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Particular generalisation: the Antarctic Treaty of 1959 in relation to the anti-nuclear movement

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ABSTRACT. This article presents the US role in the formation of the Antarctic Treaty of 1959 in relation to the era's anti-nuclear movement. The purpose is two-fold: to highlight the strategic orientation of US Antarctic policy, suggesting that it was less enlightened than it is frequently portrayed; and to highlight the influence of the anti-nuclear movement upon the treaty's inclusion of a test ban which the United States initially opposed, hoping to reserve the right to conduct nuclear tests. The treaty is depicted as a particular generalisation: one aspect of the cold war that gains significance when scrutinised in relation to another that is much better-known.

Contents

Introduction

This article presents the US role in the formation of the Antarctic Treaty of 1959 in relation to the era's anti-nuclear movement. While countless historians have analysed the tense nature of US–Soviet relations at this juncture of the cold war, Antarctic specialists have dwelt on the cooperative nature of the 1957–1958 International Geophysical Year (IGY), which greatly facilitated the treaty, exempting one continent from superpower rivalry. Authors have credited the formation of the treaty to the informal agreement of the twelve signatories to avoid politically divisive issues (for example Daniels 1973: 35), as well as to the enlightened nature of US leadership (Negroponte 1987; Mitchell and Kimball 1979: 141).

In recent years, that perspective has been cast into doubt (Moore 2001, 2003), and herein it is further challenged. At the 1959 Antarctic Conference in Washington, Soviet representatives insisted that an Argentine proposal to ban certain types of nuclear tests be carried further; they insisted on an comprehensive nuclear test ban (Foreign Office 1959a, 1959b), which the United States initially opposed since, as rumored and repeatedly denied (Department of State 1955b, 1956a, 1956b), it hoped to reserve the right to test nuclear weapons in the far south (Department of State 1959f). The US delegation finally accepted the ban to prevent the conference from dissolving, in which case the Soviets would have an ideal opportunity to allege that the US only supported forms of international cooperation that advanced its military interests (Department of State 1959a, 1959b).

The previous year President Dwight D. Eisenhower had said of his decision to follow the Soviet Union's voluntary test suspension that anti-nuclear opinion had become more compelling than the need to continue testing (Wittner 1997: 160). By that time single warheads were releasing an explosive force one hundred to one thousand times greater than the bombs used against Japan (Department of State 1984: 995–996), and scientists around the world were reporting heightened levels of radiation that, many believed, corresponded to a rise in birth defects (Weart 1988: 208–209). The anti-nuclear movement, an international phenomenon mostly, though not exclusively, anti-US in orientation, hailed the Antarctic Treaty for including the first test ban in history. Herein it is presented as having exerted a substantial influence on assuring that result. Some of its most prominent individuals and triumphs are mentioned while many others are omitted, and no attempt is made to scrutinise its ulterior motivations and internal quarrels (see Wittner 1993: 190, 242–243; Taylor 1988: 68–70, 204–210).

Of the many issues addressed by the Antarctic Treaty, the test ban was perhaps the most universal in nature. The treaty's suspension of territorial rights was a formidable achievement, though it directly pertained only to the southern cone nations, Chile and Argentina, and the United Kingdom, the three sets of claims of which overlapped in the peninsular region. Budd (2002: 57) writes that, from a scientific perspective, the political and military issues were of little consequence. This essay adopts a different perspective, one that scrutinises the north American attempt to blur the distinction between scientific and military research (see Solovey 2001: 165; Hounshell 2001: 296). If it had succeeded, the cooperative 'spirit of the IGY' might have been profoundly distorted (see Foreign Office 1958a, 1958b). In many ways Antarctic science had become politics by another name (Dodds 2002b: 2).

Method, objectives and scope

The traditional historical method of correlating primary and secondary sources is followed, acknowledging that Antarctic-related literature fails to deal at length with the nuclear issue. Sollie (1973: 55–56) writes that the southern hemisphere nations insisted on the test ban, lest they be subjected to radioactive fallout if tests were to be conducted. As he refrains from drawing a parallel to the concerns which motivated anti-nuclear activists, cold war historians ignore the Antarctic Treaty or mention it only briefly (Powaski 1998: 125; Roberts 1970: 50–51; Young 1993: 41). To all appearances, it was a mere bagatelle in an era of profound anxiety (see Wang 1999).

The objective is to re-interpret the significance of the Antarctic Treaty's formation by juxtaposing primary-source analysis with a broad survey of secondary literature. The majority of archival materials are drawn from the US Department of State's central decimal files pertaining to the Antarctic and the IGY. They are augmented by documents from the department's foreign service posts and Bureau of Inter-American Affairs, the operating forces of the US Navy, and the U. K. Foreign Office. While documents from the Byrd Polar Research Center and the Chilean Foreign Affairs Ministry, for example, include references to the US nuclear agenda in the far south, they contribute little more than speculation, whereas Department of State papers help to clarify the validity of the speculation.

Auburn (1982), Beck (1986, 1990), Child (1988), Hunter Christie (1951), Dodds (1994, 1996, 2002a, 2002b), Goebel (1982), Joyner and Theis (1997), Lewis and Smith (1973), Quigg (1983), and Shapley (1985), among others, have discussed how cold war dynamics influenced the formation of the Antarctic Treaty. Some of their works were published before relevant archival materials had been declassified; others adopted a less chronologically focused tack or concentrated on other issues. This article seeks to expand the scope of their contributions by linking US Antarctic policy to the one aspect of the cold war which overshadowed all others: the anti-nuclear movement which gained prominence in the 1950s in tandem with the Soviet Union's 'peace offensive,' which was widely viewed as a guise to undermine US national security (Mandelbaum 1981: 25; Kissinger 1956: 46–47).

The reviewed documents do not suggest a direct link between the United States' first internationalisation proposal in 1948 and its nuclear programme. Though its Antarctic exploration involved prospecting for uranium, none was substantiated and, even if it had been, there remained no cost-efficient means of accessing it. The documents also do not suggest a direct link between the second US internationalisation proposal a decade later and the anti-nuclear movement. Those involved with the proposals were still likely to have been more preoccupied with threat of Armageddon. Antarctica was but one facet of their expertise, and they received input from their colleagues throughout the government, all of whose careers required them to think strategically. (For the diversity of individuals within the Department of State alone, see Moore 2001: 23.)

This framework adopted herein can be described as what Gaddis (2002: 62–63) refers to as a particular generalisation, opposed to a general particularisation, or the subordination of facts to theory. Historians, unlike most social scientists, enjoy the opportunity to acknowledge the case-specificity of events, presenting their conclusions within narrowly defined parameters. The current framework does not suggest that every aspect of the formation of the Antarctic Treaty paralleled cold war generalisations, for such a hypothesis would be unsound. For example, the majority of US senators who voted in favour of ratifying the Antarctic Treaty did so in spite of concerns that the Soviet Union's involvement would undermine their national security (Chaturvedi 1990: 97). Several senators insisted that the treaty must be viewed as 'an act of appeasement' since it made the USSR an equal partner with the United States and ten other 'free world' nations (*The New York Times* 15 June 1960, 11 July 1960).

According to Gaddis (2002: 16–20, 64–65), it is not the role of historians to establish direct lines of causation or to limit themselves to purely factual narratives, but rather to entertain abstractions that might not have been contemplated at the time. Most historians are loath to accept that the significance of the past can be objectively determined, but consciously or unconsciously, they seek to impose significance upon the past. Herein, that effort is made by adopting an analytical framework which transcends the scope of documentary evidence. As previously acknowledged, the reviewed sources contain no explicit recognition of the influence of the anti-nuclear movement on US Antarctic policy. Emphasis lies on the government's desire to exempt the frozen continent from their effort to placate world opinion in other arenas (see Wittner 1997: 173; Osgood 2002: 88–89).

The winning weapon

After the atomic bombing of Japan brought the World War II to an end, citizens throughout the allied nations experienced a great sense of relief (Boyer 1985: 4–5). A survey of the Manhattan Project physicists who had built the 'winning weapon' (Herkin 1980) found that most viewed themselves as simply having followed orders and took pride in the fact that, according to official declarations, the bomb had saved up to a half million US lives (Truman 1955: 347). Many authors have noted that the government purposefully inflated this number to discourage any sense of remorse about the targeting of civilians and non-pursuit of other alternatives (Joseph 2000; Goldberg 1998; Sherwin 1995; Weisgall 1994).

From a military standpoint Japan had already been defeated, and it was known to have sought a conditional surrender permitting it to retain the emperor. The allied nations had insisted on an unconditional surrender, which

not even the bomb had been powerful enough to secure. Not until many days after Hiroshima and Nagasaki had been laid to ruins did Japan formally surrender, and then only after receiving a pledge that the emperor would not be deposed (Jungk 1956: 201–205; Sherwin 2003: 235–237). What equally disturbed many of the Manhattan Project scientists was that the Soviet Union had not been consulted and thereby interpreted the bomb's use as a form of political blackmail (see Wittner 1993: 57; Lieberman 1970: 10–11).

These individuals formed the core of the Federation of American Scientists (FAS) and started publishing *Bulletin of the Atomic Scientists*, the cover of which featured a doomsday clock set at seven minutes to midnight (Higgenbotham 1948). The FAS sought to assure that the Manhattan Project would be brought under the political system of checks and balances to limit the possibility that the bomb might be used again. In pursuit of this objective it sent over thirty members to Washington to lobby against a bill to place the Atomic Energy Commission (AEC), which assumed control of Manhattan Project, under military jurisdiction. Their effort succeeded without reversing the conflictive trend of postwar international relations (Pringle and Spigelman 1981: 91; Smith 1965: 435).

In mid-1946 the US presented the United Nations with a plan to create an agency to ensure that all atomic energy programmes and uranium reserves would be used for peaceful purposes. The agency was to have full inspection rights as well as the authority to order military retaliation against any nations found to be engaged in non-peaceful research. Those nations that had already acquired military stockpiles were to destroy them at some point in the future once an inspection system had proved effective (Department of State 1960a: 11–12). The Soviet Union, which had not yet developed the atomic bomb, refused to accept the plan, and the US rejected its demand for a prohibition of the use and production of atomic weapons and the destruction of all existing stockpiles (see Department of State 1969: 765–766; Hancock 1946).

While the UN debate was underway, the US conducted two atomic tests in the south Pacific that were among the most widely reported events of the early postwar era. The tests, though also disappointing from a military standpoint (Wittner 1969: 167), proved to be as sensational as journalists could have hoped. The warhead detonated underwater spewed radioactivity in all directions, thoroughly contaminating a fleet of abandoned vessels, which was later sunk as it could not be decontaminated. This experiment indicated that radiation had a deleterious effect whether used for military purposes or scientific research, as *Time* magazine noted with alarm (Guyer 2001: 1372; Graybar 1986: 901–902).

Internationalisation proposal

On the eve of World War II, the United States had begun to establish territorial rights in the Antarctic based on permanent occupation, as stipulated by the 1924 Hughes Doctrine (Hall 1989). It had suspended that objective after entering the war, and, thereafter, emerged in a strong position to extend its influence to every corner of the planet. In the Antarctic that entailed dispatching Operation High Jump (1946–1947), by far the largest expedition to date, which was known to be carrying a surplus of weapons, many of which had never been tested in battle (Henry 1950: ix). Many journalists decried the appearance that the last continent was being militarised. From south America to eastern Europe they speculated that the operation was seeking a new source of uranium to consolidate the US atomic monopoly (US Navy 1946, 1947a, 1947b: Department of State 1946a, 1947a). The navy believed that the Arctic held greater strategic importance than the Antarctic, and therefore that it was less controversial to conduct tests in the latter region (US Navy 1947b).

The White House withheld a territorial claim after High Jump returned in early 1947, having discovered no evidence that the Antarctic contained valuable mineral resources, fissionable or otherwise. To counteract the impression that its motivations were purely self-interested, the Department of State (1976a: 987–89) circulated an internationalisation proposal to the seven nations with territorial claims already in place. The proposal called for establishing an eight-power condominium arrangement to forestall any future Soviet involvement (Department of State 1948a, 1948b). Officials had contemplated pursuing a UN trusteeship but opted to limit a prospective agreement to 'friendly powers' in hope of maximizing US influence (Department of State 1946b, 1948h, 1972: 1492–1493, 1973: 1055–1056, 1976b: 800–803).

The USSR had historically based rights to the region, though like the United States it had not formalised them (Boczek 1984; Toma 1956). While the claimant nations were not necessarily opposed to excluding it, they balked at the proposal's insistence that they renounce their own rights (Moore 1999: 129).

Two of the claimant nations, Britain and New Zealand, expressed willingness to discuss some form of internationalisation that would allow them to retain sovereignty (Department of State 1976b: 800–803). The Department of State (1948c, 1948d, 1948e, 1976a: 989) attempted to revive the proposal by announcing that serious consideration was being given to formalising its own claim. This course would have placed it in the same category as the other nations, thus permitting it to lead by example, eventually renouncing its own rights. However, officials could not agree on the extent of a US claim. The least controversial alternative was to declare rights over the unclaimed sector between the Chilean and New Zealand sectors, yet officials feared that in doing so they might undermine their exploration-based rights over regions which might prove to be more valuable. (This indecision would persist during the following decade. See Department of State 1955a, 1957).

As there were no foreseeable prospects for gaining access to the continent's untapped natural resources, the

extent and nature of which had yet to be determined, the Department of State (1949, 1976b: 804–809) chose to follow a Chilean recommendation to suspend the question of sovereignty for up to a decade, and to return to it only after the other aspects of an agreement had been agreed upon. It was hoped that by such time, the Anglo–Latin American dispute over the peninsular region would have receded, and the United States' mediation between the parties would have enhanced what officials viewed as its reputation for impartial leadership (Department of State 1947b). Due to nationalistic sentiments, lingering concerns about the nature of US impartiality, and the outbreak of the Korean War, these objectives were not actively pursued for many years (see Department of State 1948f, 1951; US Navy 1954; Dodds 1996: 83, 2002b: 9: Moore 2003: 71–73).

End of the atomic monopoly

In late 1949 the Soviet Union successfully tested its first atomic weapon, ending the US monopoly more quickly than expected (Lieberman 1970: 74–75). This gravely disturbed and would continually obsess US policymakers (Ziegler 1988: 218, 223). The General Advisory Committee of the Atomic Energy Commission (AEC), chaired by J. Robert Oppenheimer, the highly esteemed physicist regarded as the father of the atomic bomb (Pringle and Spigelman 1981: 108), issued a unanimous report which urged the government not to pursue the development of the hydrogen bomb which, if used on a large scale, held the potential to exterminate humankind. The Federation of American Scientists (FAS) warned that if the government chose to develop the hydrogen bomb, as it did, the USSR would feel compelled to do likewise, and the arms race would spiral further out of control (Teller and Brown 1962: 43–46. For an exemplary account of the British nuclear programme, see Gowing 1974.).

Meanwhile Anglo-Latin American conflict over the disputed Antarctic Peninsula undermined hope of reaching a modified eight-power arrangement based on the Chilean Escudero Plan. The Department of State had determined that the plan was necessary, as it called for a political *status quo* moratorium rather than the renunciation of sovereignty, yet the *status quo* was highly unstable. Chilean and Argentine forces were known to be planning a major strike against the British forces stationed on Deception Island (Foreign Office 1953a, 1953b). As much as the United States sought to avoid this scenario and any other which might be exploited by the Soviet Union, the Chileans, Argentines, and British remained more concerned with a reversal of the US non-claimant policy, which might have added a troublesome new dimension to their own dispute (see Moore 2003).

The Soviet Union tested its first hydrogen weapon in August 1953, further undermining the unity and self-confidence of the 'free world' (Council on Foreign Relations 1955: 348). The doomsday clock on the cover of the *Bulletin of the Atomic Scientists* advanced from seven to two minutes before midnight (Weart 1988: 217). Shortly thereafter the United States conducted a test in the Bikini Islands that contaminated a 7000 square-mile region and required the immediate evacuation of 246 islanders, many of whom contracted radiation sickness. The twenty-three crew members of *Lucky Dragon*, a Japanese fishing vessel which had strayed into the vicinity and gone unnoticed, were similarly afflicted, one of them perishing as a result (Divine 1978: 1–5).

The FAS not only questioned the wisdom of the government's military policy; it challenged the legitimacy of the programme to dismiss individuals from the AEC on the basis of their past or present affiliations and beliefs. This programme applied to all federal employees but disproportionately impacted atomic scientists. For example, the FAS made no effort to deny that many of its members were communists, former communists, and communist sympathisers (Gellhorn 1950: 129–130). This was perhaps unsurprising since for centuries scientists had been motivated by the conviction that their research should be used for universal rather than national purposes (Dennis 1987: 492). Eugene Rabinowitch (1949), editor of the *Bulletin of the Atomic Scientists*, warned that the loyalty programme hindered American science, as the Soviet bloc had produced many the world's finest researchers, and was continuing to do so. The possession of communist literature was often deemed sufficient cause to investigate a federal employee. Between 1946 and 1952 the government investigated 9077 of its four million employees, conducted 2961 hearings, and dismissed 378 individuals (Bontecou 1953: 109–110).

The Oppenheimer hearing

J. Robert Oppenheimer (1949) also publicised his hope that the government would uphold the long tradition of academic and intellectual freedom in the US. Instead, it chose to revisit allegations that he was an agent of the Soviet Union (Stern 1969: 1–5). For many years officials had known of his close affiliation with Communist Party members and his membership in organisations believed to be controlled by communists. At the time they had determined that his sense of honour would prevent him from disclosing any classified information (Pringle and Spigelman 1981: 107–111). In December 1953 the White House suspended his security clearance pending further investigation and placed him under surveillance to prevent him from fleeing the nation (Hewlett and Holl 1989: 45–46, 80–81).

The AEC commenced the Oppenheimer hearing four months later and it received as much attention as the Senate proceedings in which Senator Joe McCarthy alleged that the army had been infiltrated by communists (Major 1971: 13). The views that Oppenheimer expressed were moderate, even apologetic at times, and the scientific community largely supported him, as an adverse decision would undermine the trust essential to its cooperation with the government (Hewlett and Holl 1989: 43–45).

Nonetheless, the government chose not to reinstate his security clearance due to inconsistencies in his testimony and the belief that that no risks should be taken in defending the nation from potential threats (Powaski 1987: 60–61).

The *Bulletin of the Atomic Scientists* attributed the decision to Oppenheimer's opposition to the hydrogen bomb (Sawyer 1954), and it charged the government with seeking to deceive the public about the nature of its tests. Debris from the Bikini Atoll revealed that one or more warheads had been designed to maximise radioactive fallout. Another physicist had reached the same conclusion, renewing fears that the government was withholding pertinent data from the public (Pringle and Spigelman 1981: 247; Lapp 1955). In February 1955, the AEC attempted to counteract this impression by releasing one of its most detailed reports to date that admitted that radiation was a serious issue. *Newsweek* magazine referred to the report as confirming 'the terrible truth' of the atomic age (Divine 1978: 38, 41–42).

Internationalisation negotiations

In early 1958 the Department of State (1958a) presented the seven nations with territorial claims in the Antarctic, and four others, including the Soviet Union, with an international proposal to ensure the freedom of scientific research and to forbid non-peaceful activities. These broad tenets, borrowed from its unsuccessful initiative of the previous decade, now held greater appeal since they were coupled with a political *status quo* moratorium forbidding nations from citing their present expeditions to support new claims or to expand previous claims.

Since the proposal aroused no dissent, the Department of State (1958b, 1959c) soon followed it with another calling for an international conference, which was accepted. Preliminary twelve-power negotiations commenced in Washington to forge agreement on a draft treaty. The United States held firm against a Soviet proposal to allow open admittance to the conference, the date and location of which had yet to be determined (Department of State 1958c). Given the laborious pace of the twelve-power negotiations, the Department of State (1958d) believed that broadening the scope of involvement would render the treaty unmanageable. It contemplated that the USSR might be able to force this issue before the United Nations and win support for championing the rights of the unrepresented members (Department of State 1958e). While this did not occur, the negotiations stagnated to such a degree that many inferred that the United States had lost its will to hold a conference, as the previous decade it had lost enthusiasm for an eight-power agreement (Department of State 1959e, 1976a: 1013–1015).

Some US officials might have preferred the negotiations to fail. In that case their government might have asserted its presence in the Antarctic more forcefully to discourage the Soviets from doing likewise, and perhaps even have announced a sovereignty claim. To the disappointment of the most fervent anticommunists, this worst- or best-case scenario did not transpire. (For US press coverage of the treaty, see Moore 2004: 26–27). The negotiations proceeded slowly but without major disruption until the Antarctic Conference opened in late 1959 and culminated in the signature of the Antarctic Treaty.

Anti-nuclear activism

The anti-nuclear movement achieved a major breakthrough shortly after Oppenheimer was barred from government service. The British philosopher Bertrand Russell issued an appeal for governments to put the interest of humanity before their perceived strategic advantage. He had drafted it in collaboration with Albert Einstein who had died earlier in the year and spent his last days lamenting the arms race (Wittner 1969: 235–236). Nine other prominent individuals had also endorsed it, not as citizens of the six nations which they represented but, in the text's words, 'as members of the species man whose continued existence is in doubt.' One week later fifty-two Nobel laureates issued a similar appeal, calling for governments to renounce the use of nuclear weapons (Wittner 1969: 236–237).

In mid-1957 scientists from the United States, Britain, the Soviet Union, the three nuclear powers, and seven other nations met in Nova Scotia at the first Pugwash Conference on Science and World Affairs. The FAS and British Atomic Scientists' Association had been discussing it for many years and redoubled their effort following the Russell-Einstein manifesto (Wittner 1969: 251). Eugene Rabinowitch (1957) took the opportunity to chastise the US government for refusing to entertain any agreement that did not include foolproof controls. Though the conference failed to generate much publicity in the United States, it greatly solidified an international network of scientists devoted to cooperating both within and outside their laboratories (Wittner 1997: 35–37).

Early the following year, the Soviet Union announced a voluntary test suspension. This generated immense pressure on the Anglo-American nations to do likewise, yet they opted to proceed with their scheduled tests (Bethe 1991: 50–51). Among the many organisations to protest against this decision, the US National Committee for Non-Violent Action took the most dramatic tack. Four of its members attempted to sail into the zone where the government was conducting its latest series of tests. In May their vessel was intercepted in Hawaiian waters en route to the Marshall Islands. During the trial Earle Reynolds, a former AEC employee, grew to admire the defendants' resolve. After they were found guilty and imprisoned for two months, he followed their example and was not intercepted until he had deeply penetrated the test zone (*The New York Times* 2 May 1958, 8 May 1958, 2 July 1958).

Wittner (1969: 249) credits these incidents with significantly raising the profile of the anti-nuclear movement. Throughout the United States, citizens

formed picket lines outside federal buildings and AEC facilities, and Reynolds became a household name given his numerous television appearances, radio broadcasts, and public speeches. Government officials implied that he must be a communist, yet they recognised that accepting a test suspension might be beneficial in helping to counteract perceptions that the United States was a warmongering nation (Wittner 1997: 182–183). Also the AEC had determined that a suspension would not substantially disadvantage the United States. For these reasons, Eisenhower reversed course, accepting a voluntary one-year suspension (Divine 1978: 211–212, 226–227).

In view of this development, the signature of the Antarctic Treaty, and Soviet Premier Nikita Khrushchev's visit to the United States, the *Bulletin of the Atomic Scientists* reversed the doomsday clock on its cover by five minutes, setting it back to where it had been prior to the commencement of hydrogen tests. The world continued to hang in a 'delicate balance of terror' (Wohlstetter 1959) but the superpowers had demonstrated greater-than-anticipated willingness to compromise. This trend was in keeping with the Soviet Union's 'peace offensive', the rhetorical appeal of which had led US officials to prioritise dispelling the impression that they harbored aggressive intentions (Osgood 2002: 88–89). The trend would later be interrupted by the Cuban missile crisis but, unlike the doomsday clock, it would not be reversed. Instead it would result in the partial nuclear test ban of 1963 which, though less restrictive than the Antarctic Treaty, was global in scope.

Conclusion

The signature of the Antarctic Treaty owed in part to the 1957–1958 IGY, during which the dozen signatory nations, including the Soviet Union, established or re-established a presence on the frozen terrain. For any of these nations to be excluded from an international agreement would have been extremely difficult. British officials observed that the much-heralded 'spirit of the IGY' was not truly cooperative. Rather, the Antarctic nations, including their own, sought to 'cash in' on the rhetoric of peace and science while bolstering their own positions if the multilateral negotiations were to break down, as often seemed likely (Foreign Office 1958a, 1958b).

The prospect of devoting the continent to science was not entirely objectionable as its strategic and economic potential had yet to be verified. Perhaps the largest source of mistrust that arose during the negotiations pertained to whether the superpowers could be trusted to abide by the demilitarisation protocol (Department of State 1959d). Nuclear tests would have constituted the most extreme form of militarisation, yet they were not specifically prohibited by the US draft treaty. The Soviet Union's insistence on a comprehensive test ban, expanding upon an Argentine proposal, was consistent with its overall campaign to portray itself as less militaristic than the United States. While US officials had ample reason to question Soviet motivations, their Antarctic policy warranted the communist propaganda that it was militarily oriented (see *The New York Times* 3 March 1955).

The reviewed documents do not indicate any acknowledgement of this fact. US officials were likely to have viewed their hope to test nuclear weapons in the Antarctic not as deceptive, but as a technical issue to be addressed or circumvented when necessary. What they underestimated was the depth of anti-nuclear sentiment around the world, especially among the southern hemisphere nations that might have been subject to radioactive fallout if the ban had not been adopted (see Sollie 1973: 55–56). The Soviet Union's 'peace offensive', though politically motivated (Kissinger 1958: 6–7), had gained the support of many non-communists as a means of curtailing the arms race. President Eisenhower's denial of seeking to use the Antarctic as a nuclear testing ground was both misleading and insufficient to allay such concerns (see *The New York Times* 3 March 1955; Department of State 1960b: 43–44).

The activism of the organisations like the Federation of American Scientists greatly contributed to the negative world opinion that, by the late 1950s, exerted an unprecedented influence over US foreign relations from the North Pole to the South (see Osgood 2002; Cook 1962: 251–252). Not only had the Soviet Union's technology equaled or surpassed that of the United States; its anti-nuclear stance had gained popularity on either side of the iron curtain. For the United States to have refused to sign the Antarctic Treaty due to its inclusion of the test ban would have provided the Soviet bloc with an ideal opportunity to allege that its obsession with nuclear weapons had no bounds. The United States wisely refrained from seeming to confirm that allegation at the bottom of the world.

Few English-language historians of the cold war mention the Antarctic Treaty except as a minor aberration from the strife which characterised the era (see Powaski 1998: 125; Roberts 1970: 50–51; Young 1993: 41). Though the final terms were innocuous, the negotiation process entailed a high degree of brinkmanship and contingency planning (see Moore 2003–4). It remains unclear if government-employed scientists favoured the possibility of using the continent for nuclear tests, as advocated by the science editor of *The New York Times* (Sullivan 1954).

If so, it is difficult to believe that they would have expressed much dissent, lest they be perceived as seeking to undermine the nation's security. Schrecker (1986: 341) writes that, by the late 1950s, virtually all of the domestic critics of the government's security policies accepted the need for self-censorship. That need was most severe in relation to nuclear technology, as demonstrated by the Oppenheimer trial or the execution of the Rosenbergs, two 'atomic spies' who shared his leftist orientation (Parrish 1977). Fortunately the Antarctic Treaty was debated without restraint, and its nuclear test ban would be carried further, helping to rescind the possibility that humanity might yet destroy itself.

From a technical perspective, US Antarctic policy warrants recognition for having been enlightened. The 1959 treaty was based on the second US internationalisation proposal and negotiated in Washington, facts which cannot be easily dismissed. No doubt most US officials agreed with Member of the House of Representatives Clair Booth Luce that they were carrying forth the liberal-minded traditions of the Age of Enlightenment (*The New York Times* 1 July 1949), yet their interpretation of the term 'enlightened' included a nuclear dimension which most of the world adamantly opposed. As much as US leadership in other areas, it was the Soviet-sponsored test ban, coupled with the tide of anti-nuclear opinion, which assured the signature and ratification of the Antarctic Treaty.

In his survey of US–Soviet relations, Powaski (1998: 125) refers to the treaty as 'the only bright spot' in an otherwise dismal year of cold war manoeuvers. Observers at the time reached the same conclusion in keeping with US declarations and the undeniably altruistic provisions of the treaty itself (see *The New York Times* 16 June 1960; Killian 1959). The fact that Powaski devotes more than a sentence to the treaty distinguishes his book from countless others, and his assessment of it is fundamentally correct. It provided a glimmer of hope that the superpowers' conflict was not destined to engulf the whole planet. Since the Antarctic was one of the few regions likely to emerge undamaged if that conflict were to involve a nuclear exchange, the treaty itself was of little consequence. Powaski does not mention that it established the only precedent for the partial nuclear test ban signed four years later. Those who do, for example Young (1993: 41), provide no elaboration.

Gaddis (2002: 99–100) writes of historians' quest to discover 'an exceptional event that reflected general conditions but that could not have been predicted by them.' The Antarctic Treaty can be described as such even more than the 1963 test ban, which was signed only after the superpowers had come to the brink of war. It is likely that the test ban would have been signed regardless of the treaty. The treaty's inclusion of a more limited test ban nonetheless suggested that the superpowers might again be able to reach an agreement from which the entire world would benefit. The reviewed sources contain no evidence that this suggestion was made at the time. Perhaps many historians have contemplated the parallel but refrained from discussing it, lest they be dismissed for engaging in counterfactual analysis, which Gaddis (2002: 100) encourages despite his affinity for rigorous documentation.

If the US nuclear agenda in the Antarctic had been either coherent or actively pursued, it only would have benefited from an agreement excluding the Soviet Union. While the claimant nations in the southern hemisphere unanimously opposed any nuclear testing whatsoever, they might have been persuaded of the necessity if US officials had been forthright with them. Instead they hoped to avoid the comprehensive test ban and at some point in the future, if it were deemed worthwhile, to portray their military tests as scientific in nature (see Department of State 1959a). This latent hope was no more promising than convincing the claimant nations to renounce their sovereignty, and it reflected the incoherent nature of US Antarctic policy in general. The hope to conduct tests, or at least reserve the possibility, was all the more difficult to grasp after the Soviet Union's involvement was formalised, for even if the other signatory nations had not protested, it would have done so and gained an opportunity to substantiate that its warnings had been justified.

One tacit acknowledgment of this conundrum is that the Department of State made no effort to encourage the Senate's ratification of the Antarctic Treaty (see *The New York Times* 11 August 1960). Instead the legislators were left to debate its relevance to their national security based on the questionable and much-questioned assumption that it must have been since it was based on a US proposal and signed in Washington. As the hope to convince the claimant nations to accept purportedly scientific nuclear explosions can be described as misguided, many aspects of US Antarctic policy can be described as counterintuitive. They reflected that the government's lack of wherewithal (Klotz 1990) extended to the ratification process, for it remained uncertain both of the outcome and which one it might prefer (see Foreign Office 1959c).

Documents indicate that US officials failed to anticipate the debate over the treaty's inclusion of the comprehensive test ban, and yielded only grudgingly. Their stance toward arms control in general was similarly reactive, whereas the Soviet Union incessantly advocated a comprehensive test ban and the destruction of existing stockpiles (Department of State 1990: 56–57, 232). By the time the Antarctic Treaty was signed, this position had contributed to its success winning 'hearts and minds' in the non-aligned world (Osgood 2002). US officials might have helped to reverse that trend in their favour by having included a comprehensive test ban in the proposal which served as the basis for twelve-power negotiations. Instead they sought to enhance their nation's prestige for international leadership without voluntarily abandoning their unilateral designs. They also mistakenly believed that the ten other nations would present a united front against any Soviet initiative that they themselves did not support (Department of State 1958f).

The United States' acquiescence to the test ban was in keeping with the flexibility of its Antarctic policy. As a Department of State (1948g) spokesperson once told the press, the policy was under constant revision seeking to accommodate ever-changing circumstances. This piecemeal approach has been noted in many other facets of the US cold war policy (Miscamble 1992: 348–348: Allison 1971: 145–146), and it can be explained as a byproduct of *realpolitik* (see Bailey 1983: 11, 133). In the Antarctic, however, it accompanied perpetual hope to deny the Soviet Union's involvement even after it was, for practical purposes, beyond reversal. (For neglected advice to this effect, see Department of State 1953.)

During the IGY, the Department of State (1957) had hoped to 'ease the Russians out if possible' while he Joint Chiefs of Staff had encouraged a more forceful approach, such as imposing a blockade, even if that were to entail the risk of war (Department of State 1958g). The treaty's inclusion of the test ban benefited the entire world including the United States, for it reduced any temptation to expel the Soviets by purportedly scientific explosions.

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