
WHITE ELEPHANTS: WHY SOUTH AFRICA GAVE UP THE BOMB AND THE IMPLICATIONS FOR NUCLEAR NONPROLIFERATION POLICY

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This article examines why the South African government chose to dismantle its indigenous nuclear arsenal in 1993. It considers three competing explanations for South African nuclear disarmament: the realist argument, which suggests that the country responded to a reduction in the perceived threat to its security; the idealist argument, which sees the move as a signal to Western liberal democratic states that South Africa wished to join their ranks; and a more pragmatic argument—that the apartheid government scrapped the program out of fear that its nuclear weapons would be misused by a black-majority government. The article argues that the third explanation offers the most plausible rationale for South Africa's decision to denuclearize. Indeed, it contends that the apartheid South African government destroyed its indigenous nuclear arsenal and acceded to the Nuclear Non-Proliferation Treaty to “tie the hands” of the future ANC government, thereby preventing any potential misuse of the technology, whether through its proliferation or use against a target.

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In March 1993, South African President F.W. de Klerk made a startling announcement, not only to the country's parliament, but to the entire world—South Africa had dismantled its nuclear weapons program. Few South Africans were aware that their country was a nuclear power that had built almost seven nuclear weapons. Yet little was explained in de Klerk's announcement. Between statements about increasing political violence and ongoing multi-party peace negotiations, de Klerk merely offered this rationale: "a nuclear deterrent had become not only superfluous but, in fact, an obstacle to the development of South Africa's international relations" (*BBC* 1993a).

A decade later, South Africa is still one of the few states in the world to have produced its own nuclear weapons, and is still the only one to have dismantled its own arsenal (Lieberman 2001, 45). Apart from its contribution to the country's relatively peaceful transition to a multi-racial democracy in 1994, nuclear rollback was one of the crowning achievements of the departing apartheid government. Soon after de Klerk's revelation in 1993, South African Foreign Minister Pik Botha told reporters he hoped that other nuclear-capable countries would "follow our example to take this decision voluntarily without having any obligation to do so, for the sake of making the earth and the world a safer place and avoid conflict in the future" (*BBC* 1993b). More recently, U.S. Secretary of State Colin Powell also used South Africa's voluntary nuclear rollback as an example of "real disarmament" in chiding Iraq for its refusal to cooperate with UN weapons inspectors (Nessman 2003). The sentiment was echoed in a report on Iraq by UN chief weapons inspector Hans Blix, who was responsible for ensuring South Africa had completely dismantled nuclear weapons ten years earlier when he served as director of the International Atomic Energy Agency.

South Africa's decision to "give up the bomb," therefore, is still relevant to policy makers today. It also presents an interesting case study, given the unprecedented and unique nature of the South African decision and the desire of statesmen and scientists alike to understand and replicate conditions under which countries disarm. However, current explanations for South Africa's decision to denuclearize are problematic, and their flaws could lead to misguided policy recommendations concerning international approaches to sanctions, nuclear nonproliferation, and disarmament. Among these explanations are three main arguments for South Africa's decision to disarm, which emerge from a large volume of literature by nuclear experts, international affairs theorists, and military analysts.

First and foremost is the stated government reason for denuclearization. Owing much to realist arguments concerning balance of power, the

“threat removal” explanation argues that, with the collapse of the Soviet Union and the end of the Cold War, the security threat which had caused South Africa to build a nuclear arsenal had disappeared, thereby removing the main impetus behind the nuclear program.

The second explanation for disarmament was often speculated about and later made public by former South African officials involved with the program. The rationale stems from the argument that the nuclear arsenal was not built to deter an external attack, but as part of a blackmail strategy to force the United States to come to South Africa’s aid should its territories come under attack. Once de Klerk and his government committed themselves to democratic reform, they saw the scrapping of the program and ascension to the Nuclear Non-Proliferation Treaty (NPT) as a means of showing the Western world their commitment to democracy, removing any obstacles in the way of a free and open relationship with South Africa’s Western allies.

The third explanation, though poorly developed in the current literature on South Africa’s nuclear policy, stems mainly from the domestic political environment in which the decision was made. The theory surmises that de Klerk and his cabinet may have gotten rid of South Africa’s nuclear arsenal to prevent any future African National Congress (ANC) government from inheriting it, fearing irrational use of the weapons or the proliferation of the technology to nuclear-hungry allies. Many authors insert it as a fringe theory, or as one of many minor factors influencing de Klerk and his decision makers. Often it is mentioned merely in passing by authors who fail to develop it further. However, it deserves more attention.

One argument that adds weight to this rationale for denuclearization is offered by political scientist Andrew Moravcsik. In his study of international human rights regimes, Moravcsik found that the primary proponents of reciprocally binding human rights obligations were governments of newly established democracies, while established democracies tended to oppose such international regimes (Moravcsik 2000, 220). He observed that international human rights regimes essentially created a quasi-independent judicial body, a “tactic used by governments to ‘lock in’ and consolidate democratic institutions, thereby enhancing their credibility and stability vis-à-vis nondemocratic political threats” (Moravcsik 2000, 220). He noted:

In sum, governments turn to international enforcement when an international commitment effectively enforces the policy preferences of a particular government at a particular point in time against future domestic political alternatives (Moravcsik 2000, 220).

Arguing that governments resort to this tactic when the benefits of reducing future political uncertainty are high relative to the costs to sovereignty the decision entails, Moravcsik suggests that “self-binding” is mainly used by newly established democracies since they have the most urgent need to “stabilize the domestic political status quo against nondemocratic threats” (Moravcsik 2000, 220).

Examining the three main explanations of why countries choose to make international institutional commitments, including coercion (the realist argument), normative persuasion (the idealist argument) and a combination of both, Moravcsik convincingly argues that republican liberalism—or domestic commitment—forms the more plausible rationale (Moravcsik 2000). In short, one should assume that these international commitments, like domestic commitments, are “self-interested means of ‘locking in’ particular preferred domestic policies—at home and abroad—in the face of future political uncertainty” (Moravcsik 2000, 226). In the words of Moravcsik:

By placing interpretation in the hands of independent authorities managed in part by foreign governments—in other words, by alienating sovereignty to an international body—governments seek to establish reliable judicial constraints on future nondemocratic governments or on democratically elected governments that may seek (as in interwar Italy and Germany) to subvert democracy from within... Thus democratic regimes seek to prevent political retrogression or “backsliding” into tyranny (Moravcsik 2000, 228).

This article argues that in facing the likely formation of a future black government, de Klerk (and to some extent, his cabinet) decided to destroy South Africa’s indigenous nuclear arsenal and accede to the NPT to “tie the hands” of that future government, thereby preventing any potential misuse of the technology, whether in its proliferation or use against a target. Using Moravcsik’s theory as a starting point for the concept of “regime binding” in the South African context, it seeks to demonstrate that this theory, more than any other, holds the most convincing explanation for South Africa’s decision to disarm. Finally, the article contends that while the South Africa case is unique, and should therefore not be relied on as “an example” or model of denuclearization, it nevertheless offers some interesting considerations for policy makers.¹

The first section provides a brief outline of South Africa’s nuclear program, leading up to de Klerk’s decision to dismantle the weapons. The second and third sections examine the two competing explanations for

South Africa's nuclear rollback and argue why they do not provide convincing answers. The fourth section presents the argument for regime binding as the most persuasive explanation for South Africa's denuclearization. In addition to drawing a number of conclusions, the final section considers the importance of this case study for policy makers.

DENUCLEARIZING SOUTH AFRICA

Consisting of six plane-deliverable nuclear weapons (and a seventh that had not yet been assembled), South Africa's nuclear weapons program was mired in secrecy since its inception under Prime Minister John Vorster in 1974. During its twenty-year history, the program was always under the direct control of the head of government and relevant cabinet ministers, as well as, after 1979, the chairman of Armscor, South Africa's arms procurement and production agency (De Villiers et. al. 1993).² Only 400 people were involved in the program at any one time (De Villiers et. al. 1993).

South Africa had abundant uranium reserves, and in the two decades following the Second World War it was among the largest exporters of uranium to the United States and Great Britain (De Villiers et. al. 1993). The country began its own peaceful nuclear research program, building by 1969 the Y Plant—a pilot uranium-enrichment plant—at Valindaba outside Pretoria. Preliminary nuclear explosives research was approved in 1971; three years later, Vorster endorsed the development of a nuclear explosives capability and allowed funding for a testing site to go forward (De Villiers et. al. 1993).³ Two test shafts were subsequently drilled in the Kalahari desert, but were picked up by Soviet satellites in 1977 (Lieberman 2001).⁴ When the United States later confirmed the discovery and publicly protested it, Pretoria shut down the test site but continued its research (De Villiers et. al. 1993).⁵

By 1978, the Y Plant was able to produce highly enriched uranium and the government had made the formal decision to change the focus of the nuclear program to military applications—or more specifically, the development of a nuclear deterrent (De Villiers et. al. 1993; Lieberman 2001).⁶ By the following year, South Africa's first two nuclear devices had been completed, but the first was dismantled for parts and the second was reserved for an underground test (Lieberman 2001). An additional six nuclear devices were in the works, as recommended by the Witvlei ("White Marsh") Committee appointed by Prime Minister P.W. Botha (Lieberman 2001).⁷ Armscor took over the development and manufacturing of the devices, while the Atomic Energy Board (AEB, later merged with the Uranium Enrichment Corporation of South Africa and renamed

the Atomic Energy Commission) supplied the highly enriched uranium and conducted the research (Lieberman 2001). The first bomber-deliverable weapon was completed by Armscor in 1982; the second in 1987 (Albright 1994). Surprisingly, the military did not seem to have much say in the program, except in devising a belated strategic policy and providing support in selecting and developing the Kalahari testing site (Lieberman 2001; De Villiers et al. 1993).

Official sources estimate the total cost of the nuclear weapons program at 750 million rand, or less than 0.5 percent of the country's defense budget at the time (Lieberman 2001, 55; De Villiers et al. 1993, 102).⁸ This amount was later disputed by the ANC, however, which claims the secrecy surrounding the program allowed the government to divert millions more to it through the Atomic Energy Corporation (AEC) and hidden budgets (De Villiers et al. 1993).⁹ By the time de Klerk was elected president on September 14, 1989, Armscor had drawn up plans to create a mobile nuclear medium-range ballistic missile, and a \$10 million new weapons plant, Advena Central Laboratories, had just been completed (Lieberman 2001).¹⁰ Also on the drawing board was an intercontinental ballistic missile. However, the physical development of these weapons had not yet been approved by the government (Lieberman 2001).

Within two weeks of his election, de Klerk appointed an expert committee to evaluate the policy of maintaining a nuclear deterrent and to consider the benefits and liabilities of joining the NPT (Lieberman 2001, 73). By November 1989, the committee recommended that the government scrap both the program and the weapons, but advised that South Africa's nuclear capability and dismantlement remain a secret (De Villiers et al. 1993, 103). De Klerk appointed a working group of Armscor and AEB officials within the month to "advise him on a timetable for disarmament and the earliest possible date when South Africa could join the NPT and conclude its safeguards agreement with the International Atomic Energy Agency (IAEA)" (De Villiers et al. 1993, 103).

By February 1990, the Y Plant was shut down; in July of that year, work began on full denuclearization of all facilities and materials (De Villiers et al. 1993).¹¹ Complete dismantlement of the nuclear deterrent—including the disassembly of six nuclear devices and the incomplete seventh device—was completed by early July 1991 (De Villiers et al. 1993, 104).¹² South Africa joined the NPT on July 10, 1991.

THE REALIST "THREAT REMOVAL" EXPLANATION

One of the most frequently cited rationales for South Africa's nuclear

disarmament has been that the security environment had changed in 1989, and many of the threats that had motivated the building of a nuclear deterrent had evaporated. The biggest external threats to South Africa's security—the support of communism in Africa by the Soviet Union and the ongoing tension with 50,000 Cuban troops stationed in Angola—had been largely removed by 1989. The Cold War had wound down, a 1988 agreement had seen the withdrawal of the Cuban troops in exchange for Namibia's independence, and the Soviet Union had scaled back its aid to Angola, Mozambique, and the ANC, discouraging the ANC from continuing an armed struggle (Lieberman 2001). De Klerk notes most of these changes in his memoirs, adding:

Under these circumstances, the retention of a nuclear capability no longer made any sense—if it ever had in the first place—and had become an obstacle to the development of our international relations. I accordingly decided to dismantle our capability (De Klerk 1999, 274).

De Klerk's reasoning follows generally accepted realist arguments for disarmament: remove the threat to security, and the need for a nuclear deterrent will also disappear (Lieberman 2001; Posen 1984, 59-79). Indeed, under de Klerk's administration, there was a 40 percent rollback in overall military expenditure between 1989 and 1993 (Lieberman 2001).¹³

However, the declining security threat does not seem to be a convincing reason for such drastic measures. As Lieberman points out, "a residual nuclear capability would not have endangered South African security, and the budgetary savings from dismantlement were relatively small" (Lieberman 2001, 75). In fact, the annual cost of the nuclear deterrent program was estimated by officials at a mere 70 million rand a year, including the capital cost of the Y Plant (De Villiers et. al. 1993). The low cost of the program caused one scholar to dub it "the affordable bomb" (Albright 1994, 37-47). Although many countries, including the United States, suspected South Africa of having some kind of nuclear capability, the program was still a state secret, removing any possibility of jeopardizing its own security.

William Long and Suzette Grillot argue that security, in the pure realist sense, was never the intended goal of the program, for several reasons. First, the lack of a suitable delivery system prevented South Africa from deploying the weapons outside the region, reducing the number of potential targets to few, if any, locations. Second, the use of nuclear weapons against such targets would have been suicidal, carrying more disadvantages than advantages. Finally, South Africa's conventional capabilities were far

superior to those of its neighbors, the most likely targets of a nuclear deterrent (Long and Grillot 2000). They argue that the real threat to South Africa's security was internal—the internationally assisted revolt of the black communities—and therefore could not be deterred by nuclear weapons.

A final counterargument to the “threat removal” explanation involves the precedent South Africa set when it denuclearized: no other nuclearized state has ever completely dismantled its arsenal once the security threat evaporated. An example of this can be seen in the former Soviet republics, such as Ukraine, which reluctantly surrendered its inherited weapons, and only under severe pressure from the United States and Russia. In addition, some argue that Ukraine gave up its nuclear arsenal because it wanted to be a part of the Western community of liberal, democratic states and realized it could only gain membership in the club if it denuclearized and accepted non-nuclear weapons status (Long and Grillot 2000, 28). No former nuclear power, including those in the midst of a transition to democracy and in dire need of outside economic support, has ever completely destroyed its entire nuclear arsenal. Yet South Africa did feel the need to do this, even with a relatively secret program. The threat removal explanation, therefore, can at best only partially explain why South Africa destroyed its nuclear capability.

DOMESTIC REFORM AND THE “BLACKMAIL” STRATEGY

The second main rationale for South Africa's disarmament—that of wanting to join and gain the acceptance of the Western club of liberal democratic states—stems to some degree from the strategic deterrence policy put in place to govern the use of the nuclear weapons. A clear nuclear strategy only began to be developed by South Africa in 1983, when Andre Buys—a former scientist with the AEB's explosives team who had become general manager of Armscor's Circle nuclear weapons plant—formed a working group at Armscor to develop a strategy, concerned that “nobody had actually sat down and worked out a proper strategy,” which he feared could lead to an irrational decision in a “desperate situation” (Lieberman 2001, 55-56).¹⁴ A year later, the group had developed a three-phase strategy that combined deterrence and diplomatic leverage, which was finally approved in 1986 or 1987 (Lieberman 2001).

Phase one, or “low military threat,” involved maintaining ambiguity about South Africa's nuclear capability. During this period, South Africa would neither confirm nor deny it had a nuclear arsenal. If Soviet forces or Soviet-backed forces threatened to invade some part of South Africa's territory or Namibia (under South African control since the First World

War), then the government would move to phase two, or “covert disclosure:” the United States and other Western nations would be secretly told of the program with the expectation that they would help to defuse the problem (Pabian 1995). If this failed and the threat worsened, Pretoria would move to phase three, or “overt disclosure.” South Africa would first publicly declare it had the bomb or prove it by conducting an underground test. If this did not work, it would detonate a nuclear bomb 1,000 kilometers south over the ocean. The last step, according to Buys, would be to “threaten to use the nuclear weapons on the battlefield in self-defense” (Lieberman 2001, 56).

Clearly, the final stage was the least desirable option. Therefore, it seems that South Africa’s deterrent strategy was mainly aimed at ensuring its security by blackmailing the West to come to its aid. As J.D.L. Moore stated:

South Africa has few military incentives for possessing nuclear weapons. Her intentions are rather to use her nuclear capability together with the politics of nuclear uncertainty (hints about possible weapons test, etc.) as a diplomatic lever to extract concessions of a military, strategic or economic nature from the West or, at worst, prevent relations from deteriorating too far. Thus South Africa is able to use her nuclear weapons *option* but has no military incentive for taking the option and announcing that she has such weapons (Moore 1987, 153).

After de Klerk’s disclosure of the nuclear program in 1993, former Prime Minister Pik Botha confirmed this blackmail strategy during a national South African television interview. Citing South Africa’s increasing isolation and inability to obtain weapons due to international sanctions, he said:

. . . the idea was to see to it that one had to develop a maximum deterrent for an eventuality such as if the Soviet Union would attack the country, then one could for instance, go to America or to Britain or France, and say look, if you do not intervene now and prevent it, then we will consider using this deterrent (BBC 1993a).

For Lieberman, the basis of this strategy holds some clues to South Africa’s decision to dismantle, in that it emerged from essentially political interests, not just external security concerns, as realists argue. He cites Etel Solingen’s theory of international nonsecurity incentives, which argues that the economic orientation of “nuclear fence-sitters”—that is, those states that have neither joined the NPT nor overtly declared their nuclear

capability—influences their sensitivity to international pressure (Lieberman 2001, 47). Whereas nationalist-statist governments see political benefits in such programs, economic liberalizers thoroughly dislike them—not only because of the vast amount of money spent on such programs and the political influence wielded by state arms and energy agencies, but also because they see such programs as an obstacle to international approval, aid, and trade (Lieberman 2001). Lieberman supports this argument as an explanation of why South Africa denuclearized, citing South Africa’s “increased sensitivity to the economic and diplomatic liabilities of the program,” as well as de Klerk’s desire to end apartheid and move towards liberalization (Lieberman 2001, 72). De Klerk also seemed to confirm this theory, saying that his 1993 announcement was “widely welcomed and further helped to strengthen our international capability,” and adding that the program was just another “major expense” that “would never have (been) undertaken had it not been for our growing isolation and sense of confrontation with the international community” (De Klerk 1999, 274). In other words, the dismantlement of the country’s nuclear weapons was part of his larger plan to normalize South Africa’s international relations. Long and Grillot examine this claim, citing the South African example as a possible extension of “democratic peace” theory, which would argue that decisions to denuclearize are the result of “internal domestic norms affecting external behaviour” (Long and Grillot 2000, 26). Taken in the South African context, therefore, if the Cold War strategy involved using the bombs to force the West to defend South Africa, then getting rid of the bomb after the Cold War would seem to guarantee some sort of acceptance by the international community. Signing the NPT would alleviate South Africa’s international isolation by signaling to Western countries that it was serious about democratic reform.

This explanation, however, is not convincing. First, as Long and Grillot point out, Soligen’s theory is itself weakened by empirical evidence. Numerous non-democracies are and have remained non-nuclear weapon states, while most of the nuclear powers today are democracies (Long and Grillot 2000, 26).

It is also unclear why de Klerk believed complete dismantlement and ascension to the NPT were so essential to South Africa’s acceptance by the international community, when it was clear that ending apartheid would have been sufficient. If de Klerk had in fact made the decision to accede to the NPT to convince the West that it was serious about reform, it seemed unnecessary. After all, almost two years before South Africa signed the treaty and one year before de Klerk was elected president, formal talks

between the government, political prisoner Nelson Mandela, and the ANC were already underway (Mandela 1995). These negotiations continued on a regular basis, and Mandela's move to a minimum security facility in 1988 had signaled that international political and economic pressure to end apartheid seemed to be having some effect.

De Klerk had also made his commitment to democratic reform clear to the international community through various public speeches and the elimination of oppressive apartheid laws months before the NPT was signed in July 1990. A few days before his inauguration in September 1989, for example, de Klerk announced his new policy of permitting protest marches that had been forbidden since 1986, when draconian state of emergency legislation had been enacted (De Klerk 1999, 159). Numerous high profile political prisoners were released by mid-October, including all those convicted during the 1964 Rivonia trial and ANC leader Walter Sisulu (De Klerk 1999, 160). Six months before the treaty was signed, de Klerk made his famous February 2, 1990 speech, in which he outlined his intention to transform the country, starting with the removal of the statewide ban on the main black political organizations, the repeal of a number of oppressive apartheid laws, and the ordering of political prisoner Nelson Mandela's release (De Klerk 1999). As de Klerk himself put it, "within the scope of eight days, we had succeeded in dramatically changing global perceptions of South Africa" (De Klerk 1999, 168). The negotiated ending of the South African occupation of Namibia in March also signaled a real change toward reform as well as South Africa's ability to bow to international pressure. As Long and Grillot point out:

Foregoing its nuclear weapons and joining the NPT was a way "to reenter the international community in compliance with international norms." But, these actions alone would not be sufficient to earn the West's support. The basis for Pretoria's isolation was its apartheid policy, not its nuclear policy. Internal reform in dismantling apartheid and denuclearization would have to be addressed together (Long and Grillot 2000, 32).

Reiss also points out that although South Africa would have probably abandoned the nuclear weapons program at some point, it did not have to do so in 1989 (Reiss 1995, 21). Economically, the South African black majority was suffering the most from the country's depressed economy and continued international sanctions, and the benefits of joining the NPT would continue to exist in the future.

It should be noted, however, that some authors dispute the claim that international pressure was not placed on South Africa prior and during

1989 to dismantle its nuclear weapons program. Helen E. Purkitt and Stephen F. Burgess argue that, in late 1986, the United States realized that sanctions would “produce rapid change” in South Africa and actually “ratcheted up” pressure on then-President Botha to dismantle the program (Purkitt and Burgess 2002, 190). Citing South African nuclear program expert and academic Renfrew Christie, the authors claim that “the growing prospect that the ANC would take power in South Africa” after de Klerk’s election caused the United States to threaten to treat South Africa as a “hostile nation” if it failed to disarm (Purkitt and Burgess 2002, 190). As a result, they argue, de Klerk and his advisors decided to dismantle the program to placate the United States (Purkitt and Burgess 2002). It is difficult, however, to assess the degree of U.S. pressure at that time, as much of this information linking U.S. pressure to dismantlement of the program comes from a single source: Renfrew Christie. These arguments will, however, be addressed in the next section.

FEAR OF INHERITANCE AND REGIME-BINDING

Although it tends to receive short shrift in the literature, one of the most convincing explanations behind South Africa’s decision to destroy its nuclear capability was the fearful prospect of a future ANC-led regime inheriting these weapons. Reiss calls it the “more cynical” rationale, but admits that given the support the ANC had received over the years from regimes like Libya and organizations such as the Palestine Liberation Organization, “even the possibility of a black government inheriting nuclear technology or any undeclared nuclear material was unsettling” (Reiss 1995, 20-21). Purkitt and Burgess also make the claim (as stated above) that the U.S. fear that a transition to a regime led by the ANC “might bring with it nuclear proliferation,” applied great pressure on the South African government from 1987 until 1989, during which time the de Klerk government negotiated with U.S. officials and “largely conformed to their demands” (Purkitt and Burgess 2002, 187). Even if this view is accurate, it does not seem to contradict the theory that de Klerk and his advisors took the step toward nuclear dismantlement to “lock in” a future ANC government to international nonproliferation agreements, or that de Klerk did not consider these consequences of transition first.

According to Moravcsik, a rational decision to delegate authority in some area of policy to an independent body (such as South Africa’s joining of the NPT) requires that the sitting government consider two factors: the cost to the country’s sovereignty and the reduction of domestic political uncertainty (Moravcsik 2000). He concludes that the governments most

likely to support an international institutional regime would be those “firmly committed to democratic governance” but facing “strong internal challenges that may threaten it in the future”—mainly newly established democracies. So long as the benefits of reducing political uncertainty outweigh the costs to the country’s sovereignty, a government will be willing to tolerate such costs to obtain these benefits (Moravcsik 2000, 228).

De Klerk’s actions in relation to dismantling the program seem to fit this pattern, given that the program was dismantled and the NPT was signed almost immediately following his election, well before the ANC might have discovered the information on its own. As the treaty did not require disclosure of past programs, it is likely de Klerk would never have revealed the information had it not been for a number of reports in the media alleging that South Africa still had covert nuclear capabilities and had not fully disclosed its stockpile of enriched uranium (*BBC* 1993a). By forbidding the disclosure of any information related to such programs, the treaty also allowed de Klerk to bind all scientists, officials, and former workers involved in the program to absolute secrecy. In addition, one would only have to take a look at South Africa’s immediate neighbors to find sources of such potential domestic insecurity. Zimbabwe’s transition to black rule, for example, had led to the leadership of one of most despotic rulers in Africa, Robert Mugabe. Even within South Africa’s borders, bilateral talks with radical fringe groups such as the Pan Africanist Congress (PAC), which had an armed wing and the slogan of “one settler, one bullet,” were prone to breaking down. In December 1992, for instance, a spokesman for the PAC’s armed wing declared war on white South Africans (De Klerk 1999). The number of attacks on whites had also increased. Given the often violent and oppressive nature of the apartheid system and the military training of many of its opponents within the country, such adverse reactions to peaceful negotiations could not have been unforeseen by South Africa’s leader; nor could he have failed to envision the potential for a violent turn to the transition process.

The argument for regime binding is also supported by de Klerk’s determination to get rid of the program quickly, and as soon as he came to power, having known about it since 1978 as the country’s minister of minerals and energy. His selection of the ad hoc cabinet committee to look at the issue of nuclear rollback seemed to reflect his desire to have the program scrapped, as he chose a chairman he knew was opposed to the program and other officials who had no loyalty to it (Lieberman 2000, 74).¹⁵ Dr. Waldo Stumpf, chief executive officer of South Africa’s AEC, later said that at the first meeting, de Klerk told them of his decision to

normalize South Africa's international relations, and that the weapons "would be a liability in South Africa gaining international acceptance in the process," adding that "there was no debate about the decision but rather how it should be implemented" (Lieberman 2000, 73-74).

Various interviews given by South African officials after de Klerk's 1993 announcement also seemed designed to assure South Africans that no future government would ever be able to duplicate the technology. In a news conference following his announcement, de Klerk said: "This country will never be able to get the nuclear device again, to build one again, because of the absolute network of inspection and prevention which being a member of the NPT casts on any country" (BBC 1993b). Stumpf told an interviewer, "It is technically almost impossible (to build weapons again)... You know the material has been stored under very safe conditions, which fully comply with the convention for the physical protection of the material. South Africa is a signatory to this convention" (BBC 1993d). In March 1993, the South African parliament enacted legislation which forbade its citizens from assisting in any program related to the construction of nuclear weapons and added nonproliferation guidelines to its export policies (De Villiers et. al. 1993, 108).

This is not to say that the ANC had expressed any desire to possess such weapons; on the contrary, in March 1993, it reaffirmed its commitment to nuclear nonproliferation and a "nuclear weapon-free" Africa—albeit after de Klerk had presented his *fait accompli* (SAPA 1993). However, some foreign governments had their doubts about the ANC's position. When reports surfaced that the AEC was trying to sell South Africa's stockpile of highly enriched uranium to foreign powers before the 1994 election, the ANC reacted strongly, demanding that the transitional Government of National Unity be involved in any future decisions (De Villiers et. al. 1993). It also added that any foreign government that signed an agreement with Pretoria without the prior knowledge and approval of the ANC would "jeopardize future peaceful nuclear activities of a democratic South Africa," causing some to doubt the ANC's "fitness as a nuclear custodian" (De Villiers et. al. 1993, 106). During this period, foreign news reports suggested that the ANC might sell such a stockpile or nuclear technology to Cuba and the PLO "to pay off old political debts" (De Villiers et. al. 1993, 106).

However, the South African government never sold the stockpile, but rather found another, more domestically stabilizing use for it. The highly enriched uranium became part of the country's very profitable medical isotope program, allowing South Africa to become the world's fourth-larg-

est producer of this commodity, and yielding millions of dollars annually in much-needed foreign currency (PANA 2001; De Villiers et. al. 1993).

CONCLUSIONS AND POLICY IMPLICATIONS

Among the explanations offered by the current literature concerning South Africa's nuclear weapons program, the most plausible explanation for the government's decision to destroy its nuclear arsenal was that it sought to bind any future regimes to nuclear nonproliferation, thereby preventing the transitional democratic process from "backsliding into tyranny," in the words of Andrew Moravcsik. Given its expectations that it would not participate in the government after democratic rule was put in place and general elections were held, the sovereignty costs to South Africa's last apartheid government were few, and well worth the potential benefits of reducing future domestic political uncertainty by destroying the country's nuclear weapons and facilities.

This argument also has some implications for policy today. Academics and analysts currently studying the history of South Africa's nuclear program continue to make arguments that it could establish a "road map" for the eventual disarmament of other states (Purkitt and Burgess 2001). A question well worth examining, therefore, is whether the conditions under which South Africa chose to disarm could be replicated. The world currently faces a number of threats from nuclear "rogue" states, including North Korea and Iran. Thus, the idea of drawing lessons from the South African example as a model for nuclear disarmament has great appeal.

However, if one follows Moravcsik's argument and observes the unique conditions under which de Klerk made his decision, this prospect seems unlikely, though not impossible. Theoretically, nonproliferation policy could be aimed at speeding along democratic transitions in non-democratic nuclearized states through economic concessions and other incentives. Iran, for instance, shares many of the economic, political, and social conditions of apartheid South Africa, as well as a similar rationale for pursuing a nuclear option, although it is already a signatory to the NPT.¹⁶ Academics have recently called on the United States to reestablish official diplomatic relations with Iran to encourage its nascent democratic movement and pressure its government to abandon any nuclear ambitions.¹⁷

South Africa's conditions, however, were unique. It no longer faced any real threat, perceived or otherwise, after the end of the Cold War. Its democratic transition was both widely assisted and encouraged politically and financially by the international community, including the United States. The departing white government also had an incentive to stay and rebuild

the country, and thus had a stake in its continued domestic security. This is unlike the situation with many current despotic regimes, such as North Korea, where the abrogation of political authority would be tantamount to signing one's own death warrant. Fortunately for South Africa (but unfortunately for disarmament theorists) the country's peaceful transition to democracy was unprecedented. Fairly smooth, it contained much less political violence than expected. However, like any massive political transformation, the chances of its failure were great and there were a number of groups whose own agendas could have plunged the state into an endless cycle of retaliation pitting one group against another.

Is it possible, then, to convince leaders on the brink of regime change to abandon their nuclear weapons programs? Can the United States and other like-minded nations encourage certain domestic conditions that would—as in the South African case—increase the benefits of abandoning a nuclear program? Unfortunately, there is no definite answer. The theories laid out in this paper may shed some light on why de Klerk made such an unprecedented move, but in truth, his actions are still largely shrouded in mystery. It is clear, however, that encouraging the change to democratic rule, through financial assistance, provision of security, and other means, could make departing regimes more receptive to political pressure to disarm. In particular, the following recommendations can be made to advance current nuclear disarmament policy:

- A comprehensive strategy to combat the spread of weapons of mass destruction must include efforts to assist and develop democratic regimes;
- In developing a policy toward a particular state that is suspected or known to have nuclear weapons capabilities, policy makers should consider the sovereignty costs to the current regime and aim to reduce these costs, perhaps through firm commitments to assist the old regime in its integration with and transition to the new one, so that it has a continued stake in the process of regime change;
- In developing a policy towards a particular state that is suspected or known to have nuclear weapons capabilities, policy makers should assess the degree of domestic political uncertainty and aim to reduce this uncertainty by offering financial and security incentives and assurances conditional upon a firm commitment to dismantle its nuclear program.

Another piece of the South African puzzle—and perhaps one of the more inimitable conditions for disarmament—may also lie in the observations of those who knew de Klerk. In his autobiography, Nelson Mandela initially described de Klerk—the man who would be responsible for the state’s nuclear rollback—as “a cipher,” the “quintessential party man” who had nothing in his past that even hinted at an element of reform (Mandela 1995, 551). But after reading his speeches and listening to what de Klerk said during their many secret meetings, Mandela began to unravel the mystery, and discovered how he differed from his predecessors: “He was not an ideologue, but a pragmatist, a man who saw change as necessary and inevitable” (Mandela 1995, 551).

Facing what he considered the inevitable demise of more than 330 years of white rule, de Klerk desired the most peaceful transition possible. It is not surprising that in dismantling both of South Africa’s white elephants—its nuclear weapons program and apartheid—he would have taken every possible measure to ensure that the safety of all South Africans was protected as the country entered an uncertain new era.

NOTES

- ¹ Although Moravcsik uses a case of newly established democracies, a parallel can be drawn in the South African case, as the apartheid government at the time was committed to a peaceful transition to a democratically elected, multi-party Government of National Unity. Thus, in both cases, these were governments in transition, struggling against non-democratic forces.
- ² The authors note that all decisions regarding the program were taken unanimously.
- ³ During the 1960s, the United States promoted commercial peaceful nuclear explosives programs internationally under its U.S. Ploughshares Program (Lieberman 2001).
- ⁴ That same year, South Africa procured thirty grams of Israeli tritium intended for use in nuclear bombs, according to the transcript of a 1988 secret trial.
- ⁵ Lieberman notes that the U.S. Nuclear Nonproliferation Act came into effect some months after the August 1977 discovery of the test site, and threatened to cut off South Africa from the fuel it needed for its nuclear power industry (Lieberman 2001, 50).
- ⁶ Others claim the decision to make nuclear weapons was made in 1974. Lieberman cites “clear evidence” of the program’s militarization in 1977, although he acknowledges that Vorster could have made the decision as early as 1969 or 1970, when plans for the Y Plant were finalized (Lieberman 2001, 49).
- ⁷ The committee was composed of the prime minister, the ministers of defense, foreign affairs, minerals and energy (F.W. de Klerk), and finance, as well as the

chiefs of Armscor, the Department of Foreign Affairs, the AEB and the South African Defense Force (Lieberman 2001, 53).

⁸ Lieberman notes that South Africa's annual military budgets ran from 2 to 4.5 billion rand (between 4 to 5 percent of gross national product) from the late 1970s until the 1990s.

⁹ The ANC claimed the AEC's annual budget reached 980 million rand at the peak of the nuclear program, and argued that this money could not be funding peaceful nuclear activities.

¹⁰ Lieberman cites Advena as being capable of manufacturing two to three more advanced nuclear warheads per year and loading them on missiles.

¹¹ Before a safeguards agreement could be put in place, the nuclear weapons facilities had to be decontaminated and shut down (or converted to commercial use), all nuclear material had to be melted and stored, all equipment had to be removed, and all technical drawings had to be destroyed.

¹² De Klerk appointed an independent auditor, directly responsible to him, to oversee the dismantlement of the devices, ensure that the highly enriched uranium was removed from Armscor and delivered to the AEC, and verify the destruction of all technology and hardware.

¹³ J.W. de Villiers (Chairman of South Africa's AEC), Roger Jardine (of the ANC), and Mitchell Reiss also support this argument in a scholarly article assessing the country's past nuclear program (De Villiers et al. 1993, 102-3).

¹⁴ Until Buys' initiative, South Africa's strategy consisted of a six-to-eight page memorandum commissioned in 1977 by then-Defense Minister P.W. Botha. Written by the SADF's chief of staff for planning, Army Brig. John Huyser, the study discussed three options for a nuclear deterrent—secret development, covert disclosure, or overt disclosure. He recommended the third option (Lieberman 2001, 53).

¹⁵ Only Magnus Malan, head of the SADF, was an exception to this rule.

¹⁶ For instance, Persian nationalism is rooted in perceptions of racial supremacy, which can be seen as contributing to Iran's sense of isolation in the Arab world and its perception of threats to its security. The chaotic Iranian political system and its opaque divisions of influence between hard-line Islamic conservatives and reformists also indicates a "state within a state" arrangement, whereby important decisions of national security are made largely behind closed doors with little consultation from Iran's elected officials. Iran has also been the subject of harsh sanctions by the United States and others that have crippled its economy and contributed to massive unrest among its unemployed youth. However, there are also many differences between the Iranian and South African cases. Though the Iraqi threat has been eliminated, Iran is still concerned with the nuclear capabilities of Israel, Pakistan, and the United States. Iran also

lacks the resources to build nuclear weapons easily or cheaply. And while South Africa had a president who possessed the authority to end the program, it is not clear who makes decisions concerning Iran's nuclear program and would have the power to scrap any potential plan to acquire the bomb.

- ¹⁷ Kemp advocates a policy of "cooperative containment" whereby the United States would work closely with its allies and the United Nations to confront Iran's nuclear program using a mixture of economic and political carrots and sticks. But he adds that apart from these multilateral efforts to halt Iran's progress towards acquiring the technology necessary to build nuclear weapons, stopping or even significantly slowing down the program would require a "fundamental change" in Iran's bilateral relations with the United States, including the re-opening of diplomatic relations (Kemp 2003, 48-58).

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