

Why Do States That Oppose Nuclear Proliferation Resist New Nonproliferation Obligations? Three Logics of Nonproliferation Decision-Making

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Why do states that oppose nuclear proliferation resist initiatives to strengthen the nonproliferation regime? There is virtually universal support for the basic principle of nonproliferation—all countries but four are states-party to the Non-Proliferation Treaty (NPT). Yet enthusiasm among NPT parties for proposals to strengthen the nonproliferation regime varies widely even as new challenges highlight dangerous gaps in the regime.

There is something approaching consensus among scholars and policy-makers that many states resist proposals to strengthen the nonproliferation end of the NPT bargain largely because out of concern that America and other NWS haven't made satisfactory progress towards nuclear disarmament. I suggest this consensus rests primarily on an argument about the role of norms in international affairs: some states oppose NPT-plus measures not necessarily because they fear the NWS will use nuclear weapons against them, but because of what accepting those measures would symbolize.

This article seeks to ground the consensus in theories of international law and relations, and to compare and contrast it with alternative logics of nonproliferation decision-making. I conclude that demonstrating some progress on disarmament may be necessary in order to attract the support of some countries for NPT-plus measures, but it is not necessarily sufficient if lingering security and economic concerns relating to those measures are unresolved.

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INTRODUCTION

Why do states that oppose nuclear proliferation resist initiatives to strengthen the nonproliferation regime?² There is virtually universal support for the basic principles of nonproliferation—all countries but four are states-party to the Non-Proliferation Treaty (NPT).³ Yet enthusiasm among NPT parties for the International Atomic Energy Agency’s (IAEA) Additional Protocol, robust export controls, and other nonproliferation policies varies widely even as new challenges highlight dangerous gaps in the regime.⁴

Remarkably, very little scholarly effort has been put into systematically exploring this

² The structure of this article was inspired by Scott Sagan’s influential 1996 article *Why Do States Build Nuclear Weapons?*, 21 INT’L SEC. 54 (Winter 1996/1997) [hereinafter *Why Do States Build Nuclear Weapons?*] and book chapter *Rethinking the Causes of Nuclear Proliferation: Three Models in Search of a Bomb*, in THE COMING CRISIS: NUCLEAR PROLIFERATION, U.S. INTERESTS, AND WORLD ORDER 17-50 (Victor Utgoff, ed., 2000).

³ Treaty on the Non-Proliferation of Nuclear Weapons (1970), 21 U.S.T. 483, 729 U.N.T.S. 161 (hereinafter NPT).

⁴ For example, less than half of NPT parties support enhancing the legal authority of the International Atomic Energy Agency (IAEA) to investigate secret nuclear programs by ratifying the IAEA’s Additional Protocol, even though incidents such as the public disclosure of clandestine nuclear programs in Iraq in 1991, Iran and Libya in 2003, and Syria in 2007 demonstrate severe weaknesses in the IAEA’s existing authorities. IAEA, Additional Protocols to Nuclear Safeguards Agreements, http://www.iaea.org/OurWork/SV/Safeguards/sg_protocol.html (last visited June 17, 2009) [hereinafter Additional Protocols]. The illicit nuclear-related commerce that supplies these programs depends on lax national export control regulatory regimes, yet there is widespread opposition, and indeed hostility, in many countries to implementing tighter global export controls. See IMPLEMENTING RESOLUTION 1540: THE ROLE OF REGIONAL ORGANIZATIONS (Lawrence Scheinman ed., 2008) [hereinafter Implementing 1540].

puzzle, particularly as it pertains to nonproliferation decision-making in states other than the existing nuclear powers and European countries. When I refer to “nonproliferation policy decision-making,” I mean a state’s calculation whether to support initiatives designed to block, deter, or punish acts of nuclear proliferation; by “proliferation decision-making,” I mean a nation-state’s calculation for deciding whether to pursue nuclear weapons. This is an essential analytical distinction, for a state can renounce nuclear weapons but withhold political support for measures to strengthen the nonproliferation regime, and vice versa. There is a large body of work on proliferation decision-making in which scholars specify and debate core assumptions and causal inferences, critically assess empirical evidence, and compare and contrast alternative accounts of why states build nuclear weapons.⁵

In the case of nonproliferation decision-making, however, there is no body of work comparable in empirical breadth, theoretical depth or critical orientation that explores what drives states’ evaluation of proposals for reinforcing the basic nonproliferation norms of the NPT. These norms require non-nuclear weapon states parties to renounce nuclear weapons and accept basic IAEA safeguards over civilian nuclear activities, and all parties to not assist any non-nuclear weapon state develop nuclear weapons.⁶ NPT parties are under no general legal obligation to support measures intended to bolster these basic norms, such as the IAEA’s Additional Protocol, modern export controls, economic sanctions against norm violators, and constraints on national fuel cycle activities. Many leading experts view these and other

⁵ See Jacques E.C. Hymans, *Theories of Nuclear Proliferation: The State of the Field*, NONPROLIFERATION REV., November 2006, at 454-465 (for a concise overview).

⁶ See NPT, *supra* note 3, art. I-III. For a concise overview of the NPT, see Andrew J. Grotto, *Non-Proliferation Treaty (1968)*, in the MAX PLANCK ENCYCLOPEDIA OF PUBLIC INTERNATIONAL LAW (Rudiger Wolfrum, ed., forthcoming).

nonproliferation measures as essential improvements to the NPT regime.⁷ I refer to these regime enhancements collectively as “NPT-plus” measures, out of recognition that they build on the NPT’s core nonproliferation norms.

Despite the lack of scholarly attention, there is something approaching consensus among policy-makers and experts that a binding constraint on attracting greater support for NPT-plus measures is the nuclear disarmament records of existing nuclear powers, particularly the U.S. record. Senior U.S. statesmen George P. Shultz, William J. Perry, Henry A. Kissinger and Sam Nunn speak for many experts and leaders when they say that “Without the vision of moving toward zero [nuclear weapons], we will not find the essential cooperation required to stop our downward spiral.”⁸ The consensus understands the NPT as a “bargain” between non-nuclear weapon states (NNWS) and nuclear-weapon states (NWS) in which the NNWS forgo nuclear weapons and accept IAEA safeguards over civilian nuclear activities in exchange for a commitment by the NWS to share peaceful nuclear technology and pursue nuclear disarmament. NNWS resist proposals to strengthen the nonproliferation end of the bargain in large part because they believe it is unfair that they should accept additional constraints on their

⁷ See, e.g., GEORGE PERKOVICH ET AL, *UNIVERSAL COMPLIANCE: A STRATEGY FOR NUCLEAR SECURITY* (2005) [hereinafter *Universal Compliance*]; REPORT OF THE SECRETARY GENERAL’S HIGH-LEVEL PANEL ON THREATS, CHALLENGES AND CHANGE, *A MORE SECURE WORLD: OUR SHARED RESPONSIBILITY* 39-47 (2004) [hereinafter *Shared Responsibility*]; NATIONAL SECURITY ADVISORY GROUP, *REDUCING NUCLEAR THREATS AND PREVENTING NUCLEAR TERRORISM* 21 (2007), available at <http://belfercenter.ksg.harvard.edu/files/Reducing%20Nuclear%20Threats-FINAL.pdf> [hereinafter *Reducing Nuclear Threats*].

⁸ *Toward a Nuclear Free World*, WALL ST. J., January 15, 2008, available at http://online.wsj.com/public/article_print/SB120036422673589947.html. See also the references *infra*, note 15.

sovereignty when America and other NWS aren't living up to their existing disarmament obligations. The policy implications are straightforward: the United States and other NWS must endeavor to satisfy NNWS concerns about disarmament in order to build greater support for NPT-plus measures.

The consensus view rests primarily on an argument about the role of norms in shaping states' evaluation of proposed international commitments: some states oppose NPT-plus measures not necessarily because they fear the NWS will use nuclear weapons against them, but because of what accepting those measures would symbolize. Drawing on theories of international law and relations, along with the literature on proliferation decision-making, I shall argue that there are sound theoretical grounds for this proposition. The prevailing normative construction of the NPT as a bargain between nuclear weapons "haves" and "have nots," along with the coincidence of nuclear weapons possession with broader patterns of global power and prestige, frames nonproliferation policy as an instrument for sustaining those patterns and nuclear disarmament as compensation to the NNWS for suffering the indignity of discriminatory treatment.

This logic of regime symbolism, if it is true, suggests a linkage between the depth of a state's grievance with the global status quo and its willingness to support NPT-plus measures. It also furnishes a potential explanation for what I regard to be a central problematic for the consensus view: why do some NNWS apparently condition their support for NPT-plus measures on disarmament while other NNWS do not? I suggest the answer may have to do with the normative construction of the NPT. I present some preliminary evidence in support of this proposition, focusing on the 1995 decision to indefinitely extend the NPT.

On the other hand, many nonproliferation decisions cannot be explained solely on the

basis of whether or not the United States and other NWS have satisfied concerns about disarmament. As we shall see, nonproliferation policies often have major implications for states' security and economic interests as well as any normative concerns relating to disarmament. This may seem like an obvious point, particularly given the weight ascribed to security and economic factors in scholarship on proliferation decision-making, but the potentially decisive role these factors may have on states' nonproliferation decision-making—and the major implications for the theory and practice of nonproliferation law and policy—are seldom acknowledged.

Thus, in addition to developing a logic of regime symbolism describing how normative factors may shape nonproliferation decision-making, I develop two alternative logics emphasizing how concerns about the implications of nonproliferation policies for the balance of military power and the domestic economy may influence nonproliferation decision-making as well.

The picture of nonproliferation decision-making that emerges from this more comprehensive accounting is that states may have as many reasons to oppose NPT-plus measures as they do to support them. Normative factors may push some countries to resist NPT-plus measures and others to endorse them; security concerns about the balance of power can create both incentives and disincentives to support nonproliferation; and the economic stakes implicated by nonproliferation policies often have distributional consequences that benefit some constituencies and burden others. A state may have a normative interest rooted in concerns about the fairness of the NPT's bargain in pressuring the NWS to pursue disarmament, but also have countervailing security and economic interests in denying adversaries access to nuclear weapons technology and sustaining important relationships with key countries and institutions that may outweigh disarmament concerns. On the other hand, a state may perceive marginal security or

economic benefit in NPT-plus measures, or even view them as affirmatively costly, as well as harboring normative objections to additional nonproliferation measures.

In other words, the success of efforts to mobilize greater international support for NPT-fuel cycle reform, robust export controls, an enhanced inspections regime, and other important nonproliferation priorities hinges on aligning incentives across states' interests. Demonstrating some progress on disarmament may be necessary in order to attract the support of some countries for NPT-plus measures, but it is not necessarily sufficient if lingering security and economic concerns relating to those measures are unresolved.

I. A LOGIC OF REGIME SYMBOLISM: EQUITY, IDENTITY, AND THE NORMATIVE CONSTRUCTION OF THE NPT

Contemporary scholarly and policy debates about the NPT are dominated by references to normative criteria about fairness and inequality. In these debates, the NPT is almost universally framed as a “bargain” between two classes of states, the “non-nuclear-weapon States” (NNWS) and the “nuclear-weapon States” (NWS). The NNWS trade nuclear restraint—a nonproliferation commitment (art. II) coupled with acceptance of IAEA safeguards on civilian nuclear activities (art. III)—in exchange for access to peaceful nuclear technology (art. IV) and a commitment by the NWS to negotiate in good faith towards nuclear disarmament (art. VI).⁹

Framing the NPT in this way implies that nuclear restraint is a net burden for NNWS deserving of compensation, with progress towards nuclear disarmament by the NWS (along with

⁹ See, e.g., Deepti Choubey, *Are New Bargains Obtainable?* CARNEGIE ENDOWMENT REPORT (October 2008), available at http://www.carnegieendowment.org/files/new_nuclear_bargains2.pdf [hereinafter *New Bargains*]; CECILIA ALBIN, *JUSTICE AND FAIRNESS IN INTERNATIONAL NEGOTIATION 201-202* (2001) [hereinafter *Justice and Fairness*].

access to peaceful nuclear technologies) serving as the preferred currency. The NPT forces NNWS to suffer the indignity of discriminatory treatment, insofar as the NWS are allowed to possess nuclear arsenals. For many NNWS, observes Ambassador George Bunn, a former general counsel for the U.S. Arms Control and Disarmament Agency who participated in negotiations over the NPT, “the ultimate purpose of Article VI is to end that discrimination.”¹⁰ From this perspective, a perceived failure by the NWS to pay their disarmament bill clearly implicates the equity of the NPT’s bargain: the NWS are getting something—a nonproliferation commitment from the NNWS—for little or nothing in return, despite solemn pledges to the contrary.

Most NNWS, particularly those associated with the Non-Aligned Movement (NAM), judge that the NWS have failed to live up to their end of the NPT’s three-point bargain.¹¹ There is a strong consensus among many policy-makers and nonproliferation experts that specific behavioral consequences follow from this perception of inequality: many NNWS condition their support for NPT-plus measures on disarmament. Public statements by leading NAM countries support this argument. Egypt, which will hold the rotating NAM chair during the 2010 NPT Review Conference, has said that progress on disarmament should be “the determining factor

¹⁰ George Bunn, *The NPT and Options for Its Extension in 1995*, 1 *NONPROLIFERATION REV.* 52, Winter 1994, at 55 [hereinafter *Options for Extension*].

¹¹ In an illuminating survey of official attitudes in a variety of countries on the relationship between the NPT’s disarmament and nonproliferation obligations, Choubey reports a widespread perception that “[n]on-nuclear weapon states face one-sided demands for nonproliferation initiatives, whereas nuclear-weapon states do not offer commensurate measures in the area of nuclear disarmament.” *New Bargains*, *supra* note 9, at 11.

with regard to acceptance by the states parties of any further obligations under the NPT,”¹² including whether to adopt the IAEA’s Additional Protocol.¹³ South Africa, another influential NAM country and past NAM chair, has reportedly linked its support for a global effort to end the civilian use of highly-enriched uranium on whether the NWS have made satisfactory progress towards disarmament.¹⁴ The consensus concludes that the binding constraint on efforts to strengthen the nonproliferation elements of the NPT’s bargain is a lack of progress on nuclear disarmament, and that it is therefore essential for the NWS to demonstrate better progress on disarmament in order to mobilize greater support for NPT-plus measures.¹⁵

¹² Ahmed Fathalla, Statement at the General Debate of the 2005 Review Conference of the NPT (May 3, 2005), at 1, *available at* <http://www.un.org/events/npt2005/statements/npt03egypt.pdf>.

¹³ *Id.*, at 2 (questioning whether it is logical or even feasible to reward the laxity in implementation of obligations under one of the treaty’s pillars, namely nuclear disarmament, with the imposition of additional obligations under the other pillars of the treaty including the safeguards regime”).

¹⁴ Christopher F. Chyba, *Time for a Systematic Analysis: U.S. Nuclear Weapons and Nuclear Proliferation*, 38 ARMS CONTROL TODAY, December 2008, *available at* http://www.armscontrol.org/act/2008_12/Chyba.

¹⁵ This reasoning animates U.S. President Barack Obama’s April 2009 speech in Prague, where he endorsed the vision of a world free of nuclear weapons. Remarks by President Barack Obama at Hradcany Square (April 5, 2009), *available at* http://www.whitehouse.gov/the_press_office/Remarks-By-President-Barack-Obama-In-Prague-As-Delivered/. It animates British policy too, as reflected in Prime Minister Gordon Brown’s assertion that “we cannot expect to successfully exercise moral and political leadership in preventing the proliferation of nuclear weapons if we ourselves do not demonstrate leadership on the question of disarmament of our weapons.” Speech on Nuclear Energy and Proliferation (March 17, 2009), *available at* <http://www.number10.gov.uk/Page18631>. A 2007 policy paper on nuclear threats from the National Security Advisory Group, a task force chaired by ex-Secretary of State Madeleine Albright and former Defense Secretary William Perry, argues that “by fulfilling our commitment to make progress toward nuclear disarmament, we give ourselves much greater leverage to persuade other countries to take the firm steps we consider necessary to prevent terrorists and additional countries from acquiring nuclear weapons,

A. Nuclear Weapons and the Nonproliferation Regime as Symbols of Hegemony

The idea that states incorporate fairness criteria into their foreign policy decision-making is not new. There is a distinguished line of scholarship dating back to the writings of Immanuel Kant on the role of normative considerations in shaping the behavior of states. Broadly speaking, including adopting tighter export controls, tougher financial pressures and other sanctions, and stronger nuclear security measures.” Reducing Nuclear Threats, *supra* note 8, at 21. Sam Nunn, former U.S. Senator and a distinguished advocate against nuclear threats, adds that “we simply are not going to get the cooperation we need around the globe to take the steps that are essential for our security without having a restoration of the vision [for nuclear disarmament] that was laid down in the nuclear Nonproliferation Treaty.” Daryl Kimball & Miles Pomper, *A World Free of Nuclear Weapons: An Interview with Nuclear Threat Initiative Co-Chairman Sam Nunn*, 38 ARMS CONTROL TODAY (March 2008), available at http://www.armscontrol.org/act/2008_03/Nunn.asp. An influential study published by the Carnegie Endowment for International Peace in 2005 concluded that “many states in the rest of the world hesitate to strengthen enforcement of nonproliferation because they believe that the nuclear weapon states are not committed to disarmament.” Perkovich et al, *Universal Compliance*, *supra* note 8, at 150. This perspective is echoed by foreign diplomats and experts as well. Deepti Choubey reports that “[a]cross a range of NATO countries and other [U.S.] allies, the uniform message is that progress on disarmament could lead to goodwill” and yield greater support for nonproliferation objectives. *New Bargains*, *supra* note 9, at 17. In a 2006 survey of foreign perspectives on U.S. nuclear policy conducted by SAIC, a defense consultancy, for the U.S. Defense Threat Reduction Agency, respondents predicted that “greater U.S. readiness to engage on nuclear disarmament issues would pay off in increased support from other third parties in pursuing U.S. non-proliferation objectives.” LEWIS A. DUNN et al, *FOREIGN PERSPECTIVES ON U.S. NUCLEAR POLICY AND POSTURE 7* (2006), available at <http://www.dtra.mil/documents/asco/publications/ForeignPerspectivesUSNuclearPolicyCompleteReport.pdf>. Mohammad ElBaradei, Director General of the IAEA and 2005 Nobel Peace Prize recipient, has argued that the United States would “have much more moral authority to go after the Iranians of the world” if it pursued nuclear disarmament. Mohamed ElBaradei, Director General, IAEA, Discussion held at the Steinbeck Forum at the Monterey Conference: Nuclear Proliferation Challenges and Nonproliferation Opportunities (May 30, 2006).

this diverse body of literature has a prescriptive strand on what a just or moral foreign policy should be, and a descriptive strand focusing on how values such as fairness, ideology, and national identity shape international politics and foreign policy, particularly in the context of international institutions and regimes. We are interested here in the descriptive strand. In this literature, concepts such as sovereignty and national interest are social constructs; their content—and by extension, international politics—is informed not only by material factors such as wealth but by ideas about what is right, equitable, and just.¹⁶

Ideational theories of proliferation decision-making—why states build nuclear weapons—focus on the normative significance of nuclear weapons as symbols of strength, prestige and modern statehood, and offer compelling explanations of key cases. Scott Sagan has argued, for example, that France sought a nuclear arsenal primarily because Charles de Gaul and other leaders viewed France as a great power and nuclear weapons as a symbol of great power status; thus, an independent nuclear arsenal was required if France was to live up to its self-image.¹⁷ The evolution of India’s program can also be partly understood in these broad terms. In India, nuclear weapons policy was a site of intense normative conflict among bureaucrats, politicians and other social groups over India’s identity and national interests, reflecting “a moral antagonism toward the production of weapons of mass destruction [and] an ambition to be regarded as a major power in a world where the recognized great powers rely on nuclear

¹⁶ See, e.g., ALEXANDER WENDT, *SOCIAL THEORY OF INTERNATIONAL POLITICS* (1999); MARTHA FINNEMORE, *NATIONAL INTERESTS IN INTERNATIONAL SOCIETY* (1996). For a synthesis of these theories with liberal international relations theory, see Andrew Moravcsik, *Liberal International Relations Theory: A Scientific Assessment*, in *PROGRESS IN INTERNATIONAL RELATIONS THEORY: APPRAISING THE FIELD* 159, 168-171 (Colin Elman & Miriam Fendius Elman, eds., 2003).

¹⁷ Sagan, *Why Do States Build Nuclear Weapons?*, *supra* note 2, at 79.

weapons for security and prestige.”¹⁸

Similarly, civilian nuclear energy programs may also serve as status symbols. In the 1950s, for example, the Soviet Union and the United States were not only engaged in a nuclear arms race, but in a nuclear energy race that scholars have interpreted as a contest for international status.¹⁹ More recently, political debate within Iran uniformly depicts the nuclear program as symbolizing Iranian technological achievement and independence from the West, which ensures strong popular support for it.²⁰ Egypt, in turn, has framed its renewed interest in developing nuclear energy, in the words of Gamal Mubarak, as “a national project that proves to us that we are strong and capable of doing something fitting of the grandeur of a country that some have begun to doubt” in light of Iran’s nuclear energy program.²¹

An ideational account of *non*proliferation decision-making—why states support or oppose measures to strengthen the NPT’s core nonproliferation commitments—would stress similar normative factors: states evaluate NPT-plus measures in part according to what nuclear

¹⁸ See GEORGE PERKOVICH, *INDIA’S NUCLEAR BOMB: THE IMPACT ON GLOBAL PROLIFERATION* 6 (1999) [hereinafter *India’s Nuclear Bomb*]. See also Sagan, *id.*, at 65-69.

¹⁹ See Rebecca S. Lowen, *Entering the Atomic Power Race: Science, Industry, and Government*, 102 *POL. SCI. Q.* 459 (1987).

²⁰ Kayhan, Barzegar, *Iran’s Nuclear Program: An Opportunity for Dialogue*, *Center for Strategic Research*, May 2009, available at <http://www.csr.ir/departments.aspx?lng=en&abtId=06&&depId=74&seMid=1797>.

²¹ *Egypt’s Energy Minister on Nuclear ‘Dream’*, *AL-AHRAM*, Oct. 6, 2006, Open Source Center GMP20061006007002, quoted in Leonard S. Spector & Benjamin Radford, *Algeria, Emirates Plan Nonproliferation-Friendly Nuclear Programs; Egypt Keeps Fuel Cycle Options Open, Rejects Expanded IAEA Monitoring*, *WMD INSIGHTS*, July 2008, available at http://www.wmdinsights.com/I25/I25_ME1_AlgeriaEmirates.htm [hereinafter *Nonproliferation-Friendly Nuclear Programs*].

weapons, civilian nuclear energy programs, and the nonproliferation regime represent or symbolize. These meanings are socially constructed and may vary cross-nationally and across time, depending on particular states' political cultures, national histories, and prevailing narratives about national self-image and identity. As a consequence, nuclear weaponry, nuclear energy, and the nonproliferation regime may symbolize different things to different actors, encouraging pursuit of nonproliferation policies in some polities but discrediting nonproliferation policies in others.

Nina Tannenwald has argued that there is a “nuclear taboo” in the United States against the use of nuclear weapons in warfare that emerged as an application of American moral values to its foreign and military policies.²² By the same token, the unique horrors of weapons of mass destruction may cause some polities, for reasons of national history or political culture, to recoil at the thought of contributing to proliferation. This sentiment could translate to support for measures designed to prevent the spread of nuclear weapons. Germany ratified the NPT in May 1975, but one month later announced a deal with Brazil whereby it would transfer a complete nuclear fuel cycle to it. Brazil refused to sign the NPT and was considered by U.S. intelligence to be a proliferation concern.²³ Indeed, throughout the late 1970s and 1980s, West German companies were a preferred source of materials and technologies for Iraq, Libya and other

²² NINA TANNENWALD, *THE NUCLEAR TABOO: THE UNITED STATES AND THE NON-USE OF NUCLEAR WEAPONS SINCE 1945* (2008). See also Nina Tannenwald, *Stigmatizing the Bomb: Origins of the Nuclear Taboo*, 29 INT'L SEC. 5 (Spring 2005).

²³ A recently declassified Special National Intelligence Estimate conducted in 1974 by the U.S. intelligence community describes Brazil as a possible candidate for developing nuclear weapons. See *Prospects for Further Proliferation of Nuclear Weapons*, August 23, 1974, NAT'L SEC. ARCHIVE ELEC. BRIEFING BOOK NO. 240, available at <http://www.gwu.edu/~nsarchiv/NSAEBB/NSAEBB240/snie.pdf>.

countries seeking to develop nuclear and chemical weapons because of the quality of German products and Germany's lax export controls.²⁴ Noted German nonproliferation scholar Harald Müller and colleagues attribute the lax export controls during this period to West Germany's "political identity" as a "trading state" that "regarded exports as a right of business; all state interventions needed...specific and explicit authority."²⁵ West Germany was shamed into becoming a driving force for export controls, according to Müller, following the Rabta scandal in 1989, in which it was revealed that a West German company had built a chemical weapons facility in Libya that has become popularly known as "Auschwitz in the Sand."²⁶ This incident "shocked the government into action,"²⁷ leading it to fundamentally reorganize its export control bureaucracy to give greater voice to national security concerns and enact new licensing

²⁴ See Harald Müller et al, *From Black Sheep to White Angel? The New German Export Control Policy*, 32 PEACE RESEARCH INST. FRANKFURT REP., January 1994, at 1-2 (noting that the "German contribution to Iraq's and other countries' WMD was disproportional) [hereinafter *Black Sheep*].

²⁵ *Id.*, at 3. In a comparative study of U.S. and German export control policies, Claus Hofhansel shows how this export orientation was institutionalized in the export control bureaucracy. See COMMERCIAL COMPETITION AND NATIONAL SECURITY: COMPARING U.S. AND GERMAN EXPORT CONTROL POLICIES (1996) [hereinafter *Commercial Competition*].

²⁶ Harald Müller, *Europe's Leaky Borders*, THE BULLETIN OF THE ATOMIC SCIENTISTS, June 1993, at 28 [hereinafter *Leaky Borders*]. See also Müller et al, *Black Sheep*, supra note 21, at 3-4; Harald Müller, *Germany and WMD Proliferation*, 10 NONPROLIFERATION REV., Summer 2003, at 4 [hereinafter *Germany and WMD Proliferation*]; Hofhansel, *Commercial Competition and National Security*, supra note 22, at 26; 117-138. The phrase "Auschwitz in the Desert" is attributed to conservative U.S. columnist William Safire, who offers a damning account of the incident. See *The German Problem*, N.Y. TIMES, Jan. 2, 1989, at A23.

²⁷ Müller et al, *Leaky Borders*, *id.* at 28.

requirements, including a full scope safeguards requirement in 1990.²⁸ West Germany, and later a unified Germany, would go on to become a European champion for more robust export controls.²⁹

On the other hand, as we saw above, the literature on proliferation decision-making emphasizes how some actors may desire nuclear weapons as status symbols. Insofar as the NPT and the broader nonproliferation regime are intended to deny nuclear weapons to additional countries—often via additional constraints on civilian nuclear activities—and thus preserve a global status quo, they may be viewed as tools for the NWS and their allies to preserve a privileged position on the global stage. From this perspective, the alleged refusal of the NWS to

²⁸ See generally Müller et al, *Black Sheep*, supra note 21. The export control reform process had begun in 1984 when Germany added dual-use chemical technologies on its control list following a series of embarrassing revelations that German exports of sensitive dual-use items had materially contributed to non-conventional weapons programs in Iraq, Libya, and Pakistan. These incidents, which occurred against a backdrop of growing anti-nuclear sentiment in Germany provoked by nuclear accidents at Three Mile Island and Chernobyl and NATO deployments of Pershing II and cruise missiles, elevated the domestic political profile of export controls and mobilized anti-nuclear constituencies concerned about the security, environmental, and reputational repercussions for Germany. But it was the Rabta affair that finally led Germany to recalibrate its export control policy. Müller, *Germany and WMD Proliferation*, supra note 23, at 4.

²⁹ It strongly supported the revitalization of the NSG following the discovery in 1991 of Saddam’s Hussein’s massive clandestine nuclear program, including the NSG’s agreements in April 1992 to adopt the full-scope safeguards requirement for materials and technology specially designed for nuclear use and on a list of dual-use items that would be subject to facility- or activity-specific safeguards. Finally, Germany became a “driving force” in efforts to strengthen multilateral export controls, successfully lobbying its fellow members of what was then still called the European Community to adopt a full-scope safeguards requirement, and then later spearheading the European Council’s “Joint Action” calling for a coordinated campaign among EU members to secure the indefinite extension of the NPT at the 1995 Review and Extension Conference. *id.*, at 5.

uphold their Article VI disarmament obligations symbolizes a global distribution of power and prestige that confers disproportionate benefits to the NWS and their allies while burdening the rest of the world with restrictions on their rights.

These insights furnish a promising explanation to a seldom-acknowledged paradox in arguments about how the inequities of the NPT's bargain and its subsequent implementation influence nonproliferation decision-making. A failure of the NWS to uphold their disarmament obligations is equally unfair to all NNWS, yet some NNWS are plainly more sensitive to this than others. For example, support for NPT-plus obligations is uniformly high among industrialized, democratic NNWS but much more mixed among developing countries, particularly those associated with the Non-Aligned Movement (NAM). Take, for example, the IAEA Additional Protocol. With just two exceptions, every member state of the European Union, NATO, and the OECD has an IAEA Additional Protocol in force, for an acceptance rate of over 95%.³⁰ Among countries associated with the NAM, by contrast, less than one third of countries have an Additional Protocol in force. Indeed, ever since the inaugural NPT review conference in 1975, non-aligned countries had been the primary antagonists against the disarmament records of the NWS, regularly criticizing the NWS for allegedly failing to uphold their Article VI commitment to pursue nuclear disarmament—particularly their lack of progress towards negotiating a Comprehensive Test Ban Treaty (CTBT).³¹

The logic of regime symbolism suggests a promising explanation for these trends: to the extent that the alleged failure of the NWS to adequately fulfill their Article VI responsibilities

³⁰ The two exceptions are Mexico, an OECD member but NAM observer, and Albania, a NATO member. Both countries have signed it, however. *See* IAEA, *Additional Protocols*, *supra* note 4.

³¹ See Carlton Stoiber, *The Evolution of NPT Review Conference Final Documents, 1975-2000*, 10 *NONPROLIFERATION REV.*, Fall/Winter 2003, at 126 [hereinafter *NPT RevCon Final Documents*].

symbolizes a fundamentally inequitable global status quo, the greater the intensity of a state's grievance with the status quo, the less likely it may be to support NPT-plus measures perceived as reinforcing that status quo. On a fundamental level, the industrial democracies do not reject the international architecture built in the immediate aftermath of the Second World War; they seek to reinforce it by supporting an activist role for the United Nations Security Council, leading the establishment of the World Trade Organization, and engaging in other efforts to strengthen the existing institutions of global governance.

The ideology and rhetoric of the NAM, by contrast, expressly reject the international status quo. The movement emerged from the Asia-Africa Conference held in Bandung, Indonesia in 1955, where "leaders shared their similar problems of resisting the pressures of the major powers, maintaining their independence and opposing colonialism and neo-colonialism, specially [sic] western domination." Its political platform emphasizes "independent judgment" in foreign policy while maintaining "the struggle against imperialism." It also "works towards the restructuring of the international economic order" to favor developing countries and break the West's grip on the rules of that order.³²

B. The 1995 Decision to Indefinitely Extend the NPT

The process and outcome of the 1995 NPT Review and Extension Conference is probative evidence for the proposition that states evaluate NPT-plus measures at least in part according to what they symbolize. It also illuminates how some states' concerns about the broader distribution of international power may their influence nonproliferation decision-making. For five weeks in April and May of 1995, 175 countries met in New York to decide the fate of

³² Non-Aligned Movement, NAM Description and History, <http://www.nam.gov.za/background/history.htm> (last visited June 17, 2009).

the NPT. Article X of the NPT specified a twenty-five year lifespan from the date of its March 1970 entry into force, with an option to extend the treaty's life by majority vote. The extension could be for an indefinite period, or for one or more additional fixed periods. The five NWS, most industrialized NNWS, and many developing NNWS sought an indefinite extension on the grounds that a permanent NPT would make the strongest contribution to international peace and security.³³

Their main obstacle was a group of countries associated with the NAM. For decades, non-aligned countries had identified the entry into force of a CTBT as the acid test for Article VI compliance;³⁴ quintennial review conferences in 1980 and 1990 had completely broken down over it.³⁵ These criticisms had been so consistent and apparently unyielding in the years leading up to the 1995 extension decision that many governments and expert observers believed non-aligned countries would never agree to a permanent NPT unless there was substantial momentum towards achieving a CTBT.³⁶ In 1993, with less than fourteen months to go before the conference opened, this cynicism seemed warranted: around 100 states, almost all members of NAM or regular participants in NAM proceedings, were still uncommitted to the indefinite extension, preferring instead various fixed term extension proposals.³⁷

The tide underwent a decisive shift in favor of indefinite extension after the United States

³³ THOMAS GRAHAM, DISARMAMENT SKETCHES 259-260 (2002) [hereinafter Sketches]; Helen Leigh-Phippard, *Multilateral Diplomacy at the 1995 NPT Review and Extension Conference*, 8 *DIPL. & STATECRAFT* 167, 180-181 (July 1997) [hereinafter *Multilateral Diplomacy*].

³⁴ Graham, *id.* at 261.

³⁵ Stoiber, NPT RevCon Final Documents, *supra* note 31, at 159-161.

³⁶ Graham, *Disarmament Sketches*, *supra* note 33, at 259-261; 264-265;

³⁷ *Id.*, at 260.

announced its support for negotiating a CTBT and made other efforts to address disarmament concerns.³⁸ For most countries, U.S. support for the CTBT was enough to placate normative concerns about the treaty's grand bargain: by the time the conference was formally launched in April 1995, a rough majority of countries that included NWS and NNWS from the developing world supported the indefinite extension.³⁹ That put it within close reach under Article X's majority rule.

Other countries, however, proved far more sensitive to the normative implications of the indefinite extension option. A group of more radical non-aligned countries calling themselves the "like-minded states" and led by Indonesia as the NAM chair staked out a particularly strong position against indefinite extension that explicitly emphasized normative factors.⁴⁰ At the opening debate of the conference, the head of Indonesia's delegation said that:

An indefinite extension would mean the permanent legitimization of nuclear

³⁸ Ambassador Thomas Graham, the lead U.S. negotiator, credits U.S. President Bill Clinton's announcement in July 1993 that the United States was prepared to negotiate a CTBT as a "major step towards the achievement of indefinite NPT extension." *Id.*, at 261. Ambassador Graham also visited more than forty capitals around the world in advance of the conference to build support for the indefinite extension, where he addressed persistent concerns about the U.S. disarmament record by emphasizing the U.S. commitment to the CTBT and other contributions to disarmament, such as the entry into force of START I and reaffirmations by President Clinton and Vice President Al Gore of the goal of a world free of nuclear weapons. *Id.*, at 265-266; 286-287. See also Leigh-Phippard, *Multilateral Diplomacy*, supra note 33, at 181. The United States also announced that it would no longer seek to include a ten-year withdrawal clause in the CTBT; many NAM countries had criticized this proposed clause due to the inconsistency between U.S. advocacy of a time-bound CTBT and an NPT of indefinite duration. Graham, *id.*, at 286.

³⁹ David B. Ottaway & Steve Coll, *A Hard Sell for Treaty Renewal; U.S. Campaign for Indefinite Extension Met With Skepticism*, WASH. POST, Apr. 14, 1995, at A1 [hereinafter *Hard Sell*].

⁴⁰ Leigh-Phippard, *Multilateral Diplomacy*, supra note 33, at 184.

weapons and the five privileged powers will be permitted to keep their nuclear arsenals while others are barred forever from acquiring them. It will thus lead to a permanent division of the world into nuclear haves and have-nots, ratify inequality in international relations and relegate the vast majority of non-nuclear nations into a second class status.⁴¹

The main concern expressed by Indonesia is not that any of the NWS will attack it with nuclear weapons, that NWS possession of nuclear weapons makes it more likely that Indonesia's neighbors will acquire nuclear weapons, or even that nuclear war among the NWS would have collateral effects on Indonesia's security. Rather, it is a rejection of what indefinite extension would symbolize: the permanent "legitimization" of "privilege" and "inequality in international relations."

Indonesia and thirteen other like-minded states never abandoned their principled opposition to the indefinite extension.⁴² By the penultimate week of the conference, around 150 countries supported a Canadian resolution that said simply, "the treaty shall continue in force indefinitely."⁴³ The indefinite extension option now enjoyed unambiguous supermajority support, but the president of the conference, Ambassador Jayantha Dhanapala of Sri Lanka,

⁴¹ *Opening NPT Debate Overwhelmingly Backs Indefinite Extension*, U.S. INFO. SERVICE, April 19, 1995.

⁴² In addition to Indonesia, these countries include Ghana, Iran, Jordan, Malaysia, Mali, Myanmar, Nigeria, North Korea, Papua New Guinea, Tanzania, Thailand, Zambia, and Zimbabwe. *See* NPT Review Conference, April 17-May 12, 1995, *Extension of the Treaty on Non-Proliferation of Nuclear Weapons: Democratic People's Republic of Korea, Indonesia, Iran, Jordan, Malaysia, Mali, Myanmar, Nigeria, Papua New Guinea, Thailand and Zimbabwe*, NPT/CONF.1995/L.3. (May 5, 1995) (Ghana, the United Republic of Tanzania and Zambia joined later) [hereinafter *Extension of the NPT: DPRK et al*].

⁴³ Graham, *Disarmament Sketches*, *supra* note 33, at 289.

wanted to avoid a potentially damaging vote, which could undermine confidence in the treaty, in favor of an extension decision made on the basis of consensus.⁴⁴ This meant that the main barrier to consensus over indefinite extension was the remaining fourteen like-minded states, which by now had sponsored a counterproposal calling for a 25-year extension term accompanied by an ambitious nuclear disarmament agenda.⁴⁵

At this stage in the negotiations, however, these countries were diplomatically isolated and in no political position to attract support for their counterproposal or block the indefinite extension.⁴⁶ This practical reality led Indonesia's foreign minister Ali Alatas to approach Ambassador Thomas Graham, head of the U.S. delegation at the conference, in New York with a proposal that would give Indonesia and other like-minded states a face-saving way to permit indefinite extension to move forward without a vote: include political commitments relating to

⁴⁴ Albin, *Justice and Fairness*, supra note 9, at 205-206. Some NAM countries also viewed this as a way to elevate another barrier to indefinite extension, even if they often strategically couched their preference for a consensus decision in terms of fairness and precedent. Graham, *id.*, at 286; *see also* Albin, *id.*, at 205.

⁴⁵ *See* Extension of the NPT: DPRK et al, supra note 42; Review and Extension Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, Apr. 17-May 12, 1995, *Final Document of the 1995 Review and Extension Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons: Organization and Work of the Conference*, NPT/CONF.1995/32 (Part I)(28)(c) (1995).

⁴⁶ According to Canada's lead delegate at the conference, at this point "the cost of staying outside the consensus rose and the point of doing so fell. Countries remaining outside faced the possibility of isolation and had to decide if they were willing to deny the consensus." Susan Welsh, *Delegate Perspectives on the 1995 NPT Review and Extension Conference*, 2 *NONPROLIFERATION REV.*, Spring/Summer 1995, at 3-4 [hereinafter *Delegate Perspectives*]. Ambassador Miguel Marin Bosch, Mexico's senior diplomat at the conference, confirmed Canada's assessment: "It is quite obvious that if you come to New York in the middle of April, and by the end of April there is a palpable, demonstrable majority for an indefinite extension, it would be tantamount to political suicide to oppose it." *Id.*, at 7.

disarmament as part of a package decision announcing the indefinite extension.⁴⁷ The “Decision on Principles and Objectives for Nuclear Non-Proliferation and Disarmament” was originally inspired by a South African proposal to identify benchmarks for measuring progress towards nuclear disarmament; these benchmarks include entry into force of a CTBT, negotiations towards a fissile material cut-off, and “the determined pursuit by the nuclear-weapon States of systematic and progressive efforts to reduce nuclear weapons globally, with the ultimate goals of elimination those weapons.”⁴⁸ By affirming that possession of nuclear weapons by the NWS is a temporary expedient towards the ultimate goal of nuclear disarmament, the Decision furnished political cover for Indonesia and the other like-minded states that worried about how an indefinite extension of the NPT would ratify a permanent right for the NWS to possess nuclear weapons to not block the consensus. Similarly, the “Decision on Strengthening the Review Process for the Treaty” established a more robust treaty review process intended in significant part to review Article VI compliance to address concern that indefinite extension would permanently sideline discussions about Article VI and disarmament in NPT review conferences.⁴⁹

⁴⁷ According to Ambassador Graham, Indonesia’s ambassador to the IAEA pleaded, “Oh come on, Tom, give us a crumb” when he showed some hesitation about linking the two political decisions to the indefinite extension. Graham, *Disarmament Sketches*, supra note 33, at 273; 289-290.

⁴⁸ Review and Extension Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, Apr. 17-May 12, 1995, *Decision 2: Principles and Objectives for Nuclear Non-Proliferation and Disarmament*, NPT/CONF.1995/32 (Part I, Annex), para. 4, available at http://www.un.org/disarmament/WMD/Nuclear/1995-NPT/pdf/NPT_CONF199501.pdf

⁴⁹ Review and Extension Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, Apr. 17-May 12, 1995, *Decision 1: Strengthening the Review Process for the Treaty*, NPT/CONF.1995/32 (Part 1, Annex), available at http://www.un.org/disarmament/WMD/Nuclear/1995-NPT/pdf/NPT_CONF199532.pdf.

C. Problems and Implications for Nonproliferation Law and Policy

One obvious policy implication of this account of nonproliferation decision-making is that by addressing concerns about Article VI, the NWS may be able to reduce normative opposition to strengthening the nonproliferation pillar of the NPT's three-point bargain. This would help drive a wedge between any association that exists between nuclear weapons possession and great power status while demonstrating that the NWS respect the rule of law just as NNWS do, mitigating charges of hypocrisy and unfairness. The nonproliferation regime no longer appears to be a tool wielded by the NWS and their NNWS allies to sustain a privileged position in global affairs.

At a minimum, good-faith efforts to satisfy disarmament concerns could also help governments that may be inclined to support NPT-plus measures resist international or domestic political pressures to take a hard line on disarmament. As we have seen, many countries do not condition their support for NPT-plus measures on disarmament, and among those that appear to do so, the strength of that linkage—which I have suggested may be tied to deeper grievances with the global status quo—varies widely. Most NAM countries in 1995 were willing to support an indefinite extension without preconditions, while some NAM countries sought a much higher standard. The U.S. commitment to CTBT surely helped advocates for indefinite extension in these countries resist the entreaties of their harder line NAM counterparts.

Similarly, an effort to address disarmament concerns could also provide countries that have publicly staked out a particularly hard line on disarmament with a face-saving way to reverse or change a position, as in 1995. This role for the pair of political decisions on disarmament is seldom acknowledged in contemporary accounts of the 1995 indefinite extension decision that depict it as the result of a simple tit-for-tat trade involving NWS commitments on

disarmament in exchange for NNWS agreement to indefinitely extend the NPT.⁵⁰ As Mexico's representative at the conference, Ambassador Miguel Marin Bosch, has pointed out, the NWS actually "did not accept any new undertakings beyond what is stated in Article VI" at the review and extension conference, since the United States and three other NWS had committed to concluding a CTBT by 1996 prior to when the conference began.⁵¹ According to Ambassador Graham, Indonesia's ambassador to the IAEA pleaded, "Oh come on, Tom, give us a crumb" when he showed some hesitation about linking the two political decisions to the indefinite extension.⁵² This does not mean that the political commitments were inconsequential; fig leaves are surely important in international affairs if they enable diplomats and leaders to more effectively sell nonproliferation policies to political constituencies back home. Some countries may also use the disarmament records of the NWS as a public justification to reject NPT-plus measures on principle instead of more fundamental objections rooted in parochial interests, such as perceived adverse impacts on their national security and domestic economy; eliminating that excuse could enable a more frank and productive discussion about how to strengthen the nonproliferation regime. For these reasons alone, nonproliferation strategy must take seriously the potential tactical benefits of addressing disarmament concerns in the conduct of diplomacy

⁵⁰ See, e.g., Perkovich et al, *Universal Compliance*, supra note 7, at 14 (describing the indefinite extension as the product of a bargain whereby "[o]ne hundred seventy-three states reaffirmed their renunciation of nuclear weapons in return for an explicitly reaffirmed commitment by the United States, China, France, Russia, and the United Kingdom to eventually eliminate their nuclear arsenals").

⁵¹ Miguel Marin Bosch, *The Non-Proliferation Treaty and Its Future*, in *INTERNATIONAL LAW, THE INTERNATIONAL COURT OF JUSTICE AND NUCLEAR WEAPONS* 375, 378-9 (Laurence Boisson de Chazournes & Philippe Sands, eds., 1999).

⁵² Graham, *Disarmament Sketches*, supra note 33, at 273.

on behalf of NPT-plus measures.

There are nevertheless some important limitations to this logic of nonproliferation decision-making as presented here. First and foremost, there is a severe shortage of empirical evidence on how states in the developing world formulate their nonproliferation policies. This is a major gap in scholarly understanding of the NPT regime, but correcting this problem lies well beyond the scope of this article. I have sought to ground the expert and policy consensus about an important relationship between nonproliferation decision-making and disarmament in theories of international law and relations, and presented some preliminary evidence. Much of the evidence, however, derives from statements made by officials at NPT review conferences or interviews with disarmament officials. This presents some potentially significant validity concerns.⁵³ The reasons governments and officials give in public for their actions do not necessarily correspond to their private motivations. An official might even invoke equity concerns strategically in order to claim credit for a favorable policy outcome, put a positive spin on an unfavorable one, or bolster an argument for their policy preference. This isn't to accuse any particular official of engaging in strategic behavior; rather, it is to caution against uncritical acceptance of their interpretation of events. Another potential problem is bias. An official's explanation of the government's policy may or may not be representative of what actually drove the government's decision, which may actually reflect mixed motives among different constituencies. One official's explanation may represent a bureaucratic leaning rather than an objective assessment of which arguments and constituencies held the most sway in internal debates.

The risk of bias may be particularly great in the disarmament sphere. For example,

⁵³ GARY KING, ROBERT O. KEOHANE & SIDNEY VERBA, *DESIGNING SOCIAL INQUIRY* 25 (1994).

Ambassador Graham has observed that many NAM governments' disarmament representatives "tend[] to form their own groups and many wrote their own instructions" with little input from their capitols; he believes that this produces a single-minded, negatively biased focus at NPT review conferences on disarmament.⁵⁴ Thus, in pre-review and extension conference diplomacy to build support for the indefinite extension of the NPT, U.S. diplomats largely bypassed these officials and sought bilateral meetings with the senior foreign policy leadership of countries in their home capitals instead. The reasoning behind this tactic was that senior leadership would be more inclined to see the positive benefits of indefinite extension in terms of their security and economic interests than their disarmament-focused subordinates.⁵⁵

Finally, as we shall see in subsequent sections, equity concerns about disarmament are not the only factors that have shaped states' evaluation of proposed nonproliferation initiatives. These problems suggest a need to develop, compare, and contrast alternative accounts of nonproliferation decision-making and their implications for policy. The next two sections examine the role of security and economic factors, respectively, in shaping states' assessment of NPT-plus measures, and draws lessons from each for contemporary nonproliferation strategy.

II. A LOGIC OF RELATIVE POWER: NUCLEAR PROLIFERATION AND THE MILITARY BALANCE OF POWER

States may also evaluate nonproliferation policies on the basis of whether they protect or augment the balance of military power. According to this logic, *ceteris parabis* the more a state's national security is threatened by nuclear proliferation, the greater the incentive it has to invest resources into counterbalancing the threat.

⁵⁴ Graham, Disarmament Sketches, *supra* note 33, at 260-261; 263.

⁵⁵ *Id.*, at 260.

One option for counterbalancing the threat is to pursue nuclear weapons or join a security alliance with an existing nuclear power. Explanations of proliferation decision-making rooted in relative power remain highly influential in contemporary scholarly and policy accounts, despite a wave of scholarly criticism attacking one variation of it—neorealism—as incomplete or indeterminate with respect to key proliferation cases.⁵⁶ The basic thrust of this literature is to show that the decision to pursue nuclear weapons is not simply an automated self-help response to international stimuli under conditions of anarchy, but rather is the product of a chorus of domestic political considerations including the configuration of governmental and civil society institutions, strategic culture, national identity, and even the psychology of individual leaders. These sub-state actors, however, are often motivated to lobby for nuclear weapons development at least in part because they perceive nuclear weapons as a mechanism for addressing a security dilemma rooted in concerns about the balance of power.⁵⁷

⁵⁶ For the definitive overview, see Sagan, *Why Do States Build Nuclear Weapons*, *supra* note 2.

⁵⁷ For example, Jacques Hymans, a leading critic of the neorealist approach in proliferation studies, has developed a social-psychological theory of nuclear proliferation focusing on the emotions of a country's head of state. His theory rests on the premise that a decision to pursue nuclear weapons "is a revolutionary decision...likely to disturb the system more than any other, inviting huge, multifarious, and unpredictable consequences," so it therefore takes a special kind of leader to roll the dice and launch such a risky, ambitious project. *THE PSYCHOLOGY OF NUCLEAR PROLIFERATION* 9 (2006). Hymans argues that only leaders with a psychological profile that combines an elevated threat perception of other countries and an outsized perception of national capabilities will make this move. As one critic has pointed out, however, this corresponds rather closely to neorealism's emphasis on threat perceptions and relative capabilities. Keir Leiber, *Book Review: The Psychology of Nuclear Proliferation: Identity, Emotions, and Foreign Policy*, 69 *J.POL.* 254, 255 (February 2007). Similarly, a regular feature of proliferation accounts emphasizing domestic politics and bureaucratic coalitions is the construction and promotion of extreme

Building nuclear weapons or joining a nuclear alliance, of course, are not the only options available to a state that perceives nuclear proliferation as a threat. It could resist nonproliferation measures designed to make it harder for clandestine nuclear weapons development, such as the IAEA Additional Protocol, as a graduated, intermediate step in order to send diplomatic signals to allies and adversaries. Egypt, for example, has cited Israel's unacknowledged nuclear program and status as a non-signatory to the NPT as a reason for its refusal to ratify the Additional Protocol.⁵⁸ Such resistance may also reflect internal ambivalence about whether to develop nuclear weapons, as in the case of India, which possesses nuclear weapons and rejects the NPT as discriminatory but is also a strong supporter of nonproliferation norms.⁵⁹

A state may also try to impose strategic costs on its rivals by actively helping third countries acquire nuclear weapons.⁶⁰ Some scholars explain France's nuclear cooperation with Israel in the early 1960s as an effort to counterbalance Egypt;⁶¹ China's nuclear cooperation with Pakistan in the 1980s as a way to exacerbate India's security situation and "undermine

threat perceptions by bureaucratic actors and other pro-nuclear constituencies. *See e.g.*, Sagan, *Why Do States Build Nuclear Weapons*, *supra* note 2, at 64.

⁵⁸ Spector & Radford, *Nonproliferation-Friendly Nuclear Programs*, *supra* note 21.

⁵⁹ See Perkovich, *India's Nuclear Bomb*, *supra* note 18; Itty Abraham, *The Ambivalence of Nuclear Histories*, 21 *OSIRIS* 49 (2006), cited in Alexander H. Montgomery & Scott D. Sagan, *The Perils of Predicting Proliferation*, 53 *J.CONFLICT.RES.* 302, 307-310 (April 2009). For a useful discussion of the methodological problems associated with nuclear ambivalence for nonproliferation scholarship, see Montgomery & Sagan, at 307-310.

⁶⁰ Matthew Kroenig, *Exporting the Bomb: Why States Provide Sensitive Nuclear Assistance*, 103 *AM. POL. SCI. REV.* 113, 116 (February 2009) [hereinafter *Exporting the Bomb*].

⁶¹ See AVNER COHEN, *ISRAEL AND THE BOMB* (1998), cited in Kroenig, *id.*, at 116.

superpower influence”;⁶² and, more recently, proposed U.S. civilian nuclear cooperation with India as a mechanism for bolstering India against China.⁶³

A. Nonproliferation Policies and Relative Power

Finally, a state concerned about the balance of power implications of nuclear proliferation may also support nonproliferation efforts designed to raise the costs of nuclear weapons acquisition.⁶⁴ In an important new study, Matthew Kroenig links nonproliferation decision-making in states that possess uranium enrichment or plutonium reprocessing technologies—what he terms “capable nuclear suppliers”—to their ability to project conventional military power.⁶⁵ Drawing from theories of nuclear deterrence that assume nuclear weapons are militarily useful exclusively as a deterrent, Kroenig argues that relatively powerful

⁶² Mingquan Zhu, *The Evolution of China’s Nuclear Nonproliferation Policy*, 4 *NONPROLIFERATION REV.*, Winter 1997, at 43 [hereinafter *China’s Nonproliferation Policy*]. See also GORDON CORERA, *SHOPPING FOR BOMBS: NUCLEAR PROLIFERATION, GLOBAL INSECURITY, AND THE RISE AND FALL OF THE A.Q. KHAN NETWORK* (2006) and T.V. Paul, *Chinese-Pakistani Nuclear/Missile Ties and Balance of Power Politics*, 10 *NONPROLIFERATION REV.*, Summer 2003, available at <http://cns.miis.edu/npr/pdfs/102paul.pdf>, cited in Kroenig, *Exporting the Bomb*, *supra* note 60, at 116.

⁶³ See, e.g., Michael A. Levi & Charles D. Ferguson, *U.S.-India Nuclear Cooperation: A Strategy for Moving Forward*, Counsel Special Rept. 16, June 2006, at 8-9, available at <http://www.cfr.org/content/publications/attachments/USIndiaNuclearCSR.pdf>.

⁶⁴ These options aren’t mutually exclusive; a state could assist some countries in their pursuit of nuclear weapons even as it obstructs other countries. Some analysts suspect that Israel shared thermonuclear weapons designs with South Africa in exchange for assistance with an atmospheric nuclear test in 1979 over the Indian Ocean; two years later, Israel would launch a preemptive military strike against Iraq’s Osirak reactor to set back Saddam Hussein’s nuclear program. See, e.g., THOMAS C. REED & DANNY B. STILLMAN, *THE NUCLEAR EXPRESS: A POLITICAL HISTORY OF THE BOMB AND ITS PROLIFERATION* 177-181 (2009).

⁶⁵ Kroenig, *Exporting the Bomb*, *supra* note 60.

states with the ability to successfully fight a conventional war on the territory of its enemy are more hurt by nuclear proliferation than relatively weak states that lack this force projection capability. A relatively weak state can use nuclear weapons to deter conventional military threats to its survival, enabling it to blunt the strategic advantage of maintaining superior conventional military forces. As a consequence, relatively powerful states are less likely than relatively weak states to provide “sensitive nuclear assistance,” which Kroenig defines as purposefully helping a NNWS construct a nuclear weapon or acquire weapons-grade fissile materials.⁶⁶ He finds compelling statistical evidence supporting this hypothesis.

Kroenig’s empirical evidence is limited to a single nonproliferation decision—purposeful acts of sensitive nuclear assistance—by capable nuclear suppliers, which comprise just nineteen countries.⁶⁷ Nevertheless, the study’s underlying logic about how differences in relative power may shape nonproliferation decision-making suggests some more general hypotheses about nonproliferation behavior. If it is true that relatively powerful countries bear a disproportionate share of the costs of nuclear proliferation, then all things equal they should also be more supportive of efforts to bolster the nonproliferation regime than relatively weak countries, which have less at stake if nuclear weapons spread. This calculation has animated nonproliferation policy towards so-called “rogue states” in successive U.S. administrations, finding perhaps its clearest expression in the National Security Strategy issued by the administration of George W. Bush in 2002:

For rogue states these weapons are tools of intimidation and military aggression against their neighbors. These weapons may also allow these states to attempt to

⁶⁶ *Id.*, at 117-118.

⁶⁷ *Id.*, at 118.

blackmail the United States and our allies to prevent us from deterring or repelling the aggressive behavior of rogue states. Such states also see these weapons as their best means of overcoming the conventional superiority of the United States.⁶⁸

This risk animated the 2003 decision by the United States and its coalition allies to invade Iraq and forcibly remove Saddam Hussein from power.

By the same logic, a relatively weak country has an interest in denying nuclear weapons to rivals that have the ability to project power over them. That's because a nuclear-armed rival may be able to deter other countries from intervening in the conflict on behalf of the relatively weak country.⁶⁹ This reasoning helps explain why nearly all of Iraq's Arab neighbors joined a diverse coalition of countries during the 1990s forcing it to dismantle its nuclear and other unconventional weapons programs. At the beginning of the decade, Iraq possessed a formidable ability to project conventional military power over its neighbors and was suspected of pursuing nuclear weapons. Iraq's Arab neighbors had helped it achieve this degree of power by providing it with billions of dollars in financial and military assistance during the 1980s to sustain Iraq in its devastating eight-year war with Iran. After Iraq invaded Kuwait on August 2, 1990 and routed the Kuwaiti military in mere days, however, other Arab governments swiftly came to view Iraq

⁶⁸ *National Security Strategy of the United States of America*, September 2002, at 15, available at <http://merln.ndu.edu/whitepapers/USnss2002.pdf>.

⁶⁹ This logic also suggests that a rival's pursuit of nuclear weapons is a powerful incentive for relatively weak states to undertake a build-up of conventional military forces to reduce a nuclear-armed rival's ability to project conventional military power so that it is less reliant on foreign guarantors of its security, which may be less likely to intervene on its behalf if their shared rival possesses nuclear weapons. Probing this issue lies beyond the scope of this article.

as a threat: if Iraq were to acquire nuclear weapons in the future, it might be able to deter the United States from intervening in a conflict with Iraq on their behalf.

B. Relative Power and the 1995 NPT Indefinite Extension Decision

The logic of relative power explains the calculations of some non-aligned countries' decision to support the indefinite extension of the NPT in 1995. As we saw in Part I, many of these countries had genuine concerns about the equity of the NPT regime—concerns that were, for the most part, satisfied by the U.S. commitment to support negotiations for a CTBT and other disarmament measures.

Many of these countries also viewed the indefinite extension as a way to prevent more powerful neighbors from acquiring nuclear weapons.⁷⁰ One of the most remarkable illustrations of this dynamic concerns Nigeria, a regional power in West Africa and one of the fourteen like-minded states that opposed the indefinite extension. At the fourth preparatory meeting for the review and extension conference, an official spokesman for Ambassador Isaac E. Ayewah, Nigeria's representative, told the audience that "the only reason Nigeria does not have nuclear weapons is that we cannot afford them now," the clear implication being that Nigeria would pursue them once it was in an economic position to do so.⁷¹ According to Ambassador Graham, this statement had a dramatic impact on support for the indefinite extension among West African countries: ten ambassadors from these countries promptly informed the United States of their new-found enthusiasm for the indefinite extension option.⁷² Indeed, a core element of the U.S. strategy for achieving indefinite extension, in addition to addressing normative concerns about

⁷⁰ Leigh-Phippard, *Multilateral Diplomacy*, supra note 33, at 179.

⁷¹ Graham, *Disarmament Sketches*, supra note 33, at 282.

⁷² *Id.*, at 282-283.

the equity of the NPT's bargain, was to exploit "divisions brewing between powerful developing countries and smaller ones, who shared the U.S. interest in denying nuclear weapons to their bigger neighbors," to marshal support for the indefinite extension option.⁷³

Of course, a state might also consider existing arsenals to be a threat and advocate disarmament on those grounds.⁷⁴ From a strict relative power standpoint, which emphasizes the role of nuclear weapons as a deterrent, the reasons a state may have for promoting nuclear disarmament are surprisingly narrow. For example, nuclear weapons possession enables a state to deter existential threats, so a state that can project conventional military force over an adversary armed with nuclear weapons has an incentive to promote the nuclear disarmament of that adversary. For other countries, however, nuclear disarmament may not have any impact on their overall security situation, at least as far as the military balance of power is concerned.⁷⁵ According to the logic of relative power, conventional military power projection—the ability to fight and win a war in an adversary's territory—is more threatening to relatively weak countries than nuclear weapons, which merely serve a deterrent role. Indeed, this is one reason why

⁷³ Julia Preston & R. Jeffrey Smith, *The Nuclear Treaty: Product of Global Full-Court Press*, WASH. POST, May 14, 1995, at A23.

⁷⁴ See, e.g., High-Level Panel, Shared Responsibility, *supra* note 7, at 42 (arguing that "[l]acklustre disarmament by the nuclear-weapon States weakens the diplomatic force of the non-proliferation regime and thus its ability to constrain proliferation").

⁷⁵ Of course, the logic of regime symbolism suggests that states may have normative reasons for promoting disarmament. There is also some statistical evidence to suggest that nuclear weapons enhance the possessor's ability to achieve favorable outcomes in diplomatic negotiations. It is unclear how changes in the size or quality of the arsenal short of total disarmament—such as through nuclear reductions or a ban on nuclear testing—might affect this ability, if at all. See Erik Gartzke & Dong-Joon Jo, *Bargaining, Nuclear Proliferation, and Interstate Disputes*, 53 J. CONFLICT RES. 209 (2009).

relatively weak countries may seek nuclear weapons: to negate a more powerful adversary's superiority in conventional forces. It is striking to note that conventional military disarmament is rarely discussed in the context of the NPT. After all, NPT Article VI not only commits NWS to disarmament, but all parties to achieving "a Treaty on general and complete disarmament under strict and effective international control." In other words, the NPT provides a clear legal basis for promoting conventional military disarmament as well as nuclear disarmament, yet conventional military disarmament enjoys nowhere near the high-profile that nuclear disarmament does in debates about the NPT. If states were genuinely worried about military aggression from the NWS, from the standpoint of relative power, the logic of relative power suggests that conventional military disarmament, not nuclear disarmament, would have a much higher profile in debates about the NPT.

C. Implications for Nonproliferation Law and Policy

These arguments highlight how relative power perceptions may shape states' nonproliferation policy choices. A state may have a normative interest in promoting disarmament,⁷⁶ but that interest may be offset by a stronger interest in reaping the security

⁷⁶ It is conceivable that a state may perceive some security benefit in conditioning its support for NPT-plus measures on security assurances and other disarmament-related commitments, but the conditions are fairly demanding. It must genuinely believe that one of the existing NWS would use nuclear weapons against it, that the disarmament measures it desires would actually improve its security, and that its refusal to support NPT-plus measures in the meantime does not impose excessive opportunity costs, such as increased proliferation that threatens its security. Otherwise, it is difficult to see the upside benefit of the linkage. After all, a state that is genuinely concerned about nuclear war has good reason to be concerned about nuclear proliferation as well, since the proliferation of nuclear weapons to additional countries increases the possibilities for nuclear war—and those additional nuclear-armed countries will, by definition, lack experience in managing nuclear weaponry and

benefits associated with nonproliferation measures. During NPT negotiations at the Eighteen Nation Committee on Disarmament in the mid-1960s, for example, some NNWS—most vocally from the NAM—sought explicit textual obligations committing the NWS to negotiate towards specific disarmament-related measures, such as a comprehensive test ban treaty, a fissile materials cut-off treaty, and a freeze on nuclear weapons manufacturing.⁷⁷ The Soviet Union and the United States steadfastly rejected these proposals out of concern that tying the implementation of the NPT to specific achievements in disarmament would “hamper the conclusion of the former without reaching agreements on the latter.”⁷⁸ The artfully vague compromise was NPT Article VI, which commits the parties “to pursue negotiations in good faith on effective measures relating to...nuclear disarmament,” the achievement of which is linked to conclusion of “a Treaty on general and complete disarmament under strict and effective international control.” The NNWS that went on to ratify the NPT, according to the leading negotiating history of the NPT, acquiesced to this imprecise language on the grounds that a nonproliferation treaty with vague disarmament obligations was preferable to no nonproliferation treaty at all.⁷⁹

On the other hand, some states may perceive nuclear proliferation as insufficiently threatening to lead it to take action or judge a particular NPT-plus measure as an ineffective or inefficient way to counter the threat. In other words, states may decline to support an NPT-plus

deterrence relationships, making them especially prone to error. (On the risks of error in managing nuclear deterrence relationships, see SCOTT SAGAN, *THE LIMITS OF SAFETY* (1995)).

⁷⁷ See MOHAMED IBRAHIM SHAKER, *THE NUCLEAR NON-PROLIFERATION TREATY: ORIGIN AND IMPLEMENTATION* 568 (1980) [hereinafter *NPT: Origin and Implementation*].

⁷⁸ *Id.*, at 566.

⁷⁹ *Id.*, at 571.

measure because its marginal cost, whether economic or symbolic having to do with sovereignty, outweighs the marginal benefit in terms of enhanced security. Unfortunately, there is reason to believe that this set of countries is rather large, simply because relatively few countries either possess credible power projection capabilities that may be threatened by a rival's acquisition of nuclear weapons or face a militarily aggressive adversary capable of projecting power over it. This dynamic is vividly illustrated by a former Pakistani ambassador to the United States, who told Kroenig that "North Korean nuclear capability does not threaten [Pakistan] directly."⁸⁰ The two countries are not parties to an ongoing security dispute, and neither country has the ability to project conventional military power over the other in significant ways. As a consequence, Pakistan has no pressing security need to promote the nuclear disarmament of North Korea.

Getting a state like Pakistan that does not necessarily feel threatened by proliferation to support NPT-plus measures will require demonstrating that proliferation does in fact impose some strategic cost, and that supporting this or that NPT-plus measure is a cost-effective way to address the threat. These objectives could be advanced by promoting a common threat perception through the targeted transfer of information through intelligence sharing, data exchanges on the flows of proliferation-sensitive technologies, and the development of regional security architecture to foster, empower, and socialize nonproliferation constituencies.⁸¹

Of particular importance in this endeavor is targeting nonproliferation advocacy at the right political and bureaucratic interlocutors in countries of interest. Advocates must communicate this information in a way that links nonproliferation initiatives such as the

⁸⁰ Kroenig, *Exporting the Bomb*, supra note 60, at 115.

⁸¹ See, e.g., Matthew Bunn, *Securing the Bomb* 2008, Nuclear Threat Initiative/Harvard University, at xvi-xvii, available at http://www.nti.org/e_research/Securing_the_bomb08.pdf.

Proliferation Security Initiative or the Additional Protocol to a state's specific security preoccupations. The outcome of the 1995 review and extension conference highlights the effectiveness of this strategy. Senior defense, intelligence, and foreign ministry officials with broader national security responsibilities may have a more comprehensive perspective on international security and foreign policy than disarmament specialists assigned to the UN Conference on Disarmament and other such fora; such actors might be more likely to accord greater weight to the security benefits of supporting efforts to control the spread of nuclear weapons to additional countries.

In order to have any impact on nonproliferation decision-making, these efforts at promoting a threat assessment must be viewed as credible by the intended audiences. The faulty intelligence used to justify the 2003 invasion of Iraq delivered a serious blow to the credibility of U.S. threat assessments, and reestablishing and maintaining this credibility must be a top priority for nonproliferation strategy. Multilateral organizations and initiatives, particularly regional ones, may be particularly well-suited to these tasks since they often have more credibility in the eyes of NAM countries than individual countries or even international institutions such as the United Nations Security Council.⁸² There is an important role here as well for demonstrating progress on nuclear disarmament: a state that regards U.S. nonproliferation policy as hypocritical may be less likely to take its threat assessments seriously. A recent United Nations Institute for Disarmament Research (UNIDIR) study reports, for example, "a widespread belief in South-East Asia and elsewhere that an exaggerated non-state WMD threat is being used by the nuclear weapons states to distract attention from their failure to comply with their disarmament

⁸² See generally, Scheinman, ed., *Implementing 1540*, supra note 4.

commitments.”⁸³

Information is central to effective nonproliferation strategy in another way as well: it builds confidence among NNWS that a decision to support additional nonproliferation commitments will not put them at a competitive security disadvantage to their rivals. The margin of additional security a state could derive from supporting many key NPT-plus measures is linked to the extent of the measure’s adoption by other states, particularly potential rivals. In the case of the IAEA Additional Protocol, for instance, a state gains no margin of additional security against external military threats from ratifying it unless its rival(s) also ratify; indeed, unreciprocated ratification would put that state at a potential disadvantage to its rival, who would face fewer constraints in the pursuit of a clandestine nuclear capability. Egypt’s ambassador to the United States, Nabil Fahmy, ominously invoked this logic to explain that one way Egypt might hedge against the Iranian nuclear program is to “pursue [its] national security concerns by limiting [its] commitments to agreements.”⁸⁴ Multilateral confidence-building mechanisms that stabilize participating states’ expectations about appropriate behavior in the civilian nuclear energy realm and elsewhere—regional security architecture, for example, or multilateral fuel cycle facilities—may help alleviate these concerns.

III. A LOGIC OF OPPORTUNITY COSTS: THE DISTRIBUTIVE CONSEQUENCES OF NONPROLIFERATION

⁸³ Tanya Ogilvie-White, *Facilitating Implementation of Resolution 1540 in South-East Asia and the South Pacific* [hereinafter *Facilitating 1540*], in Scheinman, ed., *Implementing 1540*, supra note 4.

⁸⁴ Peter Crail & Miles A. Pomper, *The Middle East and Nonproliferation: An Interview with Nabil Fahmy, Egypt’s Ambassador to the United States*, 38 *ARMS CONTROL TODAY* (September 2008), available at http://www.armscontrol.org/act/2008_09/Fahmy.

A third logic of nonproliferation decision-making might focus on how perceptions about economic costs and benefits shape nonproliferation policy. This broad approach to thinking about nonproliferation decision-making animated the work of an earlier generation of case study-driven scholarship on the proliferation consequences of an anticipated worldwide expansion of nuclear energy and intense commercial competition for civilian nuclear exports.⁸⁵ A key lesson from this literature is that much of nonproliferation policy is oriented towards convincing countries to accept what are, in essence, restrictions on their economic sovereignty, energy independence, and possibly their economic competitiveness.

For example, concern about the economic impact of nonproliferation featured prominently in NPT negotiations during the 1960s. Early American and Soviet drafts and subsequent amendments did not contain any mention of the peaceful atom, and the NPT may well have been concluded without any explicit textual commitment to it had it not been for an American proposal in mid-1966 that the NPT's nonproliferation commitment extend to peaceful nuclear devices.⁸⁶ Most parties agreed, but the notion that the NPT would outlaw one ostensibly peaceful nuclear activity raised the question of whether there could be others. Many NNWS, including U.S. allies in Western Europe and Japan, demanded a specific textual guarantee that the NPT's nonproliferation obligations could not be interpreted as banning other sensitive

⁸⁵ *See, e.g.*, WILLIAM WALKER & MÅNS LÖNNROTH, *NUCLEAR POWER STRUGGLES: INDUSTRIAL COMPETITION AND PROLIFERATION CONTROL* (1983) [hereinafter *Nuclear Power Struggles*]. *See also* *THE NUCLEAR SUPPLIERS AND NONPROLIFERATION* (Rodney W. Jones et al eds., 1985); *NUCLEAR EXPORTS AND WORLD POLITICS* (Robert Boardman & James F. Keeley eds., 1983); MICHAEL J. BRENNER, *NUCLEAR POWER AND NON-PROLIFERATION* n.9 (1981); EDWARD F. WONDER, *NUCLEAR FUEL AND AMERICAN FOREIGN POLICY* (1977).

⁸⁶ Shaker, *The NPT: Origin and Implementation*, *supra* note 77, at 275-276.

nuclear activities, such as nuclear fuel production.⁸⁷ Article IV, which guarantees NNWS the right to peaceful applications of the atom (subject to Article V's prohibition on peaceful nuclear devices), first appeared in the August 1967 identical drafts submitted to the ENCD by the United States and the Soviet Union.⁸⁸

The debate over the NPT's safeguards regimen further highlights how economic interests have shaped nonproliferation decision-making. Many countries were concerned that potentially cumbersome safeguards would put their nuclear industries at a competitive disadvantage to the nuclear industries of the NWS, particularly the market leader at the time, the United States; European countries also worried about undercutting the Euratom regime.⁸⁹ As a result of these concerns, the United States and the United Kingdom pledged in December 1967 to apply safeguards to all civilian nuclear activities in their jurisdiction, and the NPT was drafted in such a way that it would not prohibit national fuel cycle facilities, limit nuclear inspections, or supplant the Euratom verification regime.

A. The Distributive Consequences of Nonproliferation Policies for Domestic Political

⁸⁷ *See, e.g., id.*, at at 294 (discussing the West German position that the NPT should not hinder peaceful uses of nuclear energy). Article IV's reference to "equipment" and "materials" was a partial response to the so-called "Fanfani Proposal," named for the Italian Foreign Minister. Italy and other industrialized countries had concerns that the treaty would limit their access to fissile materials and thereby constrain their options for achieving energy independence. *Id.*, at 303-306.

⁸⁸ *Id.*, at 276.

⁸⁹ Walker & Lönnroth, *Nuclear Power Struggles*, supra note 85, at 17. *See also* GEORGE H. QUESTER, *THE POLITICS OF NUCLEAR PROLIFERATION* 8-11 (1973) (discussing general economic arguments for and against the NPT) [hereinafter *Politics of Nuclear Proliferation*]; *id.*, at 105-109 (discussing Japan's concerns about the NPT's safeguards regime); *id.*, at 171-174 (discussing Germany's concerns about the NPT's safeguards regime).

Constituencies

NPT-plus measures such as the IAEA Additional Protocol, multilateral fuel cycle initiatives, and export controls also entail opportunity costs—forgone economic and other benefits—that must be borne by one or more domestic political constituency. A recent study by Etel Solingen on proliferation decision-making provides a useful analytic framework for systematically analyzing how different states might weigh the economic costs and benefits of nonproliferation policies. Solingen links decisions to pursue or forgo nuclear weapons to three ideal-typical models of political survival that governments adopt to sustain the ruling coalition that keeps them in power: inward-oriented, internationalizing, and compromise-hybrid.⁹⁰ These models vary primarily according to their orientation towards the global economy.

A government is inward-oriented when it rejects integration in global markets and multilateral institutions in order to favor or protect its constituencies from foreign political and economic pressures. These constituencies typically include non-competitive industries, the military-industrial complex, civic or religious nationalists, and other actors whose interests may be set back by economic and political liberalization. International regimes are viewed as instruments of Western hegemony that curtail sovereignty. Trade protection, import-substitution, and a large state sector are associated with this model of political survival. Solingen argues that this orientation towards the global economy is particularly fertile ground for a nuclear weapons program because a bomb effort “enable[s] the construction of a dense scientific, technological, industrial, military, and bureaucratic complex that can dwarf other economic endeavors—state and private—and attracts additional constituencies that have vested interests or values in that

⁹⁰ ETEL SOLINGEN, *NUCLEAR LOGICS: CONTRASTING PATHS IN EAST ASIA & THE MIDDLE EAST* (2007) [hereinafter *Nuclear Logics*].

complex.”⁹¹ The nuclear program becomes endowed with normative significance as a symbol of power and prestige for the ruling coalition.⁹² That complex, in turn, foments regional insecurities, “which, in a boomerang effect, strengthen the rationale for such complexes.”⁹³

An internationalizing government, by contrast, stakes its political future on the economic and political benefits of liberalization for its constituencies, which tend to be internationally competitive businesses and their workers, consumers of imported goods and services, and other actors that benefit from political and economic openness.⁹⁴ Internationalizing ruling coalitions therefore put a premium on “macroeconomic and political stability, which reduces uncertainty, encourages savings, and enhances domestic and foreign investment.”⁹⁵ Nuclear weapons development is inconsistent with these objectives because it “could damage efforts to boost competitiveness and global access to markets, technology, investments, foreign aid, and external political support for policies” that reinforce the benefits of liberalization.⁹⁶ The third model, composite-hybrid, is employed by ruling coalitions whose constituencies are split on the merits of liberalization.⁹⁷

Solingen amasses convincing empirical evidence for these propositions by tracing proliferation decision-making in nine countries in East Asia and the Middle East to the governments’ broader postures towards the global economy. Although she does not focus on

⁹¹ *Id.*, at 42.

⁹² *Id.*

⁹³ *Id.*

⁹⁴ *Id.*

⁹⁵ *Id.*, at 43.

⁹⁶ *Id.*

⁹⁷ *Id.*, at 43-44.

nonproliferation decision-making, her ideal-typical models of political survival illuminate the complex interplays between a state's economic interests, including its orientation to the global economy, and its attitude towards nuclear proliferation. Specifically, if the spread of nuclear weapons threatens the global and regional stability on which internationalizing ruling coalitions have staked their political survival, then they may have more to lose from proliferation than inward-oriented coalitions.

B. Explaining China's Gradual Embrace of the Nonproliferation Regime

The evolution of China's nonproliferation policy illustrates how an internationalizing orientation may generate incentives for bolstering the nonproliferation regime. Beijing boycotted NPT negotiations and as late as 1978 had denounced the treaty as "a conspiracy concocted by the U.S.S.R. and the U.S. to maintain their nuclear monopoly."⁹⁸ During this period and into the 1980s, it sold sensitive nuclear technologies to a number of countries, including Iran, Iraq, North Korea, and Pakistan.⁹⁹

By the mid-1990s, however, China was supporting the core objectives and institutions of nonproliferation. It signed the NPT in 1992, withheld its veto of a UN Security Council Resolution calling on North Korea to allow IAEA inspections in 1994, curtailed its nuclear cooperation with Pakistan, and ceased all nuclear cooperation with Iran.¹⁰⁰ This trend accelerated in the 21st century. In 2004, it joined the Nuclear Suppliers Group and supported a binding UN Security Council Resolution ordering all UN members to prevent nuclear proliferation by non-state actors. It has also supported a series of UN Security Council sanctions resolutions against

⁹⁸ *Quoted in* Zhu, *supra* note 62, at 43.

⁹⁹ BATES GILL, *RIISING STAR: CHINA'S NEW SECURITY DIPLOMACY* 74-75 (2007) [hereinafter *Rising Star*].

¹⁰⁰ *Id.*, at 93; 88.

Iran and North Korea.

Scholars attribute this fundamental shift to the Chinese Communist Party's (CCP) ongoing, gradual embrace of policies associated with an internationalizing strategy for political survival. Before Mao Zedong's death in 1976, China's domestic and foreign economic policies are best characterized as inward-oriented: economic nationalism wrought by Mao's communist ideology produced a massive state sector that required various protections from international competition. Mao also rejected international institutions as imperialistic and believed that military conflict with the West was inevitable.

By the time of Mao's death, however, a new generation of pragmatic reformers led by Deng Xiaoping worried for the very political survival of the CCP as the political authority in China. The Chinese people had already endured two great human catastrophes, the Great Leap Forward (1958-1962) and the Cultural Revolution (1966-1976). China's economy was dominated by inefficient agricultural communes and bloated state-run industrial monopolies; poverty was crushing. Deng and his allies believed that reducing poverty through economic development was the key to restoring and sustaining the popular legitimacy of the CCP. Beginning under their leadership and accelerating in subsequent decades, the CCP has staked its political future on a series of internationalizing reforms designed to restructure or eliminate unproductive sectors of the economy, gain access to international markets, and selectively integrate China into the global political economy. China and the United States normalized relations in 1979, and in 1982 Deng issued a dramatic reversal of Mao's pessimistic outlook on the prospects for global peace, opening up the possibility of cooperation with the international institutions that China had largely shunned up to this point.¹⁰¹ China's economic development

¹⁰¹ *Id.*, at 3.

fortunes were now tied to the overall stability of the global political economy: “only with a peaceful environment,” Deng said, “can development be accomplished smoothly.”¹⁰² Nuclear proliferation, no matter where or why it occurs, foments global instability and thus jeopardizes the CCP’s internationalizing policies.¹⁰³

C. Sustaining International Civilian Nuclear Energy Trade and Aid Relationships: The 1995 Extension Decision

Regardless of their orientation to the global economy, governments seeking access to civilian nuclear technologies, such as power reactors, will often have to satisfy various nonproliferation standards before being eligible for receiving exports. The main commercial suppliers of nuclear materials and technology have established common export control standards as members of the Nuclear Suppliers Group (NSG). Any government seeking access to commercially competitive nuclear technologies must generally do business with one or more of these countries. Hence, unlike Egypt and other Arab League governments, the United Arab Emirates ratified the Additional Protocol and renounces domestic fuel cycle activities because it has an ambitious domestic nuclear energy development program and wants to import state-of-the-art nuclear reactor technology from NSG members such as the United States.¹⁰⁴

Similarly, participants in the 1995 NPT Review and Extension Conference report that the decision by some NNWS to support the indefinite extension of the NPT was influenced by a desire to sustain important economic and aid relationships with the United States and other donor

¹⁰² *Quoted in* Zhu, *supra* note 62, at 44.

¹⁰³ Gill, *Rising Star*, *supra* note 99, at 84.

¹⁰⁴ For an explanation of the UAE’s civilian nuclear energy plans, see *Policy of the United Arab Emirates on the Evaluation and Potential Development of Peaceful Nuclear Energy*, April 2008, available at http://www.uae-embassy.org/sites/default/files/UAE_Policy_Peaceful_Nuclear_Energy_English.pdf

countries. Indonesia's representative at the conference, Ambassador Nugroho Wisnumurti, attributes the success of the Western Group's campaign to "the use of pressure tactics against smaller countries...pressure with conditionalities and other types of pressures," claiming this was "how they have reached the majority for indefinite extension."¹⁰⁵ The United States, for example, "bluntly reminded top Mexican officials attending the conference of how its economy was rescued by a multibillion-dollar economic assistance plan that the United States spearheaded and is the major contributor to."¹⁰⁶ Ambassador Bosch from Mexico grumbled shortly after the conference closed that "quite obviously [economic coercion] has an impact on a number of countries who have bilateral relations with the United States and who depend on U.S. technology."¹⁰⁷ Ambassador Adolfo Talyhardat served as Venezuela's head of delegation at the conference until Venezuela, which caucused with the like-minded states, reversed its position against indefinite extension in the final weeks of the conference; Talyhardat resigned in protest. In response to an interviewer's question posed shortly after the conference closed on why Venezuela had suddenly changed its position, he attributed it to economic coercion:

There are many ways of exerting pressure, especially when countries are going through difficult times, and most of the developing countries are going through difficult times, including my own. So it is very easy [to exert pressure] by [using

¹⁰⁵ Gill, *Rising Star*, supra note 99, at 6.

¹⁰⁶ R. Jeffrey Smith, *Permanent Nuclear Treaty Extension May Be Approve by a Consensus Vote; Most Nations on Record in Support After Effort by U.S. and Allies*, WASH. POST, May 7, 1995, at A7.

¹⁰⁷ Welsh, *Delegate Perspectives*, supra note 46, at 7. The United States reportedly also pressured Mexico to withdraw Ambassador Bosch, a staunch critic of the U.S. disarmament record, from the conference. Ottaway & Coll, *Hard Sell*, supra note 39.

a] simple phrase saying basically, “You better think of what we do for you.”¹⁰⁸

A representative from Iran, another member of the like-minded states caucus, echoed this sentiment, noting that the “political and economic vulnerability of such states also played a role in their muted participation in the conference.”¹⁰⁹

On the other hand, however, a state’s internationalizing interest in promoting its exports may conflict with nonproliferation objectives. Some scholars explain the September 2008 decision by the NSG, under heavy American pressure, to grant India an unconditional waiver on key export control guidelines as the triumph of Washington’s narrow economic interests in gaining access to a new nuclear export market over the principles of nonproliferation.¹¹⁰ Similarly, scholars have explained West Germany’s agreement in 1975 to sell Brazil a complete nuclear fuel cycle as a consequence of domestic economic pressures to capture international market share for civilian nuclear technology.¹¹¹

D. Implications for Nonproliferation Law and Policy

The logic of Solingen’s theory helps illuminate how a state’s economic interests may

¹⁰⁸ Welsh, *id.*, at 9.

¹⁰⁹ *Id.*, at 12.

¹¹⁰ See, e.g., William Potter, *Goodbye to Nuclear Export Controls*, THE HINDU, Sept. 9, 2008, available at <http://cns.miis.edu/other/potter080909.htm>; Michael Krepon, *Likely Consequences of the Nuclear Suppliers Group Decision*, Henry L. Stimson Center, Sept. 8, 2007, available at <http://www.stimson.org/pub.cfm?ID=673>.

¹¹¹ Walker & Lönnroth, *Nuclear Power Struggles*, supra note 85, at 33-38. A more recent example is Russia’s nuclear export policy during the 1990s. Some scholars explain Russia’s history of sensitive nuclear cooperation with Iran in the 1990s as an effort by Moscow to raise hard currency for its flailing economy and “provide the Russian nuclear industry with positive publicity which would then lead to other deals in the region.” Vladimir Orlov & Alexander Vinnikov, *The Great Guessing Game: Russia and the Iranian Nuclear Issue*, WASHINGTON Q., Spring 2005, at 51.

shape its assessment of nonproliferation policies. With some notable exceptions,¹¹² this dimension of nonproliferation decision-making does not receive nearly the attention that it deserves from contemporary nonproliferation scholars. Increasingly, the prime targets of nonproliferation advocacy are middle-income developing countries that have a sufficient level of economic development to serve as alternative suppliers for sensitive dual use technologies, and are located along key transit routes for global commerce; many of these countries are also contemplating ambitious nuclear energy development plans.¹¹³ A number of these states have embraced a composite-hybrid strategy involving export-oriented growth supported by foreign investment accompanied by an inward-oriented rejection of international institutions and initiatives with a Western pedigree. Economic development has already led to a diffusion of technologies relevant to manufacturing dual-use items to an increasing number of developing countries. This has coincided with the emergence of new avenues for global commerce as many developing countries, most significantly in South-East Asia, have actively promoted their ports as efficient and secure means of transporting goods in international trade.¹¹⁴ The

¹¹² See, e.g., Brian Finlay & Elizabeth Turpen, *The Next 100 Project: Leveraging National Security Assistance to Meet Developing World Needs: A Report by The Stimson Center and The Stanley Foundation*, February 2009, <http://www.stanleyfoundation.org/publications/report/Next100ProjectRpt209.pdf> (visited June 18, 2009) [hereinafter Next 100 Project]; Scheinman, ed., *Implementing 1540*, supra note 4; James M. Acton, *Strengthening safeguards and nuclear disarmament: Is there a connection?*, 14 *NONPROLIFERATION REV.* 524 (Nov. 2007); *NUCLEAR BLACK MARKETS: PAKISTAN, A.Q. KHAN AND THE RISE OF PROLIFERATION NETWORKS: A NET ASSESSMENT* (Mark Fitzpatrick, ed., 2007) [hereinafter *Nuclear Black Markets*]; Chaim Braun & Christopher Chyba, *Proliferation Rings: New Challenges to the Nuclear Nonproliferation Regime*, 29 *INT'L SEC.* 5 (Fall 2004).

¹¹³ Fitzpatrick, ed., *id.*, at 11-12. On rising interest among developing countries in civilian nuclear energy, see, e.g., *NUCLEAR PROGRAMMES IN THE MIDDLE EAST: IN THE SHADOW OF IRAN* (Mark Fitzpatrick, ed., 2008).

¹¹⁴ Fitzpatrick, ed., *id.*, at 11-12.

internationalizing economic interests driving these economic trends are generally not favorable to nonproliferation policies that seek to regulate the free flow of international commerce for illicit transfers of proliferation-sensitive items. Moreover, the inward-oriented elements of the ruling coalition may resist nonproliferation initiatives that further impinge on economic and political sovereignty.

Perhaps the most vivid illustration of this multifaceted challenge involves the nuclear smuggling ring that Pakistani centrifuge scientist A.Q. Khan used to sell gas centrifuge technology to Iran, Libya, North Korea and possibly others before he was arrested in January 2004 by Pakistani authorities. Khan's operations spanned several countries, including developed ones such as Germany and Japan, but his operations in export-oriented developing countries such as Malaysia, Singapore, and the UAE showcase the growing capacity of middle-income developing countries to serve as important links on the nuclear supply chain—and the regulatory weaknesses that can frustrate international nonproliferation efforts. For example, Khan set up a centrifuge component manufacturing facility in Malaysia, which admitted in October 2004 that its “export control laws are mainly based on economic reasons,”¹¹⁵ as opposed to security concerns about proliferation. A comprehensive 2007 study of export control regimes concludes that “the broader economic and legal factors that made Malaysia an attractive target for non-state actors to exploit have not changed.”¹¹⁶

A recent study commissioned by the UNIDIR on implementation of United Nations Security Council Resolution 1540 by developing countries provides a particularly sobering assessment of the challenge. UNSC-1540 was enacted in 2004 and imposes a binding legal

¹¹⁵ *Quoted in id.*, at 152.

¹¹⁶ *Id.*

requirement on all countries to “adopt and enforce appropriate effective laws” preventing non-state actors from proliferating WMD.¹¹⁷ States must criminalize proliferation, establish and enforce export and border controls, and institute effective physical protection measures for proliferation-sensitive materials. For many developing countries this is a very tall order, requiring potentially significant investments in a range of specialized regulatory capacity. If proliferation is not a top priority compared to competing interests like poverty reduction, public health and economic development, the state is unlikely to invest adequate resources. The UNIDIR study reports that “ASEAN members regard export controls with suspicion, viewing them as barriers to economic development at best, and at worst as part of a deliberate strategy of technology denial on the part of the developed world.”¹¹⁸ Finally, many countries simply lack the domestic regulatory capacity to implement UNSC-1540 even if they wanted to.¹¹⁹ As a result of these factors, implementation of UNSC-1540 among developing countries, according to the UNIDIR study, is low.

Other NPT-plus obligations also imply a trade-off between economic interests and nonproliferation. Asking a country to commit to never developing a domestic nuclear fuel cycle capability is in essence a request to accept restrictions on national energy development policy. Such proposals may have a difficult time finding friendly constituencies in any country that seeks to preserve political and economic sovereignty.

The IAEA Additional Protocol may raise similar concerns. It expands the range of facilities under IAEA supervision beyond locations where nuclear material is stored to include

¹¹⁷ S.C. Res. 1540, U.N. Doc. S/RES/1540 (Apr. 28, 2004).

¹¹⁸ Ogilvie-White, *Facilitating 1540*, supra note 83, at 50.

¹¹⁹ See generally Scheinman, ed., *Implementing 1540*, supra note 4.

centrifuge manufacturing facilities and other installations where nuclear fuel cycle activities are occurring. Whereas the facilities that usually have nuclear materials tend to be government-owned—such as enrichment facilities or nuclear reactors—non-nuclear facilities are often in the private sector, which must bear the cost of inspections and accept some risk, however minimal due to the Additional Protocol’s managed access provisions, of industrial espionage. These factors could give rise to additional, private sector political constituencies that oppose nonproliferation policies. Finally, there are fiscal costs of implementing the Additional Protocol for governments, which may be exacerbated by a relative lack of regulatory capacity in nuclear matters. Malaysia, for example, has publicly cited this reason for its refusal to ratify the Additional Protocol.¹²⁰

These challenges highlight the critical importance of aligning states’ economic interests with nonproliferation objectives. For example, fuel assurance mechanisms may be developed with an eye towards actually creating value for the consumer, such as by offering a range of back-end fuel supply services like spent fuel storage¹²¹ or access to technical energy planning assistance. Of particular importance is the need for nonproliferation strategy to understand the challenge of proliferation at least in part as an economic development issue and to incorporate the tools and lessons of economic development policy.¹²² Capacity building, direct financial assistance, and a concerted effort to actively involve developing countries in the formulation of nonproliferation initiatives could help align economic interests with nonproliferation objectives.

¹²⁰ *Malaysia not keen to sign more nuclear protocols*, NEW STRAITS TIMES (MALAYSIA), Feb. 25, 2004, at Nation:2.

¹²¹ *See, e.g.*, John Deutch, Arnold Kanter, Ernest Moniz & Daniel Poneman, *Making the World Safe for Nuclear Energy*, SURVIVAL, Winter 2004/2005, at 65–80.

¹²² *See, e.g.*, Finlay & Turpen, *The Next 100*, supra note 112; Scheinman, ed., *Implementing 1540*, supra note 4.

Nonproliferation policies should also be crafted in such a way as to better reflect local circumstances and concerns. Regional approaches to proliferation may be particularly effective in this regard.¹²³ A number of important efforts to promote implementation of UNSC-1540 are heading in this direction, but these tools are seldom considered by senior policy makers as a central component of nonproliferation strategy, which limits the political capital and financial resources available to these programs. Some countries may also overestimate the fiscal costs of implementing specific nonproliferation initiatives. A comprehensive nonproliferation strategy should compile data on these costs, preferably based on the experience of developing countries that have already implemented the measure in question, and share that data as appropriate.

CONCLUSION

The three logics of nonproliferation decision-making presented above suggest a complex, contingent decision calculus for states in their evaluation of proposals for strengthening the NPT's core nonproliferation norm. The logic of regime symbolism shows how the prevailing normative construction of the NPT as a bargain between NWS and NNWS involving a trade of nuclear disarmament for nonproliferation commitments could interact with deeper normative grievances about prevailing patterns of international power and prestige to forge a powerful linkage in some states between disarmament and nonproliferation. Progress on disarmament may be a necessary condition for attracting support among these countries for NPT-plus measures.

On the other hand, we have also seen that many states, perhaps even most, have at times been willing to set aside normative objections to the inequity of the NPT's bargain and the alleged failure of the NWS to implement even this one-sided bargain in order to support NPT-plus measures that furnish or sustain security and economic benefits. The most visible example

¹²³ *See generally* Scheinman, ed., *id.*

of this is the 1995 NPT extension decision, where the fundamental choice for many NNWS was between a permanent extension that would advance their security and economic interests but eliminate a potential source of leverage over the NWS' disarmament records, or a fixed-term extension that would preserve that leverage but jeopardize both the future of the regime and important economic relationships with the NWS and their allies. For NNWS that are more or less content with the normative structure of the status quo, the normative hurdle that the United States and other NWS must leap to satisfy Article VI concerns, such as it exists, may actually be quite modest, particularly in instances where, as the case was in 1995, they perceive countervailing security and economic interests at stake. A sense that the NWS are concretely moving in the direction of nuclear disarmament may be all that is required to overcome normative opposition to NPT-plus measures in many countries.

This is good news for nonproliferation advocates because it relieves some of the political burden on the nuclear weapons policies of the NWS—and the United States in particular. Optimism about the future of U.S. nuclear weapons policy—particularly the prospects for significant nuclear reductions and ratification of the CTBT—is arguably the highest it has been in many years, even if it is by no means for certain whether this optimism will translate into real changes in U.S. nuclear weapons policy, which has proven remarkably resilient and resistant to fundamental change.¹²⁴

The bad news, however, is that the logics of relative power and opportunity costs suggest that policy-makers should not expect progress on disarmament alone to mobilize support for NPT-plus measures that entail costly investments of time, resources and sovereignty, or impose

¹²⁴ See Janne E. Nolan & James R. Holmes, *The Bureaucracy of Deterrence*, BULL. ATOMIC SCI. 64, March/April 2008, at 40.

other opportunity costs such as reduced exports. At best, such progress may lower the price of securing developing country support for nonproliferation initiatives like UNSC-1540, fuel cycle reform, and the Additional Protocol, but it does not guarantee the sale.

In other words, even if progress on disarmament is necessary to attract the support of some countries for NPT-plus measures, it may not be sufficient. Building support for NPT-plus measures will also require parallel efforts to convince states that nonproliferation policies will contribute to—or at least not undermine—their security and economic welfare.

Finally, this study suggests the contours of a research agenda on nonproliferation decision-making. Traditionally, the main focus of scholarly attention in the nuclear weapons arena has been on why states build nuclear weapons. This is a subject of obvious importance, but the comparative lack of scholarly work on nonproliferation decision-making—particularly in nonaligned countries—is a fundamental gap in our understanding of international legal and policy regimes. The three logics of nonproliferation decision-making developed herein, along with the evidence presented in support of them, raise a number of questions demanding further research.

For example, why does the prevailing normative construction of the NPT emphasize a three-point bargain between NWS and NNWS, and how did it emerge? After all, the three-point bargain construction, with its emphasis on disarmament and depiction of NNWS as a monolithic bloc, is not the only possible normative understanding of the NPT. In key respects, the treaty may also be viewed as a bargain primarily among the NNWS that stabilizes their strategic environment and thereby obviates the need for costly national nuclear weapons development

projects;¹²⁵ under this construction, it is entirely plausible that the treaty's nuclear disarmament and peaceful use elements become largely peripheral in debates about treaty compliance. In this respect, it is worth observing that early scholarly and policy analysis of the NPT by Western experts often treated disarmament as a peripheral issue, and focused instead on the nonproliferation, safeguards, and peaceful use issues.¹²⁶ How are threat perceptions about proliferation formed and sustained in states of interest, how do they evolve over time, and to what extent are those perceptions susceptible to external influence? How do normative concerns about disarmament shape threat perceptions? How powerful are export-oriented interest groups in states of interest, and how are arguments about disarmament and national security deployed in domestic political discourse?

A number of the propositions in this paper, such as the hypothesis presented in Part I about an important relationship between a state's willingness to support enhancements to the NPT and its broader satisfaction with the global status quo, may be susceptible to statistical analysis.¹²⁷ Such analysis could be useful for developing and testing hypotheses about broad

¹²⁵ See, e.g., DAVID FISCHER, *STOPPING THE SPREAD OF NUCLEAR WEAPONS: THE PAST AND THE PROSPECTS* 6 (1992) (concluding that “[a] broadly shared perception that one’s national interest is better served by not possessing nuclear weapons is thus the foundation of the international non-proliferation regime”); George Bunn, *Options for Extension*, *supra* note 10, at 52 (describing the original purpose of the NPT as “establish[ing] a common nonproliferation norm that would assure cooperating nuclear weapons ‘have-not’ countries that if they did not acquire nuclear weapons, their neighbors and rivals would not do so either”).

¹²⁶ See, e.g., Quester, *Politics of Nuclear Proliferation*, *supra* note 89.

¹²⁷ *But see* Alexander H. Montgomery & Scott D. Sagan, *The Perils of Predicting Proliferation*, 53 *J. CONFLICT RES.* 302 (2009) (critiquing on primarily methodological grounds a “second wave” of quantitative literature on proliferation).

trends in the history of nonproliferation decision-making and suggest promising lines of more in-depth case study work.

Indeed, case studies are particularly important for analyzing nonproliferation decision-making, given the relative degrees of success that each of the three logics presented above has in explaining certain nonproliferation decisions. Analysts seeking clearer insights into nonproliferation decision-making must seek to break open the black-box of governmental decision-making and examine governments' private motivations to determine the actual driver(s) of nonproliferation policy-making in countries of interest. I am not aware of any detailed empirical studies purporting to do this on the relationship between disarmament and support for NPT-plus obligations—or indeed on the broader question of what drives states to support new nonproliferation obligations—for the NAM countries that are most vocal about nuclear disarmament.