



The Worst Laid Plans of Mice and Men

NATO and the Treaty on the Prohibition of Nuclear Weapons

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Abstract

After the Cold War ended, the process of nuclear disarmament began to stagnate and in recent years there are signs of backsliding. Efforts to revive the disarmament regime over decades culminated with the drafting and ratification of the UN Treaty on the Prohibition of Nuclear Weapons in 2017 and 2021 respectively, much to the dismay of nuclear weapons states. The U.S., Britain, and France have declared their dismissal of the treaty while subscribing to the disarmament regime as established by the Non-proliferation Treaty of 1970.

The Western nuclear powers typically channel their opposition through NATO, and this thesis will first look at NATO's legal arguments and as the strategy of nuclear deterrence which is fundamental to their defensive strategy. I will then investigate NATO discourse as it pertains to nuclear weapon strategy as a constituent of its subjectivity and intentionality. In other words, what it is like to "be" NATO, and in so doing understand why it acts in opposition to a goal it already pursues.

This is relevant to IR in that it explores an alternative manner in which to understand social structures while adhering to research designs typically ascribes to the "lower" unit of analysis of individuals.

Key words: NATO, nuclear disarmament, nuclear weapons, Treaty on the Prohibition of Nuclear Weapons, quantum social science

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It was luck that prevented nuclear war. We came that close to nuclear war. Rational individuals. Kennedy was rational. Khrushchev was rational. Castro was rational. Rational individuals came that close to the total destruction of our society. And that danger exists today. [...] Rationality will not save us.

— Secretary of Defense Robert S. McNamara (2003)

Problems that remain persistently insoluble should always be suspected as questions asked in the wrong way.

— Alan Watts

1. Introduction

In 1968 the *Treaty on the Non-Proliferation of Nuclear Weapons* (NPT) was signed with the intent to control and restrain the proliferation of nuclear weapons to *non-nuclear weapon states* (NNWS) at that point in time. The treaty is one of the most important international instruments concerning nuclear weapons control, framework for free nuclear trade, and transfer of peaceful nuclear technology. But along with being a milestone of the non-proliferation regime the NPT also places obligations on NWS to pursue nuclear disarmament.

Disarmament efforts stagnated after the Cold War, and a growing frustration among states, international organizations, and private groups culminated in the adoption of the *Treaty on the Prohibition of Nuclear Weapons* (TPNW) in 2017 which entered into force on 22 January 2021. Nuclear weapon states (NWS) and NATO member-states boycotted the negotiations (with the exception of the Netherlands, who was the only state to vote against adopting the TPNW) and have since made a routine of announcing their strong opposition to the treaty.

The aim of the TPNW is “to delegitimize nuclear weapons by challenging and transforming the established nuclear discourse” (Ritchie & Egeland, 2017, p. 129). The central mechanism of this logic is that of *stigmatization* and *delegitimization*, and rests on the ability for it to shape geopolitical institutions and structures by reconstructing the *meaning* of the nuclear weapon (Considine, 2019, p. 1079). By the logic of prohibition, the weapons themselves are the problem, and the solution focuses on the problematic nature of nuclear armaments.

The role NATO plays as a hostile mouthpiece for NWS introduces the dilemma of the Alliance’s posturing on nuclear weapons: namely, while they are resolved to create the conditions for a world without nuclear weapons, NATO customarily declares itself as a “nuclear alliance”, institutionalized strategic nuclear deterrence as the primary guarantor of Alliance security, and pursues an aggressive policy of forward deployed nuclear weapons in Europe. This thesis’ research problem deals with uncovering *why NATO strongly opposes the TPNW while explicitly committed to the disarmament regime related to the NPT*.

The goal of this thesis is to scrutinize NATO’s formal arguments, nuclear deterrence, and discourse to address the inconsistencies of NATO policy. Alexander Wendt’s (2015) quantum framework of consciousness will establish the ontological foundation for the assertion of belief and intentionality as physical phenomena and how these can be understood with a suitable methodology. Wendt’s framework will also help situate the individual as the unit of analysis but inseparable from social structures due to quantum macro-phenomenon such as social entanglement and non-local causation. By employing this framework, I justify my choice of

discourse analysis as this paper's primary method of analysis and establish the boundaries of what kind of knowledge can be produced, and how to understand the implications of results.

This paper is structured to first provide historical context; secondly, address NATO's formal arguments for opposition toward the TPNW; then addressing conceptual weaknesses of nuclear deterrence. Tannenwald's nuclear taboo and nuclear exceptionalism will be discussed as alternatives to the historical narrative of the nuclear status quo favoring deterrence; and its constructivist premises will be discussed further. This will then give license to my methodology and framework for the analysis.

2. Literature review

2.1. NATO and the NPT

NATO's *2010 Strategic Concepts* — the current official document that outlines the Alliance's "enduring purpose and nature, and fundamental security tasks" (NATO, 2021) — defines its three core tasks of collective defense, crisis management, and cooperative security. On collective defense, the Strategic Concept states:

"Deterrence, based on an appropriate mix of nuclear and conventional capabilities, remains a core element of our overall strategy. The circumstances in which any use of nuclear weapons might have to be contemplated are extremely remote. As long as nuclear weapons exist, NATO will remain a nuclear alliance" (NATO, 2010, art. 18).

This was the first instance, 20 years after the end of the Cold War, that NATO explicitly described itself as a nuclear alliance. On the commitment to disarmament the Strategic Concepts state:

"We are resolved to seek a safer world for all and to create the conditions for a world without nuclear weapons in accordance with the goals of the [NPT], in a way that promotes international stability, and is based on the principle of undiminished security for all [...] With the changes in the security environment since the end of the Cold War, we have dramatically reduced the number of nuclear weapons stationed in Europe and our reliance on nuclear weapons in NATO strategy. We will seek to create the conditions for further reductions in the future" (NATO, 2010, art. 26).

NATO consistently reaffirms its commitment to the NPT and all its provisions — emphasizing Article VI — in "a step-by-step and verifiable way that promotes international stability, and is

based on the principle of undiminished security for all” (NATO, 2016, art. 64). In the Warsaw Summit Communiqué (WSC), while remaining committed to contribute to creating conditions for further reductions, Allies “regret that the conditions for achieving disarmament are not favorable today” (NATO, 2016, art. 65) regularly citing North Korea’s nuclear weapons programme, and Russia’s modernization of its nuclear armament technology as tell-tale signs of suboptimal security conditions.

The Cold War left remnants of an instilled faith in the efficacy of deterrence posturing and an infrastructure of forward-placed U.S. nuclear weapons in Europe under the NATO policy of *nuclear sharing* (Egeland, 2020, p. 144). These were intended to promote solidarity by sharing the nuclear burden under the auspices of an Alliance-wide process of decision making. It is worth noting that such policy has been subject to controversy from organizations — such as the Non-Aligned Movement — that consider NATO’s nuclear sharing policy in violation of Articles I and II of the NPT which prohibit the transfer and acceptance of direct or indirect control over nuclear weapons (BITS, 1997; Oxford Research Group, 2005). The U.S. defends the policy insisting that the control of the weapons rests with them and “unless and until a decision were made to go to war, at which the NPT would no longer be controlling” (Donnelly, 2009). Nassauer (2011) points out that disengagement from the debate over violations does not instill confidence in NATO’s or U.S. commitment to the NPT regime and while the U.S. may not be legally culpable, training exercises conducted by staff and equipment of NATO host-members suggest that it is best served to avoid ambiguity of compliance with the NPT.

2.2. TPNW & the disarmament regime

On 20 September 2017, NATO responded to the approval of the TPNW in its *North Atlantic Statement on the [TPNW]* (NATO, 2017) by stressing Allies’ commitments to the NPT; the TPNW’s conflicting nature with international security environment; as well as the risk it poses to undermine the NPT:

“The ban treaty, in our view, disregards the realities of the increasingly challenging international security environment [...] The fundamental purpose of NATO’s nuclear capability is to preserve peace, prevent coercion, and deter aggression” (NATO, 2017).

The 2020 NAC reiterated NATO’s opposition to the TPNW emphasizing the challenging international security climate and the threat it presents to the “existing non-proliferation and disarmament architecture” (NATO, 2020). Hill (2021, pp. 3-4) suggest that the harsh oppositional tone of the NAC statements is a sign of the magnitude of concern with the

collective will represented by the TPNW felt by the Alliance; the skewed interests of the international community indicates a dissatisfaction with the status quo of the nuclear order. Afina & Caughley (2020) note that while the accepted principle is that international treaties become binding on third states as *customary rules*, there are practices that keep such obligations at bay. One such is the concept of the “persistent objector”. States that have routinely objected to the emergence of a rule will not be bound by it. The NAC’s function as formal objections to this effect. Afina & Caughly (2020) argue that given the nature of objections by Allies, it is unlikely that NATO will change its positions on the TPNW anytime soon, and such intense focus on opposing the TPNW may undermine the Alliance’s commitment to global nuclear disarmament, and such may further disturb some NATO-members’ own interests and ambitions for disarmament.

The criticism of the TPNW refer to the following (Hurley, 2019):

- NATO member-states find that the TPNW conflicts with their NATO obligations.
- The TPNW is not verifiable, which means that it cannot provide the security assurances that are required to achieve a world free of nuclear weapons.
- The TPNW sets up a competing regime to the NPT and disarmament efforts will suffer.

Egeland et al. (2018) and other TPNW-supporting states make the argument that legal provisions of the treaty do not undermine the NPT, and rather interprets it as complementary to the existing norm of disarmament. Critics of the treaty argue that the TPNW would weaken the norms and encourage states to surrender the obligations of the NPT and latch on to the new treaty as it does not require NPT membership as a condition (Mount & Nephew, 2017). This argument is made tenuous by TPNW Article 18, which reads:

The implementation of this Treaty shall not prejudice obligations undertaken by States Parties with regard to existing international agreements, to which they are party, where those obligations are consistent with the Treaty. (UN, 2017, art. 7.1)

The key words are the last eight. As pointed out by Dunworth (2018, p. 3) negotiators of the TPNW made special note of making sure that the two treaties were compatible, and in practice, the inconsistencies are difficult to make out. Article 18 does not prevent a state from complying with any other treaty — including bilateral ones — which the state was party to before the TPNW. The essence of Article 18 is that TPNW-parties cannot use membership to other treaties as cause for not complying with the obligations of the treaty (Casey-Maslen, 2018, p. 4). The

TPNW also has stricter safeguards than the NPT, where Article 3 mandates that state parties maintain IAEA safeguard obligations and — for state signatories — sustain adherence to the Additional Protocol. Indeed the TPNW sets a higher standard for safeguards than the NPT (Giorgou, 2018; Egeland, Nystuen, & Graff Hugo, 2018). Hill (2021, p. 16) asserts that arguing for that the TPNW “weakens” the NPT or side-lines the IAEA verification regime is not satisfactory and indicates political motivations other than legal ones.

The TPNW offers two approaches for disarmament verification. The first one applies to NWS declaring prior to ratifying the TPNW and such would be obliged to cooperate with a competent international authority; an approach that was employed by South Africa in 1993 when its government announce that its nuclear stockpiles had been dismantled before joining the NPT (Elbahtimy & Eldridge, 2017). The second approach applies to NWS opting to join the TPNW while still in possession of nuclear weapons. These would be obliged to follow three steps: i) “immediately remove” and decommissioning its weapons “from operational status”; ii) “destroy” their weapons “as soon as possible but not later than a deadline to be determined by the first meeting of States Parties”; iii) disband and disable their nuclear weapons programme including the “elimination or irreversible conversion of all nuclear-weapons-related facilities” (UN, 2017, art. 4.2). The second and third steps should be done in accordance with “a legally binding, time-bound plan” including verification provisions (UN, 2017, art. 4.2).

Hill (2021, pp. 13-4) further argues that allegations that the state of international security is not sufficient to pursue a disarmament program is not convincing either. NATO’s conclusion that “conditions for achieving disarmament are not favorable today” (NATO, 2017) — statements single out North Korea, Russia, China as destabilizing actors — seems to be based on the belief that strides made toward nuclear disarmament and security conditions are intrinsically interconnected (Hill, 2021, p. 13). The argument by supporters of the TPNW do not argue to put unfair pressure on NATO states to disarm and not recognize the threat posed by North Korea and Russia, but rather suggest that the two tracks of non-proliferation and disarmament can move in parallel (Hill, 2021, p. 14); i.e. that optimal security conditions is not a prerequisite of effective disarmament. The process of disarmament can itself generate a more secure state of affairs.

All the objections addressed thus far indicate that the real source of contention between critics and supporters of the TPNW comes down to fundamental differences over the legitimacy and acceptability of nuclear weapons. This paper argues that none of the reasons presented by NATO critics are sufficient, and that the essence of their arguments can be reduced to that of

sustaining the nuclear status quo: that nuclear weapons are integrated in security thought as deterrents to ensure peace and stability. This paper will progress with discussions of key concepts to the debate: that of deterrence, nuclear exceptionalism & legitimacy, and the nuclear taboo.

2.3. Deterrence

Nuclear deterrence is a core concept which has dominated IR for much of the 20th century and continues to maintain its relevance onward in the 21st. The concept itself — direct and extended — is observed in texts as far back as Thucydides account of the warring city-states of ancient Greece (Lebow, 2007). In his seminal work *The Absolute Weapon*, Bernard Brodie laid the foundations for the strategy employed in the nuclear age that shaped how strategy was to be thought about in times of relative peace:

“Thus far the chief purpose of our military establishment has been to win wars. From now on its chief purpose must be to avert them. It can have almost no other useful purpose.” (Brodie, 1946, p. 67)

Thomas Schelling offered that strategy had become more about coercion, intimidation, and deterrence: “... deterrence is about intentions — not just estimating enemy intentions but influencing them. The hardest part is communicating our own intentions” (Schelling, 1966, p. 35). Talk of victory in the age of nuclear weapons was sparse, if not non-existent. Schelling also presented paradoxes of deterrence. First, with threat of punishment if another party misbehaves, it does not make a critical difference how much the reciprocal cost is to the source of the threat if the one who threatens can make the threatened believe the threat. The other is that it does not always help to be, or to be believed to be, fully rational, and in control of oneself or one’s country (Schelling, 1966, pp. 36-7). This is the problem of *credibility* and *rationality*, which is at the very heart of deterrence theory. A theoretical exposition will however be needed before the importance of these concepts — and subsequent dissemination — can be developed and their relevance to this paper demonstrated.

Deterrence theory (DT) — also called *rational deterrence theory* — is described as composed of three requisites for a state to have to influence an aggressive party to comply with its wishes: The state needs to convince the other that i) it has an effective military capability; ii) it could impose costs unacceptable to the attacker; and iii) that the threat is plausible enough to be carried out if attacked. The key elements of the theory include: the assumption of a very severe conflict, the assumption of morality, the concept of a retaliatory threat, the concept of unacceptable damage, the notion of credibility, and the notion of deterrence stability (Morgan,

2003, p. 8). The logic of the theory rests on the relative gains of war and submission: perfectly informed states will never fight, yet the defender might fail to deter an aggressor from disturbing the status quo if they cannot credibly threaten war.

After the end of the Cold War, some believed nuclear deterrence to be irrelevant in a unipolar world and interests shifted to areas of democratic peace, globalization, and international terrorism (Krauthammer, 2002). Others claimed that the explicit or implicit threats as attempts to convince other parties to maintain the status quo is a phenomenon not limited to a specific time or place (Zagare, 2006). Frank Zagare (1996) argues that much of deterrence can be categorized as a single theory: *classical deterrence theory* (CDT). He divides CDT into two sub-groups: *structural deterrence theory* and *decision-theoretic deterrence theory*.

Structural DT closely resembles arguments of the realist school: power brings peace, and if two states are equal in power then neither will have the advantage hence effectual deterrence. In this way nuclear deterrence is stable, as — given second-strike capability — the enormous costs of nuclear war make use of the weapons irrational. Inadvertent factors are therefore the sole threat to deterrence. Decision-theoretic DT uses game theory and expected utility models to construct deterrence scenarios. They share with structural DT the idea that nuclear war is irrational and is the worst possible outcome of the “game”. Here the model of deterrence encounters a dilemma, which Kilgour & Zagare (2004, pp. 37-8) refer to as the “*paradox of mutual deterrence*”; something which Van Gelder (1989, p. 159) called one of two “credibility dilemmas” which threatens the foundations of nuclear deterrence as a rational strategy.

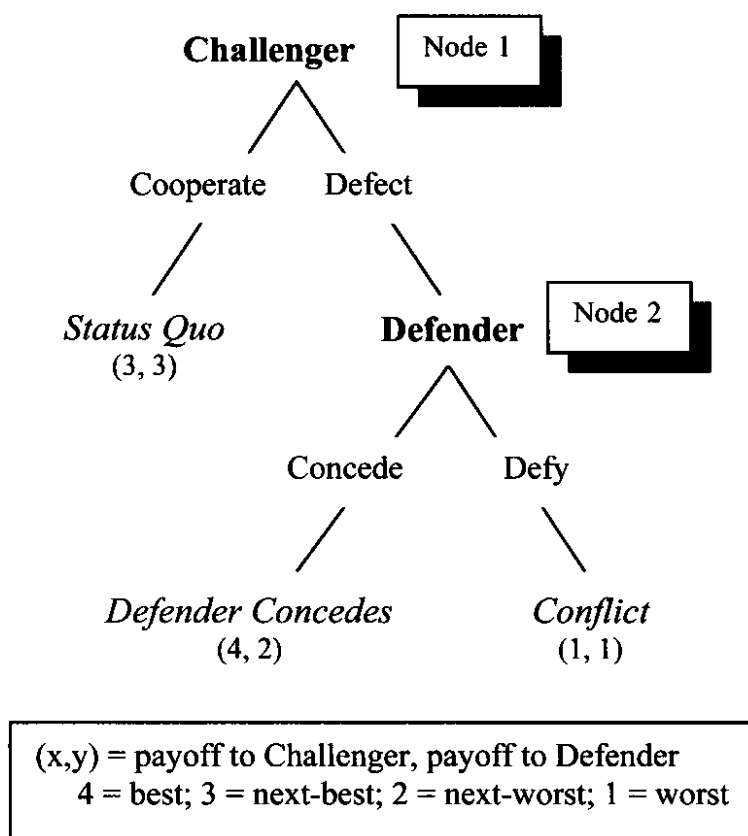


Figure 1 - Deterrence game illustrating the “paradox of mutual deterrence” (Quackenbush 2011, p. 7)

As shown in Figure 1, the *Challenger* either cooperates to maintain the status quo, or defects and attacks the *Defender*; both agree that *Conflict*, or nuclear war, is the worst possible outcome. If attacked, the *Defender* will either concede or defy, but faced with the fact that concessions will always be more favorable to defiance, and the *Challenger* knows this, then the *Challenger* will always attack, and deterrence will always fail. The first way to go about solving this paradox is for the *Defender* to make an unwavering commitment to an aggressive tit-for-tat approach: always choosing to defy (Kahn, 1962). The *Challenger's* options are relegated to preserving the status quo or starting a conflict. However, the only rational choice is for the *Defender* to concede, making the pursued strategy inherently irrational. The second way proffered by classical deterrence theorists is to leave threats to *chance* (Schelling, 1981). The *Defender* eludes irrational choice by making threats consisting of taking action that “raises the risk that the situation will go out of control and escalate to a catastrophic nuclear exchange” (Powell, 1990, p. 90). The “rational” choice to raise the risk of war and allow the matter of whether war ensues or not to be subject to change leads — according to Powell (1990, p. 203) — not only to successful deterrence, but also perfect equilibrium in game logic.

The notion of leaving the possibility of nuclear war up to chance is not an appealing one. Kigour and Zagare (2004, pp. 67-8) offer an alternative to CDT called *perfect deterrence theory* (PDT). Specifically, they disagree with the framing of credibility: threats are believable, hence credible, when they are rational to execute. Where CDT assumes that the high costs of nuclear war make conflict the worst possible result for everyone, PDT is rooted in the assumption that different states have different preferences; some prefer backing down to conflict, others prefer to fight — only the latter possess credibility in their threats (Quackenbush, 2011, p. 10).

Where there is a lack of information on the combative or yielding preference of a state, the opponent's situation is difficult. States seldom know the preferences of their opponents and the realities of assessing an opponent's credibility are complicated by a state's incentive to distort privileged information, though, even then, there is no guarantee that conflict will not ensue where there is “perfect” information (Fearon, 1995). States have the incentive to claim that they prefer to fight rather than concede regardless of the preference between the two. Even so, assessments of the balance of power put more stock in the preference between conflict and the status quo of states rather than between conflict and conceding (Morgan, 2003, p. 111). The resulting discrepancy between actual and estimated credibility leads to Morgan's assessment — referring to historical case analyses — that deterrence has been given “too much credit and neglects the impacts of inducements to avoid conflict and war that have proliferated in the international system” (2003, p. 144). Much scholarship has presented evidence to claim that governments, elites, and leaders are often unphased by general deterrence, and are more engaged in fantasy and motivated biases or immersed in ideological preoccupations or domestic politics to be dissuaded (Morgan, 2003, p. 115)

Morgan (2003) proposes that the Cold War system was not the balance-of-power system many purport it to be, but rather a *deterrence-dominated system* in which war had ceased to be normal behavior between great powers, and a kind of “prestige-based” deterrence took hold. Nuclear weapons awarded the powers that possessed them a “seat at the table” to have a say on the security management of the international system (Morgan, 2003, p. 88). This kind of “general” deterrence — as opposed to “immediate deterrence”, that is linked to specific military capabilities and threats built on them, general deterrence is an “outgrowth of an overall military posture and the broad image it conveys” (Morgan, 2003, p. 81) — can be *inadvertently systemic* in nature or deliberate.

Deliberate systemic deterrence is a variant of extended deterrence linked to the complicated particularities of deterrence practiced by a collective actor. NATO is a culmination of a particular form of deliberate systemic deterrence referred to as a *great-power concert*. Great

powers “shrink” the necessity for general deterrence by reducing rivalries through cooperative regional security initiatives. Morgan (2003, p. 115) emphasizes that while multilateralism is preferable to unilateralism, the capriciousness of decision-makers continue to make general deterrence a frequently unreliable strategy. Yet, failures do not often lead to punishment, which implies that “the further from an immediate deterrence situation policy-makers find themselves, the less values they should place on deterrence alone” (Morgan 2003, p. 115). Strategies imbued in international security management are maintained by powerful states with the capabilities to shape and preserve — whether by deliberate or inadvertent design — the discourse of the international system.

Deterrence theory assumes that the opponent is a state, rational, and mutually vulnerable (Brunk, 1987, pp. 229-31). As a theory, opponents claim, it has never actually been tested: it is not certain if or not the Soviet Union was deterred by the USA during the Cold War (Segal, 1988, p. 21). Even if it was successful, it was such in a time and place situated within different historical and political contexts, people and circumstances. The centerpiece of deterrence theory, rationality, is not a reliable criterion given, for example, rogue states that do not conform to standard deterrence praxis as governed by NWS, but rather ideology.

Theories by proponents of nuclear weapons and nuclear deterrence as having warded off World War III have never been able to prove a causation between the existence of nuclear weapons and the absence of direct conflict between nations: such theories as the nuclear peace hypothesis (Rauchhaus, 2009) and the stability–instability paradox do not exclude direct conflict by human error or devastating proxy wars. Indeed, alternatives such as the declining economic rationality of war in which humanity has moved beyond war as war no longer pays are alternative belligerents of peace (Mueller, 1988). In such a world nuclear deterrence would be utterly irrelevant, even dangerous given possibilities of miscalculation, fortuity, or senselessness. In a world without incentives for large-scale wars, nuclear weapons — of which the justification for possession is to instill restraint against warmongering — no longer serve any rational purpose (Colby, 2012, pp. 50-1).

2.4. Nuclear taboo

Tannenwald (2008; 2018) provides a constructivist-based analysis of the causes of the non-use of nuclear weapons in what she calls the *nuclear taboo*, or the normative belief about the behavior of non-first use of nuclear weapons. She claims that the essential distinction between a taboo as a special kind of norm, and a conventional one — “a shared expectation of behavior, a standard of right or wrong” (Tannenwald, 2008, p. 10) — is that a taboo hinges on socially

constructed notions of danger and ritualized avoidance as well as institutional mechanisms that situated the danger and regulates behavior accordingly. A distinction is to be made in terms of limits to acceptable deployment of nuclear weapons: non-taboo norms would judge violations in terms of severity (e.g., 100 bombs used rather than 10), but in the case of a taboo even if one bomb were to be used in active conflict the world would be irreversibly altered (Tannenwald, 2008, p. 11). However, nuclear prohibition is not characterized by objective characteristics of a taboo, namely it is not legalized, and it does not prohibit the general acquisition of taboo objects: NNWS are prohibited from acquiring the taboo objects, yet NWS are still allowed, under the NPT, to possess their existing stockpile of nuclear weapons pending disarmament (Tannenwald, 2008, p. 12). Still nuclear prohibition is a taboo in the sense of its “inter-subjective, phenomenological aspect”, namely that it is one because “people believe it to be such” (Tannenwald, 2008, p. 12).

The taboo displays a regulative effect meaning, in constructivist terms, in that practices set the parameters within which identities and interests are formulated (Ainley & Brown, 2003, p. 49). Tannenwald states that the stigmatization of the use of nuclear weapons is one reason for which nuclear exceptionalism has been reinforced, consequently legitimizing continued possession by practices of nuclear deterrence as a method of achieving international stability (2018, p. 15-6). While Tannenwald does not deny the validity of the logic of *mutually assured destruction* (MAD) she notes that the historical record has not been consistent with predictions of stability.

If it exists, the taboo is an important source of nuclear restraint, and its cultivation has been successful in stigmatizing nuclear weapons as unacceptable *weapons of mass destruction* (WMD) and making it impossible to confuse them with other weapons. Tannenwald claims that this shift in discourse is the most important legacy of anti-nuclear weapons protest movements (2018, p. 16). The taboo delegitimizes and undermines the credibility of deterrent threats between NWS and also against NNWS. Hence, non-use of nuclear weapons is not attributable to deterrence, but rather the existence of a taboo against their use. The “dual-meaning” of the bomb as both an “awesome and awful temptation” is made clear by the deliberations of leaders of states that have considered acquiring the weapons (Tannenwald, 2008, pp. 10-12). Indeed, within about 50 years the discourse of policymakers and leaders changed from hasty incitements to use nuclear weapons, to a downright dismissal of nuclear weapons and the accompanying mediums of deployment — ballistic and cruise missiles, etc. (Mehan, Nathanson, & Skelly, 1990, pp. 158-160).

It is of interest to point out that other weapons often categorized within the WMD set — chemical, biological, and radiological — have not successfully been linked to the same interpretive status of nuclear weapons. While this linkage could serve to justify the possession of chemical weapons as a deterrent, the linkage to nuclear weapons has not legitimized the use of chemical weapons (Tannenwald & Price, 1996, p. 11). In a July 1988 statement defending the use of chemical weapons in Kuwait, Iraqi foreign minister Tariq Aziz argued: “There are different views on this matter from different angles. You are living on a civilized continent. You are living on a peaceful continent” (Associated Press, 1988). The industrialized world employed the category of WMD to prevent proliferation of advanced weapons systems in the rest of the world. By appropriating the discourse of chemical weapons as WMD, the Arab world made the duplicity of the industrialized nations’ non-proliferation project discernable: “If the rest of the world is not allowed to acquire nuclear or chemical deterrents, then why are the Western powers permitted to retain their WMD’s as legitimate tools of diplomacy?” (Price, 1995, p. 99).

2.5. Nuclear exceptionalism & legitimacy

The predominant understanding that nuclear weapons are uniquely served to ensure state security is what scholars call *nuclear exceptionalism*: a decoupling of the use of conventional weapons from the use of atomic weaponry, and a notion that the realm of the nuclear is fundamentally different from all things essentially non-nuclear (Hecht, 2006, p. 321), Tannenwald also makes the claim that the stigmatization of using nuclear weapons is one way about reinforcing their exceptionalism, thereby legitimizing continued possession by deterrence understood as an effective and stabilizing practice (2018, p. 25).

Nuclear weapons are understood as quintessential political tools of states, while, paradoxically, their maintenance and development stand apart from, and often in tension with, political values — principles of oversight, accountability, and transparency — and political processes; e.g. the case of Israel as discussed by Cohen & Graham Jr. (2004, pp. 42-3). Stigma and value can apparently coexist, and nuclear weapons can be both assurances for state security while being inhumane and illegitimate weapons at the same time.

De Santana & Biswas (2009; 2014) have discussed the social relations within the nuclear regime which produce nuclear weapons as “fetish objects” and as currency in terms of international value and power made material. In the process of *nuclear fetishization* the physical form and presence of the nuclear weapon itself becomes imbued with an inherent value that is separate from the social conditions and context it inhabits.

The French philosopher Bruno Latour's work (1986) on normative networks of inferential relations interdependent on material objects and procedure, further develops De Santana & Biswas' notion of the feedback loop between social conception and material objects. Latour goes further in rejecting the gap between mind and world; subject and object. In Latour's conception, disciplines — such as science — is the practice of creating statements that are steadily more difficult to dispute. These statements must fit within existing institutional structures: its practices and standards, but also interpersonal networks of individuals (e.g. scientists). These types of sociological influences and habitual practices bolster statements and make them difficult to criticize. The stabilization of statements also includes the role of non-human actors, in terms of being bound up with instruments of science, results from field studies, products from laboratory experiments, etc. Any statement is therefore drawn from a substantial network of instruments and experimental results. Essentially, it is about the transmutation of matter into form, then inferring conclusions from such forms (Latour, 2000).

Applied to the thesis' subject matter, NATO discourse on nuclear weapons, deterrence, and other key words; the maintenance of the weapons themselves; the practices of NATO policymakers, member-state politicians, think-tanks, weapons scientist and technicians, etc. all contribute to a rigorous and self-maintained superstructure of consensual understanding of the strategic importance of nuclear weapons for international security. To understand the process of which the mind imbues matter with form and institutionalizes such knowledge, one must address key fundamental philosophical issues of mind and matter. The next section introduces Alexander Wendt's argument and framework for an alternative social ontology founded on quantum physics to understand how "belief" and intentionality — as the impetus of any individual's conscious initiative — can be claimed to physically exist, known, and measured. In order to address my research question, I frame NATO within Wendt's framework to understand if and how its intentions can be understood, thereby establishing its present incongruity with the TPNW disarmament regime.

3. Methodology

3.1. Ontology: Quantum theory of consciousness

Before the methodology is set forth, a discussion about the ontological basis of the following analysis is needed. Within the social sciences the de facto ontology is dualism. Yet, on either side of the existential fence, positivists and interpretivists alike routinely reference intentional phenomena within the framework of social thought. They also, at least implicitly, accept the

fact that no aspect of social reality, or physical reality at large, can disobey the fundamental laws of physics. In the classical physics of matter and energy, the fundamental stuff of reality behaves like colliding atomistic matter where causation is essentially “local”. Since the 20th century it has been known that classical physics breaks down at the sub-atomic level, and physics must conform to the counterintuitive principles of quantum theory. It is generally thought that quantum phenomenon “wash-out”, or decohere, at the macro level but findings of quantum phenomenon in biology (Ball, 2015; Brookes, 2017; Al Khalili & Lilliu, 2020) and quantum consciousness theory (Hameroff & Penrose, 2014) suggest that organisms can sustain quantum coherence and as such allows us to address the explanatory gap of substance dualism.

Intentional phenomena — which are grounded in the fact that states of the mind such as beliefs, meanings, and desires are “‘about’ or directed toward things beyond themselves, whether real objects in the world, fictional objects in one’s own mind, or the minds of other people” (Wendt, 2015, p. 19) — presume consciousness. Where there is no consciousness there is no intentionality, and so by attributing intentionality to human beings, social scientists are also attributing to them consciousness. But consciousness — as an “experiential aspect of mind” (Chalmers, 1997, p. 197) — cannot exist while traditional duality of materialism resides as it is, because it cannot be said to exist on the material plane, leading to the mind–body problem. A transition to the quantum mechanical provides an alternative toward reconciling the social reality of intention and agency with objective reality. Materialists have assumed that the relevant physics is classical because the brain is a macroscopic material object. On the other side of the field, interpretivists take the consciousness of social scientists as a given, but they too cannot explain it. An ontology that accommodates subjectivity within a naturalistic worldview is one deserving of skepticism but also one worth consideration.

How anything material can be assigned consciousness is a persistent thorn in the social science’s side where analysis presupposes human experience and intention (such as in collective actors like the *state*). If consciousness exists — as it must to sustain meanings of ideas such as “society” — then ideas exist, since without ideas there would be no meaning to interpretation and no social structures to scrutinize. Wendt (2015, p. 6) contends that the fundamental philosophical controversies in social science are “local manifestations” of the mind–body problem. Materialists needing to reduce social life to material conditions can be appeased by the way in which we interpret *physicality*; the classical variant being that everything can be reduced to mindless matter and energy in space.

The theory of quantum consciousness bases itself on quantum brain theory: that known effects at the sub-atomic level scale upward to the macroscopic level of the brain — the

possibility of a brain being able to sustain “coherent” quantum phenomena is theoretically viable given the growing literature within quantum biology (Cao, et al., 2020). If such effects are taken to be true — a big “if” — then the scaling downward of consciousness as reflected in observable effect at a macro-level effectively imbues matter with *mind*; a view called *panpsychism*. Although an object of dispute in Western philosophy, panpsychism provides a clear space for the mind — therefore intention and agency — and allows for it to exist *physically*. Types of quantum phenomena include *non-local causation* — quantum systems can only be defined in relation to a larger whole and exist in states of entanglement: the process by which subatomic particles become interconnected in order to form an inseparable quantum system in space and time — and *wave-function collapse* — contrasted with fixed preferences or mental states of actors in that these states exist in superposition, or a wave function of potential state, that are only observable when incited by interaction (Wendt, 2015, pp. 32-3).

The relevance of this theory to this paper is that it bolsters the argument that social structures are not actual realities existing in abstract space, but are *potential realities* produced by “non-local shared wave functions” sustained by the practice of speech-acts (Wendt, 2015, p. 33). The holism and non-locality of quantum theory refutes the instinct that individualism thereby is exonerated. Individuals exhibit wave-function properties, as do societies. Collective units, like the state or international organizations, are understood as “holographic organisms endowed with collective consciousness” (Wendt, 2015, p. 228).

Quantum potentiality of quantum systems (i.e. human beings and social structures) shape reality through, and by the constraints of, “the most fundamental institution of human society”: language (Wendt, 2015, p. 210). The exercise of language instils, what Wendt calls, *social entanglement* and it is by means of language that humans create and actualize the “holographic structures” that exist by virtue of our collective understanding. Such linguistic structures shape actors’ capacities to act and/or to speak. Therefore, agency is realized in constrained environments in which rules and norms play an essential role in directing individual perceptions and behaviors.

Wendt’s ontological model challenges derivative models like deterrence theory. The pivotal concepts of “rationality” and “credibility” lose much of their instrumental utility and serve more as an indication of conceptual frameworks sustained by their ambiguity, or perhaps as norms in their own right in that they are required for consistent logical thinking, yet do not exist beyond the material world.

3.1.1. Discourse as an institutional fact

In Wendt's (2015, p. 217) argument, language involves speech-acts — meaning a kind of measurement that fits words into appropriate contexts — and these collapse into actual meaning from a range of potential meanings, emphasizing how language is comprised of and governed by norms from which communities seldom deviate. The implication of this is that language is understood as less of a cognitive process and more as an institutional fact (Harder, 2003, p. 56).

In language, speech-acts bring on the collapse of a concept from the range of potential meanings to an actual one, which can be interpreted as a kind of measurement that introduces context, in terms of other words and listeners (Schneider 2005, p.388–9). While the intention of the communicator results in a certain wave-function structure, it is the listener that is equally involved in producing meaning by associations of words that may not align with that of the speaker. Incorporation of the physicality of the phenomenon of language within the framework of panpsychism entails that wave function collapse creates consciousness, and that the production of linguistic meaning is conscious — “willful” — as it requires a consistent reiteration of collapsing potential meanings of concepts into actual ones. Meaning is produced by the translation of quantum level states into macrolevel phenomena, or decoherence (Wendt, 2015, p. 217). Linguistic meaning implies consciousness, and it is in the experience of language that meaning is manifested (Wendt, 2015, p. 221). The non-locality of wave functions — where consciousness originates — allow the physical grounding for the assertion that through the experience of language we gain access to the minds and intentions of others.

3.1.2. Physicality of “holographic” social organizations

In quantum terms, social structures are wave functions “shared non-locally across time and space” (Wendt, 2015, p. 268) by masses of people, but they are only potential, not actual, realities. In practice they are local phenomena which realize themselves as people collapse its wave function through practices such as voting, administration, meetings, going to war, etc. before it becomes potential once more. Quantum agents are equipped with “superposed minds entangled through language” (Wendt, 2015, p. 268) meaning that socially shared wave functions inhabit their subjectivities. Participation in discourse means that, e.g., members of a state and the state are not formally separated. Yet, “active” and “passive” engagements — where we are either thinking about potentials of a particular wave function and collapsing it, or doing something else, respectively — is a necessary differentiation given the limitations on the number of social engagements that people can “actively” participate in; i.e. one can be in

“passive” mode at any moment. For example, most French, Canadians, or Americans were not actually at war with Iraq in the Gulf War, yet France, Canada, and the U.S. were nevertheless understood to be in a state of war. People of a certain role in those countries arrived and waged war but never were all French people waging war, rather “the war was fought by those who actually lived it, not by the rest of us” (Wendt, 2015, p. 270).

For most of us, we can provide limited context within social macro-structures to “dominant” agents with impact on institutional decision-making. Hence, the predisposition, intent, and preferences of decision-makers are crucial in determining which policies are pursued. Also, a leader’s choice to collapse state potentiality into an actual choice, everyone involved with the state and beyond are non-locally affected.

The use of a “holographic” conceptualization of any social institution is to substantiate the relationship between structure and constituent in that, like a hologram, the information that creates the whole is encoded in each pixel rather than exhibiting the structure of an image in a 1:1 correspondence (Wendt, 2015, p. 272). By way of that analogy, individuals are imbued with the state, but the state is not constituted of them; i.e. — the whole is present in the parts, not made up of them.

The concept of state-centricity is inculcated in the IR discipline. Yet, it is the individual that sustains the practice of these social structures essentially “willing” them into being if the overall substance of the institution is understood and habitually encoded as holographic information (Wendt, 2015, p. 272); e.g., by the rites and rituals of the rule of law by police, courts, and penal systems. Utterances such as “you are under arrest” or “NATO has always been a nuclear alliance,” by authority figures exhibits an entanglement with both society and history — or intent to instill history synthetically as in the case with the latter phrase. The statement is not theirs alone but a shared quantum space that characterizes what “arrest”, or “nuclear disarmament”, or “nuclear alliance” means. Socially shared intentional objects are real — “holographic” — and the diffusion of the “virtual objects” situated in spaces between individuals exist only in the case where people are conscious of them existing (Wendt, 2015, p. 268). The existence of these makes communication possible by a shared referent — existing beyond the communicants’ semantic entanglement — which is the recipient of speech-acts (Wendt, 2015, p. 239).

3.2. Epistemology

As described above, in quantum physics a complete conception of reality is beyond rational thought, and we can at best describe behavior as systems and realms of probability. Physics is

inherently paradoxical, comprised of facts and opposing ones at the same time (Herbert, 1987). As Wheeler (1982, p. 102) writes:

“Nature at the quantum level is not a machine that goes its inexorable way. Instead, what answer we get depends on the question we put, the experiment we arrange, the registering device we choose. We are inescapably involved in bringing about that which appears to be happening.”

In the quantum case, wave functions evolve deterministically, meaning that as long as no measurement is made the probabilities of a particle hitting a detector over time can be predicted with certainty. What is not determinable is where the hits will occur, i.e. the process by which waves “change” into particles (Wendt, 2015, p. 47). Prior to measurement there is no definite reality behind the wave function; the observer and the subject form a single system — they participate in what is being observed, and the observations cannot assume, even in principle, the classical conception of separateness. As Wendt puts it: “Some kind of reality is out there which gives answers to our questions, but the answers are not out there until we ask them” (Wendt, 2015, p. 47). This does not mean that social science cannot produce knowledge or that it is entirely subjective. Rather, it is probabilistic. The project of understanding the social world is still possible regardless of the social scientist’s inability to eliminate their own errors, not due to complexity but since that is where agency resides (Wendt, 2015, p. 287).

Giddens (1984) writes that the structural attributes of social systems are both outcome and medium of processes which create those systems. The understanding of the world as one created and not discovered is not a new one, but the integration of quantum mechanics is not something that has generally been theoretically linked or explicitly recognized. In striving for better ways to understand the social systems acknowledging the motivations behind a choice of methodology, the implications of this choice, the limitations to understanding given such a choice, and the impact of alternative methods on results, are worth consideration.

3.3. Theory

A discourse analysis “fully captures the qualitative range of what can be said and how it is said in one or more discursive strands” (Jäger & Maier, 2009, p. 67). Discourse can be defined as “an institutional way of talking that regulates and reinforces action and thereby exerts power” (Jäger & Maier, 2009, p. 58), discourse strands are “concrete utterances or performances” (Jäger & Maier, 2009, p. 60) present in a text or “discourse fragment”; fragment being the preferred unit as texts may touch on multiple topics rather than isolated segments belonging to a particular strand. Though, as Michel Foucault (1980, p. 194) claimed, discourse, text, and

speech is not what drives the social world, but from individual and mass consciousness, and this consciousness determines action; thus, discourses determine action. The individual remains the unit of analysis — imbued with the data of “holographic” social structures mentioned above — as a thinking, constructive, planning social being and facing the problem of orienting and asserting their place in society interacting and thereby transforming and co-producing concepts of discourse. The mechanics of discourse is not in single texts but in the performance of constant repetition of statements and actions.

Discourse has a life of its own and no individual has full control over how it evolves or its result, thereby it transfers more knowledge than individuals are equipped to process. Hence, the reasons intended by the source of a communicative medium, and the consequences of initiating such speech-action may differ. Discourses alone, however, are not the sole communicators of knowledge. Non-discursive (action) and materializations (that which is created through non-discursive practices) exist as equal elements within the network that Foucault called “dispositives”: a constantly evolving synthesis of knowledge that is built into language, action, and materializations. Where Foucault (2002, p. 52) assumes coexistence between discourse and objects, the empirical relationship between these was difficult to indicate. In the quantum framework explored above, the bridge between “symbolic” reality and physical reality can be developed as collective action.

Human beings assign meaning to objects and, in so doing, objects are assigned “objecthood”. An object not endowed with this quality is not an object. It is invisible and uncategorized. Rather, as expressed by Laclau (1980, p. 87), the “discursive” is not just text, but the “ensemble of the phenomena in and through which social production of meaning takes place, an ensemble which constitutes a society as such” and all social practice is considered such only in that it produces meaning. Leontjev (Jäger & Maier, 2009, p. 55) with his action theory, proposed that an object is assigned meaning through work: human consciousness and physical action shape reality, and consciousness is discursive; composed of knowledge. Knowledge in non-discursive terms entails knowledge about material, routines, practices; all that which constitutes the performance of work (Jäger & Maier, 2009). Such knowledge is “tacit”, or is rarely, if ever, expressed. If all is considered, reality can be said not to be meaningful unless recognized as such by people who are inextricably entangled by discourses, and objects change commensurably with recalibrations, or even loss, of meaning.

3.4. Research method

This paper will not fully commit to dispositive analysis as the non-discursive exercises pertinent to the case of NATO nuclear discourse can only be referenced — attending NPG summits, NPT conferences, various committees; process of maintaining, developing, calibrating, and modernizing nuclear weapon stockpiles and delivery systems; NATO nuclear military exercises, etc. The “materialization” of nuclear weapons as objects with reflexive meanings of political prestige, power, or illegitimate weapons of mass destruction was only implicitly addressed in referencing Morgan (2003), Tannenwald (2008; 2018), Hecht (2006), de Santana & Biswas (2009; 2014), and in general by Latour (1986). The analysis’ main focus will be on discourse.

The analysis will examine discourse fragments of NATO official texts ranging from 2010–June 2021 selected from an archive of 760 NATO official texts, documents, speeches, and reports spanning from 1941 to June 2021 (NATO, n.d.); see data distribution in Figure 2 below. 2010 was selected as a parameter limit as the NPT Review Conference was held in which a world free of nuclear weapons was articulated as a goal for nuclear disarmament for the first time (UN, 2010). The data is approached as not being representative of consensus, or lack thereof, among NATO states concerning policies or institutional realities but as the process over time of subjective units expressing projections and estimates within a certain temporal context. As such there are limitations at interpreting data across too large a timeframe given the myriad variable contributing to discourse instability and the risk of assigning temporal coherence and ageless sentience to the data of which, within the framework of subjectivity, there is none.

Building on the logic of discourse as exercise in sustained statements over time, keyword frequencies were modelled within the temporal scope of the database. Keywords were selected by word frequency analysis of the entire database and the documents within the parameter of interest, and the significance of these alongside trends and fluctuating frequencies was estimated by assessing documents with highest word frequency of specific keywords.

Central relevant keywords were “nuclear”, “deterrence”, “disarmament”, and “proliferation”. Considering these sets a “first-tier” conceptual context for the analysis. Figures 3–6 illustrate this landscape and upward trends since 1941 as well as within the 2010–2021 parameter. The varying distribution of documents per year is worthy of consideration as any significant deviation would skew data and diminish credibility prior to further analysis. I will make reservations as for the significance of trends of the entire database — though no

conclusions are drawn in reference to trends of the entire dataset — but not of significance within the 2010–2021 window as document distribution is sufficiently level.

“Second-tier” data segmentation was that of assessing the security aspect of NATO discourse in which the keywords “security”, “cooperation/cohesion/collective”, “threat/crisis” (the latter two combined as sets given their equivalent meanings), and given that these had largely correlated in peaks and troughs, were used in combination with common antagonists in the NATO narrative: Russia/Soviet, terrorism, China, Iran, and North Korea/DPRK; see figures 7–10. Within the scope of 2010–2021 the security narrative has remained on average level, as generally was the case with the common threats. At face value this might indicate that while security and the agents of threat remain at a constant discursive frequency, the language of the nuclear security subsector varies independently. Such inference is tenuous but suggestive; in any case the quantitative phase of this analysis is to narrow down the focus rather than determine anything substantive.

The “third-tier” analysis homes in on keywords employed more frequently since 2010. The keywords “resilience” and “nuclear alliance” have been employed more readily than in years preceding 2010; see figures 11–12. These keywords are meaningful in that “resilience” is implicated within the discursive domain of institutional reinforcement, and the use of “nuclear alliance” as a synthetic fundamental attribute consistent with historical narratives, which indicates a process of meaningful reassessment of how NATO communicators understand their nuclear defense policies in line with the present nuclear protest regime. In the following analysis, documents relevant to both keywords are examined.

3.5. Data

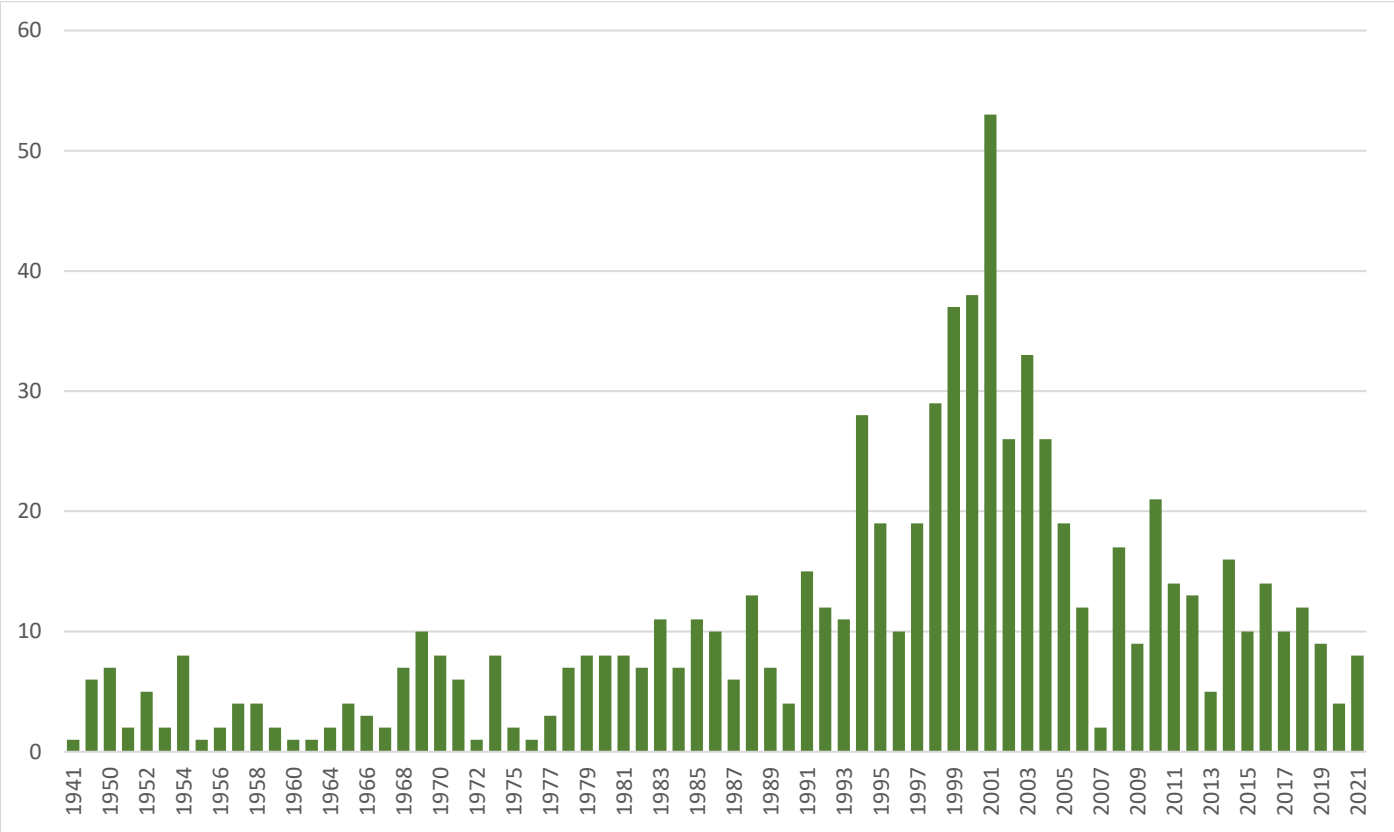


Figure 2 - NATO official document distribution

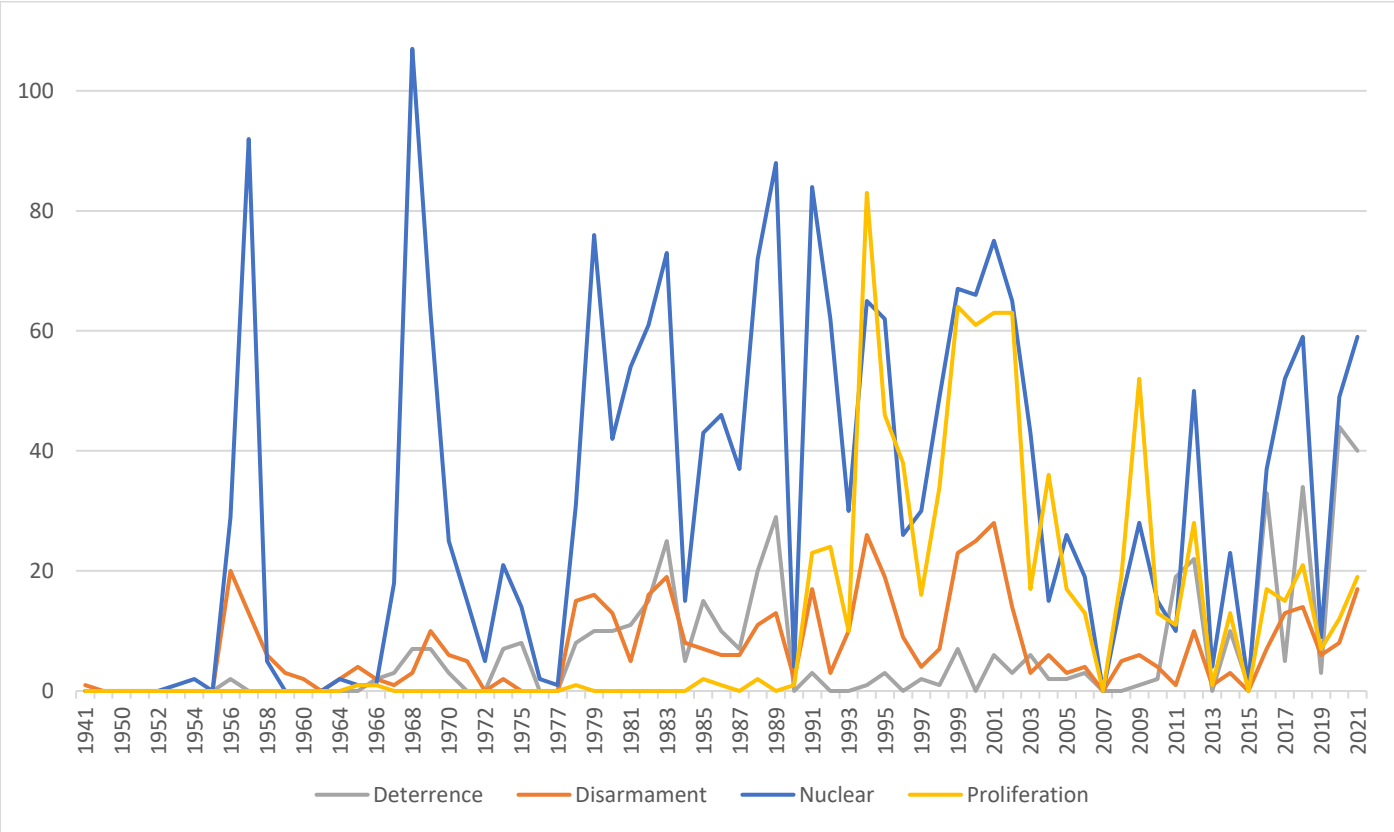


Figure 3 - Key word frequency (1941–2021)

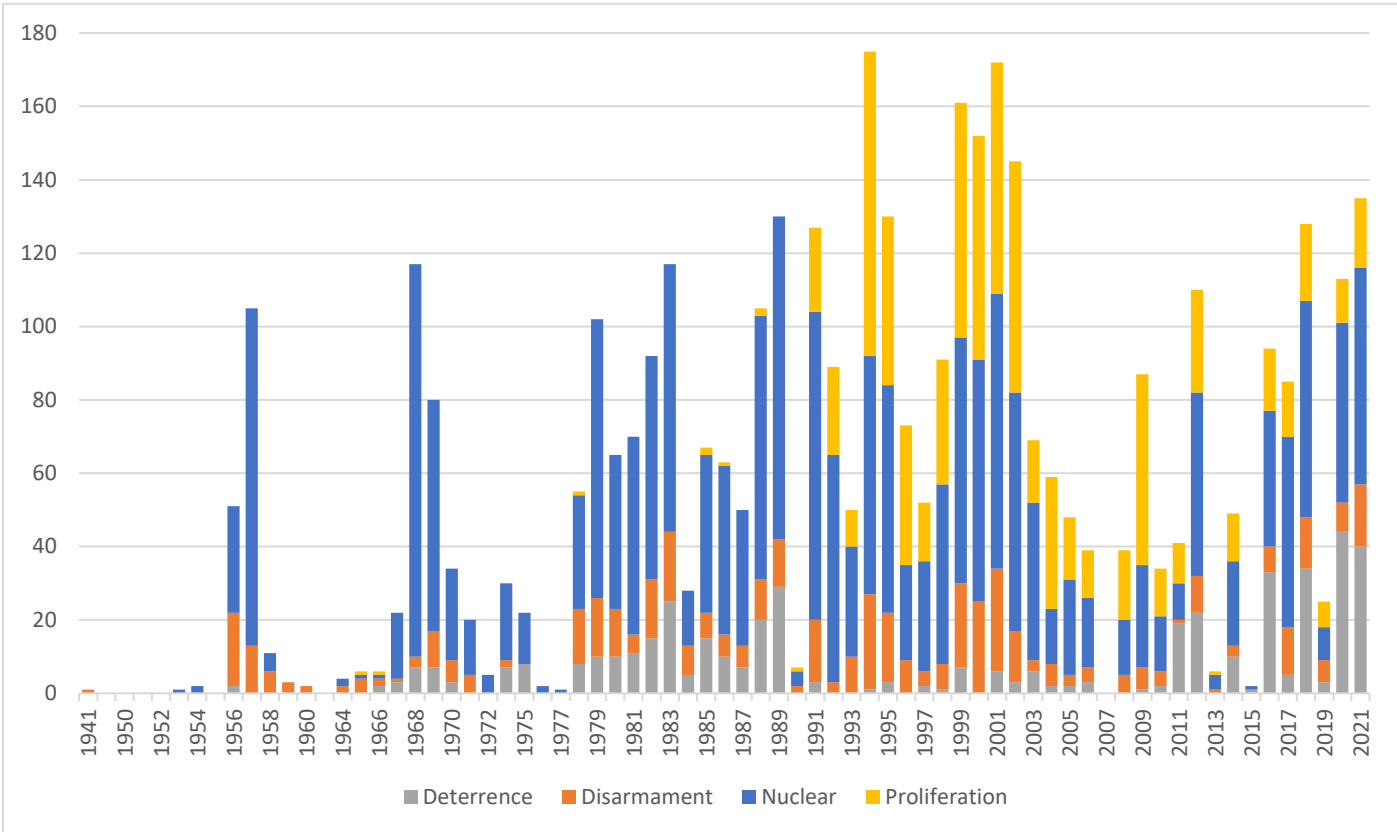


Figure 4 - Key word frequency (1941–2021)

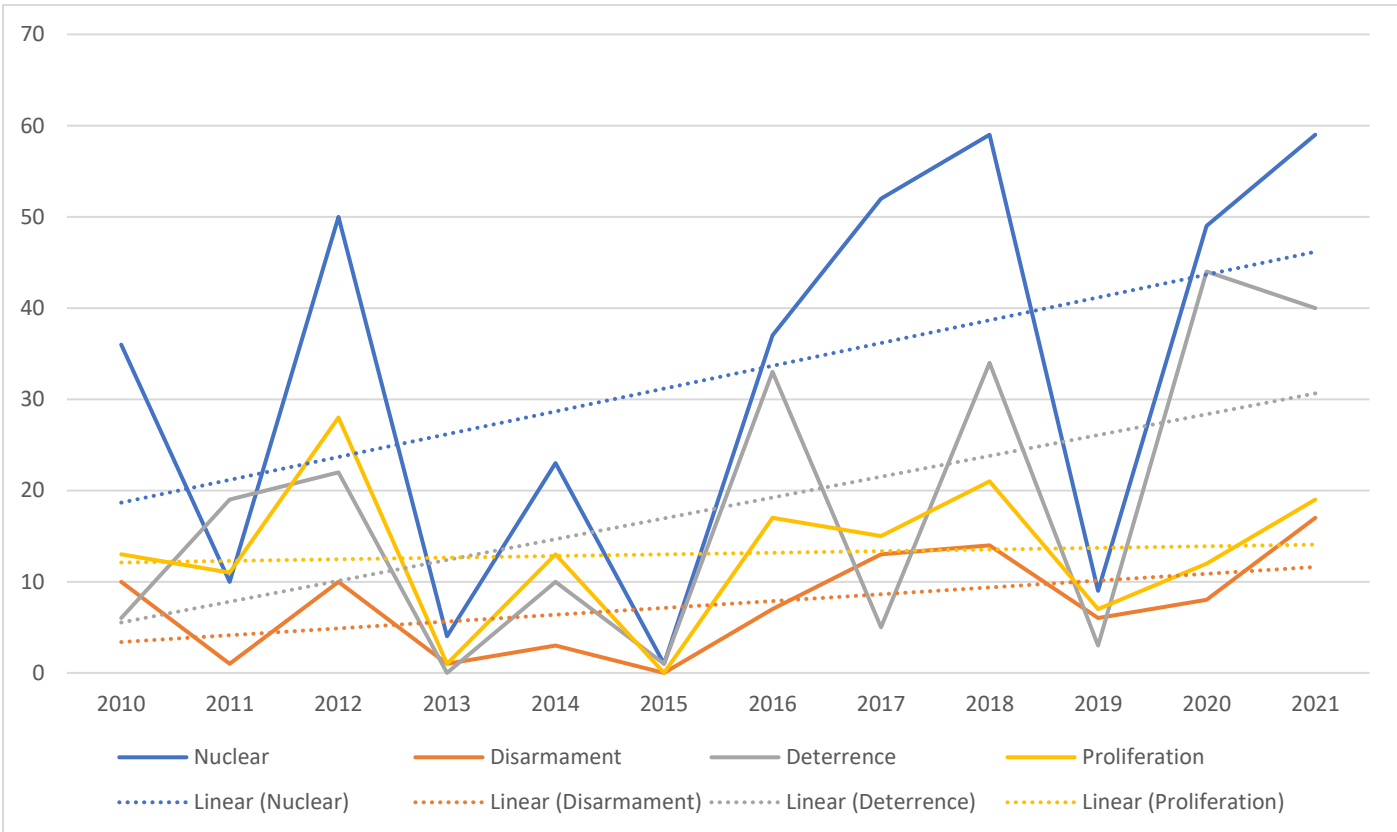


Figure 5 - Key word distribution (2010–2021) with trend lines

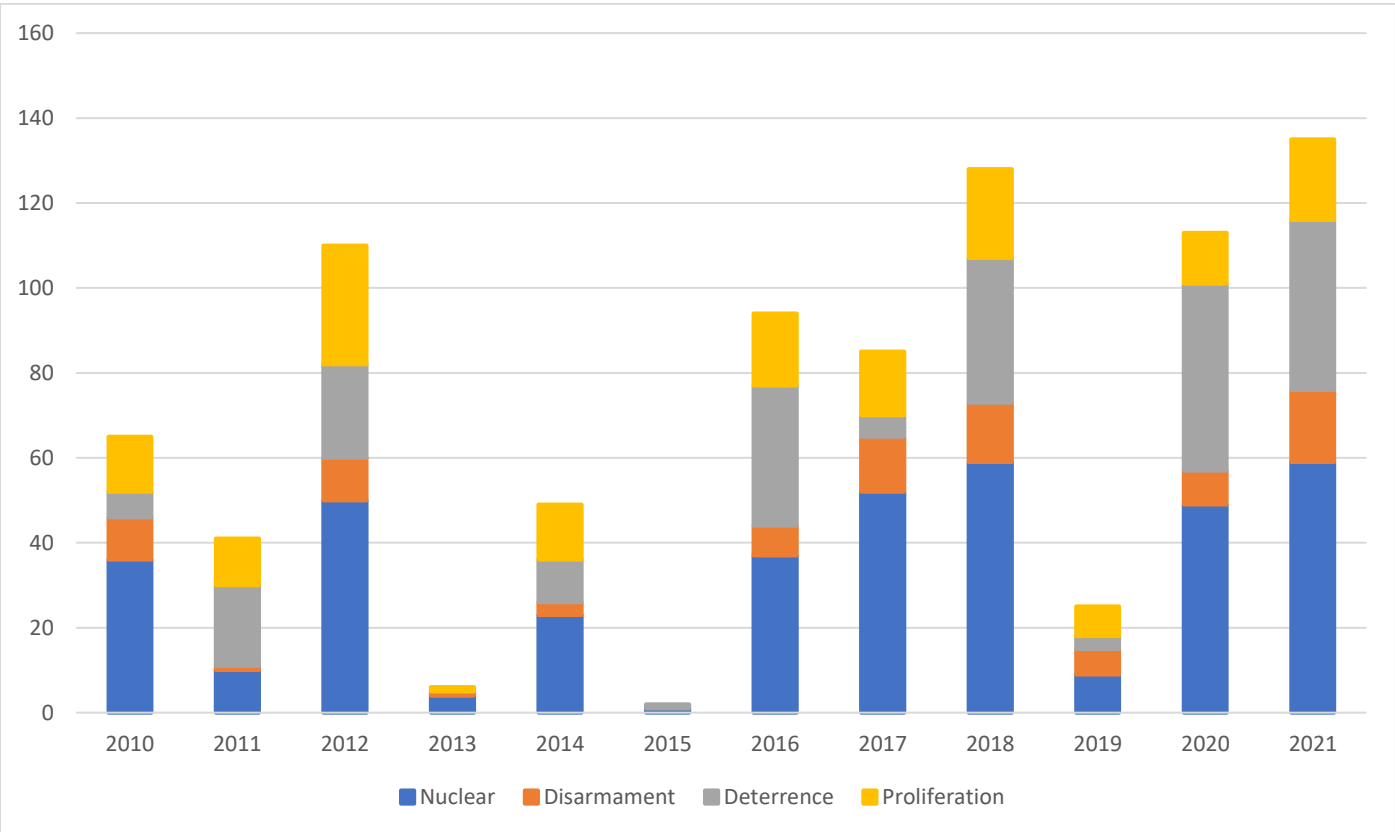


Figure 6 - Key word distribution (2010–2021)

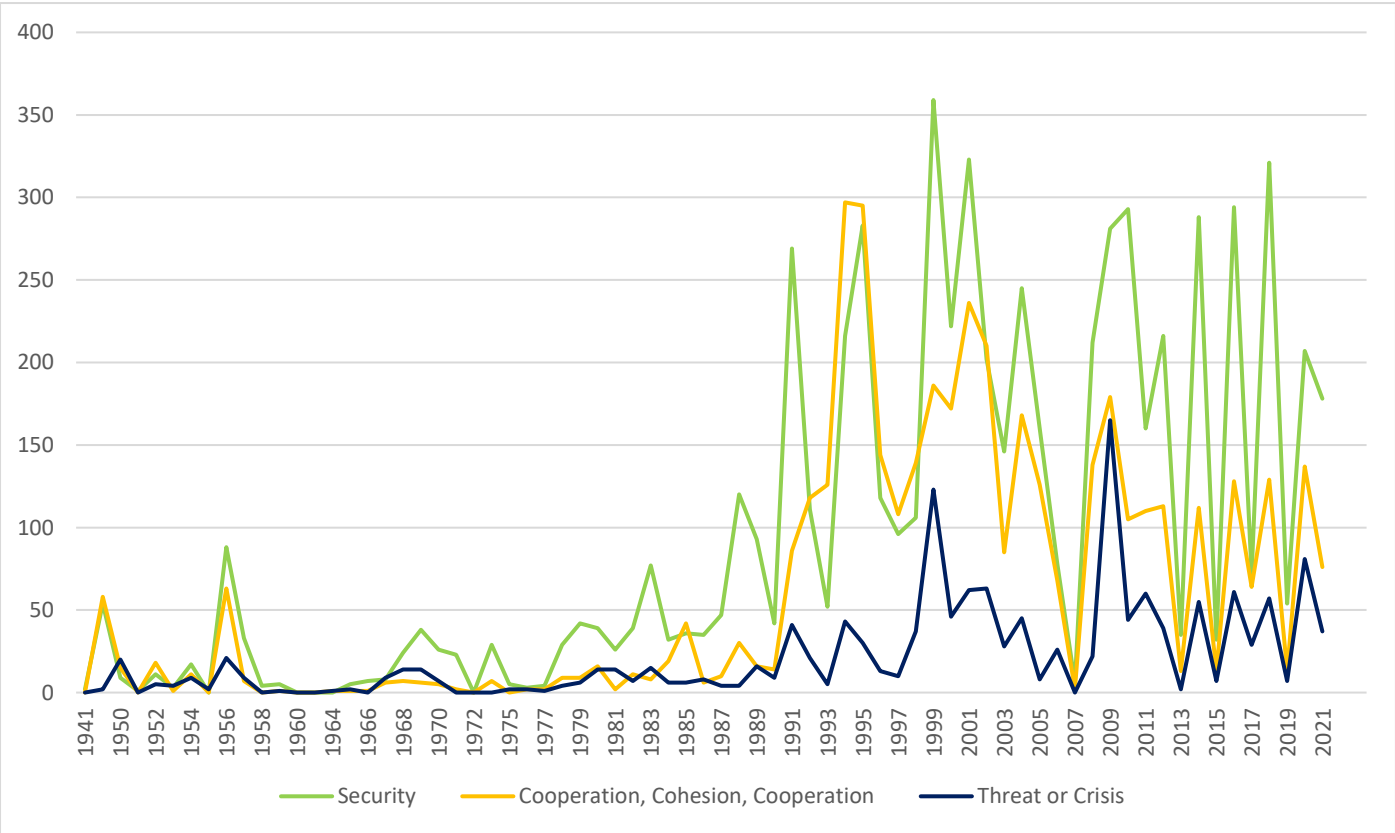


Figure 7 - Key word frequency (1941–2021)

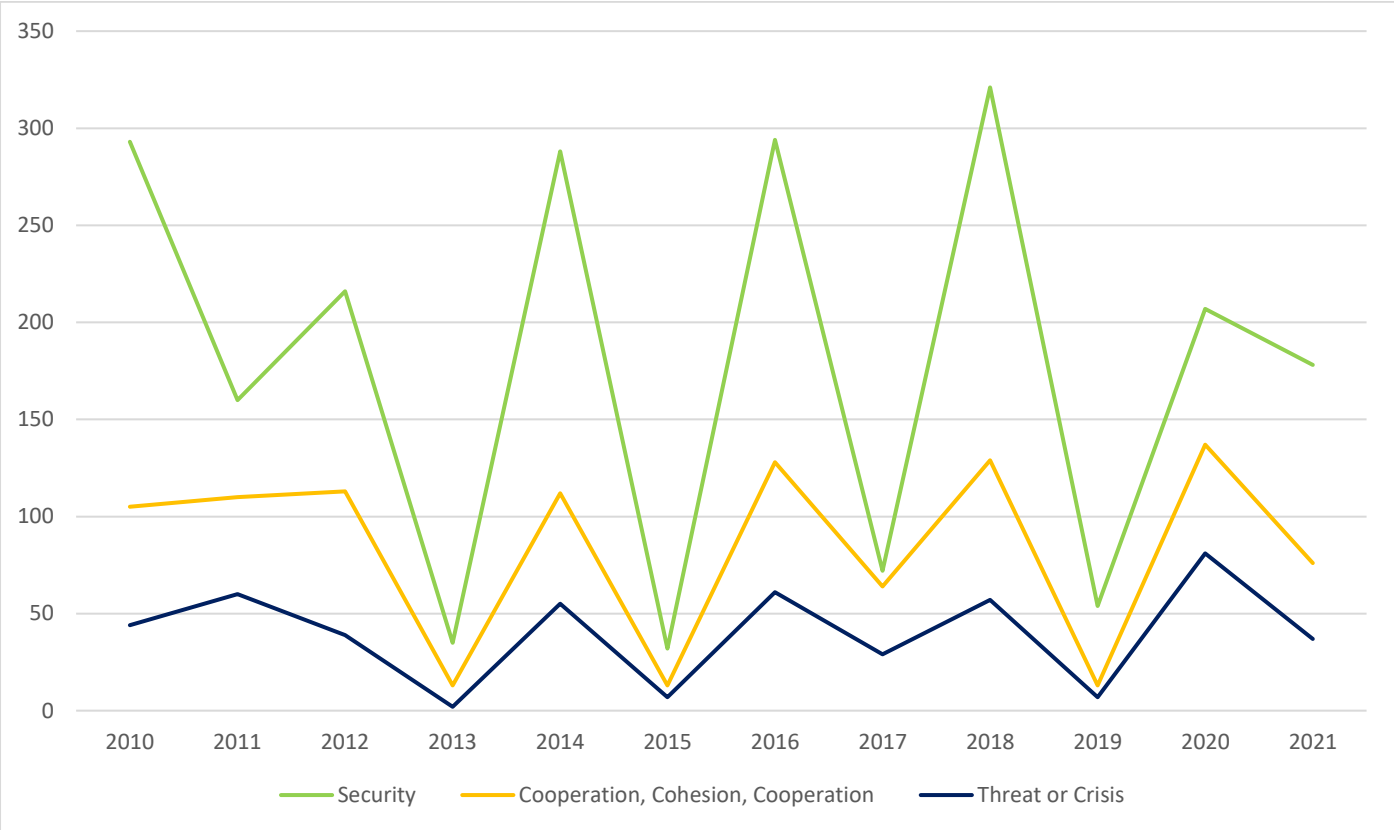


Figure 8 - Key word distribution (2010–2021)

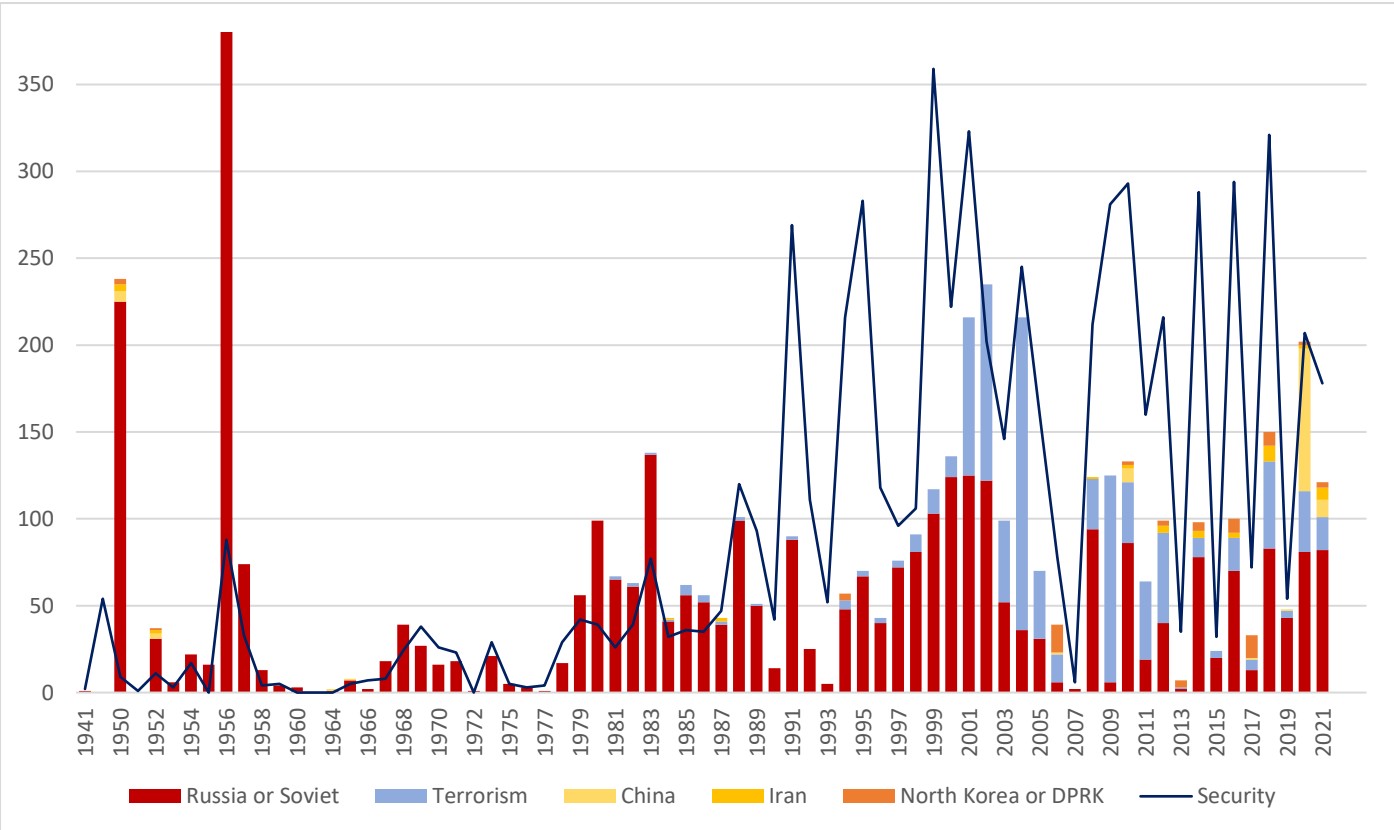


Figure 9 - Keyword frequency: NATO security, terrorism & states (1941–2021)

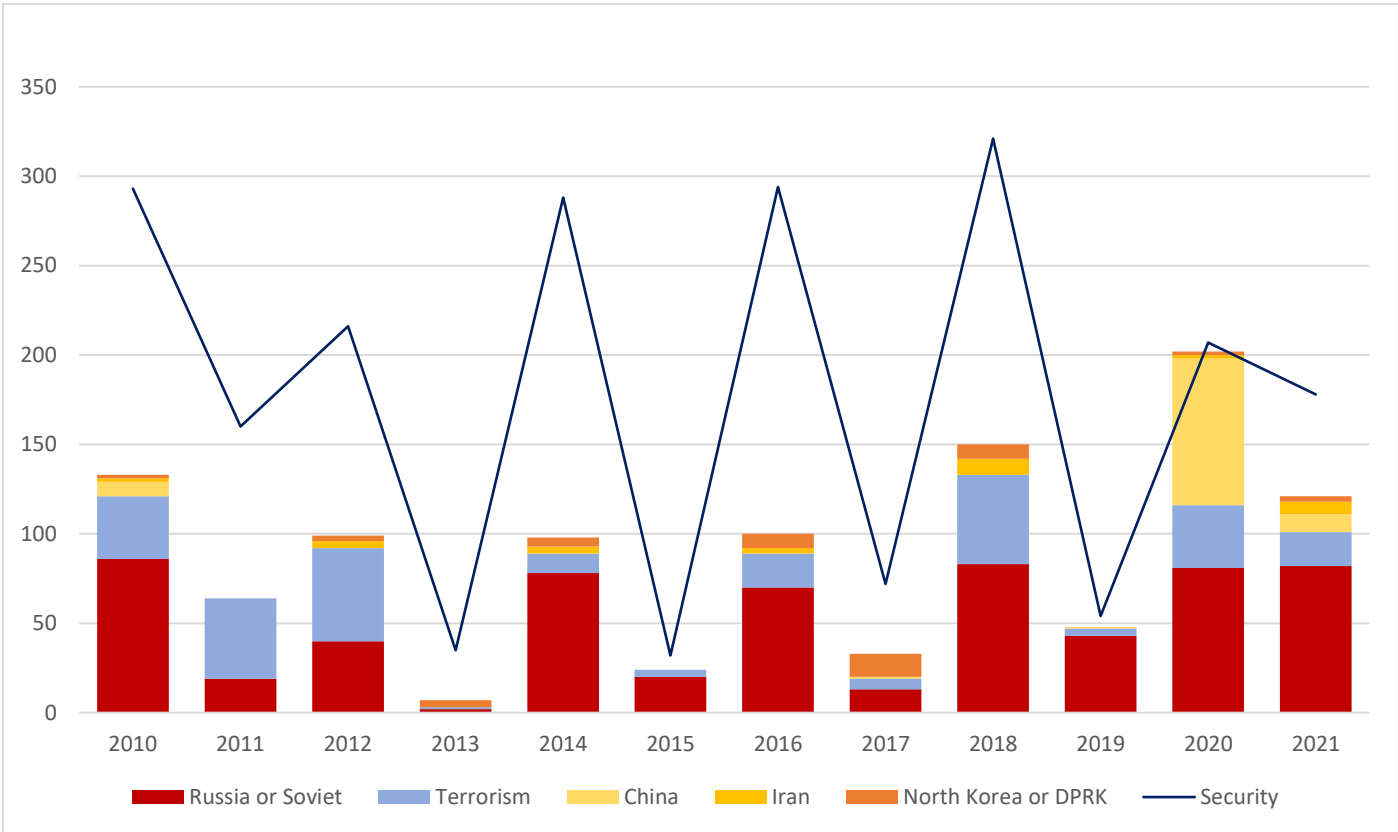


Figure 10 - Keyword frequency: NATO security, terrorism & states (2010–2021)

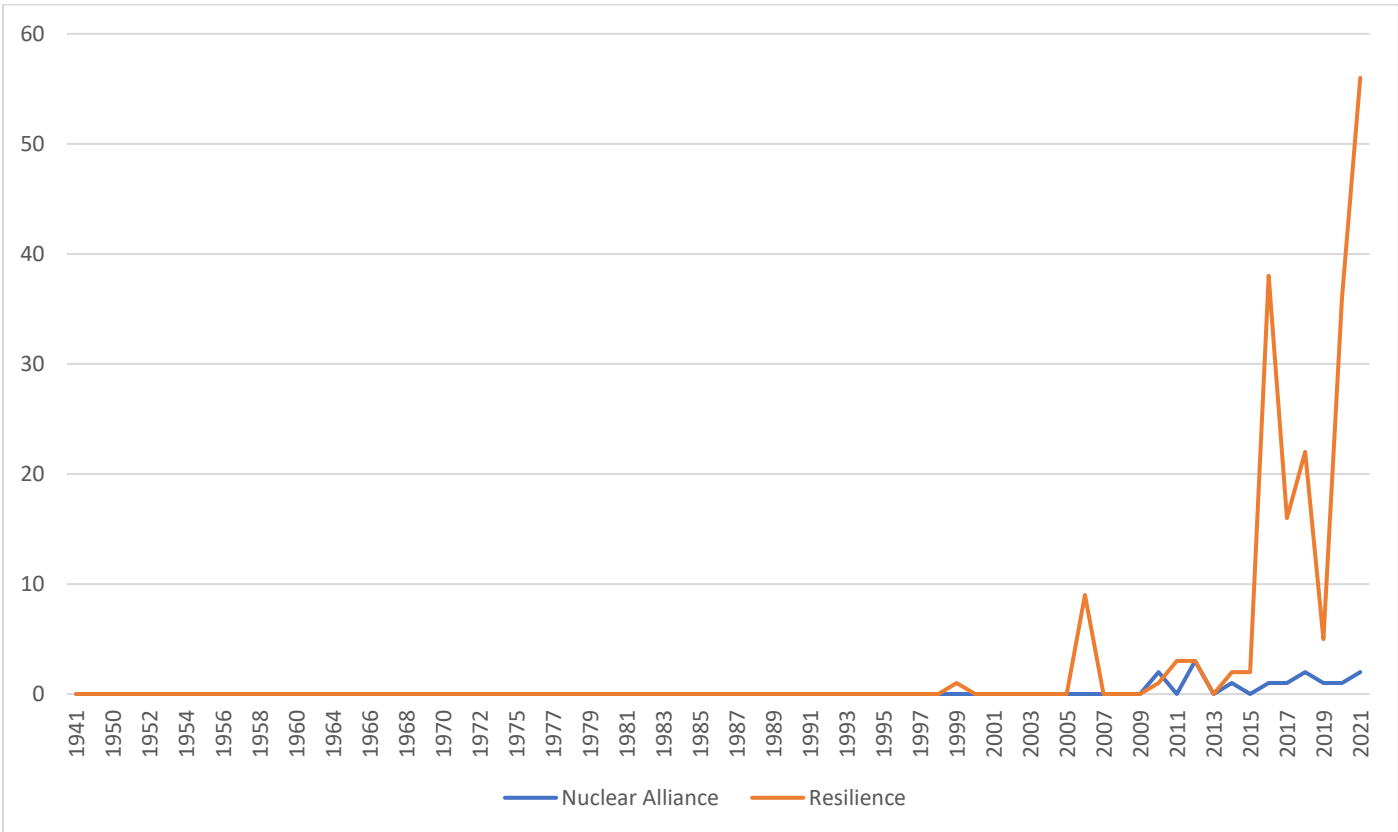


Figure 11 – Keyword frequency: Resilience & Nuclear Alliance (1941–2021)

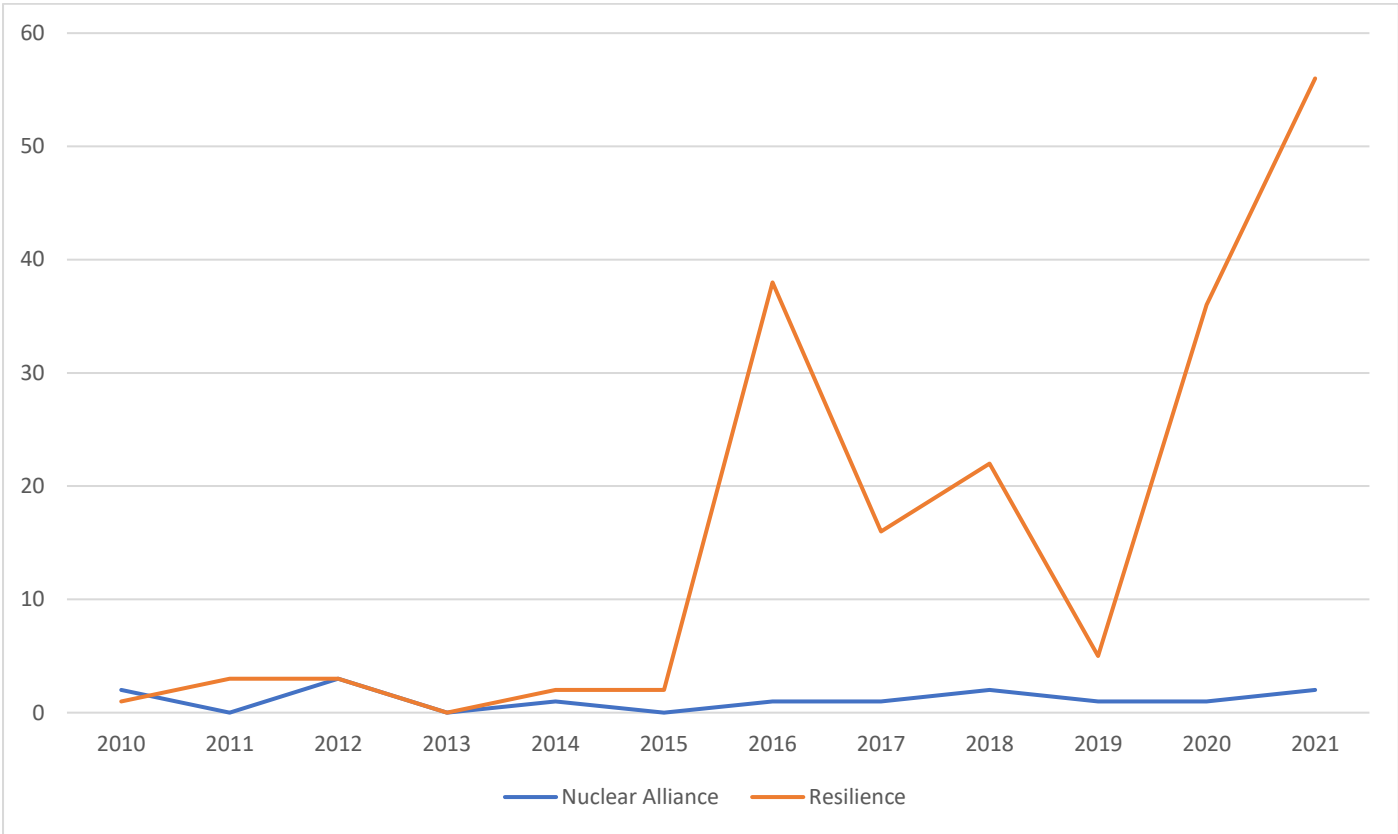


Figure 12 - Keyword frequency: Resilience & Nuclear Alliance (2010–2021)

4. Analysis

4.1. Resilience

The meaning of the concept of “resilience” has remained situational, relative to context and authorship within security discourses of international organizations (Treshchenkov, 2017, p. 55). As noted by Holling (1973, p. 17), resilience differs from stability in that the latter is understood as a system’s ability to return to equilibrium following shocks. Rather, resilience is a cross-discipline “boundary object” (Jax & Brand, 2007) as much in use within ecology (“biodiversity”) as within security discourse where it is contextualized as a quality of a system to face and resist unpredictable and inevitable threats and the search for an adequate response to do so, e.g., by the proper allocation of resources toward strong and emergency-ready infrastructure. The conception of the *risk society* (Leiss, Beck, Ritter, & Lash, 1995), purports that resilience is not so much about overcoming such threats, but rather as a condition of future and security-oriented life in an indefinite state of preparation and adaptation for the realm of possible risks. What follows is that risk no longer is reserved to emergency but is entrenched in the everyday.

In nursing resilience contextualized in such a way within NATO security discourse, its authors appeal to a condition of immanent disaster and implementing certain strategies in the event of offensive action against member-states. As Treshchenkov (2017, p. 69) writes, resilience is strongly dependent of the assessment of international organizations, resources and capabilities, political culture, and expanse of organization’s discourse area. Whether nuclear or not is unspecified but given NATO’s efforts to maintain its conviction of deterrence as the primary security strategy, along with their practiced credibility of nuclear use, dismissal of “no-first use” and nuclear ambiguity policies, it seems plausible that NATO discourse frames resilience principally with such threat in mind. Dominant subjectivities of NATO discourse, and those officially subscribing (whether they completely agree or not) to it, show a feature of system discourse which omits that such risks are produced by and within systems; through integrated elements of decision-making influenced by the fundamental realities individuals, thereby macro-systems, adhere to.

Whether the above can be claimed in confidence is the scope of the analysis below. The principal documents are the 2016 Warsaw Summit Communiqué, 2020 “NATO 2030 - United for a New Era”, 2021 Brussels Summit Communiqué, and 2021 “Strengthening Resilience Commitment”.

4.1.1. 2016 Warsaw Summit Communiqué

The change in scope of resilience from situational to holistic occurred in 2016–2017 where resilience was mentioned of NATO official texts more times than the entire timespan preceding it. It was the main topic for the WSC, which was framed within the context of Europe’s vulnerability to “hybrid threats”: asymmetric tactics used to take advantage of vulnerabilities using non-military means (political, economic, informational) along with conventional military and nuclear threats. At the summit, NATO committed to “continue to enhance our resilience against the full spectrum of threats, including hybrid threats, from any direction,” and added that “resilience is an essential basis for credible deterrence and defense and effective fulfilment of the Alliance’s core tasks” (NATO, 2016). Three critical points were made. First, resilience is understood as an essential basis for deterrence and fulfillment of NATO core tasks. Second, the authors point out that for modern defense to be satisfactory, military capabilities need to be supported and integrated with civilian means in line with 2016 seven baseline resilience requirements (NATO, 2021). To ensure the ability for quickly moving forces and equipment to Allied territories a large amount of resources are delegated to the private sector with 90% of NATO’s supplies and logistics moved by private companies and 75% of support for forward-deployed NATO forces on the Alliance’s easternmost flank in Europe came from private sector contracts in 2016 (Shea, 2016). Third, it was constituted by high-level political commitments from member-states to achieve national resilience standards.

The authors of the WSC are very clear how the problem of a resilience deficit is solved but do not define what success entails nor is there a timeline for achieving greater resilience. Also, instituting the seven baseline requirements is not a one-size-fits-all solution in that variability such as geography and capacities, but also political coordination cross-borders, sharing of intelligence and law enforcement resources. As a result, NATO cannot provide a single template for achieving resilience. Expressed as a central pillar of NATO’s collective defense, resilience takes on a conceptual holism and ambiguity to counter the equally multi-tiered threat of hybrid warfare (NATO, 2016, art. 71). NATO discourse assigns risk and vulnerability to civilian sectors such as telecommunication, power grids, transport systems, etc., and delegates the responsibility of addressing these to member-states, whether or not these vulnerabilities are credible (NATO, 2016, art. 73; art. 83)

The authors of the document communicate their message with a sense of urgency, reiteration of values (democracy, human rights, liberty, etc.), impending threats encompassing NATO’s borders:

“There is an arc of insecurity and instability along NATO’s periphery and beyond. The Alliance faces a range of security challenges and threats that originate from the east and from the south; from state to non-state actors, from military forces and from terrorist, cyber, or hybrid attacks” (NATO 2016, art. 5)

NATO’s role as a nuclear alliance is also reasserted, along with nuclear deterrence, exceptionalism and use:

“As long as nuclear weapons exist, NATO will remain a nuclear alliance. The strategic forces of the Alliance, particularly those of the United States, are the supreme guarantee of the security of the Allies [. . .] The fundamental purpose of NATO’s nuclear capability is to preserve peace, prevent coercion, and deter aggression. Nuclear weapons are unique. Any employment of nuclear weapons against NATO would fundamentally alter the nature of a conflict. The circumstances in which NATO might have to use nuclear weapons are extremely remote. If the fundamental security of any of its members were to be threatened however, NATO has the capabilities and resolve to impose costs on an adversary that would be unacceptable and far outweigh the benefits that an adversary could hope to achieve.” (NATO 2016, art. 58)

At the same time the authors reaffirm the commitments of NATO to the NPT, including Article VI, to “seek a safer world for all and to create the conditions for a world without nuclear weapons” (art. 64) though regretting that conditions for disarmament are not favorable at present.

4.1.2.2020 “NATO 2030 – United for a new era”

The “NATO 2030” report was released by the Reflection Group established by the NATO General Secretary Jens Stoltenberg and suggested recommendations on how, among others, to strengthen NATO unity in regard to external threats, political consultation between member states, and reiterate NATO’s political cohesion and purpose. The main belligerents are expressed as Russia and China — the former most likely to “remain the main military threat to the Alliance” and the latter presented as a forthcoming challenge to change the “strategic calculus of the Alliance” — with less central issues such as terrorism, climate change, and pandemics briefly touched upon. It reaffirms their commitment to a clear narrative on nuclear weapons and support of the NPT and sets a clear position on the TPNW namely that it will “never contribute to practical disarmament, nor will it affect international law.” The centrality of nuclear deterrence posture is reemphasized as the “bedrock of NATO security” and that it is

critical to sustain it (NATO 2020, p. 37). As per standard NATO convention, the report predominantly references deterrence and defense over “stability” — not mentioned once in the report — and the challenges from Russia and China take precedence over challenges in “the South”. While the report addresses pandemics, it suggests nowhere that such will affect NATO’s role. What emerges from the report is rather that the continued need for the Alliance is primarily to defend and deter.

On political cohesion and consultation, the report calls for Allies to recall their commitments to the Alliance, “pledge themselves to a code of good conduct”, reaffirm NATO’s identity as an Alliance of democracies to meet burden-sharing requirements — with reference to defense spending and development of capabilities. In the third proposal of the agenda the need for improved resilience is brought up in that it calls for Allies to take broader and more coordinated approaches toward developing resilient civilian infrastructure and services as the “first line of defense [. . .] essential for NATO to successfully fulfil its three core tasks of collective defense, crisis management, and cooperative security” (NATO, 2020, p. 2). Allies agreed to develop objectives to guide “nationally-tailored resilience goals and implementation plans” allowing NATO to better advise on and have oversight over national resilience efforts. Interesting is that within civil protection includes response options to disinformation aimed at NATO or individual Allies and that “strategic communication” is part of an “ongoing and overarching narrative that is aligned internally with Allies and externally with partners”; this narrative being “critical to the credibility of NATO’s deterrence.” (NATO, 2020, p. 46).

The report refers to strategic communication as a “critical tool of deterrence and defense” (NATO 2020, p. 48); deterrence itself rests on the “clear projection of the ability and resolve to act if necessary”. NATO’s securitization of information is distinguished in its recommendations to “reinforce and accelerate the transformation of its strategic communications to enable the Alliance to compete more effectively in a highly competitive information environment.” The key element is for NATO to “uphold a strong and clear brand to bring coherence and unity of purpose to its many sub-brands” and, in turn, serve the goal of “increasing public recognition, familiarity of, and support for, the Alliance” (NATO, 2020, p. 48).

4.1.3.2021 Strengthening Resilience Commitment and the Brussels Summit Communiqué

The “Strengthening Resilience Commitment” (SRC) report renews the commitments covered in WSC and NATO 2030 and resolves to further enhance resilience. It repeats the commitments

of the previous texts emphasizing unity: “Above all, we will adapt our approach when needed, swiftly and with decisiveness, demonstrating our strength individually and as a unified Alliance” (NATO 2021, art. 8). Its novelty lies in its intent to integrate gender perspectives according with NATO’s “Women, Peace and Security” policy; something that has been criticized as of instrumental use rather than a central part of the organization as a collective defense alliance (Wright, 2016). While not as theatrical in tone and delivery as the WSC, the SRC serves the role as a discursive exercise of repeating statements previously established but “enhanced”.

The Brussels Summit Communiqué (BSC) was composed in the context of the need for renewed political unity — a crucial aspect of the NATO 2030 strategy — following the diplomatic disarray during the Trump administration and other points of contention. The key challenges addressed at the summit included Russian aggression, terrorism, cyberattacks and disruptive technologies, the rise of China, and the security implications of climate change. The communiqué commits to “strengthen and broaden our consultations” but is not clear in how to go about achieving this. No new mechanisms for consultations or decision-making processes for responding to existing and emerging threats are under consideration. The BSC communicates a pledge to “the full and speedy implementation of ongoing work to further strengthen our deterrence and defense posture” against previously addressed states and non-state actors specified in detail compared to the previous documents: The communiqué sets out arguments that NATO faces threats and challenges from both states—Russia (articles 3, 9–15, 26, 44, 46 and 50), China (articles 3 and 55- 56), Syria (articles 49 and 52-53), North Korea (art. 51), Iran (art. 52), Belarus (art. 54)—and non-state actors, the latter (sometimes in collaboration with one or more of the forementioned states) manifesting themselves through international terrorism (articles 17-18), hybrid threats (art. 31) and cyber threats (art. 32) (Tardy, 2020).

NATO seeks to adopt a broader and integrated approach to resilience, as presented in SRC, with clearer goals tailored to national conditions; resembling what the U.S. State Department under the Biden administration has been doing to ward of Chinese investments to protect critical industries within the defense industry supply chain (McLeary, 2021). Most of what NATO commits itself to is repeated in the SRC and the “broad approach” required to coordinate national developed resilience plans is action that needs to “take a whole-of-government approach to enhancing the resilience of our societies, and achieving the seven NATO Baseline Requirements for national resilience, through enhanced civil-military cooperation and civil preparedness; closer engagement with our populations, the private sector, and non-

governmental actors; and the centres of expertise on resilience established by Allies” (NATO, 2021, art. 30). While a commitment to “strengthen public communication” is made, there is no mention of improvements in transparency or increased inclusiveness in the process aside from the previously mentioned “Women, Peace and Security” policy.

4.2. Nuclear alliance

British Defense Secretary Michael Fallon (2017) wrote: “NATO has always been a nuclear alliance with European security underwritten by the ultimate deterrent for decades”. The concept of NATO as a “nuclear alliance” was eschewed officially in the 2010 Strategic Concept (see Figure 11) and the phrase “As long as nuclear weapons exist, NATO will remain a nuclear alliance” has become almost procedural in its use in discourse since then. Since NATO was established in 1949 nuclear stockpiles and delivery platforms have been greatly reduced, yet its endorsement of nuclear deterrence as practice has never been as expressly declared as it is today. In the early years of NATO, its Strategic Concepts made no mention of nuclear weapons; “strategic bombing” was the responsibility of the U.S. (NATO, 1949, p. 16). In the late 1950’s and 1960’s intense discussions about establishing a nuclear sharing programme was debated and as a compromise for European states to not acquire their own nuclear capabilities, a system of nuclear sharing was established in the mid-1960’s (BITS, 1997). NATO’s Nuclear Planning Group (NPG) allows the Alliance’s NNWS to participate in decision-making on nuclear matters as well as policy and doctrine, and over time nuclear deterrence became framed as obligatory for alliance unity (Egeland 2020, p. 144). This trend eventually resulted in NATO explicitly describing itself as a nuclear alliance in 2010.

Within the context of post-Cold War anti-nuclear protest and disarmament NATO was provoked to adapt. Egeland (2020, p. 145) attributes the reconceptualization to two consequences. First, by virtue of NATO’s function as a banner organization for collective security, pro-nuclear actors were absolved of legitimizing nuclear programs with appeals to Alliance cooperation and cohesion; alliance policies, long since settled, can be appealed by governments seeming to have little choice but honoring NATO obligations. Second, NATO’s identity as a security organization undermined member-state resistance to nuclear strategy and policy, and as a “nuclear alliance” intra-alliance protest goes against the spirit of the organization; as made evident in the letter sent by the U.S. representative to NATO to allies “strongly encouraging” them to vote against negotiations of the TPNW (again iterating that “as long as nuclear weapons exist, NATO will remain a nuclear alliance”) (United States NATO Delegation, 2016). This coercive solidarity was also evident in 2012, when Norway was

involved with an initiative widely recognized as the start of the campaign for the prohibition of nuclear weapons. Representatives from the American Embassy in Oslo subsequently warned Norwegian policy-makers publicly that advocating for prohibition “conflicted with Norway’s membership in NATO” (Strand, 2015). The following analysis will analyze documents pertinent to the claims above.

4.2.1. 2010 Strategic Concept

The 2010 Strategic Concept (SC) is a NATO document that “outlines NATO’s enduring purpose and nature, and its fundamental security task” (NATO, 2021) while providing an assessment of the security environment and NATO posture and strategy toward ensuring the security of member-states. The SC authors — perhaps acknowledging U.S. President Obama’s 2009 speech in Prague in support of global disarmament — open in the preface by committing NATO to the goal of creating conditions for a world without nuclear weapons, yet affirming that “as long as there are nuclear weapons in the world, NATO will remain a nuclear Alliance” without specifying whose nuclear weapons still remain; leaving the possibility for the nuclear alliance to be sole custodians of a strategic nuclear arsenal open. The reduction of nuclear weapons is also linked with consequent action by Russia. Furthermore, the authors state that the “supreme guarantee of the security of the Allies [as] provided by the strategic nuclear forces of the Alliance”, particularly those of the U.S. (NATO 2010, art. 18).

Core functions remain from previous Concepts of 1991 and 1999 in that Article 5 collective defense remains NATO’s purpose, which is maintained through deterrence by an “appropriate mix of nuclear and conventional capabilities” (NATO 2010, art. 17). Calls for solidarity, maintaining the transatlantic link, and engagement on security issues of collective interest by Allies are all reiterated in the SC. Shea (2011) notes three innovations of the SC: first, NATO involves itself with new threats of cyber and energy security, non-state proliferation and terrorism; second, increased emphasis on cooperation with organizations and civilian agencies such as the EU, UN, regional organizations, and NGO’s to hybridize security responses; and third, NATO engagements with pre-emptive crisis preventions rather than direct intervention leading to prolonged, expensive conflicts.

The language of the SC is simpler than previous Concepts and relatively short. The elegance of this is hampered by its disunity on a matter of issues. Wittman (2011, p. 37) calls attention to NATO’s seeming indecision on whether it is a regional or global actor; how to assess security challenges and their emphasis with regard to allies and partners; relationship with Russia; nuclear weapons policy, etc. As for the latter, the SC leaves the details of specific issues

unclarified: the fundamental role of nuclear weapons, the future of nuclear sharing, extended deterrence, and detailed plan on how to reconcile expectations for global disarmament with deterrence requirements.

4.2.2. 2012 Deterrence and Defense Posture Review

The Deterrence and Defense Posture Review (DDPR) role was to examine NATO's military posture and recommend a mix of conventional, missile, and nuclear defense forces given the security environment. While many were expectant of a rationale for nuclear weapons, NATO declaratory policy, how many nuclear weapons are needed in Europe, nuclear-sharing, etc., the authors of the document instead support the current "appropriate mix" but fail to address the purpose of such appropriateness (Pifer, 2011, p. 2). Questions of what the purpose of nuclear weapons, especially forward deployed Non-Strategic Nuclear Weapons (NSNW), are; how such purpose has changed since the end of the Cold War; what the alternatives to nuclear sharing are; etc., are not addressed. The DDPR endorses the "sustained leadership focus and institutional excellence for the nuclear deterrence mission and planning guidance aligned with 21st century requirements" while repeating statements from the SC. NATO, seemingly content with the status quo, does not address the disparity between its need for nuclear modernization, such as dual-capable aircrafts (DCAs) and B61 gravity bombs stationed in Europe, and the objections European host-countries may have (Loss, 2020).

The document shows ambiguity, reiterations, and lack of consensus concerning NATO's nuclear policy. Withdrawal of NSNW was phrased as contingent on unlikely "reciprocal steps by Russia" (NATO, 2012, art. 16). The question of whether U.S. nuclear weapons in Europe are to be maintained is not addressed. Alliance assessment on who or what is to be deterred is left unambiguously unresolved.

4.2.3. 2021 Brussels Summit Communiqué

The communiqué declares that NATO stays "collectively determined to uphold and support existing disarmament, arms control, and non-proliferation agreements and commitments" (art. 45), but events indicate otherwise. The recasting of focus away from arms control and proliferation as compared to being main priorities at the time of drafting the SC is particularly noticeable given the context of increased nuclear spending and proliferation by NATO member-states: U.S. spending on nuclear weapons increased by \$1.4 billion in 2020 (ICAN, 2021) and the UK raised their cap of nuclear warhead stockpile by more than 40% in early 2021 (Sabbagh, 2021). NATO as the "strongest and most successful alliance in history" (art. 2) also reaffirms their banner as a nuclear alliance while supporting the goal of a world without

nuclear weapons (art. 40 & 47); yet again the Alliance is mired in the nuclear catch-22 that bodes poorly for a strained NPT regime. Furthermore, the authors argue that NATO nuclear arrangements are “fully consistent with the NPT”, and even though they are in breach of Articles I and II given NATO’s nuclear sharing program (Oxford Research Group, 2005) the communiqué revives their opposition to the TPNW as a risk to undermining the NPT regime, and others covered in previous sections; while inconsistent with NATO deterrence praxis, the argument is questionable.

The COVID-19 pandemic exposed vulnerabilities which the BSC highlights as a threat lumped together with resilience issues, climate change, disinformation, etc., but where the authors have the opportunity to offer up cooperative approaches to address public health threats this seems to fall outside the purview of the Alliance. The communiqué does not reference allocations of resources toward preventative enterprises but adhere to a static discourse.

4.3. Summary

Analyzing NATO’s security discourse relevant to nuclear weapons is pertinent to addressing its strong opposition toward the TPNW while maintaining discourse in support of disarmament and non-proliferation under the NPT. Formal arguments, and strategic concepts of security are limited by their nonsubjective intractability. Phenomena and context define the probabilistic scope by which conscious potentiality exists and is confined. This means that to understand why someone does something, one must understand the someone that does. One can elaborate on subjectivity by understanding the limitations and scope of its potentiality, and an examination of discourse variability over time prove effective within the project of understanding intention. My analysis indicates NATO’s opposition to be inherent with its “nature”. This is because, in its discourse, it exhibits conceptual ambiguity, and reiterates much from previous statements with little to no variation.

NATO’s discourse on nuclear weapons lies dormant and presently it is indicative of an institutionalization of the nuclear status quo. In analyzing contexts where resilience was employed, the performance of conceptual stretching was thematic of the texts. Resilience was assigned to disparate elements of the civil sector designated relevance to Alliance security, such as strategically important infrastructure, public misinformation, and gender perspectives. NATO considers resilience an essential basis for credible deterrence and defense, deterrence of which is fundamentally maintained by the nuclear arsenal at its disposal. Nuclear deterrence is emphasized as the “bedrock of NATO security” (NATO 2020, p. 38), thereby appointing securitized elements within state civil sectors as assistance in sustaining it.

The diffusion of resilience, alongside equally holistic concepts such as “hybrid warfare”, encourages narratives of risk and security to become a long-term condition of society thereby justifying its purpose, as well as NATO NWS nuclear weapons. The use of the concept in this way suggests a discourse of constant exercise by NATO in legitimizing its present function as a guarantor of security by means of nuclear deterrence by broadening the scope of its function and appealing to Alliance cohesion.

NATO regularly asserts itself as a nuclear alliance while leaving questions of the fundamental role of nuclear weapons, future of nuclear sharing, reconciling deterrence with calls for a revitalized disarmament regime, etc., open with no further deliberation. Where resilience is at odds with the TPNW is in its habitual use within the context of NATO solidarity and maintaining the status quo; while NATO as a nuclear alliance contends with the prohibition regime on a more constitutional, even existential, level. NATO’s posture seems to be founded on the belief that conditions of security and advances in nuclear disarmament are necessarily linked. The assessment of this analysis is that NATO’s institutionalization by discursive practices maintaining the nuclear status quo favoring NWS establishes its present iteration as a nuclear alliance which stands wholly at odds with the TPNW and disarmament regime.

4.4. Weaknesses & Limitations

Social science within a quantum framework stands in opposition to objective experience and truth that sidelines the values and interests of the researcher. This does not preclude any understanding outside the subjective but, as a physicist’s knowledge of sub-atomic particles is not entirely subjective, that knowledge is probabilistic. For example, theories like “democratic peace” should be interpreted as the effect of repeated measurements by scientists and other people alike in “stabilizing a certain reality”, but not as the discovery of a pre-existing one (Wendt 2015, p. 287). Research is therefore culpable in sustaining, creating, and changing shared realities. Indeed, social science itself can be said to be a shared experiential institution with its freely chosen experiences of conceptualizing, operationalizing, analyzing data, drawing conclusions, etc. In this sense the process of discourse as an institutionalized performance of constant repetition of statements and actions is of epistemological worth. Accordingly, researchers would benefit from systems of introspection as to why and how methods were chosen, the implications of these choices, the limits they impose to understanding phenomena and how other means of inquiry might lead elsewhere.

The paper was limited by the lack of data and explicit analysis of non-discourse and materializations that make up the latter axes of the dispositive. This would have given my

analysis depth and scope, yet at the same time leave much more room for errors in interpretation. This could be remedied with complimentary methodologies like Q-methodology which is a systematic study of participant viewpoints used to investigate the perspectives of participants who represent different stances on an issue, by having participants rank and sort a series of statements. The point is to examine experiential subjectivity, where the self-referential subject would be privileged as the knowledge producer rather than the researcher. As I have no insight into the inner workings — routine, relationships, administration — of NATO much nuance is undoubtedly lost.

5. Conclusion

In this paper, I have outlined NATO's formal objections to the TPNW as well as the inconsistencies of their arguments with appeal to incompatibilities with and threats to the NPT. Since the formal arguments within the international legal purview are unsatisfactory, the point of contention with the disarmament regime is determined to be a matter of NATO politics and policy. The essence of this is the strategic use of nuclear weapons in ensuring Alliance security by nuclear deterrence. The alleged success of nuclear deterrence and conceptual rigor are found to be unconvincing and Tannenwald's nuclear taboo and concept of nuclear exceptionalism are discussed as viable alternatives to explaining why nuclear war has so far been avoided. This section concluded with the claim that nuclear prohibition exists because "people believe it to be such"; likewise nuclear deterrence works because people believe that it does. Going further, I considered Wendt's ontological argument for a quantum framework of consciousness to establish how "belief" can be claimed to physically exist, known, and measured. I thereby establish my unit of analysis as the individual but also as indistinguishable from social structure due to the macroscale quantum phenomenon of non-local causation and social entanglement.

My choice of methodology recognizes the similarities of discourse defined as an institutionalized performance of repetition along with its interpretive fluidity resembles the probabilistic understanding of quantum mechanics and measurement problem to motivate this choice. In understanding NATO nuclear policy from its discourse, official texts most pertinent to the intended measurement were analyzed bearing in mind that discourse, in quantum terms, is irreducible and inseparable from the collective wave-function of entangled conscious individuals most instrumental in shaping it. It is not a separate organization, but a collective understanding of a certain social reality institutionalized by individuals non-locally through discourse.

The argument of this paper is that the NATO pro-nuclear regime as well as the NPT in tow is weakened not only by attacks from nuclear abolitionists but from systemic ambiguities of aims, purpose, and strategy of nuclear weapons within NATO discourse from 2010–2021. As for understanding why NATO strongly opposes the TPNW the analysis of NATO discourse alludes to an institutionalized aversion to challenging the nuclear status quo and constituting its identity with nuclear weapons while maintaining its commitment to gradual disarmament under the NPT.

Within NATO discourse, it presents itself as a self-proclaimed nuclear alliance often in conjunction with expressing their support for a world without nuclear weapons. A symptom of this seems to be that support for nuclear prohibition of the TPNW weakens the integrity of the Alliance, as evidenced by Washington reprimanding Norwegian policymakers for engaging in discourse challenging the nuclear status quo. Another is the apparent discord between commitments to the NPT, strong opposition to the TPNW, and Alliance NWS investments in their nuclear systems and increasing stockpiles — proliferation by definition — with impunity. Neither does NATO discourse reflect consensus on deterrence and defense issues and rehash similar commitments but what purpose forward-deployed nuclear weapons really have, who is to be deterred, how, and from what are unclear.

The analysis also discusses the invariability of NATO's discourse. NATO's practice of reiterating large portions of previous documents limits meaningful change over time thereby cultivating discursive stasis and minimizing variability. Whether this is intentional or not is beside the point. The disjunction between what Alliance NWS do and what the organization communicates alludes to a stark lack of consensus on nuclear weapons; if the “holographic” structure of NATO is understood as data imbued in dominant actors, then the workings of the organization is reflected by what actors understand it to be and do which, given this paper's analysis, seems to be essentially monumental, symbolic, and expedient rather than cohesive and collaborative. Nevertheless, member-states appeal to Alliance solidarity to vindicate nuclear policies that go against state public interests.

Collective action to reduce the chance of nuclear war and catastrophe, initiated either by direct will or oversight, and achieve global disarmament — alongside effective action on climate change and defenses against future pandemics — is desperately needed. Based on this analysis, NATO is not up to achieving such a task. Moreover, their inability to do so is a threat to the non-proliferation regime NATO and member-states have committed themselves to.

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