and the United Kingdom were the first three states to join the NPT as soon as it was opened for signature in 1968. China and France, on the other hand, despite being recognized as legal NWS in the NPT, refrained from signing the treaty for over twenty-four years, eventually joining in 1992. Why did Washington,

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Moscow, and London eagerly join the NPT, while Paris and Beijing dragged their feet for over two decades?

Additional analytical leverage can be gained by examining the great powers’ position on the possibility of nuclear weapons in West Germany at the time the NPT was opened for signature. While the NPT was framed as a universal treaty, certain key countries, and in particular West Germany, were seen as the most likely states to join the nuclear club in the near future and negotiators from many countries were motivated at least in part by their specific positions on West German nuclearization.\textsuperscript{23}

Predictions from the Political Relationship and Power-Projection Theories

According to political relationship theory, great powers should be inherently reluctant to support universal efforts to halt the spread of nuclear weapons. Because nonproliferation is a normal political issue, great powers would prefer to maintain flexibility in their nonproliferation policy, preserving the freedom to assist allied proliferation, while working to prevent enemies from acquiring the bomb. To explain variation among great powers, therefore, political relationship theory would suggest that a state’s willingness to support global nonproliferation efforts, such as the NPT, should depend on its global political relationships. States with many allies should be the most reluctant to sign the NPT. The more allies a country has the more likely it is that future nuclear proliferation will occur in a friendly state. States with many allies, therefore, and the overall strength of their alliances, stand to benefit most from the spread of nuclear weapons. On the other hand, states with few allies should be most supportive of global nonproliferation efforts, because there are relatively fewer states that they would like to see with the bomb and because new nuclear proliferation is most likely to occur in unfriendly states.

In contrast, power-projection theory predicts that a state’s support for global nonproliferation efforts, including the NPT, should depend on its ability to project military power. The most powerful states should be the most eager supporters of the NPT because nuclear proliferation anywhere could constrain their military freedom of action. On the other hand, power-projection theory would expect that less powerful states would be less likely to support global nonproliferation efforts like the NPT. These states are

constrained by nuclear proliferation to the small number of states over which they can project power but are less threatened by, and might even stand to benefit from, nuclear proliferation elsewhere.

As it relates to positions on potential West German proliferation, political relationship theory will find support to the degree that West Germany’s enemies were NPT supporters, while Bonn’s allies were NPT detractors. We should clearly expect that the Soviet Union, the leader of a competing alliance bloc, the Warsaw Pact, would oppose the spread of nuclear weapons in Western Europe, including to West Germany. By 1968, China was not a close partner of the Soviet Union, but it was even further estranged from the Western powers. Beijing and Bonn did not establish formal diplomatic relations until 1972. Political relationship theory would predict, therefore, that China would also oppose nuclear proliferation to West Germany, a country with which it had strained relations. At first glance, political relationship theory would predict that the United States, the United Kingdom, and France, formal allies of West Germany, might support or be indifferent to West Germany’s nuclearization. For the United States, West German nuclearization would also be doubly desirable because it could facilitate Washington’s goal in this period of disengaging from Europe and allowing the European powers to provide for their own defense. On closer inspection, however, this prediction becomes muddied by the fact that all three states had recently fought a war with Germany and the formation of the NATO alliance was intended in part to suppress German military power. Moreover, Britain (and to a lesser degree France) badly wanted to maintain a US military presence in Europe, and to the degree that a German bomb could have facilitated an American withdrawal, London and Paris would have seen it as an unwelcome development. Political relationship theory might predict, therefore, that the United States would be, on balance, supportive of West German nuclearization, while Britain and France would be torn between their memories of recent conflict and fears of American withdrawal and the benefits of bolstering a current ally.

Contrarily, we should expect, to the degree that power-projection theory is correct, that states able to project power over West Germany (Britain, France, the United States, and the Soviet Union) would support the NPT, while the state unable to project power in Western Europe, China, opposed it.

Political Relationships and NPT Signature

To gauge the strength of a state’s international political relationships, I measure the number of states in a formal defense pact with each of the great powers in 1968, the year in which the NPT was opened for signature.24 This

proxy provides an indicator of the number of friends that each great power had in the international system. In Table 3, we can see that among the great powers in the international system, the United States had the most formal allies (forty), while China had the fewest (one), and France (eighteen), the Soviet Union (ten), and Great Britain (seventeen) possessed, in comparison, a middling level of alliances. Formal alliances are, admittedly, only one possible indicator of the strength of political relationships, and this measure will be supplemented with a more nuanced approach in the discussion of great power positions on the prospect of a West German bomb.

### Power-Projection Capabilities and NPT Signature

To assess the great powers’ ability to project power at the time that the NPT entered into force, I consult the International Institute for Strategic Studies (IISS) “Military Balance” to record where a country maintained overseas bases as well as its numbers of aircraft carriers, amphibious assault ships and landing craft, and long-distance transport aircraft. The United States was the most powerful state in the system in this time period, with the ability to project power over the entire planet. It maintained a military presence at bases in Western Europe, East and Southeast Asia, the Pacific, and Latin America. Its power-projection capabilities were guaranteed by 22 aircraft carriers, 157 amphibious assault ships, and 56 airlift squadrons including 27 heavy transport squadrons.

The Soviet Union was also a superpower with the ability to project power over much of the globe. Its military personnel were stationed in East Germany and Central Europe, Egypt, Syria, Algeria, Vietnam, and Cuba. It also possessed 100 landing ships, 150 long-range transport aircraft, and a few heavy transports.

Great Britain maintained a robust presence in Europe, the Mediterranean, the Middle East, and Asia with forces stationed in West Berlin, Hong

<table>
<thead>
<tr>
<th>Great Power</th>
<th>Ability to Project Power (Regions)</th>
<th>Formal Allies</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>China, Southeast Asia</td>
<td>1</td>
</tr>
<tr>
<td>France</td>
<td>Western Europe, Africa</td>
<td>18</td>
</tr>
<tr>
<td>Russia (Soviet Union)</td>
<td>Europe, Middle East, Asia</td>
<td>10</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>Western Europe, Middle East, Asia</td>
<td>17</td>
</tr>
<tr>
<td>United States</td>
<td>Global</td>
<td>40</td>
</tr>
</tbody>
</table>

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26 Ibid., 1–5.
27 Ibid., 5–10.
Kong, Singapore, Brunei, the Persian Gulf, Cyprus, Malta, and smaller units in Gibraltar, Libya, and the Caribbean. It possessed two aircraft carriers, two amphibious assault ships, and fifty-one aircraft for long-range transport.

France possessed a power-projection capability in Western Europe and Africa. It maintained the vast majority of its forces in territorial France but also possessed overseas bases in French Somaliland, French West Africa, Madagascar, and Algeria, and maintained small contingents in its territories in the Indian Ocean, the Pacific, and the Caribbean. It also possessed two aircraft carriers, two amphibious assault ships, and two squadrons of long-range transport aircraft.

Of the five great powers, China was the least able to project power. Apart from a railway engineer division in Vietnam, China did not maintain an overseas military presence. It possessed 275 landing ships (although many of these were less than 100 tons) and a small air transport fleet. It could not project power beyond its immediate periphery in East Asia. The regions to which the great powers could project power in 1968 are recorded in Table 3.

Testing of the Theories: Evidence from NPT Signature

The political relationship theory does poorly in explaining great power patterns of NPT signature, while the power-projection theory does very well. As the power-projection theory correctly predicts, the three most powerful states, the United States, the Soviet Union, and the United Kingdom were early supporters of the NPT. The power-projection theory also predicted that China and France, two less powerful states, would be less supportive of global nonproliferation efforts. Indeed, as power-projection theory predicts, these less powerful states opposed the NPT in part because they wanted the freedom to promote nuclear proliferation to other states. In the 1960s, for example, Chinese foreign policymakers explicitly advocated nuclear proliferation because they saw the spread of nuclear weapons “as limiting U.S. and Soviet power.”

The political relationship theory cannot explain why the United States was an early supporter of the NPT or why China was so reluctant to join. Indeed, political relationship theory would have predicted that the United States, as the most well-connected great power in the system, would have the least to lose from widespread nuclear proliferation. Similarly, political relationship theory would have expected China, a state with few formal friends in the international system, to benefit most from and therefore support a global ban on proliferation. Moreover, political relationship theory cannot explain why the Soviet Union and the United Kingdom were early to ratify

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the NPT, while France waited over two decades, given that all three states had similar sets of alliance relationships.

We now turn to an analysis of state positions on West German proliferation. The United States was opposed to West Germany acquiring an independent nuclear weapons capability. Under the Dwight Eisenhower, John F. Kennedy, and Lyndon Johnson administrations, Washington was an advocate of the Multilateral Force (MLF). Under this plan the United States would have allowed NATO allies, including West Germany, to participate in NATO nuclear operations by allowing allied military personnel to man NATO nuclear-armed submarines alongside American service personnel, under the control of the Supreme Allied Commander in Europe, who was always an American military officer. Washington viewed the MLF in part as a nonproliferation policy that would satisfy Germany's desire for a voice in NATO's nuclear missions, thus obviating any perceived need in Bonn for an independent nuclear weapons capability. When resistance to the MLF from London, Paris, and, most forcefully, Moscow compelled Washington to choose between the pursuit of the MLF and the smooth negotiation of the NPT, the United States prioritized nonproliferation and dropped its support for the MLF.

Britain and France were also opposed to nuclear proliferation in West Germany, but London and Paris also resisted the MLF in part due to its potential impact on nuclear proliferation decisions in Bonn. As British Prime Minister Harold Wilson argued in opposition to the MLF, "If you have a boy and wish to sublimate his sex appetite it is unwise to take him to a striptease show." Moscow was determined to prevent West Germany from acquiring nuclear weapons and even threatened to withdraw its support from the NPT if Washington did not drop its MLF proposals. Beijing did not take a public stance on the issue of West German proliferation.

Consistent with power-projection theory, all of the states with the ability to project power over West Germany (and indeed the four countries that had recently fought a land war on German soil), Britain, France, the Soviet Union, and the United States, opposed West German proliferation and, with the exception of France, they all supported the NPT. And China, the single great power that lacked the ability to project power in Western Europe, did not actively resist the spread of nuclear weapons to West Germany and delayed for decades in signing the NPT, the international agreement that would have decreased the likelihood of nuclear weapons in Bonn.

Political relationship theory is a useful lens for viewing state positions on potential West Germany proliferation but generally does less well than power-projection theory. Political relationship theory sheds light on why Moscow was more concerned by the prospect of a nuclear-armed Germany

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than were the NATO allies and why Washington was willing to countenance the MLF. It can explain why London and Paris were not supportive of an independent nuclear deterrent in Bonn, but it cannot explain why Washington, London, and Paris, all formal allies of Bonn, were so determined to prevent West Germany from developing independent nuclear capabilities. Rather, it would have predicted the United States to be generally supportive of nuclear weapons in Germany and for London and Paris to have mixed feelings. Moreover, it cannot help us understand why China did not expend greater effort to ensure that Germany remained nonnuclear.

Some might object that the lack of a relationship between alliance connectedness and NPT support should be expected because the United States creates alliances, extending its nuclear umbrella, precisely in order to dissuade proliferation. This fact merely reinforces, however, the explanatory power of power-projection theory relative to political relationship theory. Consistent with power-projection theory, it is the United States, the state with global power-projection capabilities, that extends its nuclear umbrella in order to prevent nuclear proliferation. The other members of the P-5, with their less robust power-projection capabilities, do not go to such great lengths to stop nuclear proliferation. Moreover, if political relationship theory were correct, Washington would simply encourage, or at least tolerate, allied proliferation rather than extend its nuclear umbrella to other states. But, rather, consistent with power-projection theory, the United States, a global superpower, is so concerned about nuclear proliferation even to relatively friendly states (which are the only states to which it could conceivably offer a credible security guarantee) that it is willing to employ risk measures, such as promising to fight nuclear wars on behalf of allies, in order to keep them from the bomb.

Another possible explanation, inspired by Realist theory, might contend that states were unwilling to sign the NPT because it and other international treaties are nothing more than meaningless pieces of paper. Yet, the historical record unequivocally suggests that negotiators took the NPT very seriously. Moreover, this theory cannot explain why some great powers signed the treaty as soon as it was opened for signature while others stalled for decades.

THE PROVISION OF SENSITIVE NUCLEAR ASSISTANCE

Sensitive nuclear assistance is the “state-sponsored transfer of nuclear material and technology critical to the construction of nuclear weapons to a

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TABLE 4 Great Power Provision of Sensitive Nuclear Assistance

<table>
<thead>
<tr>
<th>Great Power</th>
<th>Sensitive Nuclear Assistance</th>
<th>Power-Projection Capability/Total Transfers</th>
<th>Formal Allies/Total Transfers</th>
<th>Tacit Allies/Total Transfers</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>Pakistan, 1981–86</td>
<td>3/3</td>
<td>0/3</td>
<td>1/3</td>
</tr>
<tr>
<td></td>
<td>Iran, 1984–95</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Algeria, 1986–91</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>France</td>
<td>Israel, 1959–65</td>
<td>5/5</td>
<td>0/5</td>
<td>1/5</td>
</tr>
<tr>
<td></td>
<td>Japan, 1971–74</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pakistan, 1974–78</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Taiwan, 1975</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Egypt, 1980–82</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Russia (Soviet Union)</td>
<td>China, 1958–1960</td>
<td>0/1</td>
<td>0/1</td>
<td>1/1</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>Never</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>United States</td>
<td>Never</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>N/A</td>
<td>8/9</td>
<td>0/9</td>
<td>3/9</td>
</tr>
</tbody>
</table>

Data on instances of sensitive nuclear assistance from Matthew Kroenig, *Exporting the Bomb,* 197–200.

nonnuclear weapon state."³¹ Sensitive nuclear assistance includes help on the design and construction of nuclear weapons, the transfer of significant quantities of highly enriched uranium and plutonium, or assistance in the construction of sensitive fuel-cycle facilities, such as uranium enrichment and plutonium reprocessing plants. Since sensitive nuclear transfers have direct applications to the construction of nuclear weapons, tracking patterns of sensitive nuclear assistance can reveal much about great power nonproliferation policy. Suppliers of sensitive nuclear assistance are either purposely aiding the recipient in a bid to build nuclear arms or, at the very least, realize that there is a possibility that the transfers could contribute to the spread of nuclear weapons but decide to provide assistance anyway.

As we can see in Table 4, great powers have provided sensitive nuclear assistance to nonnuclear weapon states nine times since the dawn of the nuclear era. France provided sensitive aid to: Israel (1959–65), Japan (1971–74), Pakistan (1974–78), Taiwan (1975), and Egypt (1980–82). China aided Pakistan (1981–86), Iran (1984–95), and Algeria (1986–91). The Soviet Union provided sensitive nuclear assistance to China (1958–60). In contrast,

the United Kingdom and the United States have never provided sensitive nuclear aid to a nonnuclear weapon state.\textsuperscript{32}

Why would great powers provide aid that could undermine their own nuclear monopoly? In particular, why would some countries, such as China and France, repeatedly provide nuclear assistance, while other states, like the United Kingdom and the United States, refrain from providing nuclear assistance altogether?

Predictions from the Political Relationship and Power-Projection Theories

According to political relationship theory, states will be most likely to provide sensitive nuclear assistance to allied states. By helping allies acquire nuclear weapons, states can increase the overall capabilities of the alliance. In addition, political relationship theory would predict that states will be unlikely to provide nuclear assistance to states with which they do not share an alliance because it is in these situations that nuclear proliferation could pose the greatest threat.

In contrast, power-projection theory would predict that states will be unlikely to provide nuclear assistance to states over which they can project military power. It is precisely in these situations that nuclear proliferation would constrain states’ military freedom of action. On the other hand, power-projection theory would expect that states would be most likely to provide sensitive nuclear assistance to states over which they lack the ability to project military power, regardless of their relationship with that state, because nuclear proliferation in this context would not constrain their own freedom of action and may constrain the freedom of action of other states.

Political Relationships and Sensitive Nuclear Assistance

To assess the political relationship between a great power and a country to which it provided sensitive nuclear assistance, I code whether the two states shared a formal alliance. Since a formal alliance might be too strict a measure by which to judge the theory, however, I will also consider tacit alliances, defined as a political relationship characterized by close cooperation in security matters (other than sensitive nuclear cooperation) even though the participating states are not bound by a formal alliance. As we can see in Table 4, great powers shared a formal alliance with the recipient of their

\textsuperscript{32} The United States assisted the British nuclear arsenal after London had become a nuclear power but, contrary to the belief of many, did not provide sensitive nuclear assistance to Great Britain when it was a nonnuclear weapon state and, indeed, maintained an official policy of preventing proliferation in Great Britain. For more, see Margaret Gowing, \textit{Independence and Deterrence: Britain and Atomic Energy 1945–1952, vols. 1 and 2} (London: Macmillan, 1974).
nuclear assistance in zero out of nine instances and a tacit alliance in three of the nine transfers.

Power Projection and Sensitive Nuclear Assistance

To assess whether states possessed the ability to project military power over their recipients, I draw on the above assessment presented in Table 3 about the regions of the world into which the five great powers could project military power. Where necessary, I note any divergences between a great power’s power-projection capability at the time of the nuclear transfer, or potential nuclear transfer, and 1968, the year for which their force-projection capabilities are measured.

The Soviet Union clearly possessed the ability to project power over China, a state with which it shares a common border, when it provided it with nuclear assistance from 1958 to 1960. Moscow never provided another state with nuclear assistance and neither did Washington, the other Cold War superpower.

As we can see, all five of France’s sensitive nuclear exports went to states outside of Western Europe and French Africa and, therefore, beyond the point at which they could directly constrain French military power.33

China’s transfer to Iran, in the Middle East, and Algeria, in North Africa, are clearly beyond the reach of Chinese military power. Pakistan shares a common border with China and is in the same basic geographic region and, therefore, could be coded as within China’s military sphere of influence. Given the geographical barriers presented by the Himalayan Mountains and China’s limited airlift and amphibious invasion capabilities, however, a careful military analysis suggests that China lacks a meaningful force-projection capability against Pakistan.34 Therefore, all three of China’s sensitive nuclear transfers went to states beyond China’s military sphere of influence.

The United Kingdom refrained from providing sensitive nuclear assistance to any nonnuclear weapon states.

Testing of the Theories: Evidence about Sensitive Nuclear Assistance

Evidence from the great power provision of sensitive nuclear assistance from 1945 to 2000 lends stronger support for power-projection theory than for political relationship theory. Only power-projection theory correctly predicts Chinese and French patterns of sensitive nuclear assistance. Consistent with

33 France’s inability to project power in the Middle East is further detailed in the below case study on Israel’s nuclear program.

the dictates of power-projection theory, two regional powers, not superpowers, were the most frequent suppliers of sensitive nuclear technology during the nuclear era. Moreover, all of their transfers were to states over which they lacked the ability to project military power.

Contrary to the expectation of political relationship theory, France provided nuclear assistance five times, but never to any of its eighteen formal allies, and only once to a tacit ally. Similarly, China provided sensitive nuclear assistance three times and, while one of the recipients, Pakistan, was a tacit ally, none of the other recipients numbered among China’s formal or tacit allies.

Power-projection theory best explains Great Britain’s abstinence from sensitive nuclear transfers. Its formidable power-projection capabilities mean that it would have been threatened by nuclear proliferation in much of the globe and, as expected by power-projection theory, it refrained from contributing to the spread of nuclear weapons. Political relationship theory would predict that the United Kingdom might have benefited from providing nuclear aid to one of its seventeen allies. Yet, Great Britain never provided sensitive nuclear assistance to a nonnuclear weapon state.

The Soviet case provides some support for both theories. At first glance, Moscow’s provision of sensitive nuclear assistance to China, a tacit ally, and a state against which the USSR had the ability to project military power, appears to provide greater support for political relationship theory than for power-projection theory. Yet, a look at the details of the case suggests a more nuanced picture. In the early 1950s, when Sino-Soviet ties were at their strongest, Moscow continually rebuffed Beijing’s requests for nuclear assistance. It was not until 1958, at the height of the ideological rift within communism and on the eve of the Sino-Soviet split, that Moscow finally provided Beijing with sensitive nuclear assistance. In short, Moscow refused to provide China with sensitive nuclear assistance when the political relationship between the two countries was tight, but it agreed to do so when it was unraveling. These facts cast some doubt on political relationship theory.

In addition, although Moscow briefly decided to aid China’s nuclear ambitions, its actions immediately preceding and following the assistance were more consistent with the expectations of power-projection theory. Moscow initially denied repeated requests for nuclear assistance from Beijing.

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Moreover, the Soviet Union’s assistance to China was cut off very soon after it started. Indeed, Moscow eventually became so threatened by the prospect of nuclear weapons in China that the Kremlin seriously considered a preventive military strike to eliminate the nuclear facilities in China that it had helped to build just years before.36

Furthermore, apart from the China case, power-projection theory provides a much stronger explanation for Soviet nuclear export policy. The Soviet Union had defense pacts with ten other states throughout much of the Cold War but did not help Hungary, Czechoslovakia, Poland, or any of its other formal allies acquire nuclear weapons. Rather, consistent with power-projection theory, the Soviet Union, a global superpower, refrained from providing sensitive nuclear assistance even to allied states.

US behavior provides support for power-projection theory, but not for political relationship theory. According to political relationship theory, Washington could have possibly benefited by helping some of its forty formal allies, such as Germany and Japan, acquire nuclear weapons. But, rather, consistent with the expectations of power-projection theory, the United States, a global superpower, never provided sensitive nuclear assistance to other states. Instead, Washington worked vigorously to steer its allies away from the nuclear path.37

The most compelling evidence against political relationship theory and in support of power-projection theory, however, is the raw numbers. In accordance with power-projection theory, eight of the nine times that great powers provided sensitive nuclear assistance they did so to states over which they lacked the ability to project military power. Contrary to political relationship theory, however, the great powers, despite casting a web of global alliances that included scores of states, not even once provided sensitive nuclear assistance to a state with which they shared a formal alliance and only provided it to tacit allies in three out of nine instances.


RESPONSES TO ISRAEL'S NUCLEAR PROGRAM, 1952 TO 1967

From 1952 to 1967, Israel was engaged in an effort to build nuclear weapons. As Israel's nuclear program progressed, the great powers took very different approaches to the issue of Israeli nuclear proliferation.38

The United States opposed Israel's nuclearization and used a variety of economic and diplomatic tools to convince Tel Aviv to give up its nuclear program. In 1955 the United States signed a nuclear cooperation agreement with Israel as part of the Atoms for Peace program that provided Israel with a research reactor and basic scientific training.39 When Israel asked for more sensitive assistance, however, the United States refused.40 By 1958, the United States had come to suspect that Israel might be developing more sensitive nuclear facilities, partly with French assistance, and began pressuring Israel to provide more information about its nuclear activities and to abandon its nuclear weapons ambitions.41 This pressure helped to convince Israel to allow US inspections of its nuclear facilities in 1961, 1962, and once annually from 1964–68. The inspections were designed to verify that Israel was not engaged in sensitive nuclear activity.42 In addition, the United States tied its arms sales to Israel to pledges to cooperate on the nuclear issue.43 By providing Tel Aviv with the means to defend itself using conventional weapons, Washington hoped that Israel would not need to resort to the nuclear option. In sum, Washington used a variety of diplomatic, intelligence, and military tools in a failed bid to prevent Israeli proliferation.

Like the United States, Moscow was threatened by nuclear proliferation in Israel and, like the United States, the Soviet Union did not sit idly by while Israel developed nuclear weapons. Instead of engaging in direct diplomacy, however, Moscow developed military plans for a possible preventive strike on Israel's nuclear reactor at Dimona.44 Indeed, during the 1967 Arab-Israeli War, Moscow issued orders to Soviet military commanders in the field to

38 I focus on great power responses to a country before it acquires nuclear weapons. Once a country acquires nuclear weapons, great power policies often shift to recognize a fait accompli. Statesmen in great powers realize it is difficult to force a country to give up weapons they already possess.
41 For a complete account about what is known about US efforts to gather intelligence on Israel's nuclear program see Richelson, *Spying on the Bomb*.
44 Ginor and Remez, *Foxbats over Dimona*. 
attack Israel’s nuclear facilities if certain contingencies were met during the conflict. Some scholars have even claimed that Moscow’s intense desire to destroy Israel’s nuclear infrastructure may have been a contributing cause of that war.\textsuperscript{45}

Great Britain opposed nuclear proliferation in Israel but did not take an active role in combating Israeli nuclear proliferation. Rather, it was content to outsource this issue to its American allies.\textsuperscript{46} For example, in response to a request from the Foreign Office in London to report on developments in Israel’s nuclear program at the height of the Israeli nuclear crisis, the British embassy in Tel Aviv replied in a cable dated 5 June 1964:

It is unlikely that this Embassy will be able, either by fair means or foul, to find out exactly what is going on at Dimona. . . . The Americans . . . are in a stronger position to find out where the Israelis stand on a chemical separation plant and we would suggest that you continue to keep in touch with them about this. . . . It will no doubt be the Americans who will have to make the run at this matter. . . . We can only hope that they will do so effectively.\textsuperscript{47}

It is true that London provided Israel with some nuclear assistance, brokering a much-publicized sale of heavy water through Norway in the late 1950s.\textsuperscript{48} This transfer does not, however, meet standard definitions of “sensitive nuclear assistance” and was not part of a British attempt to advance Israel’s nuclear weapons program. In sum, the official position of Her Majesty’s Government was to prevent the proliferation of nuclear weapons in the Middle East, but London did go to great lengths to secure that result.

Publicly China was the most disinterested of the great powers on the issue of Israel’s nuclear program, and there is even reason to believe Beijing may have privately rooted for Israeli proliferation. In the 1950s and 1960s, China and Israel had yet to establish formal diplomatic relations. The Chinese refrained from making any public statements on, or developing a foreign policy related to, Israel’s nuclear program, and we do not have evidence of what Chinese officials thought privately about Israel’s nuclear development. It is reasonable to assume, however, that China was not terribly concerned about Israel’s nuclear program and, given its pro-proliferation statements in other contexts, may have even supported it.

\textsuperscript{45} Ibid.
France was an active proponent of Israel’s nuclear acquisition. From 1959 to 1965, France provided Israel with a do-it-yourself, atomic bomb-making kit. The French built Israel’s Dimona reactor, a 40-megawatt nuclear reactor capable of generating 10–15 kilograms of plutonium a year. France also constructed an underground plutonium reprocessing plant that gave Israel the capability to separate from the spent fuel the weapons-grade plutonium that could be used in the core of an atomic bomb. During this time, it is believed that France also assisted Israel with nuclear weapon designs and allowed Israeli observers at French nuclear tests.

Predictions from the Political Relationship and Power-Projection Theories

The political relationship theory suggests that the great powers with friendly relations with Israel should have been relatively unconcerned about Israel’s nuclear program and might have even decided to help Israel join the nuclear club. On the other hand, the great powers with more antagonistic relations with Israel should have been opposed to Israel’s nuclear development.

The power-projection theory makes different predictions about the Israel case. The great powers with the ability to project power over Israel should have been most opposed to Israel’s nuclear program. In addition, these states’ nonproliferation policies should have been driven by fears that a nuclear-armed Israel could constrain their military freedom of action, regardless of their political relationship with Tel Aviv. Contrariwise, the states that lacked the ability to project power over Israel should have been less concerned about Israel’s nuclear development and might have even been willing to aid it. In addition, this theory would expect that any efforts to aid Israel’s nuclear program would be driven primarily by a desire to constrain other states.

P-5 Political Relationships with Israel

The United States and Israel maintained friendly relations in the 1950s and 1960s. Although Washington initially followed a policy of neutrality in the Middle East under the Eisenhower administration, relations quickly began to warm, especially as the Soviet Union, the principal Cold War adversary of the United States, began making inroads with Israel’s Arab rivals. In the Kennedy and Johnson years, the United States lifted the arms embargo on

\[49\text{ On French-Israeli nuclear cooperation, see Kroenig, } \textit{Exporting the Bomb}, 67–110.\]
\[51\text{ On the US-Israeli strategic relationship, see Herbert Drucks, } \textit{The Uncertain Alliance: The U.S. and Israel from Kennedy to the Peace Process}(New York: Greenwood Press, 2001).\]
Israel, and, by 1967, the United States and Israel began to forge the close strategic relationship that exists to this day.

The Soviet Union’s relationship with Israel in this time period was antagonistic. Although, the Soviet Union recognized the newly established state of Israel in 1948, relations dramatically worsened in the 1950s as the Soviet Union, in an attempt to gain a strategic presence in the Middle East, began aligning with the Arab states in the region. By the mid-1950s the Soviet Union was a major supplier of military hardware to Egypt and Syria and was a material supporter of the Palestinian cause.

Great Britain and Israel enjoyed friendly relations in the 1950s and 1960s. In 1950, the United Kingdom, along with France and the United States, signed a tripartite agreement in which the three parties pledged not to change the political-military status quo in the region. From 1956 to 1967, however, London and Tel Aviv entered a period of closer cooperation. In the 1956 Suez Crisis, Great Britain partnered with Israel and France in a failed military bid to reclaim the Suez Canal from Egypt. Following the crisis, Britain lifted its arms embargo on Israel and began transferring arms to the region, including British Centurion tanks. In 1958, Israel granted the United Kingdom overflight rights to conduct a military operation in Jordan. The close relationship lasted until the aftermath of the 1967 Six-Day War, when Britain began to shift its foreign policy orientation in the region away from Israel and toward the Arab states.

France and Israel were close, although not formal, allies in the 1950s and 1960s. France was a signatory to the 1950 tripartite agreement not to alter the military balance in the Middle East. France broke with the treaty in 1955, however, and shortly thereafter became Israel’s largest supplier of military hardware, transferring tanks, aircraft, and artillery to Tel Aviv. The two countries also conspired together to conduct the 1956 Suez operation. Although the two countries never signed a formal defense pact, historians have described the pre-1967 relationship between Paris and Tel Aviv as a “tacit alliance.”

To the extent that they existed, Chinese-Israeli relations in 1950s and 1960s could best be described as strained. Although Israel was one of the first countries in the world to recognize the People’s Republic of China,

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55 Crosbie, *A Tacit Alliance*.

the two countries did not establish formal diplomatic ties until 1992, due to China's longstanding refusal to recognize Israel.

P-5 Power-Projection Capabilities over Israel

To measure whether a state had the ability to project power over Israel, I assess whether it possessed the ability to fight a full-scale conventional military war on Israeli territory. Of course, it is unlikely that any of the great powers would have wanted to invade Israel in this period, but this is the best proxy measure of a great power's ability to project military power over Israel. As was explained above, according to power-projection theory, states incur costs as nuclear weapons spread, whether the new nuclear weapon state is a friend or foe.

In the 1950s and 1960s, the United States was a global superpower and clearly enjoyed the ability to project power over Israel. The US military presence in the Mediterranean included naval and air bases in France (until 1966), Spain, Italy, Greece, and Turkey. US air bases in the region also gave the United States an air presence across the entire Mediterranean. Moreover, the United States demonstrated its ability to project power in the Middle East with military interventions in Jordan and Lebanon in the late 1950s.

The Soviet Union was also a superpower with power-projection capabilities over Israel. It maintained the largest and most powerful military in Eurasia and possessed amphibious invasion and airlift capabilities that would have allowed it to project power over much of the globe. Moreover, beginning in the 1950s, the Soviet Union began maintaining a permanent military presence in the Mediterranean, which included access to naval and air bases in Albania, Egypt, Syria, Yemen, and elsewhere.

Great Britain maintained an ability to project power in the region. Although the UK's military capabilities were greatly diminished in World War II, by dint of its vast colonial empire Great Britain maintained a military presence in the region, which included bases in Malta, Cyprus, Aden, and Bahrain. Indeed, the United Kingdom demonstrated its ability to operate militarily in the region during the 1956 Suez Crisis when British bases and forces provided the backbone for the combined British-French invasion of

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59 On US foreign policy in the Middle East during the Eisenhower Administration, see, for example, Roby C. Barrett, *The Greater Middle East and the Cold War: U.S. Foreign Policy under Eisenhower and Kennedy* (New York: I. B. Tauris, 2004).
61 Smith, *British Imperialism*. 

France lacked a meaningful ability to project power unilaterally in the Middle East in the late 1950s and early 1960s. France’s nearest military bases were located in Djibouti and Algeria, rendering a ground invasion of Israel impossible. Putting French troops into a Middle Eastern theater against a hostile opponent would have required an amphibious invasion, but the French lacked nearby air bases, the French navy had been almost completely destroyed in World War II and had yet to be reconstituted, and France never developed the specialized capabilities required for an amphibious invasion. French forces were able to participate in the Suez War of 1956 only because they relied heavily on British basing, air and naval power, and specialized, amphibious invasion capabilities. As André Martin, a French military officer involved in the planning for Suez explained, “for geographical and political reasons, France required a partner, and the only possible choice was Britain. . . It was understood that without [the British bases in] Malta and Cyprus, we could do nothing, and we really wanted this war!”

China did not possess the ability to use conventional military forces in the Middle East in the 1950s and 1960s. To this day, Beijing lacks the ability to project power much beyond its own borders.

Testing of the Theories: Evidence from Israel’s Nuclear Program

The political relationship theory does poorly in the Israel case, but the power-projection theory performs very well. Both theories shed some light on the UK’s opposition to Israel’s nuclear program. Consistent with power-projection theory, London opposed proliferation to a state in a region where

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67 On China’s force-projection capability, see, for example, “The Military Power of the People’s Republic of China 2013.”
it could project power. But, in line with political relationship theory, it did not go to great lengths to stop a friendly state from acquiring nuclear weapons.

Only power-projection theory correctly explains China’s lack of involvement on the Israeli nuclear issue. Given its lack of ability to project power in the Middle East, China was not terribly threatened by Israel’s nuclear program. Despite a lack of cordial political relations, however, and contra the predictions of political relationship theory, Beijing did not visibly oppose Israel’s nuclear program.

Both theories correctly predict France’s willingness to provide sensitive nuclear assistance to Israel, but power-projection theory provides a better account of France’s rationale for doing so. The available evidence suggests that France’s nuclear assistance to Israel was motivated more by a desire to constrain Egypt, a state that had a clear ability to project power against Israel, than it was to help Israel per se. Indeed, the entire French-Israeli strategic partnership was predicated on a shared desire to constrain Egypt. France’s foremost foreign policy objective in this period was to put down the insurgency in Algeria, but the rebels were receiving financial and military support from Egyptian President Gamal Abdel Nasser. French officials believed, therefore, that by aligning with Israel and countering Nasser they could sever Egyptian support to Algeria and ultimately defeat the insurgency. Shimon Peres, at the time an Israeli defense official involved in securing the nuclear transfers, explained France’s motivation, “Some [French] leaders, notably those responsible for defense matters, held that clipping Nasser’s wings would limit his ambitions and impact on the Algerian front.” As then French Defense Minister Maurice Bourgès-Manoury allegedly told Peres in explaining the deal, “France and Israel now faced similar challenges and similar foes, and we should co-operate openly—and quickly. . . . We should work together and we can.” The transactional nature of this partnership is evidenced by the fact that the “tacit alliance” fell apart shortly after France lost the war in Algeria and Paris became less concerned about balancing Nasser’s Egypt.

Only power-projection theory can explain Washington’s opposition to Israel’s nuclear program. Political relationship theory would have expected Washington to be relatively unbothered by Israel’s nuclear development, or even to aid it. But, the prospect of a nuclear Israel was a major concern of US officials. In fact, a close aide to President Kennedy described the possibility that Israel might acquire nuclear weapons as “Kennedy’s private

68 See Kroenig, Exporting the Bomb, 67–110.
69 Peres, David’s Sling, 46.
70 Ibid., 57.
nightmare.”\textsuperscript{71} In a particularly strong piece of evidence against political relationship theory, President Kennedy even threatened to sever the US-Israeli relationships in order to keep Israel from the bomb. In one of his first official acts as president, Kennedy wrote a letter to Israeli Prime Minister David Ben-Gurion warning, “this government’s commitment to and support of Israel could be seriously jeopardized if it should be thought that we were unable to obtain reliable information on a subject as vital to peace as the question of Israel’s effort in the nuclear field.”\textsuperscript{72}

The nonproliferation stance of the United States was not a result of fears that Israel was a hostile state but, rather, consistent with power-projection theory, due to the practical implications that a nuclear-armed Israel could have for US freedom of action in the region. US officials feared that a nuclear armed Israel could: constrain American military freedom of action in the region; force the United States to intervene in costly conventional conflicts between Israel and its neighbors; invite Soviet intervention in the region, potentially resulting in a superpower war; render Israel less subject to US influence; and set off further proliferation in the region, compounding the above-mentioned strategic costs.\textsuperscript{73} For example, a State Department report to Secretary of State Dean Rusk estimated, “as programs developing sophisticated weapons come to fruition, the ability of the U.S. to control any hostilities which might occur between Israel and the United Arab Republic will decrease.”\textsuperscript{74} And, in a 1963 National Intelligence Estimate (NIE), the consensus position of the United States intelligence community was that “the impact [of nuclear proliferation in the Middle East] will be the possibility that hostilities arising out of existing or future controversies could escalate into a confrontation involving the major powers.”\textsuperscript{75}

Both theories correctly predict the Soviet Union’s opposition to nuclear proliferation in Israel, but only power-projection theory correctly explains the justifications behind Moscow’s policy. The Soviet Union was not worried about any direct threat posed by Israel’s nuclear weapons but rather by how Israeli proliferation could lead to developments that would constrain Soviet power. Indeed, in a mirror image of Washington’s fears, Moscow was concerned that a nuclear Israel would: constrain Moscow’s ability to project conventional military power in the Middle East, reduce the effectiveness of Moscow’s coercive diplomacy on behalf of the Arab states and against Israel,


\textsuperscript{73} For more detail on each of these points, see Kroenig, *Exporting the Bomb*, 67–11.


cause instability in the region that could entangle the Soviet Union, distract an inordinate share of Moscow’s strategic attention, and encourage further nuclear proliferation in the Middle East.\textsuperscript{76} For example, the USSR Ministry of Foreign Affairs notified the Soviet embassies in Egypt and Israel that “the establishment of nuclear weapons production in Israel will make the situation . . . even more unstable, and is liable to trigger a serious conflict that can spill over the borders of the region.”\textsuperscript{77} In a particularly revealing piece of evidence against political relationship theory, the Soviet Union opposed nuclear proliferation in Israel, an enemy state, in part because it feared that Israeli proliferation could lead to pressure on their own Arab allies to acquire nuclear weapons.\textsuperscript{78}

**COUNTERARGUMENTS**

There are at least two possible counterarguments to this analysis. First, critics may wonder whether nuclear possession, not political relationships or power-projection capabilities, is the strongest determinant of nuclear proliferation policy. Perhaps countries that possess nuclear weapons themselves are more likely to oppose nuclear proliferation because they have a strong incentive to limit the size of the nuclear club. George Quester has claimed that a nuclear weapon state has “an interest in shutting the [nuclear] door behind itself.”\textsuperscript{79} Joseph F. Pilat has similarly argued that “France, as a nuclear weapons state, does have . . . a strategic interest in [non] proliferation.”\textsuperscript{80} There is an intuitive element to this argument, but it is not met with empirical support. As we saw above, France and China both had poor nonproliferation records despite the fact that they possessed nuclear weapons themselves. Moreover, we saw that US and Soviet officials opposed a nuclear-armed Israel because they were concerned that it would constrain their conventional military freedom of action, not because they wanted to maintain an exclusive nuclear club.

A second counterargument posits that it is economic interests that determine a country’s nonproliferation policy.\textsuperscript{81} States will be unwilling to oppose

\textsuperscript{76} See, for example, Ginor and Remez, *Foxbats over Dimona*.
\textsuperscript{77} As quoted in ibid, 34.
\textsuperscript{78} Isabella Ginor and Gideon Remez, *Foxbats over Dimona*, 32–34, 54.
\textsuperscript{79} George Quester, “The Statistical ‘N’ of ‘Nth’ Nuclear Weapons States,” 175.
proliferation in a country with which they have important trade and investment relationships. In addition, countries might even be willing to transfer sensitive nuclear technology to other states in search of hard currency.82

There are at least two reasons to be skeptical of this argument. First, the export of sensitive nuclear technology is not terribly lucrative. As William C. Potter has pointed out, “nuclear exports generally have not yielded substantial economic returns for the emerging suppliers.”83 Second, and more fundamentally, in an anarchic interstate system, states generally prioritize security over other concerns, including economic gains. Countries might be perfectly willing to profit from trade with a proliferant state, but only if that state’s nuclearization does not present an overriding security threat. The key questions then become: how do states assess the threat of nuclear proliferation to various states, and when is the potential threat from nuclear proliferation low enough that states are willing to engage in economic relations with the proliferator? These are the exact questions that political relationship and power-projection theories help us to answer.

EFFECTIVE NONPROLIFERATION REQUIRES SUPERPOWERS

This article examined variation in great power nonproliferation policy. Evidence from British, Chinese, French, Russian (formerly Soviet), and US nonproliferation policy from 1945 to 2000 provided strong support for power-projection theory. States are more likely to resist nuclear proliferation to states over which they have the ability to project military power because they fear the constraints that nuclear weapons will impose on their military freedom of action. On the other hand, great powers are less likely to take strong action to stop, and are more likely to aid, nuclear acquisition in states over which they lack power-projection capabilities. Political relationship theory was less able to explain great power nonproliferation policy. Alliances have some influence on nonproliferation policy, but political relationships are less important than power-projection capability in shaping how great powers respond to the problem of nuclear proliferation.

Future research could examine the applicability of this theory to more discrete nuclear nonproliferation issue areas including: voting on nuclear proliferation measures in international bodies, state willingness to approve sanctions against nuclear proliferators, and state decisions to support the use of military force against other states’ nuclear programs.84

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The argument of this article helps us to better understand important real-world nuclear proliferation challenges. At the time of writing in 2013, Iran was on the verge of mastering the uranium-enrichment capabilities that it could use to develop nuclear weapons. US policy on Iran has been to maintain P-5 unity for an ever more onerous sanctions regime to coerce Tehran to place constraints on its uranium enrichment program. Of the five permanent members of the United Nations Security Council, however, it has been the United States, the state best able to project power over Iran, that has consistently pushed for tougher sanctions against Iran’s nuclear program. In contrast, Britain, China, France, and Russia, states less able to project power over Iran, have been less willing to support the toughest penalties in the UNSC. Policymakers in Washington are often puzzled as to why it is so difficult to get international cooperation on nuclear nonproliferation issues. Living in a world, the Washington, D.C. beltway, in which nuclear proliferation is demonized, they cannot imagine how officials in other capitals, like Beijing and Moscow, cannot be horrified by the thought of nuclear weapons in Tehran or Pyongyang. When China and Russia are unwilling to press other states on their nuclear programs, officials in Washington often assume that foreign officials do not fully understand the threat posed by nuclear proliferation. Or, Washington chalks it up to economic incentives. They assume that foreign governments are unwilling to push a potential proliferator because they do not want to jeopardize their trade relationship with that country.

In fact, Russia and China have not been willing to authorize tough sanctions against Iran’s nuclear program, not primarily because they have important economic interests in the country as many analysts believe, but because they are not particularly threatened by Iran’s nuclear development. Russia and China are not currently operating military forces in the Middle East and, given the degradation of Russia’s military since the end of the Cold War and China’s military modernization focusing on an East Asia contingency, it is very unlikely that these countries will have the capability to do so for the foreseeable future. For this reason, they do not need to worry that nuclear proliferation in Iran will constrain their military freedom of action. They might be concerned that Iran could attack them in the bolt-out-of-the-blue nuclear strike or provide nuclear weapons to terrorists who might target them, but such scenarios are low probability events. In sum, Beijing and Moscow have very little to fear from nuclear proliferation in Iran. They are

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85 On Iran’s nuclear program, see, for example, William J. Broad and David E. Sanger, “Iran Has More Enriched Uranium than Thought,” New York Times, 19 February 2009.

86 It is interesting to note, and consistent with the argument of this article, that when the Soviet Union enjoyed global force projection capabilities, it promoted a strict nuclear nonproliferation policy. Moscow’s concern with nuclear proliferation collapsed with the Soviet Union, however. Russia, a state much less able to project power beyond its near abroad, has demonstrated much less interest in preventing the international spread of nuclear weapons.
unwilling to place serious pressure on Tehran and are willing to continue economic relations with the country, not because the economic benefits are so high but because the strategic costs are so low. Indeed, given that many strategic thinkers in Russia and China believe that what is bad for Washington must be good for Moscow and Beijing, some foreign officials undoubtedly welcome Iranian nuclear development as a means of tying down the United States.\footnote{Of course, there are many considerations that affect Russian and Chinese views of America’s military presence in the Middle East. This discussion merely highlights one important, and often overlooked, factor.}

In short, US officials need to understand why it is difficult to secure the cooperation of other countries on nuclear nonproliferation efforts: nuclear proliferation threatens the United States more than any other state on the globe. The United States is a global superpower and nuclear proliferation anywhere threatens America’s dominant strategic position. For other states, with more limited spheres of influence, nuclear proliferation in a distant region is not a threat. In fact, these countries may even see a significant upside to the spread of nuclear weapons—because nuclear proliferation means a constrained and thus weakened United States. Foreign governments’ reluctance to bear a burden to stop proliferation in a distant region is not the result of their failure to understand the strategic consequences of nuclear proliferation; it is because they understand them perfectly well.

Washington will continue to struggle to convince other states to join in a fight against nuclear proliferation that disproportionately threatens the United States. Instead, the United States must be willing to either take strong unilateral action (such as unilateral sanctions, sabotage, cyber attack, preventive military strikes, expanded Proliferation Security Initiative interdictions, etc.) to stop nuclear proliferation, or develop robust deterrence and containment regimes to deal with the slow spread of nuclear weapons that will inevitably occur.

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