

Nuclear Receptivity on the Frontline: Analysis of Norwegian Nuclear Allergy and South Korean Nuclear Enthusiasm During the Cold War

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Abstract

Both Norway and South Korea were frontline states in the U.S. extended deterrence system during the Cold War, but they differed in their willingness to take a nuclear role in the system. This paper proposes the concept of nuclear receptivity, which refers to a state’s willingness to take a nuclear role in the extended deterrence system by emplacing a deterrer’s nuclear weapons on its territories. This paper argues that a security recipient’s geostrategic position, consisting of proximity, geological characteristics, and directionality, fundamentally shapes its nuclear receptivity. Through historical case studies, this research shows that the high degree of Norway’s geographic insularity against external threats and the possibility of buck-passing options made the Nordic country nuclear-allergic. In contrast, the geographic exposure of South Korea to the Communist threat resulted in its high nuclear receptivity. On the other hand, this paper argues that a security recipient’s domestic politics affects the timing and process of deployment policy. While the contemporary security environment is starkly different from that of the Cold War, the enduring effects of the geostrategic logic are being observed.

Key words: U.S. extended deterrence system, security recipient, nuclear receptivity, and geostrategic position.

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It should be recalled, however, that foreign bases in 1949 would have meant airbases for intermediate range bombers and/or their fighter escorts. Such bases would imply direct Norwegian involvement in strategic dispositions over which Norway would have little influence and which could come to dominate Norway's relations with her neighbours, turning the latter into a near hostage of American strategic interest.”¹

—Johan H. Holst²

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The Federal Republic of Germany and the Republic of Korea can be described as dikes which have checked, and are now checking, the muddy flow of communism to preserve peace and freedom in Asia and Europe. It is necessary that the Western world should ponder to imagine just what would happen if these two dikes were to be collapsed...Our dike has been paved by the blood of hundreds of our young men and that of brothers of the free allies...We, the people of Korea, are proud of our role as a member of the Free World and as the bastion of anti-Communism.”

—Chung-hee Park³

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² Cited from Simon Duke, *United States Military Forces and Installations in Europe* (Oxford University Press, 1989), 219.

³ “Text of the Speech by H. E. President Park Chung Hee at Luncheon Hosted by Chancellor Erhard, December 9, 1964,” 박정희 대통령 독일 방문, 1964.12.6-15. 전 3 권, V.3 자료집, 등록번호 785, 분류번호 724.11GE, 플번호 C-0006, 외교사료관.

Introduction

Both the Kingdom of Norway and the Republic of Korea were coterminous with Communist states during the Cold War, but Norway was nuclear-allergic and South Korea nuclear-enthusiastic. Why? More generally, in the nuclear extended deterrence system, why are some states willing to host a deterrer’s nuclear weapons on their territories, and why are others reluctant?

This question is about *nuclear receptivity* referring to *a security recipient’s willingness to take a nuclear role in the extended deterrence system by emplacing a deterrer’s nuclear weapons on its territories*. All security recipients in the nuclear extended deterrence system would equally desire to receive nuclear protection from a deterrer but differ in their receptivity to nuclear weapons. Table 1 shows the different status of deployed U.S. nuclear weapons among U.S. allies.⁴ It is well-known that throughout the Cold War some U.S. allies such as Norway, Denmark, Japan, and New Zealand were strongly nuclear-allergic but others including West Germany, Turkey, Taiwan, and South Korea were nuclear-enthusiastic.⁵

Table 1. States That Hosted and Did Not Host U.S. Nuclear Weapons during the Cold War⁶

States That Hosted U.S. Nuclear Weapons	States That Did Not Host U.S. Nuclear Weapons
West Germany, Turkey, Greece, South Korea, Taiwan, Italy, Canada, U.K., Netherlands, Belgium, Philippines, Iceland, Greenland (Denmark), Azores (Portugal), Spain, Morocco (France)	France, Japan, Norway, Denmark, Luxemburg, Portugal, Australia, New Zealand, Thailand, South Vietnam, Pakistan, Iran, Iraq, Libya, Israel, Egypt, Panama

This paper argues that a security recipient’s geostrategic position—a state’s physical location in the environment of international strategic competition—is fundamental to

⁴ Undoubtedly, Table 1 is more associated with nuclear propensity—the actual outcome of U.S. nuclear weapons deployment—than nuclear receptivity—the willingness of U.S. allies to host U.S. nuclear weapons on their soil. The table indicates rough variations in nuclear receptivity.

⁵ On the spectrum of nuclear receptivity between nuclear allergy and nuclear enthusiasm is the middle group of nuclear-tolerant states. These countries may not have a priori aversion to or desire for a deterrer’s nuclear weapons but decide their positions based on the result of bargaining with a deterrer. For the typology of nuclear behavior among U.S. allies, see Chansong Cameron Lee, “Nuclear Enthusiasm, Tolerance, and Allergy: Deployment Politics in the U.S. Extended Deterrence System During the Cold War,” PhD diss., (The School of Advanced International Studies, Johns Hopkins University, 2022).

⁶ The Southeast Asian Treaty Organization (SEATO), whose members were the United States, the United Kingdom, France, Australia, Pakistan, the Philippines, Thailand, and New Zealand, was established in September 1954 but virtually ceased in 1977. The Central Treaty Organization (or the Baghdad Pact Middle Eastern Treaty Organization, METO) was formed in 1955. The United States was not a formal member of the pact but participated in various

its threat perception and nuclear receptivity.⁷ As detailed later, this paper constructs a state's geostrategic position with three components—proximity to the centers of security and threat in the system (that is, a security provider and a potential adversary), geological characteristics, and directionality of strategic conflict—of which the last two factors are most influential over a security recipient's nuclear receptivity.

The thesis of geostrategic position has its own weaknesses, however. Geography is a structural modifier or a variable at the meso-structural level, thus its meaning is subject to changes at the systemic level. Today's geostrategic positions for U.S. allies, for instance, are starkly different from those in the Cold War due to structural changes, and the meaning of geography is not fixed but constantly changes with human politics and technological development. Lastly, because a state's geostrategic position seldom varies in the short period, the variable does not precisely account for the timing and process of foreign policy decisions. Therefore, the comprehensive understanding of nuclear receptivity should come from the mixture of multiple variables, and this paper does not argue that a state's geostrategic position explains every aspect of nuclear receptivity. The core argument is that a security recipient's geostrategic position is one of the fundamental and enduring variables that shape the overall patterns of nuclear receptivity and that the complete understanding of nuclear receptivity requires scholars to examine its interactions with other variables.

The next section introduces a geostrategic argument in detail and provides a theoretical frame to explain the difference of nuclear receptivity in Norway and South Korea during the Cold War. Then, the paper empirically tests this thesis based on historical case studies. Both archival and secondary sources have been utilized to reveal the two states' *geo-consciousness*—the state of being aware of the self and its geographical environment—and its influence upon their nuclear receptivity. The concluding part briefly discusses alternative explanations and their limits. The section also offers policy implications for the contemporary international security competition.

committees including the Military Committee. Iraq withdrew from the organization in 1959, and it was disbanded in 1979. For the scope of U.S. alliances and commitments during the Cold War, see James E. King, Jr., "Collective Defense: The Military Commitment," in *Alliance Policy in the Cold War*, ed. Arnold Wolfers (Baltimore: Johns Hopkins Press, 1959), 103–45; The U.S. briefly deployed nuclear bombs to Iceland and Greenland without informing the hosting countries; Spain joined the North Atlantic Treaty Organization (NATO) in 1982 but had maintained bilateral base agreements with the United States in the postwar era. Morocco and Libya also provided military bases to the United States in the early Cold War without a formal alliance pact; Israel and Egypt were believed to be the Middle Eastern informal clients under U.S. protection from time to time. Some scholars, however, disagree on the validity of U.S. nuclear protection over Pakistan (1959–present), Iran (1959–1979), and Israel (1981–1991). Zbigniew Brzezinski, *Game Plan: A Geostrategic Framework for the Conduct of the US-Soviet Contest* (New York: HarperCollins Publishers, 1986), 24; The United States signed a bilateral pact with Panama on September 7, 1977, to protect the latter's Canal, and the pact was terminated on December 31, 1999.

⁷ In this research geostrategy is a subcategory of geopolitics, which is broadly defined as politics conducted in and guided by geography. That is, geostrategy is strategically using a state's geographical location to achieve its geopolitical purpose, and strategy pertains to the military dimension of interstate relations. Therefore, geostrategy focuses on these strategic elements, such as military policy and technology in the geographical context.

Geostrategic Argument

The geostrategic argument has been always present in the field of international relations (IR). Nicholas Spykman once commented, “however skilled the Foreign Office, and however resourceful the General Staff,” states cannot escape their geography.⁸ For this reason, to him, “[g]eography is the most fundamental factor in the foreign policy of states because it is the most permanent.”⁹

However, because of the deterministic approach of classical geopolitics and its misuses and abuses by colonialists and Nazi supporters, many postwar IR scholars disapproved it.¹⁰ For example, Hans Morgenthau considered classical geopolitics as “a pseudoscience erecting the factor of geography into an absolute that is supposed to determine the power, and hence the fate, of nations.”¹¹

Bearing this criticism in mind, the new group of geographers in IR took a more nuanced approach. Erling Bjøl argued that the broader notion of a country’s “general security geography” should be viewed as a factor shaped by political constellations between great powers, technological developments, and geographic position in the system.¹²

⁸ Nicholas J. Spykman, “Geography and Foreign Policy II,” *American Political Science Review* 32, no. 2 (April 1938): 236, <https://www.jstor.org/stable/1948667>; British Labour’s Foreign Secretary Ernest Bevin declared at the Party Conference in 1945, “Revolutions do not change geography, and revolutions do not change geographical needs.” Matthew A. Fitzsimons, *The Foreign Policy of the British Labour Government, 1945-1951* (Notre Dame: University of Notre Dame Press, 1953), 26.

⁹ Nicholas J. Spykman, *America’s Strategy in World Politics: The United States and the Balance of Power* (London: Taylor and Francis, 2017), 41; Also, see Nicholas J. Spykman, “Geography and Foreign Policy I,” *American Political Science Review* 32, no. 1 (February 1938): 40, <https://www.jstor.org/stable/1949029>; See also other quotes that showed beliefs in the significance of geography in international politics in Harold Sprout and Margaret Sprout, *The Ecological Perspective on Human Affairs* (Princeton: Princeton University Press, 1965), 41; Edward H. Carr, *The Twenty Years’ Crisis 1919-1939: An Introduction to the Study of International Relations* (New York: Harper and Row, 1964), 66, fn 2.

¹⁰ Christopher Fettweis comments that classical geopolitical theory could not explain or predict the détente and the revival of the Cold War between the late 1960s and the early 1980s. It also could not predict the end of the superpower conflict in the late 1980s. In the post-Cold War years, the theory has not accounted for “a golden age of peace and security.” If geopolitics can be simply defined as “the influence of geographical factors on political action,” it is unclear “exactly how, under what conditions, and to what extent” geography matters in international politics. Christopher J. Fettweis, “On Heartlands and Chessboards: Classical Geopolitics, Then and Now,” *Orbis* 59, no. 2 (2015): 233, 237–39; Separately, geopolitics suffered from its ignominious history in association with Nazism. John A. Agnew, *Making Political Geography* (London: Arnold, 2002), 15–16; Furthermore, classical geopolitics was marginalized from vigorous positivist trends in social studies in the 1960s owing to its lack of falsifiability. In response, since the 1960s a small group of geopolitical students formed a “new geopolitics school” based on a concept of congruity and scientifically conducted war studies. According to Fettweis, insights of classical geopolitics, such as sea, land, and rimland powers, were rarely found in these new studies. Fettweis, “On Heartlands and Chessboards,” 238.

¹¹ He argued that “while space is static, the peoples living within the spaces of the earth are dynamic.” There is no “law of history that peoples must expand by ‘conquering space,’ or perish.” Hans Morgenthau, *Politics among Nations* (New York: Alfred Knopf, 1973), 158; Alfred Vagts had also argued against a pan-determinism in 1943, suggesting for the search of the facts of geography that would “co-condition” international politics. Alfred Vagts, “Geography in War and Geopolitics,” *Military Affairs* 7, no. 2 (1943): 80; also see Jean Gottmann, “The Background of Geopolitics,” *Military Affairs: Journal of the American Military Institute* (1942): 197.

¹² Erling Bjøl, “The Power of the Weak,” *Cooperation and Conflict* 3, no. 2 (1968): 161.

Therefore, the new trend in geopolitics in IR is to examine the dynamic constellation of politics, technology, and geography. In particular, “security geography would be one of the first categories to take into consideration...for the analysis of the role of small states in international politics.”¹³ Unlike great powers, smaller states tend to be the receivers of geostrategic information and signals created by great powers rather than the creators or senders of them due to their limited political, financial, and military capabilities in IR. Non-great powers do not want to be perceived by great powers simply as their pawns on the chessboard, but it often becomes a political and strategic reality they succumb to.¹⁴ This paper posits that non-great powers pay the utmost attention to the realities of great power politics and recognize their specific geostrategic position in the system.¹⁵ A security recipient’s geostrategic position can be understood as having three aspects: proximity to the centers of security and threat, geology, and directionality of strategic conflict. These three components are not mutually exclusive but reinforce or offset one another; nevertheless, the core concepts differ. The proximity variable focuses on physical distance between entities in analysis. Geology centers on their physical features. Lastly, directionality indicates the trajectories of potential physical conflict between great powers.

The key aspect in understanding a state’s nuclear receptivity based on its geostrategic position is (a) whether the geostrategic position endows the state with *geographic insularity*, and/or (b) whether the position allows the state to have a *buck-passing* option in terms of nuclear role in the extended deterrence system. A state’s relative proximity to a potential adversary and a deterrer, its geological characteristics, and the directionality of physical conflict may affect the level of a state’s geographic insularity (or exposure) and the possibility of buck-passing options. When a security recipient possesses geographic insularity and buck-passing options, its threat perception and nuclear receptivity become low.

Hypothesis. Nuclear receptivity is positively associated with a security recipient’s physical distance from a deterrer and negatively associated with its physical distance from a potential aggressor. It is also negatively associated with natural and/or artificial topographical barriers between a security recipient and a potential aggressor. Lastly, nuclear receptivity tends to be high when a security recipient is positioned on the strategic line of physical conflict.

¹³ Bjøl, “The Power of the Weak,” 158.

¹⁴ Nevertheless, geography can be the power source of the weak in IR, especially when their geostrategic position is critical in the balance of power struggles and closely linked to a defender’s core security interest.

¹⁵ Of course, this principle applies to great powers as well. Spykman says, “A sound foreign policy must not only be geared to the realities of power politics, [but] it must also be adjusted to the specific position which a state occupies in the world. It is the geographic location of a country and its relation to centers of military power that define its problem of security.” Spykman, *America’s Strategy in World Politics*, 446–47.

Relative proximity, or a distance ratio from a potential major adversary and a deterrer, roughly determines the existence of geographical insularity (or exposure) and buck-passing options. To capture the effect of physical distances among different entities on their relations, various but similar concepts have been suggested: the First Law of Geography,¹⁶ the principle of the loss-of-strength gradient,¹⁷ and the gravity model.¹⁸ In geopolitics, it is almost a truism that the effect of force is in inverse proportion to the distance from its power source.¹⁹ In this context, Stephen Walt argues that states in close proximity and hence with frequent interaction are likely to find sources for conflict,²⁰ and proximity is one of the key variables for his balance of threat and alliance formation theory.

Therefore, it is surmised that security recipients that are geographically far from a deterrer and close to a potential aggressor may show a high level of insecurity. In contrast, smaller allies that are near their deterrer feel relatively secure, other things being equal. Table 2 indicates that U.S. allies, except Canada, who received its nuclear protection had a .41 ratio on average for their relative proximity to Washington and Moscow/Beijing.²¹ That is, U.S. allies were, in general, geographically closer to an adversary than their security provider, and most nuclear-enthusiastic countries had a lower ratio than .41.

¹⁶ Someone may take an analogy to describe it from the Principle of Least Effort in George Zipf, *Human Behavior and the Principle of Least Effort: An Introduction to Human Ecology* (Cambridge: Addison-Wesley Press, 1949).

¹⁷ Kenneth Boulding further formulates the version of the distance-decay principle presented in the First Law of Geography. He describes the “viability” of states in terms of a “loss-of-strength gradient” or “the degree to which [a state’s] military and political power diminishes as we move a unit distance away from its home base.” This is also called the “the further the weaker” thesis. Kenneth E. Boulding, *Conflict and Defense: A General Theory* (New York: Harper, 1962), 227–47.

¹⁸ The gravity model, introduced by economist Walter Isard, applies this hypothesis to international trade. A trade volume between states is positively determined by the economic size of the two trading partners like mass in physics and negatively affected from the physical distance between them. Walter Isard, “Location Theory and Trade Theory: Short-Run Analysis,” *Quarterly Journal of Economics* 68, no. 2 (May 1954): 305–20, <https://www.jstor.org/stable/1884452>.

¹⁹ To Spykman, “power is effective in inverse ratio from its source.” Spykman, *America’s Strategy in World Politics*, 165 and 448; George Kennan also stated that “the effectiveness of the power radiated from any national center decreases in proportion to the distance involved, and to the degree of cultural disparity.” George Kennan, *Russia and the West Under Lenin and Stalin* (Boston: Little Brown, 1961), 276.

²⁰ Stephen Walt cites President Reagan’s justification of U.S. intervention in Central America: “Central America is much closer to the United States than many of the world’s trouble spots that concern us...El Salvador is nearer to Texas than Texas is to Massachusetts. Nicaragua is just as close to Miami, San Antonio, and Tucson as those cities are to Washington.” Stephen M. Walt, *The Origins of Alliances* (Ithaca: Cornell University Press, 1987), 23–24.

²¹ Geographic proximity is simply measured by distances between capitals, and the equation is: distance from Moscow or Beijing to an ally’s capital divided by distance from Washington, D.C., to an ally’s capital. While there are other ways to measure the proximity, an indicator with distances between capitals, albeit often logged, is frequently utilized in other studies. See The Correlates of War Project, “Direct Contiguity v3.2,” <https://correlatesofwar.org/data-sets/direct-contiguity>; the value 1 would indicate the equidistance of an ally’s geographical position between an adversary and a security provider. For the U.S. European allies, the ratio is 0.39 on average with the Soviet Union being a major potential adversary. For the U.S. Pacific allies facing Communist China, the ratio was 0.33. Removing Australia and New Zealand from this group, the ratio becomes 0.16.

Table 2. Geostrategic Variable

Country	Distance Ratio	Border with Adversary	Geology ²²	Direction of Primary Physical Conflict	Nuclear Receptivity ²³
Italy	0.33	No	B	Direct/Indirect	Nuclear Enthusiasm/Tolerance
South Korea	0.09	Yes		Direct	Nuclear Enthusiasm
Canada	9.75	No	C, S	Indirect/Direct	Nuclear Allergy/Tolerance
Japan	0.19	No	S	Indirect	Nuclear Allergy
Norway	0.26	Yes	B, C, S	Indirect	Nuclear Allergy
Turkey	0.21	Yes		Direct	Nuclear Enthusiasm
Taiwan	0.14	No	S	Direct	Nuclear Enthusiasm
West Germany	0.33	Yes		Direct	Nuclear Enthusiasm
Greece	0.27	Yes		Direct	Nuclear Enthusiasm
United Kingdom	0.42	No	B, S	Indirect	Nuclear Enthusiasm
Netherlands	0.35	No	B	Indirect	Nuclear Tolerance
Belgium	0.36	No	B	Indirect	Nuclear Tolerance
Portugal	0.68	No	B	Indirect	Nuclear Tolerance
Spain	0.57	No	B	Indirect	Nuclear Tolerance
France	0.40	No	B	Indirect	Nuclear Tolerance
Philippines	0.21	No	B, S	Indirect	Nuclear Tolerance
Denmark	0.24	No	B	Indirect	Nuclear Allergy
Iceland	0.73	No	B, C, S	Indirect	Nuclear Allergy
Luxembourg	0.35	No	B	Indirect	Nuclear Allergy
Australia	0.57	No	B, S	Indirect	Nuclear Allergy
New Zealand	0.77	No	B, S	Indirect	Nuclear Allergy

²² B stands for buffer states, C for climate (harsh and inhospitable in winter), and S for sea.

²³ Nuclear receptivity can be measured by counting the number of deployed nuclear warheads, the size of maximum nuclear yields, the types of deployed nuclear weapons, and the duration of nuclear weapons deployment in a hosting state. These variables may not fully distinguish nuclear receptivity from nuclear propensity as explained earlier. This paper constructs the dependent variable qualitatively by historically observing a security recipient's desire for or aversion to the presence of a deterrer's nuclear weapons on its soil. There are three types of nuclear receptivity: nuclear enthusiasm, nuclear tolerance, and nuclear allergy. While the two categories discussed in this paper are relatively straightforward, a state is coded as nuclear-tolerant if (a) there were negotiations for deployment, (b) a state neither publicly endorsed nor denied the deployment, and (c) a state shows a strongly transactional behavior on the issue. See more details in Lee, "Nuclear Enthusiasm, Tolerance, and Allergy," 2022.

Admittedly, the relative proximity variable provides a broad sense of security/insecurity in U.S. allies but is insufficient to explain a variation in their nuclear receptivity. Countries with the lower ratio of proximity even show lower nuclear receptivity than others against prediction (e.g., Norway to West Germany, Japan to the Philippines). One may argue that distance from a deterrer does not matter to an ally's security, while distance from an adversary is the one to be counted. However, the dropping of the former from the equation still does not explain Denmark's and Japan's low nuclear receptivity.

This paper argues that geological characteristics and directionality come to the fore to complement the proximity variable (Table 2). Geology consists of natural and artificial features, thus allowing scholars to conceptualize topographical barriers and buffer states that strengthen a security recipient's defense. Topographical and artificial barrier characteristics would, therefore, lower a country's nuclear receptivity. A state's topography creates strategic depth effects, such as delaying and/or channeling effects against advancing troops. Natural environments, such as a body of water, a mountain range, and a harsh climate could increase defensive power.²⁴ Glenn Snyder argues that geographic barrier features might make countries "less likely to develop either strong alignments or strong enmities," and countries protected by natural environments "may be attracted to policies of 'splendid isolation.'"²⁵ Buffer states should be considered as artificial geological barriers.²⁶ Scholars have used a variety of terms to describe the direct or indirect control of crucial geographical areas by great powers over weaker states: spheres of influence, zones of influence, frontiers, intermediate zones of fragments, buffers, and cordon sanitaire.²⁷ Non-buffer states would show relatively low nuclear receptivity.

²⁴ The English Channel and the North Sea provided a security buffer for Great Britain until the advent of long-range aviation in the mid-twentieth century. Conversely, a lack of strategic depth and indefensible borders was a perennial dilemma for Prussia/Germany and non-great powers (i.e., Denmark, Israel, Pakistan, and Singapore). Hans Mouritzen and Mikkel Runge Olesen, "The Interplay of Geopolitics and Historical Lessons in Foreign Policy: Denmark Facing German Post-War Rearmament," *Cooperation and Conflict* 45, no. 4 (2010): 406–27; Hans Mouritzen, "Past versus Present Geopolitics: Cautiously Opening the Realist Door to the Past," in *Rethinking Realism in International Relations: Between Tradition and Innovation*, ed. Annette Freyberg-Inan, Ewan Harrison, and Patrick James (Baltimore: The Johns Hopkins University Press, 2009), 164–88; In addition, "[t]opography affects strength because of its influence on unity and internal coherence." Spykman, *America's Strategy in World Politics*, 42.

²⁵ Glenn H. Snyder, *Alliance Politics* (Ithaca: Cornell University Press, 1997), 61; Charles L. Glaser and Chaim Kaufmann, "What is the Offense-Defense Balance and Can We Measure it?" *International Security* 22, no. 4 (Spring 1998): 51–52.

²⁶ Arthur Balfour discussed Afghanistan's "non-conducting" qualities with its few roads and being without railroads, making it impossible for Russia to threaten the British empire in India. Robert Jervis, "Cooperation under the Security Dilemma," *World Politics* 30, no. 2 (1978): 194.

²⁷ George Liska, *International Equilibrium: A Theoretical Essay on the Politics and Organization of Security* (Cambridge: Harvard University Press, 1957), 27; Spykman, *America's Strategy in World Politics*, 19 and 100.

Directionality, or the strategic line of physical conflict, is the most ambiguous term in this paper, as it is affected by the ways in which an adversary's intentions and capabilities evolve. The variable clearly interacts with technology; Canada became the first line of defense after the arrival of Soviet long-range bombers and intercontinental ballistic missiles. The variable also interacts with politics; Norway believed that it could stabilize the Nordic region by manipulating Soviet intentions. The line of fire is a good analogy to the concept of directionality. Of course, not a single U.S. ally, including Australia or New Zealand far from the area of primary strategic contention, was fully free from an adversary's threat; if so, there would have been no need for an alliance. Security recipients attempt to know the primary military objectives and means of an adversary and conduct a risk analysis of the potential utility of a deterrer's nuclear weapons on their territories. If these states perceive themselves away from the strategic line of physical conflict given the security environment, hosting a deterrer's nuclear weapons is less attractive. While they have a buck-passing option toward other allies located on the direct strategic line of conflict, the presence of a deterrer's nuclear weapons is seen to increase a state's nuclear risk. The state may become a target of an adversary's preemptive strikes or would get quickly involved with nuclear conflict the state does not want.

Norway's Geographic Insularity

Norway shared its border with the Soviet Union during the Cold War. Norwegian strategists recognized their state standing on the frontline.²⁸ In the immediate postwar period Norway became a border state with the Soviet Union in a sudden and abrupt way, when Finland made the Treaty of Friendship, Cooperation, and Mutual Assistance with the Soviet Union in 1948 and yielded its northernmost territory bordering the Barents Sea, including the ice-free port of Petsamo (Pechenga).²⁹ Norway's northernmost border was only about 150 km away from the Soviet principal strategic base complexes in Murmansk, home to the Northern Fleet with two-thirds of the ballistic missile submarine fleet later in the Cold War.³⁰ The Soviets had a vivid memory of the havoc created by the German Luftwaffe operating out of northern Norwegian bases during WWII, harassing Murmansk convoys.³¹

Interestingly, Norway turned down the NATO's nuclear offer in the late 1950s and officially decided to deny the NATO's right to store nuclear charges on its territory in 1961.³² Norway prohibited the deployment of nuclear weapons in peacetime and took an official policy of rejecting port calls by allied naval vessels that might possibly be carrying nuclear weapons.³³ Norway was among the first to commit to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) in 1969, and by the late 1960s Oslo became an active supporter of International Atomic Energy Agency's (IAEA) stringent nuclear-safeguarding mission.³⁴

²⁸ Johan J. Holst, "Norwegian Defence Policies for the 1990s," 141; Clive Archer and Ingrid Sogner, *Norway, European Integration and Atlantic Security* (London: SAGE, 1998), 81.

²⁹ John Lund, *Don't Rock the Boat: Reinforcing Norway in Crisis and War* (Santa Monica: The RAND Corporation, 1989), 11.

³⁰ Lund, *Don't Rock the Boat*, 3.

³¹ Therefore, to Alexander Lanoszka, Norway was the least straightforward case as a frontline state; "[i]ts frontline status in the Cold War notwithstanding, Norwegian leaders had little interest in hosting in-theater American deployments...or acquiring nuclear weapons." Alexander Lanoszka, *Atomic Assurance: The Alliance Politics of Nuclear Proliferation* (Cornell University Press, 2018), 148.

³² Nils Ørvik, "Scandinavian Military Doctrines," in *Comparative Defense Policy*, ed. Frank B. Horton III, Anthony C. Rogerson, and Edward L. Warner III (Baltimore: The Johns Hopkins University Press, 1974), 261 and 268.

³³ The NATO exercise MAINBRACE in 1952 was the last deployment of U.S. carriers (USS *Midway* and USS *Franklin D. Roosevelt*) into Norwegian coastal waters. The U.S. carrier groups operated only in the Norwegian Sea since then. Jacob Børresen, "Alliance Naval Strategies and Norway in the Final Years of the Cold War," *Naval War College Review* 64, no. 2 (2011): 114, <https://www.jstor.org/stable/10.2307/26397202>; There was some degree of ambiguity in Norway's port call policy, however. In 1975 the Norwegian Prime Minister clarified that Norway had a policy that "nuclear weapons should not be carried on board foreign military vessels during calls to Norwegian ports." However, in 1982 the Norwegian Defense Minister stated that the Norwegian government had "...never considered visits by allied or Soviet ships possibly carrying nuclear weapons as a breach of Norwegian policy." Stuart McMillan, *Neither Confirm nor Deny: The Nuclear Ships Dispute between New Zealand and the United States* (Praeger Pub Text, 1987), 65–66.

³⁴ Astrid Forland, "Norway's Nuclear Odyssey: From Optimistic Proponent to Nonproliferator," *Nonproliferation Review* 4, no. 2 (1997): 14, doi: 10.1080/10736709708436661.

The Norwegian government criticized NATO's first-use policy and opposed the neutron bomb project. It showed reservations regarding the Intermediate-Range Nuclear Forces (INF) modernization and "dual-track" decision. It opposed the Strategic Defense Initiative (SDI) under the Reagan administration. Oslo expressed strong interest in a Nordic nuclear-weapons-free zone (NNFZ).³⁵ Norwegian officials called for the Western alliance to redouble its efforts at détente and arms control.³⁶ In short, Norway had strong anti-nuclear interest.

It appears that the proximity variable alone is not sufficient to explain Norway's nuclear allergy. Instead, the explanation is Norway's sense of geographic insularity and possible buck-passing options mostly coming from Norway's geological characteristics. The Norwegian security concerns towards the northern border were greatly mitigated by three buffer states (Sweden, Finland, and Denmark) lying between Norway and the Soviet Union. Exit from the Baltic Sea to the North Sea was by the narrow passage between Denmark and Sweden past Copenhagen, and Danish territory straddled a major chokepoint for Warsaw Pact forces. The Communist troops could not invade Norway from the south unless invading first Danish Jutland and German Schleswig-Holstein. While Denmark was also a NATO member, Sweden with its democratic system and modest military strength was virtually a Western partner, despite its formal neutrality. Geographically, defending southern Norway, where Oslo is located, implicitly depended on Swedish defenses against the transiting Soviet troops.³⁷ Therefore, joining NATO in 1949, Oslo urged Washington and London to take account of Sweden in NATO's military planning.³⁸ Sweden became a functional ally of the United States with NSC 6006/1 in April 1960 stating that Sweden's modernization of early warning, air control, and advanced weapons systems would contribute to the security of NATO countries.³⁹

³⁵ Richard A. Blitzinger, *Denmark, Norway, and NATO: Constraints and Challenges* (The Rand Corporation, 1989), 4; Lund, *Don't Rock the Boat*, 22.

³⁶ Blitzinger, *Denmark, Norway, and NATO*, 4.

³⁷ Holst, "Norwegian Defence Policies for the 1990s."

³⁸ U.S. Ambassador to Stockholm William Butterworth observed in April 1953 that varying types of covert or semi-covert collaboration existed between Norwegians and Swedes at certain levels of their military establishments. The ambassador argued that it was logical to have joint planning efforts with Sweden through the instrumentality of Norway. Mats R. Berdal, *The United States, Norway and the Cold War, 1954-60* (Springer, 1997), 137-38.

³⁹ The United States sought to encourage Sweden to establish such a system compatible with and complementary to the systems of its neighboring NATO states. The United States prepared a policy to assist Sweden through NATO or the United Nations, if the latter was attacked by the Soviet Bloc. If Finland was invaded by the Soviet Union, the United States would promote Sweden into NATO membership. "NSC 6006/1: Statement of U.S. Policy Toward Scandinavia (Denmark, Norway and Sweden)," April 6, 1960, *Foreign Relations of the United States* (hereafter FRUS), 1958-1960, Western Europe, Volume VII, Part 2, Document 300, 672-88.

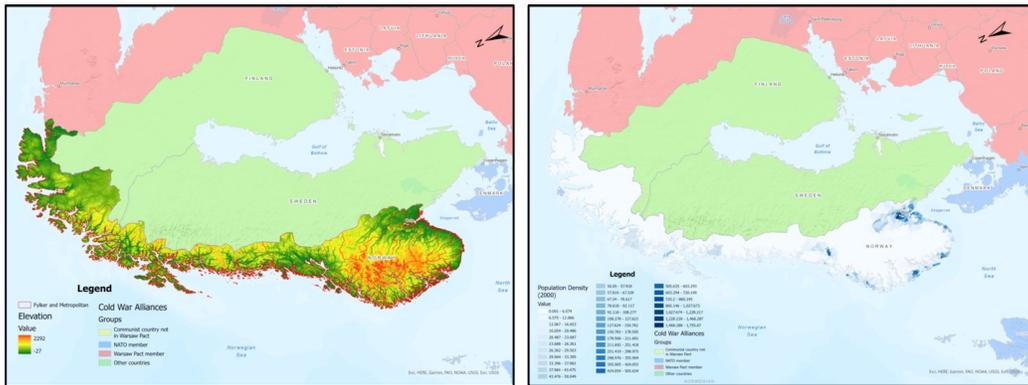
The air distance from Norway's northernmost point (Cape North) to the southernmost extension (Lindesnes) is 1,700 kilometers, a distance approximately between Oslo and Rome. Harsh climate conditions in the Arctic zone and defensible narrow and rough land passages from the Norwegian-Soviet border increased the Norwegian sense of security. The fjord-indented highlands of Scandinavia would have aided a defensive effort. The Soviet ground troops would have encountered great difficulty in traversing the terrain. In addition, the channeling effects of Norwegian terrain might have exposed Soviet troops to counterattacks. The Norwegian fjords do not freeze, and they could provide hiding places for naval ships. Furthermore, harsh climate presented a treacherous environment for soldiers and war machinery. Temperatures in Northern Norway fall to -40°F in winter, and nights are long, making any troop movement slow and its force underperformed. A Soviet attack could occur in other seasons, but these seasons are relatively short in the Arctic [Figure 1].

It is unknown to date what the actual Soviet war plan was against Norway. It is, however, safely assumed that Norway was not the Soviet's primary target unless the latter was strategically provoked. To Norwegian strategists, the most dangerous potential Soviet course of action in the event of war was an amphibious assault into the northern fjords to outflank the Norwegian Army's 6th Division defending Northern Norway and attack it from the rear. This offensive could be done in coordination with a simultaneous frontal assault on the defensive line between Lyngen Fjord and the Finnish border.⁴⁰ However, coupled with other defensive factors mentioned above, such as the fjords, buffer states, and allies' constant naval presence, the offensive operation against north Norway would have become extremely difficult. The Soviets also recognized that high and hilly land on either side of the Kola Fjord provided "excellent protection for a fleet of any size,"⁴¹ thus making the region naturally defensive.

⁴⁰ Jacob Børresen, "Alliance Naval Strategies and Norway in the Final Years of the Cold War," *Naval War College Review* 64, no. 2 (2011): 108, <https://www.jstor.org/stable/10.2307/26397202>; The Soviet Union did occupy parts of Northern Norway at the end of World War II.

⁴¹ Berdal, *The United States, Norway and the Cold War, 1954–60*, 49.

Figure 1. Elevation and Population Density in Norway



Note: The 2010 population density data with geometric interval

Moreover, the density of population in the northern territory of Norway was sparse, creating a further buffer-zone effect. Norway had the second lowest population density next to Iceland in Europe, with only thirteen persons per square kilometer,⁴² and its north was even more sparsely populated than the south. There were few commercially and industrially vital facilities in the region exposed to immediate Soviet threat (Figure 1). Coupled with these geographical and population features, the Norwegian government did not permit NATO troops to be permanently stationed in its territory and designated its northern territory beyond 24th meridian as an informal buffer zone by banning any NATO airborne or seaborne activities. Through low-tension policy (*Lavspenningspolitikk*), or similarly called “deterrence-reassurance,” “semialignment,” and the “Nordic Balance” policies, Norwegian leaders avoided the excessive militarization of the Northern Flank not to provoke the Soviet Union. By doing so, Oslo seemed to believe that the country could have stayed off the strategic line of physical conflict.

As a consequence, Norway passed off its nuclear burden to other allies in Central and Southern Europe, and its buck-passing behavior sometimes created tension within the alliance. In October 1955, Admiral Robert Dennison, Director of the Strategic Plans Division, Office of the Chief of Naval Operations, Navy Department, noted that it was “unfortunate that Norway, [the] NATO partner, refuse[d] the US the right to operate from and to station personnel at the NATO fields pre D-Day.”⁴³ In December 1957, when Norwegian Prime Minister Einar Gerhardsen declared not only the Norwegian government’s intention to prohibit nuclear weapons deployment in Norway but also its

⁴² Ørvik, “Norway,” 189.

⁴³ Berdal, *The United States, Norway and the Cold War, 1954–60*, 150.

desire for the reconsideration of intermediate-range ballistic missile (IRBM) deployment, Washington was concerned that Norway was on its way out of NATO.⁴⁴ The United States and the United Kingdom did not have any plan to emplace the IRBMs in Norway but considered the establishment of nuclear storage sites there as necessary for emergency.⁴⁵ The 1960 U-2 incident highlighted again the tension created by Norway's base policy in NATO. When the U.S. plane was shot down over Soviet territory on its way to Bodø in May 1960, the Norwegian government banned the program using its base.⁴⁶

The Reagan administration particularly had a difficulty in dealing with Norway's low nuclear receptivity in the 1980s. Even during the last year in the Carter administration, the Norwegian authority was alarmed by Secretary of Defense Harold Brown's statement in 1980 that the United States would respond to Soviet aggression in the Persian Gulf "as far north as Norway." Norway strongly objected to the U.S. horizontal-escalation strategy not to be dragged into the U.S.-Soviet conflict. The 1983 Forward Maritime Strategy included the possibility of U.S. full-scale offensive from the Norwegian Sea and in Norwegian fjords against Soviet strategic targets in the far north.⁴⁷ Norway's Defense Minister Johan Holst criticized the U.S. new naval strategy as a by-product of U.S. self-interest regardless of Norway's wishes.⁴⁸ Any conflict initiated in Central Europe would rapidly and horizontally escalate into a war in Northern Europe that would entrap Norway in a strategic warfare. In 1986, Oslo refused to allow a nuclear-capable F-111 fighter-bomber to land at a Norwegian airfield. It also opposed a NATO proposal to station naval vessels with nuclear-tipped submarine-launched cruise missiles in the Norwegian Sea as a way of compensating for reduced nuclear deterrent due to the INF Treaty.⁴⁹

⁴⁴ Drew Middleton, "Neutralist Trend Held Peril to Pact: U.S. and British Delegates Disturbed by Stand of Norway and Denmark," *The New York Times*, December 18, 1957; On December 18, 1957, Norway and Denmark withdrew their call for postponement and signed on to a general endorsement of the missile proposal. Philip Nash, *The Other Missiles of October: Eisenhower, Kennedy, and the Jupiters 1957-1963* (Chapel Hill: The University of North Carolina Press, 1997), 25.

⁴⁵ Berdal, *The United States, Norway and the Cold War, 1954-60*, 170-71.

⁴⁶ Berdal, *The United States, Norway and the Cold War, 1954-60*, xiv; Pakistan and Turkey did not make a similar restriction, and some U.S. politicians, including Republican Senator Styles Bridges, did not understand why U.S. allies (that is, Norway) protested about the use of bases on their soil. The conversation occurred at the conference with bipartisan leaders on May 26, 1960. President Eisenhower defused the issue by commenting that Norway's weak military and close proximity to the borders of the Soviet Union caused the protest. Berdal, *The United States, Norway and the Cold War, 1954-60*, 159-60.

⁴⁷ James Watkins, "The Maritime Strategy," *Proceedings* 112 (January 1986).

⁴⁸ His rationale was that in the 1950s, U.S. strike carriers were forward deployed in the Norwegian Sea but disappeared in the early 1960s when U.S. submarine fleets took over the nuclear-deterrence role. He had no guarantee that the new U.S. naval strategy would last and believed that Norway could not take a risk of assuming the role taken by the U.S. Navy when it would leave. Børresen, "Alliance Naval Strategies and Norway in the Final Years of the Cold War," 106-7; Holst also worried about the Mediterraneanization of the Norwegian Sea. Rodney Kennedy-Minott, *U.S. Regional Force Application: The Maritime Strategy and Its Effect on Nordic Stability* (The Hoover Institution, 1988), 24-32.

⁴⁹ Blitzinger, *Denmark, Norway, and NATO*, 38.

In January 1988, the U.S. president's Commission on Integrated Long-Term Strategy wrote a report, entitled "Discriminate Deterrence," implying that Norway's increased restrictions on U.S. and NATO activities in Norway would limit the allied ability to bring force rapidly in the defense of the Northern Flank. Norwegian Defense Minister Holst criticized the report as flawed and distorted, since it did not appreciate the role of the Nordic Balance and the low tension in the region.⁵⁰ The United States was indignant, when Norway took its time to answer its request in 1987 to establish Forward Operating Locations (FOLs) for logistic support to the U.S. Navy along the Norwegian coast. With maximum pressure from Washington, Oslo initiated negotiations on the subject in 1989 and was finally ready to approve the request in 1991.⁵¹ However, the Cold War ended, fortunately for Norway.

One should not conclude that Norway was solely self-interested and did not make any contribution to the U.S. extended deterrence system during the Cold War. Norway's support for intelligence, surveillance, reconnaissance, and communication was crucial and critical to the U.S. extended deterrence system. Electronic (ELINT), communications (COMINT), telemetry (TELINT), acoustical (ACOUSTINT), and seismic intelligence were conducted from Norwegian soil, islands, seabed, and seaborne platforms. NATO could closely monitor the employment, operational patterns, and possible use of Soviet nuclear weapons systems.⁵² Norway also contributed to Strategic Air Command (SAC) planning by monitoring Soviet air defense systems, especially the radar order of battle along the Arctic coast.⁵³

⁵⁰ Blitzinger, *Denmark, Norway, and NATO*, 4; "Holst Sees 'Distortions' in U.S. Defense Report," Foreign Broadcast Information Service, West European Report 88-011 (January 19, 1988), p. 21, in Internet Archive, https://archive.org/details/fbis-report_prex-710fbis-weu-88-011/page/21/mode/2up, accessed April 28, 2023.

⁵¹ Børresen, "Alliance Naval Strategies and Norway in the Final Years of the Cold War," 106.

⁵² Olav Riste, *The Norwegian Intelligence Service 1945–1970* (London: Frank Cass, 1999); in particular, ACOUSTINT tracked down Soviet nuclear submarines in the Norwegian waters. The Loran-A (Long-Range Aid to Navigation-A) system was established on the Norwegian island, such as Jan Mayen, and in Bø and Bjugn under NATO's infrastructure program to support U.S. fleet operations in the North Atlantic. Berdal, *The United States, Norway and the Cold War, 1954–60*, 177; the United States made a request for Loran-A stations in 1955 be designed to support Strike Fleet surface and air operations in the Norwegian Sea and the north-east Atlantic. U.S. authorities made a formal request in March 1958 for the construction at Bø in Vesterålen of a more advanced long-range navigation system, the Loran-C. The Norwegians accepted this request and later operated the Loran-C system to provide data for U.S. weapons including its Polaris submarines. See more historical details of the Loran-C system in Owen Wilkes and Nils Petter Gleditsch (in collaboration with Ingvar Botnen), *Loran-C and Omega: A Study of the Military Importance of Radio Navigation Aids* (Oslo: Norwegian University Press, 1987); in September 1964, Washington approached Oslo with a request to set up the Omega navigation system, and the Norwegian government and the Storting (parliament) consented to a permanent Omega station in 1971. Rolf Tamnes, *The United States and the Cold War in the High North* (Dartmouth Publishing Group, 1991), 218.

⁵³ Norway's location provided American bombers the minimum penetration paths to potential targets in the Soviet Union. Norway's role was to monitor passive and active Soviet air defenses. Berdal, *The United States, Norway and the Cold War, 1954–60*, 45, 70.

Norway would open its territories to U.S. bombers and perhaps nuclear forces in the event of war.⁵⁴ For early warning and missile defense, Norway provided bases for overflights and allowed for the establishment of missile detection and performance monitoring equipment on its soil.⁵⁵ Northern Norway was also an ideal place to observe the transfer of units between Soviet fleet areas, the level of Soviet submarine training, and naval build-up on the Kola peninsula.⁵⁶ Norway's proximity to Soviet nuclear testing sites, such as Novaya Zemlya, enabled the allies to examine materials from nuclear explosions.⁵⁷

Norway also played an important political role in nuclear planning and strategic communications between NATO and the Warsaw Pact. Norway's overall influence in the Nordic region was significant. Norway served for alliance solidarity by playing a mediating role in U.S.-Icelandic relations in the 1950s.⁵⁸ Norway was a point of contact with Sweden in the sensitive areas of defense and intelligence.⁵⁹ Norway was seen to exercise a determining influence on the foreign policy of Denmark, which had joined NATO after Norway.⁶⁰ In conclusion, Oslo simply decided to play a non-nuclear role in the alliance. Although it passed the buck of nuclear burden to others based on its geostrategic position, it tried to compensate it with other important roles.

⁵⁴ Philip E. Barringer (Director, Foreign Military Rights Affairs), "Nuclear Weapons Arrangements," October 8, 1968, DNSA. The October 1952 arrangement between SAC and the Norwegian government endorsed the wartime use of Sola and Gardermoen by U.S. bombers and their fighter escorts. In addition, the 1980 Invictus Arrangement between the United States and Norway was designed to provide prepositioning at one or more airfields for U.S. aircraft carriers in an emergency situation. Simon Duke, *United States Military Forces and Installations in Europe* (Oxford University Press, 1989), 220–22.

⁵⁵ Berdal, *The United States, Norway and the Cold War, 1954–60*, 32.

⁵⁶ Berdal, *The United States, Norway and the Cold War, 1954–60*, 61.

⁵⁷ Berdal, *The United States, Norway and the Cold War, 1954–60*, 30; Novaya Zemlya is an Arctic archipelago some 800 km off the coast of Eastern Finnmark.

⁵⁸ Berdal, *The United States, Norway and the Cold War, 1954–60*, xiv.

⁵⁹ Berdal, *The United States, Norway and the Cold War, 1954–60*, 133.

⁶⁰ Dean Acheson, *Present at the Creation: My Years in the State Department* (New York: Norton & Company, 1969), 279; See U.S. Ambassador to the United Kingdom Aldrich's telegram to Washington, stating that Norway held a key position in relation to Iceland and Denmark; then SACEUR General Eisenhower was impressed with how close the Danes felt to the Norwegians in his meeting with Norwegian government officials in May 1952. Eisenhower made a comment that on the issue of the possible stationing of tactical air units in Norway and Denmark the Danes were "anxiously looking to Norway to lead the way." Berdal, *The United States, Norway and the Cold War, 1954–60*, 134.

South Korea's Geographic Exposure

The Republic of Korea hosted the highest number of U.S. nuclear weapons in the Asia-Pacific region between 1958 and 1992, except pre-1972 Okinawa and Guam over which Washington had administrative control.⁶¹ There is no historical record that South Korea initially proposed to introduce U.S. atomic capability to its territory. The initial nuclearization of U.S. forces in Korea was part of the U.S. global strategy to “pentomize” its ground troops. However, Seoul welcomed Washington’s decision to bring atomic weapons to the Korean Peninsula and demanded the expedition of the plan.⁶² On May 15, 1957, Minister of National Defense Kim Yong-woo wrote to Secretary of State John Foster Dulles to express “extreme pleasure” over the U.S. decision to send nuclear-capable weapons to Korea.⁶³ South Korean President Syngman Rhee showed his anxiety and irritation, when he deemed that the implementation of the modernizing plan was delayed.⁶⁴ In his written reply to the United Press Associations on February 13, 1958, Rhee stated, “the introduction into Korea of atomic artillery and rockets capable of carrying nuclear warheads is a most wonderful thing.”⁶⁵ Seoul even reluctantly agreed to reduce two Army divisions in order to proceed with the modernization that would bring atomic capability to its national defense.⁶⁶

In March 1969, when the realization of the Okinawa reversion became visible, South Korean Prime Minister Il Kwon Chung offered land in South Korea for the relocation of U.S. troops from Okinawa. He urged the United States to use his country as a base for “defending the entire Far East.”⁶⁷ On June 1, President Chung-hee Park reiterated the Korean position to provide new air force and naval bases to the United States.⁶⁸ In August of the same year, President Park specifically pointed out his willingness to

⁶¹ Okinawa was returned to Japanese administrative control in May 1972.

⁶² George Decker (Deputy Commander in Chief, United Nations Command) to Department of Army, November 6, 1957, FRUS, 1955-1957, Korea, Volume XXIII, Part 2, Document 253, 519–22.

⁶³ He wrote, “I sincerely congratulate you on your sound and timely decision to bring up-to-date the fifth largest army in the entire world.” Editorial Note, FRUS, 1955-1957, Korea, Volume XXIII, Part 2, Document 215, 432–33.

⁶⁴ Weil (Embassy in Korea) to the Department of State, December 24, 1957, FRUS, 1955-1957, Korea, Volume XXIII, Part 2, Document 262.

⁶⁵ “Answers of President Syngman Rhee to Questions Submitted by the United Press Associations through Charles Smith, Manager of the Seoul Bureau,” February 13, 1958, 대통령 서한, 행정안전부 국가기록원 대통령기록관 대통령기록연구실, <http://pa.go.kr/research/contents/letter/index.jsp>, accessed June 7, 2019.

⁶⁶ Sprague (Assistant Secretary of State for International Affairs) to Decker (Commander in Chief, United Nations Command), January 22, 1958, FRUS, 1958-1960, Japan; Korea, Volume XVIII, Document 206, 431-32; it is a separate study why and how the United States used the introduction of atomic capability to South Korea to reduce the latter’s troop size.

⁶⁷ The United Press International, March 15, 1969, 미국·일본간 오키나와(沖繩) 반환문제, 전 2 권 V.1 1969.1 - 6 월, 등록번호 2958, 분류번호 722.12JA/US, 례번호 C-0029, 외교사료관.

⁶⁸ 「회의록」, “한·일본 정기각료회의, 제 3 차. 동경, 1969. 8. 26~28. 전 5 권 V.3 결과 보고.”

provide Jeju Island to the United States regardless of the Okinawa reversion. He added that if the island were used as a base for the United States, the deployment of nuclear weapons would be necessary.⁶⁹ On September 25, Prime Minister Chung repeated an offer to make available facilities on Jeju but added that the U.S. forces would be welcome “at any time, not just in Cheju [sic] but any place.”⁷⁰ All these episodes indicate nuclear enthusiasm in South Korea.

The nuclear-enthusiastic behavior of South Korea was mainly caused by its geostrategic position, as it had to cope with the precarious strategic environment as a frontline state. Once described by U.S. President Dwight Eisenhower as the “little finger...sticking out of mainland Asia,” South Koreans themselves perceived their country as an advanced base for friendly nations against Communist nations. The country’s leaders did not hesitate to describe their country as an outpost of freedom and the bastion of anti-Communism. According to Korean Minister of National Defense Yong-Yoo Kim, his country in East Asia had “the responsibility...to bear [the] worthy part in the defense of the free world in this sector against aggressive attack.”⁷¹ In preparation for Chung-hee Park’s visit to the United States in May 1965, the Foreign Ministry prepared his message to President Lyndon Johnson that the Republic of Korea, as a free and democratic country, would actively play a role as the strongest “breakwater” against Communist expansion in the Far East.⁷²

While its relative proximity to the adversary was positively associated with its high nuclear receptivity, South Korea was also geographically exposed to Communist threats during the Cold War. About the size of Iceland or Portugal, the strategic depth was absent. Most mountain ranges of South Korea are roughly oriented in a southwest direction of Seoul, exposing the capital city to the North on the ground (Figure 2). The coldest month in winter rarely sees the average temperature dropping below 20°F, and, therefore, effective troop movement is feasible throughout the year. The population density is significantly high in Seoul and its suburb areas: As of 1970, 17.6 percent of the 30 million total population lived in Seoul and 8.6 percent in Gyeonggi province adjacent to the capital city.⁷³ More than 50 percent of the total manufacturing employment was

⁶⁹ U.S. News and World Report, “만일 제주도가 미군기지로써 사용될 경우 핵무기 배치는 필연적일지도 모른다,” August 17, 1969, p. 24.

⁷⁰ *The New York Times*, September 28, 1969, 한-미국 정부 일반, 등록번호 2947, 분류번호 722.1US, 례번호 C-0029, 외교사료관.

⁷¹ Yong-Woo Kim (Minister of National Defense, Republic of Korea) to Admiral Arthur W. Radford (Chairman, Joint Chiefs of Staff), August 26, 1956, obtained through FOIA.

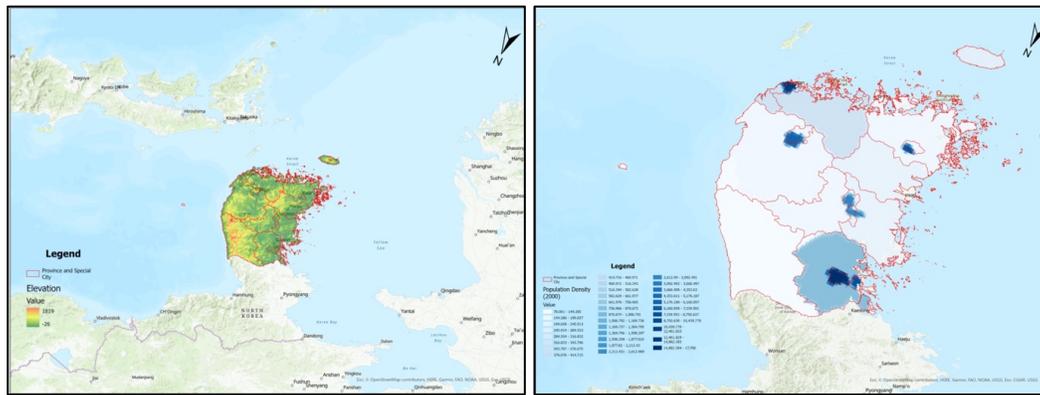
⁷² 발신인: 주미대사, 수신인: 외무부장관, “대통령각하 방미시의 토의될 의제건의,” 번호: USW-0333, 1965년 3월 4일, 박정희 대통령 미국 방문, 1965.5.16-26. 전 2 권 V.1 기본문서집, 등록번호 1482, 분류번호 724.11US, 례번호 C-0011, 외교사료관.

⁷³ Young-Han Park, “The Geography of Korea,” *The Social Studies* 79, no. 4 (1988), 145, doi: 10.1080/00220973.1945.11019908.

concentrated in Seoul and Pusan until the end of the 1960s.⁷⁴ Both natural and human geographies put the capital city of the Republic of Korea within close range of North Korean invasion. Seoul fell into the enemy's hands within three days of the Korean War initiation in 1950, and this fact constantly haunts South Korean policymakers. In April 1954, President Syngman Rhee explained to Secretary of State Dulles the different levels of threat to South Korea and the Philippines because of their geographical positions. Unlike the Philippines, an island nation that was protected by water, Korea was subject to constant threat and instant attack from overwhelming Communist forces a few miles away.⁷⁵

Lastly, South Korea lay on the strategic line of physical conflict, as it was the first defense line against the Communist expansion in Northeast Asia. It was hardly conceivable to invade Japan without first attacking South Korea or U.S. military bases in it, and there was no other frontline ally to replace the geostrategic role of South Korea (Figure 2).

Figure 2. Elevation and Population Density in South Korea



Note: The 2010 population density data with geometric interval

The United States recognized the geostrategic exposure of South Korea to Communist threats and this was how it justified the deployment of its nuclear weapons on Korean soil. As early as November 1956, the U.S. Far East Command established the Standing

⁷⁴ Park, "The Geography of Korea," 144.

⁷⁵ Young (Director of the Office of Northeast Asian Affairs), Memorandum of Conversation, "Third Meeting Between President Rhee and Secretary Dulles," August 7, 1953, FRUS, 1952-1954, Korea, Volume XV, Part 2, Document 740, 1481-88; See also You Chan Yang's letter to President Rhee when he went to Europe as the latter's envoy. He described the strategic role of South Korea to Europeans as front, wall, bulwark, and fortress for the Free World. You Chan Yang to Syngman Rhee, "For Information, No. 172," May 14, 1957, 양유찬 특사 구주 순방, 1957.4.25~6.14, 등록번호 122, 분류번호 724.41XG, 례번호 C-0002, 외교사료관.

Operation Procedure (SOP) to airlift atomic weapons from the continental United States to two locations in Korea in war.⁷⁶ In January 1958, dual-capable armaments, such as Honest John missiles and 280mm artillery, arrived in Korea. Soon after the initial introduction, the nuclearization project in Korea was expanded.⁷⁷

In contrast to the case of Norway, conflict between South Korea and the United States occurred mostly because of the former's acute sense of insecurity. Seoul persistently demanded a strong security guarantee from the United States at the NATO level. On the other hand, Rhee's policy for reunification by force was strongly opposed by the Eisenhower administration. Korean leaders condemned any Western attempt for talks or negotiation with the Communists, commenting that "so many dance on [sic] the flute sound played by the Communists."⁷⁸ South Korea also had a desire for nuclear sharing—access to nuclear weapons information and control. Defense Minister Chung-yul Kim requested the atomic training of the Korean Army to General George Decker, Commander in Chief, United Nations Command on November 5, 1957.⁷⁹ However, there was no congressionally approved Program of Cooperation (POC) with South Korea by the United States, and the U.S. military did not share any sensitive information in detail with the South Korean authority.⁸⁰

⁷⁶ The 8th Ordnance Detachment in Uijongbu and the 24th Ordnance Detachment in Anyang-Ni should have been equipped with a capability to receive and handle nuclear weapons. Far East Command, "SOP No.1," November 1, 1956, <http://www.nukestrat.com/korea/FEC56.pdf>, accessed May 22, 2022.

⁷⁷ For the detailed accounts on the deployed nuclear weapons systems in South Korea, see Lee, "Nuclear Enthusiasm, Tolerance, and Allergy," 2022, Chapter 5.

⁷⁸ 『대통령이승만박사담화집』 3, 공보실, 1959; President Park, in his visit to West Germany in December 1964, also strongly criticized the discussion and movement of neutralism in the Western bloc and stressed that the unification and peace of Korea and Germany within the Free World were identical to world peace. 대통령 각하 독일 방문시 회담 자료, 박정희 대통령 독일 방문, 1964.12.6-15. 전 3 권, V.3 자료집, 등록번호 785, 분류번호 724.11GE, 풀번호 C-0006, 외교사료관.

⁷⁹ A Military Report (unknown author, but possibly General Paik), n.d., 1958, 대통령 서한, 행정안전부 국가기록원 대통령기록관 대통령기록연구실, <http://pa.go.kr/research/contents/letter/index.jsp>, accessed June 25, 2019; President Rhee also publicly announced, "I would certainly be very happy to see the Korean Armed Forces equipped with atomic weapons." "Answers of President Syngman Rhee to Questions Submitted by the United Press Associations through Charles Smith, Manager of the Seoul Bureau," February 13, 1958, 대통령 서한, 행정안전부 국가기록원 대통령기록관 대통령기록연구실, <http://pa.go.kr/research/contents/letter/index.jsp>, accessed June 7, 2019.

⁸⁰ In general, the United States did not seek nuclear-sharing arrangement with its Asian partners, as it did in Europe. Peter Hayes, Lyuba Zarsky and Walden F Bello, *American Lake: Nuclear Peril in the Pacific* (Ringwood, Australia: Penguin Books, 1986), 75; the United States did not share even the basic information of its nuclear weapons systems and operational plans with South Korean leaders. The U.S. military initially considered providing Korean Augmentation to the United States Army (KATUSA) a limited access to atomic capable units, but access to nuclear information was highly controlled. I Corps Group Headquarters (Brig Gen Gerhardt, CS) advised that, "provided uniformity was desired, KATUSA's be utilized in atomic capable units in non-sensitive jobs in accordance with individual capabilities; however, if uniformity was not necessary, KATUSA's should be provided to atomic capable units on an optional basis, this depending on individual commander's personal desires." W. A. Cunningham (Brig Gen, GS, Assistant Chief of Staff, G3) to Artillery Officer, "KATUSA's in Atomic Delivery Units (U)," GO 265/27 (March 9, 1959), NACP (retrieved from the Archives of Korean History, http://archive.history.go.kr/image/viewer.do?system_id=000000013728, accessed July 10, 2019).

More seriously, South Korea was suspicious of the credibility of U.S. security protection, and every U.S. attempt to reduce its troop size in Korea from the Eisenhower, Kennedy, Nixon, to Carter administrations was met with Korea's strong resistance and resentment.⁸¹ In addition, Seoul disliked the American "Japanocentric" strategy in which policymakers in Washington perceived the Korean peninsula as a buffer zone.⁸² South Korean elites perceived Japan as a free rider in the U.S. extended deterrence system⁸³ and believed that the defense of South Korea was also automatically defending Japan as well.⁸⁴ South Korea provided regional stability through its frontline defense, but Japan seemed to restrict and hamper U.S. access to its bases for the regional security, as seen in the Okinawa reversion case.⁸⁵ South Korea claimed that Japanese economic aid was actually "security rent" for it being a bulwark in Japan's immediate defense perimeter.⁸⁶

In conclusion, South Korea's high nuclear receptivity mainly came from its precarious geostrategic position, as it was exposed to the Communist threat. Seoul was willing to take an active nuclear role in Washington's regional alliance system for its own security interest. Any sign of weakening U.S. alliance assurance raised Seoul's fear of decoupling and triggered proliferating behaviors.

⁸¹ Many scholars indicate South Korea's past proliferating behaviors were associated with the U.S. plan to decrease or withdraw its ground troops from South Korea.

⁸² See President Rhee to the President of the United States of America, July 11, 1953, 대통령 서한, 행정안전부 국가기록원 대통령기록관 대통령기록연구실, <http://pa.go.kr/research/contents/letter/index.jsp>, accessed June 7, 2019.

⁸³ President Park, in his visit to San Francisco in August 1969, told President Richard Nixon that "Japan, despite its strong economy, [was] hardly carrying its share of the burdens in Asia." Nixon concurred that "Japan [spent] only about one percent of its GNP in its defense," which he believed was too small. Memorandum of Conversation, "Talks Between President Nixon and President Pak [sic]," August 21, 1969, FRUS, 1969-1972, Volume XIX, Part 1, Korea, 1969-1972, Document 35, 96-102; it should be noted, however, that South Korean leaders did not want to see the military build-up of Japan itself but only the freedom from the United States using Japanese territories for its military operations. In addition, while Seoul emphasized the solidarity of the Free World, it was reluctant to make full reconciliation with Tokyo.

⁸⁴ Prime Minister Chung told President Nixon on April 1, 1969, that "Korea [had] been providing for Japan's security while Japan [had] been growing economically powerful." Memorandum of Conversation, April 1, 1969, FRUS, 1969-1976, Volume XIX, Part 1, Korea, 1969-1972, Document 5, 9-10; on the next day, Chung stressed again to Secretary of State William Rogers that "Japan's security problems, both external and internal, would take a very different shape if the ROK did not occupy the position it did." Memorandum of Conversation, "Call of the Prime Minister of Korea on the Secretary of State," April 2, 1969, FRUS, 1969-1976, Volume XIX, Part 1, Korea, 1969-1972, Document 6, 12-15.

⁸⁵ The U.S. inability to launch operations from Okinawa for airpower and marine support in the Korean contingency would have lengthened the ROK response time to stop a North Korean offensive. Franklin B. Weinstein and Fuji Kamiya, *The Security of Korea: US and Japanese Perspectives on the 1980s* (Oxfordshire: Routledge, 2019), 40.

⁸⁶ The security-rent claim that South Korea served as a bulwark of the United States and Japan was used by the administration of President Doo-hwan Chun in 1981 for a \$6 billion Japanese loan. Chong-Sik Lee, *Japan and Korea: The Political Dimension* (Stanford: Hoover Institution Press, 1985), 115-20.

Conclusion

A state's geostrategic position is not the only variable that explains nuclear receptivity. Even in this analysis, a state's geostrategic position contains political and technological components (i.e., buffer states and the strategic line of physical conflict), and the full understanding of nuclear receptivity should be done in examining the interaction of a state's geostrategic position with other variables, such as domestic political interest, ideology, historical memories, types of deployed nuclear weapons, aspiration for status, and so on.

Among others, it is true that a state's foreign policy, including the policy of hosting a deterrer's nuclear weapons is, at face value, the product of domestic political decision-making. Of note, democratic countries and their people are not necessarily anti-nuclear, if one examines the case of West Germany, contemporary South Korea, and Eastern European allies of the United States. The government's ideological orientation is not always decisive either—the Italian Socialist Party government (*Partito Socialista Italiano*, PSI) adopted the BGM-109G Euromissile in the 1980s, and the Canadian Liberal Party accepted U.S. nuclear weapons in the early 1960s.

Nevertheless, if one focuses on representative politics, Norway's base and nuclear policy were designed to ensure domestic political acceptance.⁸⁷ The socialist Labour Party was a politically dominant force over the conservatives (the Høyre Party) and centrists (the Center, Liberal, and Christian Democratic Party).⁸⁸ The majority of Labour Party supporters were the urban working class and trade unionists,⁸⁹ and they were strongly anti-nuclear. The conservative government in the 1980s showed higher nuclear receptivity than the progressives,⁹⁰ but even the conservatives could not change the country's nuclear policy.⁹¹

⁸⁷ Berdal, *The United States, Norway and the Cold War, 1954–60*, 8.

⁸⁸ See the general discussion of Norway's party politics, Blitzinger, *Denmark, Norway, and NATO*.

⁸⁹ Blitzinger, *Denmark, Norway, and NATO*, 10.

⁹⁰ For instance, in 1984, Oslo allowed the operation of A-6s out of Bodø in Northern Norway in Exercise TEAMWORK in the electronic-warfare role. Previously, the aircraft had to be operated only out of Ørland in central Norway. Since then, the A-6 became a regular participant in NATO exercises in Norway. Børresen, "Alliance Naval Strategies and Norway in the Final Years of the Cold War," 104; NATO's Atlantic Command began the TEAMWORK exercise series in the 1960s, and the exercise included naval forces from the United States, the United Kingdom, Canada, Germany, the Netherlands, and Norway. Archer and Sogner, *Norway, European Integration and Atlantic Security*, 103; The reader should not associate the general term, "progressiveness," describing characteristics in left-leaning social policies with Norway's Progress Party (*Fremskrittspartiet*), which represented the extreme right of the political spectrum.

⁹¹ For example, in November 1983, conservative Prime Minister Kåre Isaachsen Willoch demanded that F-111Ds, NATO's intermediate-range nuclear aircraft, be removed from the reinforcement list in Norway. Børresen, "Alliance Naval Strategies and Norway in the Final Years of the Cold War," 103–4; the tiny pacifist and anti-nuclear wings of the coalition parties, such as the Center and the Christian Democratic Party, supported nuclear freeze or no-first-use policy.

Therefore, one fundamental question remains: What made most of the Norwegian population decisively anti-nuclear, as compared to other countries? While the unique historical experience of Norwegians could be one answer, this paper argues that Norway's geostrategic position provides another answer. Domestic politics plays out in the context of international politics, and, therefore, one should contextualize a country's domestic political decision-making within the international political environment. Norway's geographical insularity and the presence of other allies that willingly took a nuclear role eased the country's nuclear pressure and burden. Both Norwegian leaders and public did not consider the presence of U.S. nuclear weapons necessary for national security; rather, it would increase the risk of Norway being entrapped into unwanted strategic conflict. In contrast, the necessity of hosting U.S. nuclear weapons on its soil was easily shared among the South Koreans for their geostrategic position, albeit under the authoritarian regime.

The geo-consciousness of states is usually embedded in the mind of agency, and, in future research, effective research methods and approaches should be adopted to strengthen the causality of a state's geostrategic position and its policy decision-making. For example, the Norwegian sentiment of its northern territories and physical relations with its Arctic neighbors may clarify some causal mechanisms that this research was unable to provide.

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