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The Core Question: Nuclear Deterrence in the Focus of Peace Ethics and Security Policy

SPECIAL

Nuclear Weapons, Service and Conscience



THE CORE QUESTION: NUCLEAR DETERRENCE IN THE FOCUS OF PEACE ETHICS AND SECURITY POLICY

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EDITORIAL

"Our world is marked by a perverse dichotomy that tries to defend and ensure stability and peace through a false sense of security sustained by a mentality of fear and mistrust." With these words, spoken in Nagasaki at the end of 2019, Pope Francis once again condemned the system of nuclear deterrence. Peace and international stability cannot be built on the threat of total annihilation, he said. By taking the view that not only the use of nuclear weapons but also *threatening* their use and even their *possession* cannot be justified, the pope has set a new course in the Church's peace ethics.

Weapons whose use can never be ethically legitimate are supposed to secure peace. For a long time, this paradox has played a central role in peace ethics discussions in the Catholic Church. For example, the papal encyclical Pacem in terris (1963) issued by Pope John XX-III was a response to the atomic threat of the Cuban Missile Crisis the year before. For him, it was a precept equally of justice, reason and human dignity that the arms race should cease and effective agreements on disarmament should be reached. The pastoral constitution Gaudium et spes promulgated in 1965 takes up this teaching. From then on, official teachings would be shaped by the idea of an "interlude granted us from above" so that we might find political alternatives to war.

This edition takes the Vatican's current "change of course" as its starting point, and asks what motives are behind the pope's statements. At the same time, the Holy See is not alone in its fundamental criticism – so the editors also wanted to give a voice to civil society initiatives such as the International Campaign to Abolish Nuclear Weapons (ICAN), and feminist research.

On almost no other subject are the fronts of opinion so hardened. Opponents of nuclear weapons claim that supporters of deterrence are irresponsible. The latter respond almost reflexively with accusations of naivety. At any rate, the clear position of the Catholic Church, the Treaty on the Prohibition of Nuclear Weapons (TPNW), and also the general state of international relations have reignited the debate. It is not without reason that at the

start of this year, the publishers of the U.S. academic journal *Bulletin of the Atomic Scientists* set their symbolic Doomsday Clock to 100 seconds to midnight – as an urgent warning and expression of "the most dangerous situation that humanity has ever faced". Several articles are therefore devoted to the current security policy situation and possible ways out of the deterrence paradigm. The editorial team also thought it particularly important to include two separate articles outlining the position of the nuclear powers Russia and China.

The resurgent discussion about Germany's "nuclear sharing" further illustrates the continuing topicality of the issue. Our special feature edition examines the question of what the papal pronouncements mean for service rendered by German military personnel.

Our sincere thanks go to all the authors, and we hope that this edition will help bring about a deeper understanding of the core issues. If after reading these articles, you conclude that it is perhaps no longer quite so clear who is "naive" and who is not, then much will already have been accomplished.

Dr. Veronika Bock
Director of zebis



THE END OF THE "INTERLUDE"

NUCLEAR DETERRENCE IN THE LIGHT OF ROMAN CATHOLIC SOCIAL TEACHING

Abstract

Pope Francis' statements on banning nuclear weapons have attracted much attention, but they can be placed in the long tradition of peace ethics in the Church's teachings. The Second World War and the development of weapons of mass destruction intensified open skepticism toward armaments and military conflict resolution. But this did not bring about a fundamental rejection of the bellum iustum doctrine as an ethical framework for assessing the legitimacy of warfare. It was the Second Vatican Council that pointed out that the destructive power of nuclear weapons puts them beyond any permissible defense. It coined the idea of an "interlude granted us from above" - in view of the threat of extinction, the time remaining for humanity to find an appropriate way of resolving conflicts. In their pastoral letter "The Challenge of Peace", the U.S. bishops did not declare nuclear deterrence to be completely unacceptable. But they did indissolubly link its temporary acceptance to conditions such as serious arms control and disarmament efforts. Thus we find indications of the Vatican's current position - removing the distinction between (conditionally) permitted possession of nuclear weapons and their prohibited use - at an early stage. Long-held ethical doubts about a policy that establishes "peace" only on the basis of the threat of mutual annihilation are compounded by the judgment that the will to disarmament is not discernible, and therefore an essential condition for toleration is not met. The German Commission for Justice and Peace has also adopted this line of argument, declaring in 2019 that banning nuclear weapons is the starting point for the desired disarmament process. It therefore sought to draw a line under abusive interpretations of the "interlude". The Catholic Church's commitment to a complete ban on and abolition of nuclear weapons is perceived as turnaround, but in reality it is a stringent continuation of its social teaching. Regardless of religious affiliation, this teaching appeals to our human sense of morality as the Church seeks to gain broad support for a gradual turning away from nuclear deterrence.

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Pope Francis' current input into the debate

On November 10/11, 2017, the Dicastery for Promoting Integral Human Development - a new central body created by Pope Francis – organized an expert symposium in the Vatican on "Prospects for a World Free of Nuclear Weapons and for Integral Disarmament". During the conference, the pope invited participants to an audience. In the Clementine Hall, he gave an address in which he welcomed the fact that "in a historic vote at the United Nations, the majority of the members of the international community determined that nuclear weapons are not only immoral, but must also be considered an illegal means of warfare. This decision filled a significant juridical lacuna, [... but] even more important is the fact that it was mainly the result of a 'humanitarian initiative' sponsored by a significant alliance between civil society, states, international organizations, churches, academies and groups of experts."1

Pope Francis reaffirmed this position – as had been generally expected – in the context of his visit to Japan at the end of November 2019. On his return flight, he declared in a press conference: "Hiroshima was a true human catechesis on cruelty. Cruelty." He added that moral condemnation of the use and possession of nuclear weapons "must also be included in the Catechism of the Catholic Church"². Ever more urgent in tone, but without going into further detail, the pope indicated that he wished the Roman Catholic Church to show a greater degree of commitment in its rejection of nuclear weapons, comparable to developments in regard to capital punishment. As he explained in his message from the Peace Park in Nagasaki, this has a fundamental basis in the Church's tradition: "[T]he Catholic Church is irrevocably committed to promoting peace between peoples and nations. This is a duty to which the Church feels bound before God and every man and woman in our world. We must never grow weary of working to support the principal international legal instruments of nuclear disarmament and non-proliferation, including the *Treaty on the Prohibition of Nuclear Weapons*" (author's emphasis).³

The history of the current debate

For many people, it may come as a surprise to find that the pope and the Holy See are strongly committed to outlawing nuclear weapons. But even in Dès le début of August 1917 – the first papal "Peace Note" of the 20th century, addressed "to you who at this tragic hour direct the destinies of the warring nations" - Pope Benedict XV set out a number of points as the basis for a "just and lasting peace". It states: "First of all, the fundamental point must be that the material force of arms must be replaced by the moral force of right; hence there should be a just agreement by all for the simultaneous and reciprocal reduction of armaments, in accordance with rules and guarantees to be established, to the extent necessary and sufficient to maintain public order in each state."4 From that time onward, these concerns remain a constant theme in Roman Catholic teachings on peace.

The magisterium of the Catholic Church is consistently and unmistakably skeptical toward the armament efforts of states, even if it holds no pacifist expectations. This attitude becomes much more severe in the case of nuclear weapons. Already in 1954, in his Easter speech in St. Peters Square, Pope Pius XII stressed the urgent need for international understanding by vividly invoking the horror of a nuclear war: "Thus before the eyes of the terrified world lies the vision of gigantic destruction, of vast territories rendered uninhabitable and useless to mankind, in addition to the biological consequences that may be produced, both by mutations induced in germs and microorganism, and by the uncertain outcome that a prolonged radioactive stimulus may have on major organisms, including humans, and their descendants." The Pope thus concretizes an earlier motif which he had unfolded in his Christmas message from 1950 under the impression of an imminent new world war: "Today, in a war which God

may prevent, the weapons would have such a devastating effect that they would leave the earth as it were 'waste and void' [Gen 1,2; attached as a note in the original, the author], as wasteland and chaos, similar to the desolation not of its original beginning, but of its downfall."6 Significant enough for the drama of the situation, however, the Pope no longer dares to repeat the statement made shortly after the war that the experience of war had "spurred the longing for peace and the will to work for it", and "has placed the problem of disarmament at the center of international aspirations with entirely new considerations and with an emphasis never felt before"7. In the Cold War, disarmament efforts take a back seat and bring the doctrine and theo-

Up to the present day, ethical discussion of security and armament policy has been conducted in the context of the traditional doctrine of just war

ry of nuclear deterrence to the fore. It is the encyclical Pacem in terris (April 11, 1963) by Pope John XXIII which gives the topic an unprecedented rank.

The position of the U.S. bishops' conference:

It is important to remember that up to the present day, ethical discussion of security and armament policy has been conducted in the context of the traditional doctrine of just war, both at the level of the papal magisterium and in large parts of Catholic moral theology. However, this does not apply to those groups and movements within the Catholic Church who take a strictly pacifist stance - similar to the so-called historic peace churches (e.g. Quakers, Mennonites) in Protestant Christianity – and who consequently reject the doctrine of just war. Because of this strictly ethical position, the Roman Catholic Church has never been drawn into regarding nuclear weapons and the possibility of atomic self-destruction as an end-of-days phenomenon, as some sections of the Protestant communities and other apocalyptic dystopias do.

The official attitude of the Roman Catholic Church to war was outlined by the U.S. bishops' conference in 1983 in their pastoral letter The Challenge of Peace: God's Promise and Our Response, in five points. The American bishops adhere to the traditional view, inasmuch as it ascribes to peoples "a right and even a duty" to "protect their existence and freedom by proportionate means against an unjust aggressor", and at the same time denies moral legitimacy to any war of aggression.8 With reference to the Second Vatican Council, the bishops underline the crucial importance of the principle of distinguishing between combatants and civilians in acts of war, and the need to observe the criterion of proportionality even in the case of a defensive war: "No defensive strategy, nuclear or conventional, which exceeds the limits of proportionality, is morally permissible."9

The American bishops also discuss the ethical problems of nuclear deterrence in the light of the criteria developed in the doctrine of just war. They therefore set out these criteria in

None of the innovations of the Second Vatican Councilfell from heaven, so to speak. They had already started to develop in the Church and in theology

detail in their pastoral letter and critically reflect on them with regard to the situation in the modern world. These criteria form the ethical foundation of all Church and magisterial pronouncements on the question of nuclear weapons.

The idea of the "interlude"

The Second Vatican Council (1962-1965) has fundamentally renewed the self-image of the Roman Catholic Church and many of its teachings. But none of the innovations fell from heaven, so to speak. They had already started to develop in the Church and in theology. Also with regard to Church doctrine on peace, the Council took up the core elements of the insights associated with the world wars, in par-

ticular by directing its attention to the weapons of mass destruction that were now available: "[... A]cts of war involving these weapons can inflict massive and indiscriminate destruction, thus going far beyond the bounds of legitimate defense."10 According to the Council, the tendency toward total war is an intrinsic characteristic of weapons of mass destruction, which it condemns categorically, due to its destructive consequences, as "a crime against God and man himself"11. The Council saw only one way to counter this danger: "Warned by the calamities which the human race has made possible, let us make use of the *interlude* granted us from above and for which we are thankful to become more conscious of our own responsibility and to find means for resolving our disputes in a manner more worthy of man. Divine Providence urgently demands of us that we free ourselves from the age-old slavery of war" (author's emphasis).12

From then on, official teachings on nuclear deterrence would be shaped by the idea of an "interlude granted us from above" so that we might find political alternatives to war. Thus the U.S. bishops, in their 1983 pastoral letter mentioned above, acknowledged that the interlude serves to ensure a certain kind of peace - "our present peace" - and therefore stopped short of a fundamental rejection.¹³ However, their stated intention was "to reinforce with moral prohibitions and prescriptions the prevailing political barrier against resort to nuclear weapons". And they urged "negotiations to halt the testing, production, and deployment of new nuclear weapons systems. Not only should steps be taken to end development and deployment, but the numbers of existing weapons must be reduced in a manner which lessens the danger of war." The bishops conclude: "There is an urgent moral and political responsibility to use the "peace of a sort" we have as a framework to move toward authentic peace through nuclear arms control, reductions, and disarmament."14 This view does not necessarily imply the abolition of nuclear weapons as the end goal of disarmament, but it is logically compatible with the concept of minimal deterrence. Nevertheless, even in 1983 the bishops did not regard

adherence to the deterrence strategy or moral tolerance of nuclear deterrence as being the final word in this matter. They saw it as a conditional acceptance. As they put it: "Deterrence is not a suitable strategy for securing peace in the long term. It is a transitional strategy that can only be justified in connection with an absolute determination to work for arms control and disarmament" (author's emphasis). 15 Also in 1983, in their pastoral letter Gerechtigkeit schafft Frieden ("Justice Creates Peace"), the German Bishops' Conference (Deutsche Bischofskonferenz) also mentions the Council's "interlude" - (in German: "Frist")16 - granted to us from above, which allows a "temporary" toleration of nuclear weapons. This can be described as an "emergency ethics".17

Talk of an "interlude" was clearly intended to underline the urgency of the political task of disarmament. It served to initiate a process which, by means of arms control and disarmament, had to be geared towards overcoming the strategy of nuclear deterrence. For this reason, "interlude" did not refer primarily to a certain period of time, but to factual conditions that must be fulfilled so that the strategy of nuclear deterrence can be tolerated. These conditions imply, on the on hand, the criteria that apply to war and war planning in general, and on the other hand, the decisive and indissoluble link between a possible temporary acceptance and the political engagement to overcome the strategy of nuclear deterrence. With this in mind, the tolerance of nuclear weapons depends on a political decision, or more precisely, on a judgment on the credibility and seriousness of a targeted disarmament policy which is geared towards an abolition of nuclear weapons. Therefore, the crucial question is: Given the present state of affairs, and looking at the conditions mentioned above, how should this strategy be assessed?

The end of the "interlude"

Developments in the Vatican's activities:

The goal of a nuclear weapon-free world has been present for a long time in papal proclamations. Back in 1965, in his message to mark the 20th anniversary of the dropping of the Hiroshima bomb, Paul VI called for prayer that nuclear weapons might be banned. In 1978, in his address to the First Special Session of the United Nations Devoted to Disarmament, he reaffirmed the goal of "completely eliminating the atomic arsenal" The step taken by the present pope has continued this line consistently and more specifically by now condemning nuclear weapons in principle. As such, this decision came as a surprise to the public, but

The goal of a nuclear weaponfree world has been present for a long time in papal proclamations

it had been in the making for decades, firstly in the deliberations of the Pontifical Academy of Sciences, and also in the context of the diplomatic activities of the Holy See. In 1981, the Academy published a statement on the consequences of using nuclear weapons, followed by a declaration on the prevention of nuclear war in 1982, and finally, in 1984, by a "warning" about the nuclear winter that would result from a nuclear conflict.²⁰ In the 1982 document, the academicians warned that any use of a nuclear weapon, even if limited, carried a great risk of nuclear escalation. Considering the "overwhelming dangers" of nuclear deterrence, they finally conclude: "It is imperative to reduce distrust and to increase hope and confidence through a succession of steps to curb the development, production, testing and deployment of nuclear weapons systems, and to reduce them to substantially lower levels with the ultimate hope of their complete elimination."21 Once again, the argument focuses not on a general prohibition of nuclear weapons, but on the urgency of a political process that is clearly and unambiguously oriented toward this ultimate goal.

Apart from extensive involvement in efforts to ban nuclear testing, the diplomatic activities of the Holy See are focused mainly on two processes of international diplomacy relating to the problem of nuclear weapons: first and foremost, the negotiations for the Non-Proliferation Treaty (NPT), and secondly the Vienna

Conference on the Humanitarian Impact of Nuclear Weapons. The idea for this conference arose in the context of the NPT, and it convened for the third time in 2014. Finally, the negotiations on the conclusion of the Treaty on the Prohibition of Nuclear Weapons (TPNW) should be mentioned. This has now been signed by the Holy See. Archbishop Auza, as Vatican representative, addressed

In a letter to the Austrian Chancellor, Pope Francis stated that nuclear deterrence and the threat of mutual annihilation cannot be the basis for an ethics of brotherly and peaceful coexistence between peoples and states

> the Ninth Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons. He concluded by quoting Pope Francis, saying that nuclear deterrence and the threat of mutual annihilation cannot be the basis for an ethics of brotherly and peaceful coexistence between peoples and states.²² This statement appears in the pope's letter to the Austrian Chancellor, Sebastian Kurz, on the occasion of the Vienna Conference on the Humanitarian Impact of Nuclear Weapons.²³ For this conference, the Holy See presented an extensive contribution titled Nuclear Disarmament: Time for Abolition.²⁴ According to the American theologian Gerard Powers, this document summarizes the Vatican's position on the interrelated ethics of the use of nuclear weapons, deterrence and disarmament.²⁵ It could also be said that the text reflects the development of decades of papal teaching. It examines once again a series of arguments

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for and against nuclear deterrence. Its overall conclusion is that nuclear deterrence can no longer be regarded as a policy that stands on firm moral ground.

First of all, the document refers to the growing consensus on the strict condemnation of any use of nuclear weapons. But it also recalls that the Church has nevertheless provisionally accepted their possession for the purpose of nuclear deterrence, albeit under the condition that this is "a step on the way toward progressive disarmament". Then follows a decisive statement: "This condition has not been fulfilled – far from it." "It is now time," the text continues, "to question the distinction between possession and use [of nuclear weapons]." The time has come for new thinking "to embrace the abolition of nuclear weapons as an essential foundation of collective security." Now is the time "to affirm not only the immorality of the use of nuclear weapons, but the immorality of their possession, thereby clearing the road to nuclear abolition."26

It is clear that in his recent statements, the pope has neither changed nor corrected this assessment. Instead, he varies it by placing different emphases, but always with the call to work with all one's energy for the abolition of nuclear weapons. But how exactly is this position to be understood? According to Gerard Powers, one possible reading is that the Vatican has become a nuclear pacifist. However, he himself offers a more "nuanced interpretation" to consider: that the Vatican has not abandoned its attitude of conditional acceptance or the concept of deterrence as such, but condemns the behavior of the nuclear powers who are evidently not willing to fulfill the conditions of acceptance. Thus it is not the idea of deterrence that is criticized, but rather the morality of its structure as it currently exists.²⁷

Is this "more nuanced" reading accurate? Not quite, if we compare it with the position of the German Commission for Justice and Peace (Deutsche Kommission Justitia et Pax). Or not unless we separate the idea of deterrence from its nuclear realization.

Developments in the Roman Catholic Church in the Federal Republic of Germa-

ny: The German Commission for Justice and Peace is run by the German Bishops' Conference (Deutsche Bischofskonferenz) and the Central Committee of German Catholics (Zentralkomitee der Deutschen Katholiken, ZDK). It represents Catholic institutions and organizations in Germany. As such, given the pope's position and with regard to the current international political situation, it felt obliged to assess whether it could share his position. A decade earlier, the Commission had given extensive consideration to the issue. In 2008, it published a study with the title "The growing significance of nuclear armaments. A challenge for the ethics of peace and the political sphere". In this study, the Commission clearly states: "In light of the fact that the continued tolerance which was expressed in the 1980s and which was always combined with appeals to all sides for disarmament was all too often either ignored by those in power or was misconstrued as an acceptance predicated upon the ethics of peace, something which allowed the Church's position to be exploited, it is particularly important that the Church clarify its position with regard to the ethics of peace. Use of the word 'continued' has never been meant to be understood as an attempt to legitimise the simple continuance of deterrence. It should merely serve to retain the necessary political leeway to clearly reduce the dependence of efforts to prevent war on the means of nuclear deterrence and to achieve the strived for full elimination of nuclear armaments and scenarios for their utilisation. Political action must be measured against what it actually does with this leeway" (author's emphasis).28

Apart from the argument that the "interlude" was deliberately misinterpreted, a trend toward undermining the arms control treaties was already noted in 2008, on which the Commission comments: "[... O]bservation of the trends which are currently evident with regard to nuclear armaments is giving increasing weight to those who argue that this continued tolerance is increasingly losing its justification."²⁹

In its recent 2019 position paper "Outlawing Nuclear Weapons as the Start of Nuclear Disar-

mament", the Commission once again examined the question of whether the strategy of nuclear deterrence can satisfy the necessary criteria of ethics and international law for an extension of the "interlude". Their verdict is unequivocal: the reasons for rejecting any further continuation now outweigh all others. Not only are the treaty-based pillars of armaments and control policy being eroded, but disarmament successes have obviously been limited by the will of the nuclear powers to maintain the strategy of nuclear deterrence. Its internal contradictions are encapsulated in NATO's repeated assertion that its policy will remain based on this strategy for as long as nuclear weapons exist. To want a world free of nuclear weapons, but at the same time to declare that the absence of nuclear weapons is the critical condition for

The internal contradictions of nuclear deterrence are encapsulated in NATO's repeated assertion that its policy will remain based on this strategy for as long as nuclear weapons exist

ending nuclear deterrence, is only credible if overcoming the strategy of nuclear deterrence begins with banning nuclear weapons. In 2008, the Commission for Justice and Peace had stated relatively vaguely: "An essential step on the road to the elimination of nuclear weapons is ensuring that they do not have any international legitimacy". But now the Commission specifies the necessary steps in sequence: an international ban on nuclear weapons cannot be at the end of a process leading to their actual elimination – it must mark its beginning. ³¹

The political process towards banning and eliminating nuclear weapons

The social teachings of the Roman Catholic Church are by no means intended only for its members. According to a phrase coined by Johannes XXIII, they are addressed "to all people of good will". In other words, the Church's arguments should also be understandable to people who may not share the faith of the Church, but who nevertheless

see themselves subject to the demands of moral reason as imposed by the human condition. Accordingly, the popes have always addressed the political and public spheres, appealing to recognize and live up to our common human responsibility. Pope Francis is building on the exemplary efforts of all those who are actively committed to the abolition of nuclear weapons: "A world of peace,

Pope Francis is building on the exemplary efforts of all those who are actively committed to the abolition of nuclear weapons

free from nuclear weapons, is the aspiration of millions of men and women everywhere. To make this ideal a reality calls for involvement on the part of all: individuals, religious communities and civil society, countries that possess nuclear weapons and those that do not, the military and private sectors, and international organizations. Our response to the threat of nuclear weapons must be joint and concerted, inspired by the arduous yet constant effort to build mutual trust and thus surmount the current climate of distrust."32

In the Roman Catholic Church, new thinking about the strategy of nuclear deterrence has taken root, and some bishops' conferences have already adopted the pope's position. As a universal church that embraces and transcends all national contexts, the Church could be a laboratory for political and social debate which then serves as a model. Without such debate, an effective global consensus leading to success in the fight against nuclear weapons cannot be achieved. A global public must put pressure on the governments of the nuclear powers to return to the negotiating table immediately and agree on concrete disarmament steps, instead of gradually terminating or not renewing the existing treaties. The populations of the nuclear powers must not accept the refusal of their governments to sign the ban treaty (TPNW). Rather they should constantly and strongly urge their governments to agree jointly on the

controlled elimination of nuclear weapons, instead of developing and perfecting their nuclear capabilities.

In this political process, military personnel play a role that can be fraught with tension and difficulties. Not only, but particularly in the Church, a sense of solidarity with our fellow human beings demands that this role be taken seriously. Military personnel can easily find themselves in a conflict of loyalty with their military and political leaders. This burdens their conscience and affects or even jeopardizes their professional future. In such situations, they need pastoral advice and support. However, it is not only a question of political loyalty and military obedience. Primarily this is about the moral integrity of the individual person, who must reconcile within themselves their duties as a member of the Church and as a citizen on the one hand, and their duties as a member of the armed forces on the other. This can be achieved if they contribute their military expertise to the public and political debate on how to gradually move beyond nuclear deterrence. Deterrence is part of the military craft, but deterrence with nuclear weapons is not.

- 1 Address by Pope Francis to participants in the international symposium "Prospects for a World Free of Nuclear Weapons", Friday, November 10, 2017. http://www.vatican.va/content/francesco/en/speeches/2017/november/documents/papa-francesco_20171110_convegno-disarmointegrale.html (accessed 2.6.2020). All texts mentioned or quoted below are available from the internet address www.vatican.va/content/vatican/en.html. Unless noted otherwise, the English text is taken directly from this source.
- 2 Apostolic journey of Pope Francis to Thailand and Japan. Press conference with the Holy Father on the return flight to Rome, Tuesday, November 26, 2019.
 3 Apostolic journey of Pope Francis to Thailand and Japan. Address of the Holy Father on Nuclear Weapons. Atomic Bomb Hypocenter Park (Nagasaki), Sunday, November 24, 2019.
- 4 http://www.vatican.va/content/benedict-xv/fr/apost_exhortations/documents/hf_ben-xv_exh_19170801_des-le-debut.html (accessed 2.6.2020). (Translated from French.)
- 5 http://w2.vatican.va/content/pius-xii/it/messages/urbi/documents/hf_p-xii_mes_19540418_urbi-easter. html (accessed 2.6.2020). (Translated from Italian.) 6 For the speech in German, see: Utz, Arthur-Fridolin and Groner, Joseph-Fulko (eds.) (1962): Aufbau und Entfaltung des gesellschaftlichen Lebens: soziale Summe Pius XII. 2. ed. Freiburg, S. 1980-1983, S. 1981. (Translated from German.)
- 7 Christmas message to the College of Cardinals, 24.12.1946. In: Utz, Arthur-Fridolin and Groner, Joseph-Fulko (eds.) (1962), pp. 1918–1932, p. 1925. (Translated from German.)
- 8 The Challenge of Peace: God's Promise and Our Response. A Pastoral Letter on War and Peace by the National Conference of Catholic Bishops. May 3, 1983. No. 78. http://www.usccb.org/upload/challenge-peace-gods-promise-our-response-1983.pdf (accessed 2.6.2020). 9 Ibid.
- 10 Pastoral Constitution on the Church in the Modern World. Gaudium et spes. Promulgated by His Holiness, Pope Paul VI On December 7, 1965. No. 80. http://www.vatican.va/archive/hist_councils/ii_vatican_council/documents/vat-ii_const_19651207_gaudium-et-spes_en.html (accessed 2.6.2020).
- 11 Ibid., no. 81.
- 12 Ibid., no. 81.
- 13 Cf. *The Challenge of Peace*, chapter I., B.3. For the text in the following quotation, see no. 194.
- 14 Ibid., no. 189.
- 15 Ibid., chapter I., B.3.
- 16 Gaudium et spes, no. 81.
- 17 Cf. Deutsche Bischofskonferenz (1983): Gerechtigkeit schafft Frieden. Wort der Deutschen Bischofskonferenz zum Frieden. (Die Deutschen Bischöfe no. 34) Bonn, no. 3.5.2, p. 36. (Translated from German.)
- 18 Part of the text appears in: Sekretariat der Deutschen Bischofskonferenz (Hg.) (1980): Dienst am Frieden. Stellungnahmen der Päpste, des II. Vatikanischen Konzils und der Bischofssynode. Von 1963-1980. (Verlautbarungen des Apostolischen Stuhls no. 23.) Bonn, pp. 42-43, here p. 43
- 19 Message of His Holiness Paul VI to the First Special Session of the United Nations General Assembly dedicated to disarmament, delivered on 6 June 1968 by H.E. Archbishop Agostino Casaroli.

- 20 Statement on the Consequences of the Use of Nuclear Weapons (1981); Declaration on Prevention of Nuclear War (1982); Nuclear Winter: A Warning (1984).
- 21 Quotation from "Declaration on Prevention of Nuclear War". English version available at: http://www.academyofsciences.va/content/dam/accademia/pdf/documenta4.pdf (accessed 2.6.2020).
- 22 Cf. Statement by H.E. Archbishop Bernardito Auza, Apostolic Nuncio and Permanent Observer of the Holy See to the United Nations, New York. Wednesday, April 15, 2015.
- 23 Cf. Message of His Holiness Pope Francis on the occasion of the Vienna Conference on the Humanitarian Impact of Nuclear Weapons to His Excellency Mr. Sebastian Kurz, Federal Minister for Europe, Integration and Foreign Affairs of the Republic of Austria, President of the Conference on the Humanitarian Impact of Nuclear Weapons.
- 24 Nuclear Disarmament: Time For Abolition. A
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WAITING FOR ARMAGEDDON

THEOLOGICAL AND ETHICAL ASPECTS OF NUCLEAR DETERRENCE

Abstract

Nuclear weapons have always been associated with the "end of days". A repertoire of concepts and images to express this religious dimension can be found in the Bible and in theology. However, it is apparent that these associations do not provide us with a consistent assessment of the phenomenon of "nuclear weapons". Instead, contrary positions are supported with reference to the same biblical motifs. This is explained by the interrelationships between religious symbols, basic religious attitudes, and personal dispositions. Furthermore, even an identical assessment – such as a rejection of nuclear weapons - can be used to justify different responses. Political and ethical debates about the legitimacy of nuclear weapons and nuclear deterrence have in each case taken account of changes in technological and political environments. During the Cold War, they have moved from the question of a ban in principle to the conditions under which the use of nuclear weapons could be justified. But fundamental skepticism toward attempts to declare weapons of mass destruction compatible with the Just War principles has been reflected not least in the 1983 pastoral letter by the U.S. bishops, "The Challenge of Peace". While this influential document did not rule out the possible use of nuclear weapons in defense of fundamental values, it opposed nuclear war-fighting and allowed deterrence only under strict conditions.

Ultimately, the moral assessment of a phenomenon in accordance with the Church's social teachings always proceeds from a theological, ethical and social "overall view". In view of conditions in the world today – including increasing international tensions, terrorism and proliferation risks – the Vatican's current condemnation of the deterrence policy leaves no doubt that it constitutes a heightened risk to the future of humanity and the planet.

Author: Drew Christiansen

From the beginning, nuclear weapons have carried a sense of ultimacy that required religious language to voice their human significance.¹ Following the detonation of the first atomic bomb at the Trinity site in July, 1945, Robert Oppenheimer recited the words of Krishna in the Bhagavad-Gita, "Now I am become Death the destroyer of worlds." Oppenheimer intuited the latent religious dimension of the Manhattan Project: The atom as the first flash of creation and as the explosive instrument of its annihilation.

When General Leslie Groves inquired why Oppenheimer had named the test explosion Trinity, the physicist replied, "I know what thoughts were in my mind. There is a poem of John Donne, written just before his death, which I know and love:

As West and East

In all flat Maps—and I am one—are one,

So death doth touch the Resurrection."

Oppenheimer continued, "That still does not make a Trinity, but in another, better known devotional poem Donne opens,

Batter my heart, three-person'd God."2

The first citation from Donne's Hymne to God in my sicknesse, meditates on dying as the way to resurrection. The second poem, Batter my heart, three person'd God, prays for liberation from all that holds the poet back from surrendering to God. Whether Oppenheimer was unconsciously thinking about his own liberation from the coils of his research or voicing guilt over constructing the bomb, we can only conjecture. Nevertheless, he seems to have been alert to the religious implications of the test.

The Theology of Nuclear Deterrence

Theology is the language in which we articulate the religious dimensions of our experience. Theologians, preachers and religious activists use biblical images to ground their positions on deterrence.³ Consider three root images drawn from the Hebrew and Christian scriptures that have been applied to nuclear weapons: Babel (Gen. 11: 1-32), Armageddon (Rev. 16:16), and the Kingdom of God (Matt. 5:9, 44).

Babel is a story of the construction of an "earthly city," as Augustine later wrote, "to the contempt of God." The political theorist Michael Oakeshott considered Babel an object lesson in collective ambition. It evokes the *hubris* of technological achievement, an apposite metaphor for construction of the atomic bomb. The French Calvinist Jacques Ellul, for another, found in nuclear power a rigid and irreversible system that resists reform.

By contrast, Catholic Social Teaching sees technology as in need of conscious human control (Pope Francis (2015), *Laudato Si*, nos. 52, 114, 184; henceforth LS). "Never has humanity had such power over itself," Pope Francis wrote, "yet nothing ensures that it will be used wisely" (LS, no. 104). Humanity's responsibility for nature, including the use of nuclear energy, is a theme of Francis' encyclical *Laudato Si* (LS, no. 104, and Pope Benedict XVI (2009), *Caritas in veritate*, nos. 68-77). Pope Francis' invocation of human responsibility applies the Second Vatican Council's teaching on the authentic exercise of conscience in history (Vatican Council II, *Gaudium et spes*, nos. 9 and 16).

Armageddon represents the Last Battle at the end of history in which God's enemies are utterly destroyed. The prospect of apocalyptic destruction fascinates biblical fundamentalists and readers of dystopian fiction. In Dispensationalist theology, the righteous long for the end of history, and Fundamentalists may even regard nuclear war favorably as an act of divine retribution. Armageddon even provides a hermeneutic for anti-nuclear opinion. Both liberal Christians and secular critics invoke the catastrophic destruction associated with Armageddon to focus attention on the disastrous risks involved in deterrence strategy. §

The Kingdom of God images an everlasting reign of justice and peace. It provides the vision for Christian pacifists who refuse to join in war as well as for meliorist Christians who hope to transform human existence by instituting "a world without war" or, better, one in which the risk of war is far less likely. Christian pacifists condemn nuclear weapons and urge trust in God. Among these were the monk and spiritual writer Thomas Merton and the historian and nonviolent activist Gordon Zahn.9 For committed pacifists, God's

Kingdom has already come and our duty is to live according to its demands, nonviolently.¹⁰

Others like the US Catholic bishops in their 1983 pastoral letter The Challenge of Peace, though they believe that the Kingdom has begun, also believe the fullness of the Kingdom is still to be. The incompleteness of the Kingdom allows a complex moral posture embracing both nonviolence and Just War. Accordingly, the bishops' nuanced just-war position allows just enough ambiguity to make nuclear deterrence credible.

Fundamental Religious Attitudes

The deeper human attitudes and dispositions draw on a single experience to inspire a pervasive response to life as a whole. The relation between symbol and religious affections is reciprocal. Symbols can inspire religious attitudes. Alternatively, religious attitudes may incline the imagination to certain metaphors or influence how a person interprets them. The symbols may evoke a particular affection, wariness or trust, e.g., and the affection in turn may lead to construing a particular symbol in a certain way, say, determining whether a nuclear Armageddon is welcomed as divine retribution or serves as a motive to abolish nuclear weapons.

Consider this example. While Augustine is the father of Christian just-war thinking, at one point an overwhelming sense of the chanciness of human existence led him to despair of moral choice in wartime, so that he cast himself on the mysterious ways of God:

"... since the whole mortal life of man upon earth is a trial, who can tell whether it may be good or bad in any particular case – in time of peace to reign or to serve, or to be at ease or to die – or in time of war, to command or to fight, or to conquer or to be killed? At the same time, it remains true, that whatever is good is so by the divine blessing, and whatever is bad is so by divine judgment." ¹²

Augustine appeals to the image of a remote sovereign God, who dispenses blessing and judgment by no standard but his own whim. The strength of Augustine's anxious bewilderment informs the image of the sovereign God he applies to the experience of war. There is no hint of God's goodness or providence, as

modern interpretations of human finitude provide.¹³ Events are beyond human control. Driven by this sentiment, Augustine's will is immobilized and his mind shuts down. He is unable to make the moral judgments required by the Just War. Thus, in addition to the ordinary rational elements I list above (rational argument,

From the earliest days, policymakers differed on whether nuclear weapons should be used at all

circumstances), one must assess the religious affections that inform the application of the religious symbol.

Both the monk Thomas Merton and the activist Jesuit Daniel Berrigan opposed nuclear arms, but they split over how to resist them. Berrigan and the Catholic Left found inventive ways to demonstrate their rejection of the economy of death with public displays of resistance, acting out their anger against the establishment. They were righteous prophets. Merton, by contrast, believed practitioners of nonviolence needed to show greater unease over the anger in themselves and place their trust in God. "The key to nonviolence," he wrote, "is the willingness of the nonviolent resister to suffer a certain amount of accidental evil in order to bring about a change of mind in the oppressor and awaken him to personal openness and to dialogue."14 A genuinely nonviolent response, he argued, "does not insistently demand that persons and events conform to their own abstract ideals," as the Catholic Left did.15

The Ethics of Deterrence

Ethical debates have stirred around the bomb since before Trinity. Leo Szilard circulated a letter to scientists at the Manhattan Project labs warning President Roosevelt of the dangers of an atomic arms race. Later he continued to warn about the dangers of nuclear weaponry, but his protests never came to the attention of Presidents Roosevelt or Truman. Before and after the bombings in Japan Oppenheimer wrangled with General Groves, Lewis Strauss of the Atomic

Energy Commission and the House Un-American Activities Committee over his opposition to further development of the bomb, in particular Edward Teller's quest for "the Super," the hydrogen bomb.

The ethical debate evolved with the development of technology and government policy. 16 From the earliest days, policymakers differed on whether the weapons should be used at all. Bernard Brodie, whose *The Absolute Weapon: Atomic Power and World Order* laid the foundations of deterrence theory, argued that atomic weapons were useful only as a deterrent to prevent war. The diplomat George Kennan contended that the weapons were "superfluous to our basic military posture." Both thought the sole purpose of possessing nuclear weapons came to be to avert their use.

MAD

The deterrent posture of the superpowers in the Cold War came to be known as Mutually Assured Destruction or "MAD." That is, deterrence relies on the fear of an aggressor that a nuclear first strike will result in an unacceptable degree of destruction in a retaliatory attack by an adversary. Strategists divided over the size of the arsenal needed for deterrence. Some advocated a numerical edge to provide survivability for the nuclear force and to project a more imposing threat to adversaries. Others urged that arsenals be only large enough to retaliate following a pre-emptive strike. The expansion of nuclear weapons, these strategists believed, had the perverse effect of decreasing national security.

Strategists like Henry Kissinger, Paul Nitze and Herman Kahn held that nuclear war could be continuous with conventional war, with tactical nuclear weapons permitting escalation short of an all-out nuclear war. The morality of tactical nuclear weapons and nuclear war-fighting came to the fore in debates over the deployment of the intermediate range missiles in Europe during the Carter Administration (1977-81). The moral status of deterrence evoked even greater concern as the first Reagan Administration (1981-85) accelerated the arms race with the Soviet Union and prepared its "Star Wars" Anti-Ballistic Missile system. The

administration's talk of fighting and "winning" protracted nuclear war gave a great spur to the anti-nuclear movement in the 80s.

Defending Basic Values

The hardliners believed that tactical nuclear options offered a way out between massive nuclear retaliation and political capitulation. In the Cold War when Liberal Democracy and Communism were engaged in a titanic ideological struggle, theorists assumed defeat would involve an unacceptable loss of a basic value: political liberty. As Michael Walzer, the premier 20th century just-war thinker, wrote, "We accepted the risk of nuclear war in order to avoid the risk, not of ordinary, but of totalitarian, subjugation." The Jesuit theologian John Courtney Murray, building on the teaching of Pope Pius XII, observed:

"There is no indication that the reaffirmation of the traditional principle of defensive warfare, to which Pius XII was driven by the brutal facts of international life, extends only to wars conducted by so-called conventional arms. On the contrary, the Pope extended it explicitly, not only to atomic warfare but even to ABC warfare." ¹⁸

In later years, even some moralists strongly opposed to deterrence were hesitant to apply their conclusions firmly, not only because of the deep values at stake but also because of their perception of the implacable hostility of the enemy.¹⁹

Even the U.S. Catholic bishops (1983), while condemning nuclear war-fighting and expressing skepticism about tactical nuclear war in The Challenge of Peace, the most influential commentary on the issue, allowed that "the defense of key values, even against great odds, may be a proportionate witness" (National Conference of Catholic Bishops, The Challenge of Peace: God's Promise and Our Response, no. 98; henceforth CP.) In an exception to their fundamental position, they conceded that a limited nuclear war might be waged to defend a people's "cherished values" (CP, no. 220). Likewise, Michael Walzer, though fundamentally opposed to deterrence. nonetheless opened a narrow margin for limited nuclear war under the category of "Supreme Emergency" for the survival of a political or faith community.²⁰ He found his warrant in the role political or faith communities serve as "the source(s) of our identity and self-understanding."21

Deterrence and the Just War

For the most part, ethicists treated fundamental values as questions of marginal concern. Most of the debate over deterrence was conducted in terms of the *in-bello* principles of proportionality and noncombatant immunity. Beginning with the Second Vatican Council (1962-65), the Catholic Church had condemned, "Any act of war aimed indiscriminately at the destruction of entire cities or of extensive areas along with their population" (GS, no. 80). The condemnation grew out of the atomic bombings of Hiroshima and Nagasaki, but also the wide-area bombing campaigns, known as "obliteration bombing," against Germany including the fire-bombings of Dresden and Hamburg (GS, no. 80).

For some critics, any use of nuclear weapons, including deterrence, was prohibited by virtue of the axiom that "it is forbidden to threaten what it is forbidden to do."²² Deterrence, they believed, is participation in a threat to commit murder. Much of the debate during the last years of the Cold War, however, focused on is-

Much of the debate during the last years of the Cold War focused on issues of discrimination

sues of discrimination, whether civilian targets could be reasonably distinguished from military ones in a nuclear exchange.

If nuclear warfighting was forbidden, how did the focus on *in-bello* norms arise? The shift of policy to waging nuclear war stimulated discussion during the first Reagan Administration on how to wage a limited nuclear war short of Mutually Assured Destruction. In response, realist ethicists, like Paul Ramsey, believed that responsible ethicists had to try to apply justwar norms to this extreme condition.

Ramsey's fundamental concern was with upholding deterrence; but to do so, he made some dubious moves. He argued that the impact of counterforce nuclear attacks could be limited as to have only tolerable collateral impact on the civilian population.²³ Of course, Mutually Assured Destruction made no such distinctions.

and actual U.S. targeting practices marked military objectives within civilian population centers. Sixty "military targets," wrote Michael Joseph Smith, "had been identified within the city of Moscow alone. Even targeting relatively deserted land-based missile sites would cause unprecedented civilian casualties."²⁴

The British philosopher G.E.M. Anscombe charged Ramsey with "double think about double effect," the principle of just-war morality that allows collateral civilian damage to venture a narrowly directed attack against the enemy's military.²⁵ Assessing the arguments for limited nuclear war, the U.S. bishops concluded, "The burden of proof remains on those who assert that meaningful limitation is possible" (CP, no. 159).

The bishops themselves set three conditions for a morally legitimate nuclear deterrent:

- 1. Nuclear weapons are permitted solely to deter;
- 2. the norm for establishing the strength of nuclear arsenals is *sufficiency to deter*, and
- 3. deterrence should be a step on the way toward *progressive disarmament* (CP, no. 188.) For thirty years the bishops' conditional acceptance of deterrence remained the best-known articulation of the Catholic teaching.

The Current Discussion

Skepticism about the moral legitimacy of deterrence has grown because of changes in the background conditions for the practice of deterrence. As early as 2005, in light of the changed geopolitical conditions after 9/11, five elder American statesmen, former guardians of the U.S. deterrent led by George P. Shultz,

renounced deterrence and advocated nuclear abolition.²⁷ Henry Kissinger, the ultra-realist, explained, "It is not possible for the United States to say no one else can proliferate or build-up nuclear arsenals, while we continue to rely entirely on nuclear weapons."²⁸

During the Cold War deterrence assumed a bi-polar world, but today we live in a multipolar world with nine nuclear-armed states, four of them (Israel, India, Pakistan and North Korea) outside the Nuclear Non-proliferation Treaty. Another, Iran, after U.S. withdrawal from the JCPOA, again is poised to "go nuclear," with several more countries assumed to be ready to follow. In addition, there are potential threats from nuclear-armed non-state actors like al Qaeda and ISIS. In recent years, moreover, according to the Nuclear Threat Initiative, new technologies, "differences in interpretations of what impacts stability and what triggers escalation" have in combination eroded the supposed logic of deterrence between the superpowers.29

In 2013, the Holy See signaled that, in its view, deterrence had become a cover for the failure to disarm.³⁰ Since then, it has evolved an ethics and a diplomacy opposed to the continuation of nuclear deterrence as a feature of global security. In 2013-14, Vatican delegations participated in the Humanitarian Consequences Movement, a Civil Society initiative that reviewed the mounting evidence for the deleterious human and ecological impact of nuclear weapons.³¹ Furthermore, it became clear over time, none of the conditions laid down by the U. S. bishops in 1983 were being observed.

In 2017, the Holy See participated in the UN conference to draft a treaty banning nuclear weapons. Later that year it was among the first states to sign and ratify the Treaty to Prohibit Nuclear Weapons. Ultimately, during a 2017 Vatican conference celebrating the treaty, Pope Francis delivered a forthright condemnation of deterrence, saying of nuclear weapons, "the threat of their use, as well as their possession, is to be firmly condemned." The papal condemnation of deterrence is a judgment on a system of defense that has lost its moral legitimacy, and which in an increasingly unstable geostrategic environment presents a height-

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ened risk to the future of humanity and of the planet. In Catholic moral theology and Catholic Social Teaching, theology is only one element in a moral judgment. In addition, to theological principles and religious symbols, there is a tradition of moral argument, and an assessment of fact. Especially since Vatican II, these contingent factors have played a more important role under the method known as reading the Signs of the Times.

- 1 On "ultimacy" as a way to understand the tacit religious dimensions in secular experience, see Gilkey, Langdon (1969): *Naming the Whirlwind: The Renewal of God Language*. Indianapolis, passim.
- 2 See "Code Name Trinity" at https://en.wikipedia.org/wiki/Trinity_%28nuclear_test%29#Code_name (accessed 3.4.2020).
- 3 On the uses of scripture in interpreting contemporary events, see Gustafson, James M. (1975): Can Ethics Be Christian? Chicago, pp. 117-145; and ibid. (1974): Theology and Christian Ethics (Philadelphia), pp. 121-146. For several theological takes on nuclear weapons, see "The Fire Next Time: Faith and the Future of Nuclear Weapons." Reflections, Yale Divinity School, Spring, 2009.
- 4 Augustine (1960): *The City of God, Book XIV*, Chapter 28. Garden City.
- 5 See Oakeshott, Michael (1989), "The Tower of Babel." In: Clarke, Stanley G. and Simpson, Evan (eds.): Anti-Theory in Ethics and Moral Conservatism. Albany, N.Y., p. 185 ff. 6 See Ellul, Jacques (1982): "A Theological Reflection on Nuclear Developments: The Limits of Science, Technology and Power." In: Wallis, Jim (ed.): Waging Peace: A Handbook for the Struggle to Abolish Nuclear Weapons. New York, pp. 114-121. For Ellul's quasi-deterministic reading of our technological culture, see his Technological Society. New York, 1964.
- 7 See Ellul, Jacques (1977): *Apocalypse: The Book of Revelation.* New York.
- 8 Daniel Berrigan (2009) The Nightmare of God: The Book of Revelation (Eugene, OR) elaborates the apocalyptic outlook of a leading Catholic pacifist and anti-nuclear activist. For a secular use of apocalyptic thinking, see Schell, Jonathan (2000): The Fate of the Earth. Redwood City, CA.
- 9 For Merton's fundamental stance, see "Blessed Are the Meek: The Christian Roots of Nonviolence". In: Shannon, William A. (ed.) (1995): Thomas Merton: Passion for Peace: Reflections on War and Nonviolence. New York, N.Y., pp. 87-108; and, "Nuclear War and Christian Responsibility," pp. 39-58. Also, Zahn, Gordon (1983): "Pacifism and the Just War" in Murnion, Philip (ed.): Catholics and Nuclear War: A Commentary on The Challenge of Peace The U.S. Catholic Bishops' Pastoral Letter on War and Peace. New York, pp. 119-131.
- 10 See Roth, John D. (2002): *Choosing Against War.* Intercourse, PA.
- 11 I draw the proposition about the strength of religious affections from the anthropologist Clifford Geertz who observed religious symbols may evoke "powerful, pervasive and long-lasting moods and motivations" which confer on them "an aura of factuality [so] that the moods and motivations seem uniquely realistic." Geertz, Clifford (1973): "Religion as a Cultural System." In: *The Interpretation of Cultures*. New York, pp. 93-135.

- 12 Reply to Faustus, the Manichean, 22.78. In: Holmes, Arthur F. (ed.): *War and Christian Conscience*. Grand Rapids, p. 68.
- 13 See Gustafson, James M. (1975), pp. 94-114; also Evans, Donald (1979): *Struggle and Fulfillment: The Inner Dynamics of Religion and Morality.* Philadelphia, pp. 49-55 and pp. 73-76.
- 14 Merton, Thomas (1995), pp. 106-107.
- 15 Merton, Thomas (1995), p. 108.
- 16 For an overview of deterrence ethics with arguments on various sides, see Smith, Michael Joseph (1987): "Nuclear Deterrence: The Strategic and Ethical Debates." In: Virginia Quarterly Review, Winter 87. https://www.vqronline.org/essay/nuclear-deterrence-behind-strategic-and-ethical-debate (accessed 14.3.2020). Also Kaplan, Fred (2020): The Bomb: Presidents, Generals and the Secret History of Nuclear War. New York.
- 17 Walzer, Michael (2000): Arguing About War. New Haven, CT, p. 48.
- 18 See Murray, John Courtney S.J. (1960): "Remarks on the Moral Problem of War." In: Nagle, William (ed.): *The Morality of Modern Warfare*. Baltimore, pp. 69-71.
- 19 See Finnis, John, Joseph Boyle, Jr. and Germain Grisez (1988): *Nuclear Deterrence: Morality and Realism*. New York. 20 See Walzer, Michael (2000), p. 49. For "the Supreme Emergency," see his (1977) *Just and Unjust Wars: A Moral Argument with Historical Illustrations*. New York, pp. 251-268, and on nuclear deterrence, pp. 269-283.
- 21 Walzer, Michael (1977), p. 283.
- 22 See, for example, Kenny, Anthony (1985): *The Logic of Deterrence*. Chicago.
- 23 For Paul Ramsey's positions, see Stout, Jeffrey (1993): "Paul Ramsey and Others on Nuclear Ethics." In: *Journal of Religious Ethics*, 19:2 (June), p. 209-238.
- 24 In Smith, Michael Joseph (1987), note 32 above. 25 Walzer, Michael (1977) cites the Anscombe comment, p. 279.
- 26 See Morgan, Patrick and Quester, George: "How History and Geopolitical Context Shape Deterrence," pp. 3-7, and Mazarr, Michael and Goodby, James E.: "Redefining the Role of Deterrence." In: Shultz, George P. et al. (eds.) (2011): Deterrence: Its Past and Future. Stanford, CA, pp. 9-20. 27 See Shultz, George P. et al. (2009): "A World without Nuclear Weapons," Appendix 1. In: Drell, Sidney and Goodby, James E. (eds): A World without Nuclear Weapons:
- End-State Issues. Hoover, pp. 41-46. 28 Cited in Taubman, Phillip (2012): The Partnership: Five Cold Warriors and Their Quest to Ban the Bomb. New York. Kindle ed., Loc. 4753.
- 29 See the report "Rising Nuclear Dangers: Diverging Views of Strategic Stability" at https://www.nti.org/analysis/reports/rising-nuclear-dangers-diverging-views-strategic-stability (accessed 3.4.2020).
 30 For the Holy See's rejection of deterrence, see Mamberti, Dominique (2015): "Address of the Holy See to the High-Level Meeting on Nuclear Disarmament." New York, 26 September 2013. In: Nebel, Mathias and Reichberg, Gregory M. (eds.): Nuclear Deterrence: An Ethical Perspective.
- 31 For a fuller view of Vatican thinking, see "Nuclear Deterrence: Time for Abolition." In: Nebel, Mathias and Reichberg, Gregory M. (eds.) (2015), pp. 87-97.

 32 Address of His Holiness Pope Francis to Participants in the International Symposium "Prospects for a World Free of Nuclear Weapons and for Integral Disarmament,"

 10 November 2017.

Geneva, pp. 81-82.

THE RELEVANCE OF THE HEIDELBERG THESES TODAY

Abstract

Whether nuclear deterrence can be justified in terms of peace ethics is a question that has been widely slipping out of public focus after the end of Cold War. Ever since the rising tensions between North Korea and the U.S. and the threat to use nuclear weapons it has been intensively debated again. The end of the bipolar world order and the new global political constellations with their higher degree of complexity induce numerous actors – among them many representatives of the churches – to negate this question today. Already in the 1950s, the Protestant Church threatened to split over it. With the "Heidelberg Theses" of 1959 and their concept of "complementarity" it succeeded in hedging the contentious issues associated with the two mutually exclusive possibilities - keeping the peace through military means (including nuclear weapons) or by a complete renunciation of force. The underlying idea of mutual conditionality was lost in the further course of the debate, and has now given way to an either/or choice.

Yet neither the demand to abandon nuclear weapons nor their possession for deterrence purposes is without contradictions. Both ways – an unilateral renunciation while nuclear weapons stay in the hands of autocrats as well as the threat to use weapons that may never be used – harbour dilemmas. Recourse to the complementarity of the Heidelberg theses, including the eighth thesis which states that nuclear deterrence is a "still possible" ethical option, does not negate the goal of a nuclear-weapon-free world, but emphasizes the process nature of peace. The word "still" is linked with far-reaching disarmament policy measures. We will not be able to do without the basic idea of common security. This requires confidence-building measures – this approach is not new, but has been seriously neglected in recent decades, including in debates within the Church.

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The question of the legitimacy (or delegitimacy) of nuclear deterrence is once again one of the contentious and currently very relevant topics in ecclesiastical peace ethics. This is evidenced by the 2019 position paper of the German Commission Justitia et Pax, the synod of the Protestant Church in Germany that was held in Dresden in November 2019, and by the debates that took place as part of the "Orientational Knowledge on Just Peace" consultation process in recent years at the Protestant Institute of Interdisciplinary Research (FEST) in Heidelberg. The present article¹ follows on from these debates. It serves as a counterweight to the current mainstream view within the Church, which clearly rejects the legitimacy of nuclear weapons and strategies. In this context, this article strengthens the complementarity concept contained within the Heidelberg Theses and links this concept to the fundamental idea of common security.

The strategy of nuclear deterrence has been highly contentious right back since the 1950s. Indeed, this issue almost caused a split in the Protestant Church in Germany. In the context of these disagreements, the aim at the time was "[staying] together under the Gospel"². This was achieved by means of the so-called Heidelberg Theses (1959)³ – which were formulated by an interdisciplinary commission that was assembled at the Protestant Institute of Interdisciplinary Research (FEST) in Heidelberg as a result of an initiative by the Protestant Military Bishop Hermann Kunst.⁴

While nuclear deterrence was at the heart of political and church discourse in the era of the Cold War and the NATO Double-Track Decision, it has generally no longer been the focus of public attention over the last three decades. However, this now appears to be changing again. The nuclear issue has returned – also within the Church – particularly since April 2017, when the situation in North Korea escalated and the verbal exchanges between Kim Jong-un and Donald Trump were followed by both sides threatening to use nuclear weapons if a war started.

Ethical dilemmas, and possibly even "aporias", arise in connection with nuclear deterrence.⁵ The primary question: Is it permissible to exercise a threat with weapons that must never be used? There are risks associated with the nuclear taboo, which persists through to the present day. These risks appear to have become greater since the end of Cold War bipolarity and the subsequent realignments in global politics. At the very least, the current geopolitical situation has become significantly more complex. With the two new geopolitical triangles of USA-Russia-China and China-India-Pakistan⁶, "new rivalries between major powers"⁷ have become evident, and China has assumed a new key position that has not been reflected upon to a sufficient extent even to the present day. At the same time, international arms control and disarmament efforts have reached a nadir and the nuclear option continues to be a component of military strategies. For example, the US Government's 2018 Nuclear Posture Review even provides for the nuclear option as a response to non-nuclear threats.

Against this background, a Global Zero – a world without nuclear weapons – appears more urgent than ever. While this peace policy goal can be regarded as the consensus, the path to achieving it is a matter of debate. Is it time for churches to "unambiguously reject the moral legitimacy of nuclear weapons and strategies", as formulated by Wolfgang Lienemann⁸? Or to put the question a different way, should the Heidelberg Theses, which were written 60 years ago as a peace ethics compromise solution to the nuclear issue, be regarded as obsolete?

The complementarity of the Heidelberg Theses as a compromise solution

Complementarity is a term borrowed from quantum physics. The physicist Nils Bohr (1927) used the concept of complementarity to describe the observed phenomenon that atomic particles have pairs of two coupled, but apparently contradictory properties. Carl Friedrich von Weizsäcker was instrumental in

introducing this term in the context of peace ethics. In 1943, he stated in his book *Zum Welt-bild der Physik* ("The World View of Physics"):

"In reality, Bohr appears to use the term complementarity to refer to something that is not confined to the specific case of quantum mechanics, but which occurs in all situations where a certain perspective prevents us from simultaneously looking in another direction and where this happens not by chance, but in-

The complementarity thesis, developed as a compromise solution, was intended to ringfence the contentious issues associated with the two mutually exclusive possibilities – keeping the peace through military means or by a complete renunciation of force

stead due to the inherent nature of the matter in hand."9

The Heidelberg Theses (1959) make use of this term when stating the following:

"Thesis 6: We have to try to understand the various decision of conscience taken in the dilemma of nuclear weapons as complementary actions.

Thesis 7: The church must recognise that renouncing weapons is a Christian mode of conduct.

Thesis 8: The church must recognise that participation in the attempt to secure peace in freedom by the presence of nuclear weapons still remains a possible mode of conduct for Christians."10 (Translations from German.)

This complementarity thesis, developed as a compromise solution, was intended to ringfence the contentious issues associated with the two mutually exclusive possibilities – keeping the peace through military means or by a complete renunciation of force – and to replace the "either-or" dichotomy with a "both-and" scenario. Deliberations on this matter can be found in the reasoning behind Thesis 11:

"In effect, each of the two positions that we have described underpins the other. In a very questionable manner, nuclear arms at least keep the arena open in which people such as rejecters of armaments, who enjoy civic freedom, can live in accordance with their convic-

tions with impunity. However, we believe that these people, in a latent manner, help to keep open the intellectual space in which new decisions perhaps become possible." (Translation from German.)

If the complementarity thesis initially related to the specific situation of nuclear deterrence, it was subsequently also applied in a general manner to the two fundamental positions regarding military force and to the decision to choose between military and civilian service. This rationale continued after the end of the Cold War. The document *Schritte*

In the 2007 peace memorandum by the Protestant Church in Germany, the fundamental concept behind the Heidelberg Theses of removing the antagonism between inherently incompatible positions is lost

auf dem Weg des Friedens. Orientierungspunkte für Friedensethik und Friedenspolitik ("Steps along the path to peace. Orientation points for peace ethics and peace policy") by the German Protestant Church (EKD) explicitly emphasises that the Church cannot exclusively advocate either military service or non-violent peace service. Instead, soldiers and conscientious objectors complement and justify one another:

"Soldiers need conscientious objectors and the peace services so that their actions are perceived as an expression of political responsibility by Christians and are not misinterpreted as resigned acceptance of this world; in turn, conscientious objectors and the peace services also need soldiers so that their actions are interpreted as a testament to Christian hope and are not misinterpreted as an expression of a lack of solidarity with the victims of violence and breaches of peace." 11

The 2007 peace memorandum by the Protestant Church in Germany (EKD) persists with this fundamental approach of "both-and" with regard to the legitimacy of military force, but no longer reasons with the mutual dependence of the two positions:

"The Christian ethos is based on a readiness to renounce violence (Matthew 5:38 ff.) and

is primarily defined by the choice of non-violence. In a world that continues to be unredeemed and not at peace, serving others may also include the necessity of protecting rights and laws by using counter-force (cf. Romans 13:1-7). Both methods – that of renouncing force and that of military service – are preceded by conscientious, responsible decisions."¹²

With regard to the question of the ethical legitimacy of nuclear deterrence, these two conflicting positions - nuclear pacifism, according to which "the threat of nuclear weapons can no longer be regarded as a means of legitimate self-defence"13, and the position that holds that "deterrence remains a valid principle"14 – also exist side by side in an unmediated manner. In this way, the fundamental concept behind the Heidelberg Theses of removing the antagonism between inherently incompatible positions is lost. This constellation in the memorandum by the German Protestant Church (EKD) is also lacking in terms of content: the two mutually exclusive positions and maxims are not free of contradictions and cannot be considered completely independently.

Ethical approaches to nuclear deterrence

Three fundamental positions can be identified in the discourse concerning nuclear deterrence in peace ethics:

"Use of nuclear weapons must always be wrong, and possession for deterrence must also be wrong.

Use might in some forms and circumstances be legitimate, and possession can therefore be justifiable.

While use must always be wrong, possession for deterrence can be justifiable." ¹⁵

In all three cases, there are critical questions to be answered: adherents to the first position must ask themselves how they justify leaving the use of nuclear weapons "as a one-sided option for the unscrupulous and the aggressive, unconstrained by countervailing power" 16. After all, nuclear weapons have been developed and do exist. Hopes of achieving a world without nuclear weapons can be tak-

en into account; however, this would appear to be a distant vision rather than a political reality within the context of current developments (such as the renaissance of geopolitics discussed above). The 2017 Treaty on the Prohibition of Nuclear Weapons (TPNW) was not able to involve nuclear-weapon states and NATO states.

The second position is able to avoid the credibility problem of nuclear deterrence, but it is confronted with the problem of proportionality and the question of how the use of nuclear weapons can co-exist with the nuanced and proportional use of force. Even the development of so-called "mini-nukes" does not resolve the problem of proportionality, as the "collateral damage to the civilian population as a result of radiation from the contaminated radioactive fallout would still be immense" in the case of nuclear weapons with a low explosive power.

Adherents to the third position ultimately have to confront the dilemma of posing a threat using weapons that must never be used. Nuclear deterrence requires a sufficient degree of resolve to use the deterrent in critical situations. If the option to act in this manner is not available, the deterrent will not have any effect. This option is thus based on the tenuous assumption that "by consciously taking certain risks, the enemy can be encouraged to engage in a certain type of positive behaviour, and kept from carrying out specific actions"¹⁸.

The eighth Heidelberg Thesis of "securing peace in freedom through the presence of nuclear weapons" - even if this presence is not defined in further detail - can be assigned to the third position. Firstly, one could ask whether this approach has proven itself in practice in recent decades. The answer is an ambivalent one: on the one hand, the nuclear deterrent - notwithstanding all the uncertainties - has probably helped to prevent a nuclear war; on the other hand, it has not contributed to achieving progress on longterm disarmament. However, slowing of the dynamics of nuclear armament is possible in principle, even though favourable framework conditions are necessary; the INF Treaty and

the New START Treaty serve as examples in this regard. Although the Non-Proliferation Treaty has not led to a long-term reduction in the nuclear potential of nuclear-weapon states and is often criticised for this, it has nonetheless helped to limit proliferation.

Nuclear deterrence in new global political constellations

How is the strategy of nuclear deterrence to be evaluated in the context of the current situation? The fundamental dilemma, the "double risk"¹⁹ – according to which the prevention of war by nuclear deterrence can fail, but a unilateral renunciation of nuclear weapons, or else the holding of nuclear weapons solely by

The function assigned to nuclear deterrence – to prevent war – has become more fragile

autocrats or dictators can put peace in freedom at risk, continues to exist.

With the return of geopolitics, the strategy of nuclear deterrence appears to be experiencing a political renaissance. In this context, the new global political constellations that have emerged in recent years – whether these are more complex multipolar structures or the current military strategies of NATO and nuclear-weapon states – have undoubtedly lowered the inhibition threshold for the use of nuclear weapons and increased the risks of a nuclear war (including one triggered accidentally). The function assigned to nuclear deterrence – to prevent war – has become more fragile.

However, the converse is not necessarily true, i.e., that unilateral renunciation of nuclear weapons would reduce the probability of their use; instead, this option would also present a risk to peace. The latter might not apply to Germany. However, just imagine hypothetically that only countries such as North Korea or Russia were in possession of nuclear weapons: what about the freedom of countries with different understandings of values

and order (such as the Western world), or of former Soviet republics that are now casting off the influence of Russia?

In addition, new technological developments – tactical nuclear weapons with lower explosive power that are associated with the potential to wage limited nuclear wars – have not led to a paradigm shift. On the one hand, the debate regarding the potential waging of limited wars is not new; since the 1950s, this has been the focus of strategic considerations. On the other hand, the technological ability to wage wars that are legitimate under international law, i.e. in accordance with the principles of proportionality and of distinc-

A lot of compelling reasons continue to mitigate against (non-legitimate) waging of a limited nuclear war

tion, continues to lie far in the future.²¹ Beyond this, a lot of compelling reasons continue to mitigate against (non-legitimate) waging of a limited nuclear war. For example, the risk of escalation of limited nuclear deployments – including those directed only at tactical targets – to the point of self-destruction continues to exist:

"Even if the war should be fought initially with so-called low-yield nuclear weapons, the losing side will always be tempted to redress the balance by resorting to weapons of greater power, thus inviting counterretaliation. Moreover, [...] limitations on the size of weapons to be employed cannot be enforced in practice, and each side will, therefore, seek to antici-

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pate its opponent by using the largest practicable weapon."²²

A limited nuclear deployment would be extremely dependent on prerequisites, as both sides would have to have "access to reliable information on the intentions of the other side". As a result, it does not just remain impossible, but above all, also undesirable for all sides, regardless of current military strategies. 4

What conclusions can be drawn from this? Merely demanding the abolishment of nuclear weapons proves to be too simple. Giving up these weapons is not possible if this is not done in a multilateral manner. In addition, it can lead "to a complete reversal of cause and effect if nuclear weapons are identified as the cause of the danger instead of paying attention to the political causes of the conflict"25. This does not mean giving up the ambition of a world without nuclear weapons. However, one must differentiate between hope (even in the context of faith) and pragmatic political implementation. Peace is a process. The complementarity of the Heidelberg Theses is an expression of this. In this regard, the temporary nature of the word "still" contained in the Heidelberg Theses needs to be examined in further detail. It implies interim solutions. As criticised by Wolfgang Lienemann, these solutions should not be interpreted in such a broad manner that this "still" is "ultimately granted infinite validity for the duration of this fallen world"26. Instead, these solutions must be regarded as "part of a concept for political transformation"27. The "still" should be interpreted not just with regard to time, but also with regard to conditionality. Nuclear deterrence can be a "still [...] possible" option, i.e. an ethically justifiable option, if it is linked with arms control and disarmament measures in order to get closer to achieving peace in freedom.

The Treaty on the Prohibition of Nuclear Weapons may represent an important signal in this regard, particularly within the context of complementarity in peace ethics, but it does not have political force without including the nuclear-weapon states and NATO states. In addition, Harald Müller, a leading

peace researcher from Frankfurt, has observed: "The nature of this treaty does not represent significant progress relative to the Non-Proliferation Treaty and in certain details it is actually a step backwards." For example, it opens up new loopholes "that appeared to have been closed with the Non-Proliferation Treaty and the resolutions of its review conferences (on the control of dual-use goods, for example)" 29.

Outlook: Nuclear disarmament through common security

This article argues that the complementarity of the Heidelberg Theses, with the inclusion of nuclear deterrence, should be taken seriously. This does not negate the goal of banning nuclear weapons, but emphasises the process-based character of peace. Comprehensive steps in disarmament policy are associated with the expression "still" contained in the Heidelberg Theses. It will not be possible to do without the fundamental concept of common security. Indeed, the term itself already identifies the approach to a solution: we can no longer seek to achieve security from one another, we can only achieve it with one another.30 Today, this can no longer be limited to just the United States and Russia; multipolar structures require the involvement of all relevant actors. This makes common security more difficult to achieve, but there is no alternative to this. The risks associated with new technological developments and geopolitical constellations also point in this direction. Peace as a social phenomenon cannot be attained by a single - not even by a collective - actor; instead, it can only ever be achieved jointly. Confidence-building measures are particularly important in the context of the necessary arms control and disarmament. This approach is not new, but has been seriously neglected in recent decades – in internal church debate too - due to the focus on institutions for achieving liberal peace such as the EU and NATO. If long-term disarmament policy measures are to be successful, they must go hand in hand with the strengthening of cooperative structures and organisations such as the OSCE.

At the same time, disarmament must include gradual steps that are practicable for all states. With regard to nuclear disarmament, these steps could range from zones that are free of nuclear weapons, through to negative security guarantees³¹ and limitations to solely strategic nuclear weapons or minimal deterrents. In this area, new and alternative disarmament steps need to be developed that are capable of creating appropriate incentives even for nuclear-weapon states. We need to seek win-win situations. A Global Zero – the banning of nuclear weapons – is achievable only at the end of this path.

In addition, the implementation of common security is not just a task for political elites; it

If long-term disarmament policy measures are to be successful, they must go hand in hand with the strengthening of cooperative structures and organisations such as the OSCE

also requires efforts by all of society:

"Only if the concept of common security has become a common good and a mind shift of a few people has become a matter of course for many people will the masters have the necessary legitimacy for restructuring." 32

Churches have an important role to play here: in the cause of just peace, they can help to build confidence and promote a new culture of dialogue, and dialogue is most urgently required in those situations where it appears impossible.³³

1 This article is based on Werkner, Ines-Jacqueline (2019): "Zur Aktualität der Heidelberger Thesen in der Nuklearfrage – ein Kontrapunkt." In: Werkner, Ines-Jacqueline and Hoppe, Thomas (eds.): Nukleare Abschreckung in friedensethischer Perspektive. Wiesbaden, pp. 47–61. The author would like to thank Springer VS for granting the right to reprint this article.
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- 4 The members of this commission included the physicist and philosopher Carl Friedrich von Weizsäcker, the physicist Günter Howe, the theologists Helmut Gollwitzer, Karl Janssen, Hermann Kunst, Edmund Schlink and Erwin Wilkens, the historian Richard Nürnberger, the legal scholar Ulrich Scheuner, and the philosopher Georg Picht, who had been recently appointed as the head of FEST.
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"Nuclear weapons (...) must remain instruments of deterrence, with the objective of preventing war" Emmanuel Macron, 2020.¹

"Germany also remains committed to nuclear participation within NATO. We view this nuclear umbrella as an essential part of European security" Annegret Kramp-Karrenbauer, 2020.²

Lately, the discourse on nuclear weapons in the European Union (EU) has experienced a revival in popularity. With the United States (US) as an increasingly unreliable ally, as evidenced in Iran's and the US's withdrawal from the Nuclear Deal, French president Emmanuel Macron spoke at the Munich Security Conference of the need for a new EU-wide nuclear strategy. While, for some, the topic's prominence may have come as a surprise, this move sparked a debate which seemed to have been lurking beneath the surface, waiting to resurface. Germany's defence minister Annegret Kramp-Karrenbauer, with astonishing speed, averted and reaffirmed President Macron's argument of how the existence of nuclear weapons is essential to security and to the prevention of war.

Does this all sound familiar? It sure does. Prevention through deterrence is one of, if not the most central concepts originating from the period of bipolarity between 1945 and 1989. From post-World War II, the "Cold War", to today, nuclear deterrence as a military concept remains critical to the mainstream narrative of how "natural order" can be restored and maintained. To elaborate, starting in the 1980s, deterrence led to a (nuclear) arms race, and progressively turned into a (inter) national security strategy.3 Deterrence as a military strategy saw its "heyday" during the "Cold War", when the US and Soviet Union's power-plays formed a bipartite world. Having a nuclear shield has been framed as a tool to peace, and thus has become a critical component of international politics and the political system. Up until today, being in possession of nuclear weapons - backed by a large non-nuclear military corpus or not – is inextricably

EXPOSING FLAWS IN THE LOGIC(S) OF NUCLEAR DETERRENCE AS AN INTERNATIONAL SECURITY STRATEGY

A FEMINIST POSTCOLONIAL PERSPECTIVE

Abstract

Nuclear deterrence as a security strategy originated from the period of Bipolarity and remains critical to the neorealist security narrative today. Being protected by a nuclear shield has been framed as essential to international security and as a tool to peace. This paper looks at the logic behind this neorealist narrative and deconstructs the world's power game that fuels the nuclear arms race by applying a feminist postcolonial analysis. We reveal how patriarchy and (neo)imperialism act as global organizing principles to uphold this logic. By looking at nuclear tests and their ramifications in French Polynesia and the Marshall Islands, we demonstrate how racialized and gendered dynamics of inclusion and exclusion define who is considered under the umbrella of international security and who is not. That is, irrespective of the deprivation of indigenous population's homes and resulting social, economic and physical insecurities, nuclear tests were justified as necessary to keep the world at peace. Finally, we argue that the deeply entrenched logics of racialized and gendered inequality and injustices are inherent to a system in which nuclear deterrence is argued as a tool to peace.

linked to questions of power and dominance in the international community.

With the recent rejuvenation of nuclear deterrence, we ought to look at the logic behind this narrative and ask ourselves: Do weapons of mass destruction and the threats of using them really function as a means to international security? What historical and social processes may we be neglecting within this narrative? What do we fail to see? And – posing a truly feminist question – who is being silenced when such a strategy is adopted?

To find answers to these questions, feminist postcolonial approaches to IR provide analytical prisms that allow us to expose some of the flaws in the logic of security through nuclear deterrence. Feminist postcolonial analyses provide several tools to uncover and deconstruct how power is distributed in political systems and social structures.4 Although there is no single conceptualization of power, there is a common commitment to "exploring absence, silence, difference, oppression and the power of epistemology"5. While feminist analyses unveil how patriarchy and gender act as global organizing principles, adding a postcolonial perspective to the analytic equation reveals how (neo)imperialism interacts with race, gender

By the late 19th century, the world had been mapped according to an imperialist sort of gusto, influenced by Eurocentric and Orientalist conceptions of the Western Self and the non-Western Other

and class to shape international politics and determine the distribution of power, especially access to and control over resources, rights and participation, as well as – for this analysis, most importantly – security. If we perceive the world through these prisms, it becomes evident how the (re)production of power is contingent upon these historically grown ordering international principles.

In the following, we briefly outline the epistemological linkage between imperialism and neorealist theories. We then demonstrate how societal norm systems fit within the logics of nuclear deterrence and examine how hegemonic masculinities operate on a systemic level

to reproduce the logic behind deterrence as a means for international security. This is followed by an inquiry of how notions of superiority and inferiority manifest and reproduce "order" in the international community, and how this justifies the possession of nuclear weapons. Finally, we analyse how racialized and gendered dynamics unfold and culminate in such contexts. We do so by asking the following questions: how do societal and political norms come into place, who gets to make decisions, and who may be silenced in such processes?

Neorealist Theories – forms of imperialism?

Nuclear deterrence and related security politics have evolved from the political realities of Cold War times, an Anglo-American thumbprint of neorealist theories of International Relations (IR) and the discipline's "imperial" remnants.6 IR was born out of and mirrored the foundations of a world organized by imperial powers that conceived superiority and inferiority in racist and culturalist ways.7 By the late 19th century, the world had been mapped according to an imperialist sort of gusto, influenced by Eurocentric and Orientalist conceptions of the Western Self and the non-Western Other.8 How international politics operated stood and still stands in reciprocity with hierarchizing conceptions of race, gender and order.

Therefore, neorealist logic behind nuclear deterrence is epistemologically linked, in large part, to Eurocentric historiographic processes. This significantly influences common understandings of order and disorder in the international community. Accepting hierarchies as natural misconstrues the above outlined historical processes and omits racialized and gendered power relations in the discipline as well as in practice. As neorealist theories have (had) a significant impact on a policy level, such theories not only undermine consequences of nuclear and security politics on a (inter)national and local level, but also render specific actors and communities, such as women (of colour), invisible.10

If we then mirror this widely-accepted narrative around nuclear deterrence during the Cold War with the stories behind e.g. anti-colonial independence wars between the 1940s and 1980s, as portrayed in the documentary "Concerning Violence" with Frantz Fanon's annotations on colonialism, the foundations of the nuclear peace and war dichotomy begin to totter. Wars during this period were anything but 'cold', despite the existence of nuclear weapons. Conflicts just did not take place in the West and in imperial metropoles. The narrative of nuclear deterrence preventing war and providing international security, thus, neglects the complex stories and knowledge of the intricate political, power and ideological entanglements of this period.

Nuclear deterrence as a societal norm

As discussed above, neorealist perspectives prevail in international nuclear policy-making. Neorealism presumes the necessity of certain defence systems – such as "nuclear umbrellas" – without questioning the social, political and environmental consequences of deploying these weapons of mass destruction. Nuclear weapons have unequivocally become normal security instruments. How can the existence of nuclear weapons, with the one and only effect of nuclear disaster, become normal weapons for us?

The consensual understanding of what is the norm and what is deviant originates from narratives which shape and permeate societies. These highly affect how we view the world, which makes the control over norms an issue of power struggles. 12 A crucial part of these prevailing narratives is based on the racialized and gendered polarity between the Self and the Other, femininity and masculinity and its associated attributes of rogue vs. civil, weak vs. strong, submissive vs. dominant, deviant vs. norm, and peace vs. war. This narrative constructs masculinity as logical, rational and superior and is considered to be the norm of identity and societal behaviour. On the other hand, femininity is associated with emotionality, weakness, irrationality, i.e. any characteristic which deviates from the norm.13 The interrelation of masculinity and femininity is

hierarchized, that is masculinity dominating femininity.¹⁴ As these gender norms penetrate all spheres of society, narratives and identities are created which are subordinating in and of themselves. Gender norms, then, do not necessarily originate from physical, violent oppression, but rather, from the social produc-

Owning nuclear weapons is characterized by notions of protection and masculinity. As a result, critical stances on nuclear deterrence or even disarmament are frequently discarded as naive and irrational

tion of subordinated subjects. 15 Socially grown binaries also translate into the security system by associating militarized defence systems, especially nuclear deterrence and the possession of nuclear weapons, with symbols of strength and power. These are attributed with masculine rationality and reason. Therefore, the ascribed characteristics of femininity and masculinity also affect the way people think of weapons, war and the military.16 Owning nuclear weapons, therefore, is characterized by notions of protection and masculinity. 17 As a result, critical stances on nuclear deterrence or even disarmament are frequently discarded as naive and irrational, following a common pattern of attributing those with feminized notions of weakness or emotionality.¹⁸ Hence, nuclear disarmament or nonviolent peace processes are symbols of weakness, while nuclear deterrence is legitimized through the symbolic strength of nuclear arms. As gender norms remain deeply entrenched in our societies, such norms are easily integrated within the narrative of security.19

Patriarchy and hegemonic masculinity as foundation

Looking into where and how these norms are incorporated, it leaves us realizing that this system constructed in a dualistic order favours characteristics of the strong heteronormative masculine self. People dominating high-levelled positions of governments, research or military structures inter alia in the nuclear realm are mainly mid-aged, wealthy (context-specif-

ic, white), heterosexual men who benefit from their positions and aim to uphold the system to their favour.²⁰ Feminists refer to this ruling group as "hegemonic masculinity"21, oriented at Antonio Gramsci's concept of a hegemonic ruling class. The system favouring hegemonic masculinity is what we have already encountered as patriarchy. It arranges gender relations according to a hierarchy which works on all levels - between individuals, groups and states assuring decision-making power from the top to bottom. Decision-making in this hierarchy excludes all who are referred to as deviant, i.e. the Other: women, LGBTQI, non-whites, youth, indigenous groups or marginalized ethnicities. This systematic exclusion creates and reproduces the perspective of only one group of

Hegemonic masculinity reproduces hierarchies of who gets to sit in the control room to decide on the production, deployment and detonation of nuclear weapons

people as the accepted norm in all spheres of decision-making. This already is an expression of masculinized violence which applies to almost any sector of the military or security.

Specific to nuclear deterrence, hegemonic masculinity not only reproduces hierarchies of who gets to sit in the control room to decide on the production, deployment and detonation of nuclear weapons. Such masculinity also determines who suffers most from the extraordinarily high human and environmental costs of such development and deployment.²²

Drawing up an interim result, we already find three flawed assumptions, which are, firstly,

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that societies and human behaviour can be explained through a dichotomous worldview, secondly, that armament elevates strength and rationality, whereas disarmament connotes weakness²³ and thirdly, that only one group's reality can be applied to the rest of the world.

Processes of Self and Othering, which reproduce hegemonic masculinity, play a crucial role not only on a decision-making level, but also find expression in the international community, as we shall see in the next section.

Order and disorder: Who maintains it?

As previously alluded to in the introduction, a historically grown Western liberal international system and patriarchy as a political order stand in reciprocity to one another, which (re)produces notions of superiority and inferiority to manifest 'order' in the international community. The logic of nuclear deterrence as an initial military, then international security strategy implies assumptions of a conflict between competing systems in a hierarchized world of superior powerful and inferior peripheral actors. It suggests that this competition is intractable, and can merely be contained. Here, we can pinpoint the system's gendered and racialized institutionalization of rationality, logic, and competition, which constitute the preconditioning characteristics for nuclear deterrence as an international security strategy. A system of order and disorder evolves in which certain actors possess nuclear weapons or enrich uranium while others do not and cannot. While Western actors seem to have given themselves a "carte blanche", peripheral ones, such as India, are allowed to partake if they obey the rules and comply with categories of being "rational", "civil", "reasonable" and "controllable". Orientalist notions of the Self and the Other interact to reproduce the West self-constitution superior to the non-Western, uncivilized, savage and exotic Othered rest, which is conceived of as a disordering threat to the historically grown international order. "By drawing on and evoking gendered imagery and resonances, the discourse naturalizes the idea that 'We' / [...]/ the responsible father

must protect, must control and limit 'her,'" the emotional, out-of-control state, for her own good, as well as for ours"²⁴.

All possessors of nuclear weapons have to share a consensual understanding of what qualifies as logical and what is rational. Therefore, military or governmental leaders have to either agree on the neorealist logic or are no longer seen as eligible to possess these weapons because of their alleged incapability to handle them. As soon as an actor appears "irrational" such as Iran, the entire security system is in danger.²⁵ Only when all possessors of nuclear weapons act perfectly rational in the neorealist logic, and consequently maintain an international order according to Western standards, is the usage of such weapons prevented, and international security prevails. Ray Acheson concludes that nuclear weapons serve as a means to maintain patriarchy - hence a system of power – not to maintain security.²⁶

If then, as suggested by Macron, "we" live in a safer world when certain actors are or are not able to have nuclear weapons at their disposal, we can only substantiate the importance of Shampa Biswas' cogent question: Who is meant by "we". 27

Whose security are we talking about?

So far, our analysis discussed how hegemonic masculinity and questions of order and disorder are paramount to upholding the proposition that nuclear deterrence can sustain international security. With this analysis in mind, we pause for a moment with the truly inconvenient question: "Whose security are we talking about?"

To find a possible answer, we look at the Marshall Islands and French Polynesia in the Pacific Ocean, where the USA and France undertook several nuclear tests between the 1940s and 1990s. This example, we argue, unveils how gendered and racialized notions culminate to rationalize and justify nuclear weapons and their functionality as a means to guarantee international security.

The brevity of this analysis does not allow for us to delve into the history of these archipelagos, however, the presence of the US and French forces results from imperialist expansion and settler-colonialism, reinforced by numerous conflicts ranging into the early 20th century, including World War II as a predecessor to the "Cold War".

Tests of nuclear bombs in these colonized territories in the name of deterrence can be regarded as an expression of imperial and patriarchal conceptions for the following reasons.

Justification for these tests was, first of all, drawn from the idea that the existence of nuclear bombs was inherent to the "Cold War" period. Conducting nuclear tests was framed as a necessary deterring precondition to prevent a global catastrophe of a nuclear war in times of bipolarity. Second, when the first ramifications of the bombardment of Hiroshima and Nagasaki unfolded and, with scientific progress, the sheer force of the bomb grew, it became evident that more remote sites for testing were needed. Now, it is curious to see how remoteness is defined from a US or French perspective. Far away from home, these areas were classified as military bases that did not pose any security threat to the French or US American population. For natives of the archipelagos, on the other hand, this meant the irrevocable destruction of their livelihoods. The justification of testing in these geographical spheres originated from ideas of how the world was ordered. That is, how patriarchal and imperial conceptions arranged inferiority and superiority on an international and local level, sustaining the liberal Western order. Denigrated as weak, uncivilized, yet exotic and paradisiac, racialized and gendered notions of the islands' native populations reinforced and reproduced conceptions of the

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heteronormative, i.e. hegemonic masculine Self and deviant, feminized Other, which made it easy to accept the costs of such tests. This feminist postcolonial perspective was, and still is, frequently excluded from "Cold War" and nuclear deterrence narratives until this day.

While the post-World War II saw a renovation of human rights; claiming all humans to be equal, subliminal racist and sexist differences prevailed to shape international politics. Colonized territories still had to carry the can for what was labelled as international security. Power differentials resulting from patriarchal and imperial orders made it obsolete to consider who had to suffer from these tests in what

Power differentials resulting from patriarchal and imperial orders made it obsolete to consider who had to suffer from nuclear tests in what way, be it economic, social, political or cultural

way, be it economic, social, political or cultural. A gendered racialized hierarchy of superiority and inferiority was maintained as the indigenous populations of French Polynesia and the Marshall Islands did not count as internationally relevant, irrespective of the compromises made to their social, economic and physical security. These are not only stories of the past. Doctors around the world estimate that 2,4 million people died of cancer related to tests of nuclear weapons until the 1996 Comprehensive Test Ban Treaty.²⁸

The absence and silencing of these peoples' stories in today's recurring discourse on the necessity of a nuclear umbrella draws on and reinforces "Cold War" narratives. As the stories of colonized, oppressed women and men are omitted, we not only see who writes history, but how stories are marginalized to maintain certain versions of history. As a result, the security of only a few, i.e. the hegemonic ruling class, is considered.

Therefore, the patriarchal and imperialist leitmotif is reproduced. This is where conceptions of hierarchy, order, logic, as well as rationality intersect, and declare nuclear deterrence as necessary to maintaining international security.

Nuclear deterrence can only prevail in an unjust world

Coming back to how nuclear deterrence is presented as a solution to the problem of balancing international security, it may be less surprising that, in political practice, concepts of power in neorealism are used. Questioning those would otherwise reveal embedded expressions of inequality and power differentials and would therefore push actors into an inconvenient situation of significantly rethinking their nuclear policy and understanding of security.

In this article, we have elaborated that logics behind security need to be deconstructed. Feminist security approaches consider a wider range of security actors than just the state and add several more levels, such as social or economic security that are beyond the scope of this paper. Yet, attending to Biswas' question already reveals how security is highly subjective, how it is maintained and defined by those in power through self-reproducing narratives, such as the narrative of the "Cold War". It becomes a vicious circle where narratives feed into maintaining a patriarchal and hegemonic system. This, again, upholds norms that shape our perceptions of security policy strategy and, in the end, legitimize certain actions. As we have shown in this article, we need to break out of the circle to be able to grasp the depth of such power plays.

Nuclear Weapons are entry tickets to power

Deterrence is about maintaining positions at the top of the hierarchical power pyramid, controlling and shaping societal norms in the global order and, in the end, taking advantage of such positions. It is about the power to force national interests upon other countries and exploit natural resources or labour, which then feeds the highly gender unjust system of capitalism – but that is a whole other story that we did not even touch. Nuclear weapons seem to be the entry ticket into the circle of the most powerful. It is a flawed assumption that deterrence strategy or even possessing nuclear weapons is a security strategy. This becomes

apparent in countries' fear of losing power, or in countries' motivations to rise up higher. It is not an actual method to create security by equalizing threats. It is the expression of a system with an underlying political and social soil of injustices. International security requires means, such as conflict transformation, trust building and mediation. Security, most importantly, needs disarmament.

We end with the only possible conclusion, that if nuclear deterrence is central to securing an international order and can only be performed by selected actors, peace can only be maintained if inequalities between actors remain intact. In other words, so-called peace solely exists if the world remains as unequal as it is. This reveals the deeply entrenched logics of racist and gendered inequality and injustices that are inherent to a system which was built upon imperial and patriarchal grounds – carried onwards throughout the second half of the 20th century, and still prevailing today.

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WE ARE THE BOMB

OPAQUE FINANCIAL FLOWS AND UNWITTING INVOLVEMENT IN NUCLEAR ARMAMENT

Author: Robin Jaspert

Nuclear armament – by consent?

We live in an age of armament. The doctrine of mutually assured destruction (MAD) - i.e. the premise of securing peace by maintaining a balance of terror - is gaining popularity again, the Intermediate-Range Nuclear Forces (INF) Treaty has been terminated, and a massive expansion and modernization of nuclear arsenals is taking place worldwide. Government spending on armaments has increased enormously, not only since Donald Trump was elected President of the United States of America. But it is fair to say there has been an exponential increase since 2017. This is particularly true for the NATO states, whose total annual expenditure on armaments has increased by more than one hundred billion U.S. dollars since then. One of the biggest issues here is that this has often been pushed through by parliaments against the will of the majority of the population.² This tendency is seen not only in overall arms expenditure, but also particularly in relation to the financing of nuclear weapons to maintain or enlarge the so-called nuclear shield. For the years 2019 to 2028, a total of just under 500 billion U.S. dollars has been earmarked in the U.S budget for nuclear arms programs. This compares to around 400 billion U.S. dollars in the previous decade.3

We can observe similar developments in Europe. Based on the argument that Brexit leaves France as the only remaining Member State in the European Union with its own nuclear weapons, the French government is counting on higher spending to enlarge the arsenal, and plans to spend around ten percent of its arms budget on nuclear armaments.4 These compulsive actions also stem from a politically forced armament process that promotes a balance of terror which has now become multipolar. This can be interpreted as a continuity of deterrence through block formation, in the same way as during the Cold War. This logic also receives support from the German side, from politicians and other public figures such as Wolfgang Ischinger.5 In Germany, debates continue

Abstract

A lack of control of often inscrutable capital flows enables capital management companies to invest in nuclear armaments companies, usually without the depositor being aware of this. The campaign "Don't bank on the bomb" run by the organization ICAN is committed to divestment from nuclear weapons and aims to make financial flows of international nuclear armaments companies transparent.

With the United Nations Principles for Responsible Investments (UNPRI), there are principles for responsible capital investments that contain so-called ESG criteria (Environment, Social, Governance), but companies can only be encouraged to comply with these principles. A closer look reveals that capital flows from German companies to armaments companies too, which are sometimes involved in nuclear armaments projects. For example, policyholders or bank customers often do not know that they indirectly support nuclear armament through their deposits.

The most suitable route to an international ban on nuclear weapons remains the political route on which a considerable distance has already been covered by the adoption of the Treaty on the Prohibition of Nuclear Weapons. This does not go unnoticed even by international financial market players who, particularly after the 2007/2008 crisis, pay particular attention to image cultivation and may therefore refrain from financing nuclear armaments. However, this alone will hardly be enough. In order to make the financing of nuclear armaments companies unattractive, individual, social and structural measures must interlock, because the nuclear armaments industry will not voluntarily stop production; just as little as the financial sector will independently suspend investments in the lucrative weapons of mass destruction sector.

as to whether the German state should acquire new and costly delivery systems for the nuclear weapons stationed in Büchel. If it does so, then this decision would also be clearly against the majority will of the people. According to opinion polls, around 60 percent of people are opposed to purchasing such systems.⁶

This expenditure can be classified as public financing of nuclear armaments. But this is not the only source of finance that nuclear weapons producers have access to. In addition to government funding, it is also possible to raise finance via the capital markets. A large number of nuclear weapons firms obtain financing this way. The issue here is that it also involves people who actively oppose nuclear armament. In other words, we are talking about non-consensual involvement in the production and provision of weapons of mass destruction. State arms financing is subject to forces of democratic control and a certain degree of transparency in nation states that are parliamentary democracies. Yet these features do not apply to capital market based financing.

For the sake of clarity, it needs to be pointed out here that companies such as Boeing are nuclear weapons producers. Although the firm is a civil aviation manufacturer, it is also involved in developing and producing various missiles with nuclear warheads. This broad definition is important, firstly because no company in the world produces nuclear weapons on its own. All of them only produce components. While these individual parts do not constitute a nuclear threat, when put together they form nuclear weapons. Secondly, it should be noted that as soon as one part of a company is responsible for producing nuclear weapons, it is impossible - when investing in the group as a whole – to ensure that no part of the capital will be used for the armaments sector.

Financial flows in the age of passive index funds

To better understand this financing mechanism, we need to look at current developments in the global financial markets. Probably the most important change besides the steadily increasing importance of financial markets

in recent years is the shift away from actively managed hedge funds toward passively managed index funds.

Until at least 2007, there was a prevailing belief in the financial markets that individual players could outperform the market average. The investment model of active funds was based

State arms financing is subject to a certain degree of transparency in nation states that are parliamentary democracies. Yet these features do not apply to capital market based financing

on this assumption: highly paid speculators manage large amounts of capital, which are entrusted to them on the promise of above-average returns. They would invest this money in ways they thought to be particularly profitable, according to a risk profile that was in line with investors' wishes.

As a consequence of this model becoming more and more widespread, ever more financial market players attempted to generate a better return than the market average. Things got to the point where a majority of fund providers advertised that they were better than the average. It is pretty obvious – just mathematically speaking – that this cannot work. Another disadvantage of this model is the high (personnel) costs incurred by employing extremely well paid speculators, which further reduce the return.

As financial market structures changed following the ongoing crisis of 2007, a burgeoning stream of capital was transferred out of actively managed funds and into passive funds. We are talking about a sum of around 3.2 trillion U.S. dollars in the period from 2006 to 2018.7 While this did not mean the end of actively managed high-risk hedge funds, their importance is steadily diminishing.

The term "passive index fund" covers several kinds of funds. Some of the better known varieties, for example, are exchange traded funds (ETFs) and index mutual funds. The largest providers of these services are BlackRock, Vanguard and State Street. In total, they manage assets of more than eleven trillion U.S. dollars.

If you add together their portfolios, they hold the majority of shares in more than 40% of all stock exchange listed U.S. companies.⁸

Unlike actively managed funds, passive funds do not bet on outperforming the market. Instead, they try to reflect the market average as closely as possible. This offers a number of advantages over the active model. Some of the most important are the significantly lower (personnel) costs and the lower risk of loss. Points of criticism include the possibility of rising systemic risk, and heavy market and power concentration among a few providers. Moreover, this mecha-

The ongoing changes on the investment markets make it more difficult to consciously invest in accordance with moral concerns, such as being opposed to nuclear weapons

nism leads to more complicated financial flows, and makes it more difficult to consciously invest in accordance with moral concerns, such as being opposed to nuclear weapons.

Indices, or rather representations of them, are used as a tool for making investment decisions. But what exactly is an index? Let's take the DAX - or Deutsche Aktien Index - as an example. The DAX is a stock index that represents changes in prices in the shares of the 30 largest and most liquid stock-exchange-listed companies in Germany. It is often wrongly assumed that the performance of the DAX measures the development of the real economy in Germany. What it in fact measures is the speculative value of 30 companies that are defined by the criteria described above. Apart from the DAX, there are many other indices with a variety of different definition criteria. Some well-known examples are the Dow Jones Index, the S&P 500, the MSCI World Index, and the Nikkei 225.

It is important to realize that indices were not created along with the universe. They are the products of private index providers who decide the exact criteria and the method of calculating key indicators. This market, too, is highly concentrated. In the case of the DAX, the provider is Deutsche Börse AG.

But how does this relate to the financing of nuclear armaments? The answer is simple: nuclear weapons producers are listed in some indices. As a result, they receive considerable sums of capital from various capital management companies via the investment mechanism of passive index funds. At present, the essential part of their financing is still provided through direct loans and equity investments, but unless there is an abrupt turnaround in financial market trends, this will change in the foreseeable future. The impact of the Covid-19 pandemic on the development of passive investment cannot be predicted at this stage. At the moment, it is still relatively easy for civil society organizations that campaign for (nuclear) disarmament to identify the responsible persons and demand changes in investment policies.9 But the new complexity of passive investment creates a responsibility gap.

Another important point needs to be made here. In the course of the financialization of our economic systems (i.e. the increase in the importance and amount of financial capital), more and more businesses have been developing into capital management companies. They invest money in financial markets for the purpose of generating returns. Alongside traditional capital management companies, such as banks, an increasing number of insurance companies, governments (for example via health funds or state pension funds) and other businesses also act as capital management companies now. 10 Like all other actors in the financial markets, these companies too like to invest in passive index funds.

As it is almost impossible for private individuals to track all the financial transactions and the resulting investments made on their behalf, they are almost inevitably – and possibly not consensually – involved in investments in companies whose purpose they morally object to. Of course this issue exists not only in relation to nuclear armaments. For example, it also affects people who are opposed to coalfired electricity generation. They may support a boycott of RWE, the energy company, and yet nevertheless find that their money is made available to RWE via the route described above. RWE is listed in the DAX index, which many passive index funds follow. To make this somewhat abstract topic a little more concrete, let us take a specific example: private insurance companies in Germany.

German involvement in nuclear armaments, with the example of insurance companies

As pension provision has become increasingly privatized, the importance of private sector insurance groups has been growing. More and more people have private pensions¹¹ as they fear that their state pensions will not be sufficient. Now let us suppose that as a private individual who is in favor of banning nuclear weapons, I want to take out a life insurance policy to protect myself against various eventualities and to back up my retirement. It is important to me to be part of a large community of insured people, as this is supposed to offer me the most security. The three largest private insurance groups by market share in Germany are Allianz AG, Munich Re and Talanx AG.

So I ask these providers about their life insurance offerings, and soon enough my research leads me to the relevant group subcompanies: Allianz Lebensversicherung AG, ERGO Vorsorge Lebensversicherung AG and HDI Lebensversicherung AG. At this point there are two scenarios. The first is that I sign a contract unsuspectingly, and thus participate in the financing of nuclear weapons. I cannot expect my insurance provider to inform me about this link, as they are not subject to any obligation to provide information.

The second scenario goes like this: before I sign the insurance contract, I am already somewhat skeptical about the investment behavior of insurance companies. On this basis, I decide to look into their self-imposed investment criteria. With Allianz AG, I quite quickly find the "ESG Integration Framework" - a document that defines the company's exclusion criteria for investments, which take account of environmental, social and governance (ESG) issues. On page 16 of the document, I read that Allianz AG excludes investments in organizations involved in the development, production, maintenance and trading of "controversial weapons". Since more than 80 countries have signed a nuclear weapon ban treaty, I naturally assume that this

type of weapon also clearly falls into the "controversial" category. Allianz AG takes a different view. Nuclear weapons have no place in the list of controversial weapons, as I discover on page 33. To clarify: the Treaty on the Prohibition of Nuclear Weapons (TPNW, also known as the nuclear weapon ban treaty) was initiated in the United Nations and prohibits the ratifying states from testing, producing, transferring, possessing, stockpiling and using nuclear weapons.

Then I try Munich Re and soon locate their Corporate Responsibility Report, which the

Since more than 80 countries have signed a nuclear weapon ban treaty, I naturally assume that this type of weapon also clearly falls into the "controversial" category. Insurance companies takes a different view

company publishes every year. Here too, I search in vain for a categorical ruling-out of investments in nuclear weapons. But on page 22, the company boasts that it does not invest in banned weapons. However, the list of outlawed weapons includes only landmines and cluster munitions. Biological and chemical weapons do not seem to be a problem.

So I do some research on the Talanx AG website and find out that they are committed to the United Nations Principles for Responsible Investment (UNPRI). Via these principles, the United Nations attempts to encourage capital management companies to make responsible investments, based on a voluntary commitment. Participating companies are expected to integrate environmental, social and governance (ESG) criteria into their investment decisions, and to base their own business conduct on these criteria. Regular and transparent public reporting is required, as a way of verifying and ensuring implementation of the principles. Talanx AG did not sign the principles until November 2019, however, which is why no data was available at the time of writing this text. The list of UNPRI signatories includes Warburg Invest, one of the main players in the criminal - as has now been established by a court of law - cum-ex / cum-cum fraud scheme at the expense of the German taxpayer. Merely signing the guidelines therefore does not necessarily mean that investment behavior will be guided by moral concerns, or that investments will not be made in controversial weapons. Furthermore, I cannot find a single reference in the Talanx AG Sustainability Report as to how the group conducts itself with regard to investments in arms companies.

Thus none of the three largest German insurance companies seems to have any interest in not investing in nuclear armaments. So, in keeping with my personal convictions – I decide against taking out life insurance. If I do not want to be involved in financing nuclear armaments, I really have no other choice.

With the appropriate know-how, an investigation of the investment portfolios of Allianz Lebensversicherung AG, ERGO Vorsorge AG and HDI Lebensversicherung AG fairly quickly reveals the composition of their assets. In their annual reports, all three report investments in the Black-Rock Global Allocation Fund, which follows the S&P 500 index, among others. This index is pro-

As soon as I make my capital available to any part of a group, it can be used for any purpose within the company, without me having any way to influence it

vided by S&P Dow Jones Indices and includes not one but two companies that are involved in the production of nuclear armaments. One is Boeing, which also has a civil aviation unit. The other is Honeywell. Since the fund combines the S&P 500 with the FTSE World Index (and others), the nuclear weapons manufacturer Safran SA also receives capital at this point.

As mentioned earlier, as soon as I make my capital available to any part of this group, it can be used for any purpose within the company, without me having any way to influence it.

Apart from these passive investments, Allianz AG in particular also makes extensive direct investments in nuclear weapons production. It is estimated that it has investments in nuclear weapons manufacturers totaling more than 900 million U.S. dollars. Besides Allianz AG, the

German capital management companies most heavily involved in nuclear armaments are Deutsche Bank (approx. \$ 6,757.4 million), DZ Bank, the parent company of the Volksbanken-Raffeisenbanken cooperative banks (approx. \$ 1,525.1 million), Commerzbank (approx. \$ 1,322.3 million), BayernLB (approx. \$ 518.6 million), IKB Deutsche Industriebank Aktiengesellschaft (approx. \$ 163.2 million), Landesbank Hessen-Thüringen (approx. \$ 148.1 million), KfW (approx. \$ 115.1 million), Landesbank Baden-Württemberg (approx. \$ 115.1 million), Siemens (approx. \$ 114.1 million) and Munich Re (approx. \$ 43 million). 12

Against powerlessness: efforts and approaches

Given the complexity of the interrelationships, it seems appropriate to ask whether there are any promising approaches that might make the financing of nuclear weapons firms more difficult or impossible. First of all, it has to be said that the most effective and reliable way to outlaw nuclear weapons is the political one. If the years of political campaigning and persuasion achieve their intended goal and a growing number of nation states sign and ratify the TPNW, the greatest possible impact will be achieved by this means. To date, the treaty has been signed by 81 countries and ratified by 35.13 This not only prevents state financing of nuclear weapons, which makes up the lion's share, but also sends a clear signal to financial market actors. It can be assumed that banks and insurance companies, whose reputation has taken a blow as a result of last crisis in 2007-8, have a strong interest in cultivating a positive image. Therefore, a partial retreat from financing nuclear armaments can be expected as more countries sign and ratify the ban treaty. However, this route alone goes nowhere near far enough toward the goal of cutting off funding for the production of nuclear weapons.

In addition to this approach, other steps have been and are being taken. For example, public confrontation, civil society advocacy efforts and direct talks have led even Deutsche Bank, which is known for controversial investments violating human rights¹⁴, to devise

policies prohibiting investments in nuclear weapons companies. However, these consist of more loopholes than obligations, and even their implementation can be described as deficient.15 The efforts of the United Nations to create sustainable investment guidelines seem promising and have produced some success. Here a major problem with financial markets is attacked directly: the lack of transparency. Since the participating institutions are committed to public reporting, their financial flows become visible and comprehensible to a critical public with relatively little effort. They can be commented on, and public pressure can be created in this way. But there are two problems this fails to address: firstly, the ambitions of supranational institutions like the UN can potentially be undermined by stronger sovereign rights of nation states. Secondly, the approach described above is based entirely on voluntary commitments. If I have something to hide, I am hardly going to volunteer a full public disclosure of my finances. That requires public pressure on the parties involved. The International Campaign to Abolish Nuclear Weapons (ICAN), for example, has conducted an online campaign in which the Volksbanken-Raiffeisenbanken were asked to stop their controversial investments. Subsequently the banking group proudly announced new guidelines, but these did nothing to change its financial involvement in nuclear weapons of mass destruction. Although it will no longer grant project-based loans for the development of nuclear weapons, loans for "general purposes" will continue to be given to producers of nuclear weapons.

Even methods such as these achieve only limited effects. On top of this, the investment mechanism of passive index funds creates the responsibility gap mentioned above. When capital management companies are confronted with the fact that they make controversial investments in this way, they usually point out that investing in passive index funds is the norm and that responsibility lies with the funds. The funds say that they just follow indices, which they are not responsible for creating. The index providers argue that they issue different products for different needs –including indices that are subject to strict ESG criteria. It is therefore

up to their clients to make this decision. There have been various attempts to create responsibility in this merry-go-round. In 2019, the Swiss Sustainable Finance Initiative (whose members manage capital of 6.8 trillion U.S. dollars) called on index providers to remove companies involved in the production of controversial weapons from their indices. The reactions to this demand could best be described as risible, and provide a deep insight into just how much this crisis-creating industry lacks any sense of responsibility.¹⁶

The situation and its structures are highly complex, the advances made so far have not been crowned with success, and they are no-

The nuclear arms industry will not cease production voluntarily, just as the financial industry will not of its own accord stop investing in the lucrative sector of weapons of mass destruction

where near sufficient – especially when expected developments on global financial markets are taken into consideration. The political and social ways and means have to be exhausted, and ultimately massive pressure has to be exerted on specifically named financial market players.

Cooperation between the individual, societal and structural levels is necessary in order to demand and implement the transparency and assumption of responsibility that is called for. One thing seems obvious: the nuclear arms industry will not cease production voluntarily, just as the financial industry will not of its own accord stop investing in the lucrative sector of weapons of mass destruction. Both can only be expected as a result of coordinated, multifaceted and high-profile pressure.

At the present time, political majorities for nuclear disarmament do not exist in Germany. In any case, success on this issue can only be sought through cross-party work. Civil society organizations like ICAN carry out such activities, holding talks with politicians from different parliamentary groups to convince them of the need to ban nuclear weapons, and urging the necessary political action. This takes place

from the local government level all the way up to the national, supranational and international levels. In addition, it is necessary to ensure an informed and interested public that makes its voice heard in the debate. Of course these processes would not be possible without individuals who are willing to contribute resources and take responsibility.

Financial markets and capital management companies must not shirk their responsibility toward the planet and society. Due to the lack of democratic oversight and often opaque capital flows, the demand for transparency is fundamental, as is the strict implementation of ESG criteria and compliance with them. The "Don't Bank on the Bomb" campaign should definitely be mentioned in this context. For years, it has campaigned for divestment from nuclear weapons. Its means to achieving this objective include research into financing relationships, publications, and direct talks with financial market institutions. But since it is not only selected banks but also, as shown in this article, a large number of capital management companies who are involved in financing nuclear weapons, they must be forced to assume responsibility for independently, fully and transparently informing their customers about controversial investments in their products. This is the only way to ensure that individuals are not unknowingly and often unwillingly involved in financing nuclear weapons. However, pressure is required from individuals, who must switch to a bank that has a moral compass, and which must demand changes in investment policies and transparency from their insurance companies

Let us be clear: Covid-19 shows us that our society's resources must not be invested in weapons of mass destruction. They are urgently needed elsewhere.

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The Author



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With Pope Francis' condemnation of nuclear deterrence, and the Holy See's position in favor of the Treaty on the Prohibition of Nuclear Weapons (TPNW), the Catholic Church has abandoned its interim tolerance of the strategy.

This change in attitude creates a conflict of conscience for Catholic-oriented members of the German armed forces, since Germany is committed to NATO and the NATO Alliance sees its ultimate guarantee of security in the threat of using nuclear weapons to deter an attack. These weapons are mainly those of the United States, but also of the smaller, autonomously acting nuclear powers - the United Kingdom and France. In addition, Germany - like Belgium, Italy and the Netherlands – is committed to "nuclear sharing". This means that American atomic bombs are stored in these countries and can be used in defense by national fighter pilots, once authorization is given by the U.S. president.

The German Commission for Justice and Peace has published a detailed justification of the change in attitude by the Catholic Church, in a position paper entitled "Outlawing Nuclear Weapons as the Start of Nuclear Disarmament". The Commission focuses mainly on the unjustifiable consequences for the civilian population of using nuclear weapons, which are in violation of international humanitarian law and at the root of ethical concerns.

These arguments are not new, but this is an opportunity to reopen a public and transparent discussion about nuclear deterrence – a topic long absent from public discourse – especially as these are questions of existential importance. However, the many dimensions of this complex issue must be weighed up to enable responsible political decisions and provide individual guidance.

Historical roots of nuclear deterrence

During the Second World War, civilian populations were exposed to large-scale enemy aerial bombardments. While these were initially accepted as the "collateral damage" of attacks

EXTENDED NUCLEAR DETERRENCE AND SHARING

OVERCOME TOGETHER, DON'T GO IT ALONE

Abstract

In order to prevent further political and military destabilization, Germany must assume its leading role in Europe responsibly. At the present time, a unilateral withdrawal of the Federal Republic from nuclear sharing would shake up European solidarity and stability. At the same time, however, it is important to suppress the concepts of limited nuclear warfare with tactical nuclear weapons and to breathe new life into conventional and nuclear arms control.

The concept of nuclear deterrence emerged at the beginning of the Cold War from the conventional inferiority of the United States and their allies in Europe to the Soviet Union. At the beginning of the East-West conflict, the Allies deterred with massive nuclear weapons strikes in the event of an aggression by the Soviet Union. Due to the Soviet Union's developing capacity of a strategic retaliatory strike, NATO's deterrence strategy was adjusted several times over the duration of the conflict by strengthening the conventional armed forces. The "decoupling debate" that is recurring today also has its origin here.

After the end of the Cold War, various opportunities were missed to create a strategic balance of interests between the United States and Russia. At least since the annexation of Crimea in 2014, the dilemmas of the escalation theories have returned. Although the nuclear arsenals on both sides are nowhere near as large as they were in the Cold War era, there is still mutual destructibility. In addition, the danger of the proliferation of nuclear weapons comes to the fore today.

on military targets, the targets of "strategic bombing" later on in the war included the arms industry, transport infrastructure and urban civilian populations. The atomic bombs dropped on Hiroshima and Nagasaki in August 1945 marked the terrible climax of Allied "strategic" aerial warfare, but also its end. Its purpose was to force the enemy to surrender, not only by destroying the war economy and disrupting logistical lines of communication, but also by demoralizing the civilian population through high losses to such an extent that even an authoritarian regime had to give up.

However, historical judgment remained divided over the extent to which air strikes of this kind actually decided the outcome of the war, and whether this strategy was ethically and politically justifiable – especially since they were obviously a serious violation of international law. During the Korean War (1950-53), the first signs became apparent that the civilized world would shy away from a war of this kind in the future. The concept of "self-deterrence" was born, and with it the question of whether threat-

Through the previously unimaginable effects of area bombing and a few "superweapons", the concept of "self-deterrence" was born

ening such a strategy would credibly deter war anymore. Especially in the English-speaking world, however, the previously unimaginable effects of area bombing and a few "superweapons" were remembered as a means of waging war that promised victory without high military losses on the battlefield.

With the onset of the Cold War in Europe, this interpretation gained new political significance. The West, led by the United States and Great Britain, feared that the Soviet Union together with its allies could use its huge conventional superiority to overrun Western Europe. But it did not seem politically or economically justifiable to station enough conventional forces in Western Europe to establish a military balance there. In this context, recourse to the threat of nuclear escalation seemed to be a

strategic solution that would deter an attack and maintain peace. The first nuclear strategy of the United States and Great Britain was therefore to threaten to destroy the enemy's population centers ("counter-city" targeting) in response to an attack.

Initially, the NATO strategy assigned only a "tripwire" function to conventional armed forces. They were supposed to clearly identify an attack and briefly delay it before the Allied nuclear powers responded with massive nuclear strikes against the enemy's industrial and population centers, as well as the political leadership. However, this thinking had to be revised once it became clear that the Soviet Union was also capable of threatening Western Europe with short and medium-range nuclear weapons. Since then, it has been a Western European and especially a German concern to avoid a nuclear war on the potential battlefield in Central Europe, as well as the destruction wrought by conventional mobile warfare.²

Consequently, NATO had to strengthen its conventional forces in order to repel an attack as far "forward" as possible, and limit or if necessary contain the need for a nuclear escalation. Although the establishment of the Bundeswehr from 1955 onward significantly improved the conventional position of the NATO Alliance, it did not resolve the fundamental dilemma. Nonetheless, NATO relied on U.S. nuclear weapons having the potential for "escalation dominance", meaning that the USSR would be unable to achieve any significant military advantages before its losses reached an intolerable level.³ To be able to conduct the escalation in stages and crush conventional attacks without immediately triggering a nuclear inferno, "tactical" nuclear weapons were assigned to conventional armed forces. These could be used against military targets on the battlefield and in the Communications Zone up to the Soviet border.⁴ Strategic nuclear forces were now also focused on military targets such as the command system, communication routes, central logistics and the enemy's air and missile forces ("counter-force" doctrine).

However, by the time the Cuban Missile Crisis ended in 1962, and with the Soviets developing intercontinental missiles, it became evident

that this strategy had reached its limits. The Soviet Union was on the way to achieving nuclear parity with the United States. It was now able to keep the United States' core territory under nuclear threat even without geographically advanced medium-range missiles. With the development of survivable components in the strategic nuclear "triad" - land-based intercontinental missiles (ICBMs), sea-based submarine-launched ballistic missiles (SLBMs) and heavy combat bombers with intercontinental range - the Soviet Union now had a strategic "second-strike capability" like the United States. This means that even when the attacker has triggered a "first strike", the country hit still has enough strategic nuclear weapons to be able to annihilate the attacker's heartland too. From now on, NATO's escalation concept had to be formulated under conditions of mutually assured destruction (MAD).

Conceptual dilemmas of "extended nuclear deterrence"

NATO responded to these strategic changes by adapting its military strategy and strengthening its conventional forces. The 1968 "flexible response" strategy envisaged a three-stage concept for deterring an attack.⁵ First, "direct defense" would seek to repel an attack close to the border and avoid a nuclear escalation if possible. If the enemy continued the attack, NATO threatened "deliberate escalation", i.e. selective "first use" with limited nuclear strikes to end the war ("intra-war deterrence"). If the enemy were to escalate further, they would be threatened with a "general nuclear response" by the NATO nuclear powers and their allies.

Accordingly, deterrence meant credible communication of the military capability and political will to successfully repel an attack (denial), or inflicting incalculable and unacceptable costs on the attacker that would be out of all proportion to any advantages gained from the military aggression (punishment). This was based on the assumption that the enemy would recognize the intention and act rationally.

Since the late 1960s, nuclear parity and the strategic second strike capability of the United States and the Soviet Union (now Russia) have

posed an almost insoluble dilemma for NATO's escalation concept. Firstly, it is a dictate of reason that both nuclear powers have to avoid a strategic exchange of nuclear strikes against their core territories ("sanctuaries") and their critical military and civilian infrastructure, as this would result in mutual destruction. Since that time, mutual deterrence of the strategic "first strike" has been the main task of the "strategic triad". On the other hand, the United States and NATO have stuck to the concept of "extended deterrence", i.e. the threat of selec-

When NATO's political guidelines for nuclear operational planning were drawn up, the differences in interests between the U.S. as a nuclear power and the states of the "Central Europe battlefield" became clearly apparent

tive nuclear escalation with the use of "tactical" but also longer-range nuclear weapons, in order to deter a conventional attack on Western Europe. However, the Soviet conventional armed forces were also equipped with numerous "tactical" nuclear weapons. In addition, Soviet medium-range missiles and long-range bombers could pose a nuclear threat to Western Europe.

NATO's nuclear planning was thus faced with the task of formulating a deterrence concept that threatened a potential attacker with the risk of intolerable costs, while also declaring its own risks of a nuclear escalation to be limitable or acceptable in such a way that the threat of escalation would not be undermined by obvious self-deterrence. Yet when NATO's political guidelines for nuclear operational planning were drawn up, the differences in interests between the U.S. as a nuclear power and the states of the "Central Europe battlefield" became clearly apparent. While the United States for obvious reasons sought to avoid an early strategic escalation, Germany and its immediate neighbors feared that deliberate escalation could trigger a nuclear escalation spiral and develop into a regionally limited nuclear war at the expense of the Central Europeans.6

In the absence of any clear solution to this dilemma, the Alliance opted for a strategy of

ambivalence that emphasized the incalculability of the risks to an attacker, but disregarded the likely unacceptable consequences of a nuclear escalation for the Allies. In their view, it was neither possible nor necessary to agree on a specific, pre-planned escalation model in the event of a conventional attack, provided that it was possible to keep the enemy in the dark and burden him with the incalculable risks of further escalation. This in turn relied on NATO having a large number of options available, and the assumption that the enemy could not predict the Alliance's response. The Alliance's "escalation dominance" was to be maintained in every conceivable scenario and thus deter the potential aggressor.7

Given this situation, the United States kept a broad arsenal of different "tactical" (substrategic) weapons available for NATO in Europe, from anti-submarine weapons and anti-aircraft missiles to nuclear shells for the artillery, short-range missiles, and free-fall bombs that could be used by "dual-capable" combat aircraft. At the same time, NATO was also allo-

There were more than 7,000 U.S. nuclear weapons in Europe, 5,000 of which were stored in West Germany

cated a number of strategic nuclear weapons for planning purposes. Germany in particular attached importance to the fact that selective first use sent a political signal that nuclear escalation could not be limited to the Central European battlefield. Germany therefore called for the conceptual integration of strategic forces at an early stage. The United States, on the other hand, emphasized the need to use tactical nuclear weapons if necessary to defeat an attack in Central Europe and on NATO's European flanks. They should not only be available for "selective escalation", but also be used in the event of a "general nuclear response".

The compromise concept of not committing to anything but preparing everything eventually resulted in the provision of more than 7,000 U.S. nuclear weapons in Europe, of which 5,000 were stored in West Germany. To calculate the required number of warheads,

the various delivery systems had to be taken into account as well as their regional availability, their operational distribution, and the need to form a reserve to compensate for any losses.

The Soviet Union also provided around 3,000 "tactical" nuclear weapons for its stationed forces in Europe.¹⁰ In addition, it threatened Western Europe with medium-range missiles. The Soviet military strategy in the event of war was to go on the offensive with rapid and deep attacks. They assumed that the use of nuclear weapons was inevitable. This is what created the dilemma in NATO's escalation concept: while the concept might limit NATO's own first use, the enemy could act reciprocally, thus knocking holes in the defense and continuing the attack. At any rate, the enemy's reaction was as unpredictable as NATO's escalation concept, and the danger of destroying the "battlefield" could not be dismissed. It was difficult to see how the war could be stopped if the enemy operated according to the same logic as NATO.

In France's view, only the threat of strategic strikes against critical targets in the aggressor's heartland was (and still is) capable of deterring regional nuclear war. Although this was not ruled out under NATO's strategic concept, it was highly unlikely unless the U.S. was prepared to risk American cities to save German cities. On the other hand, Soviet offensive forces could be defeated militarily if the U.S. was also unscrupulous enough to destroy the battlefield of Central Europe. The question was how credible the Soviet leadership considered the one or the other option to be.

This is where the "decoupling debate" originates. It revolves around (Western) European fears of no longer being protected by U.S. strategic nuclear weapons when the United States had to prioritize its own survival interests. This debate intensified at the end of the 1970s following the deployment of Soviet SS-20 intermediate-range missiles, and finally led to the NATO Double-Track Decision of 1979. Consequently, from 1983 onward, the U.S. began stationing 108 Pershing II medium-range missiles and 464 ground-launched cruise missiles in Germany, Italy, Belgium, the Netherlands and

the UK.¹² They were able to hit critical targets in the Soviet heartland beyond Moscow. But since the 1967 Harmel Report, NATO had also offered *détente*: dialog and arms control.¹³

In response to NATO's change of strategy, France withdrew from the Alliance's military integration and nuclear planning in 1967, and has since pursued an independent nuclear strategy. West Germany maintained its status as a non-nuclear state, and took a different path. Driven by the concern that in the event of an attack on the Federal Republic, the U.S. would escalate too soon, too late, on too small a scale, on too large a scale, or not at all, it sought a say in nuclear planning primarily by means of "nuclear sharing". 14 U.S. nuclear warheads were assigned to hundreds of German delivery vehicles - fighter planes, anti-aircraft missiles, artillery pieces, shortrange missiles and Pershing 1a medium-range missiles. In peacetime, they were guarded by American custodial teams; but in the event of a conflict they could be used by German units if authorized by the U.S. president. As a result, German delivery vehicles could cover not only the German "battlefield" but also the Soviet-controlled glacis up to the Polish-Soviet border, with fighter bombers and - the only country apart from the United States to have them - Pershing 1a missiles.

"Nuclear sharing" pursued several objectives:

- to tie the United States to Germany, since U.S. troops and nuclear weapons would have been directly affected in the event of an attack, and their deployment and use seemed inevitable;
- risk and burden sharing in the Alliance, especially since Germany also shared responsibility for the use of nuclear weapons and was a potential target area due to its geographical location;
- securing a special role for Germany in NATO's nuclear planning alongside the U.S. and UK as nuclear-weapon powers;
- the creation of an additional risk for Soviet armed forces, as it remained unclear at what point American weapons would be authorized for use via German delivery systems;
- and not least a "second key" for Germany

for the use of nuclear weapons on and from German soil, since despite their operational assignment to NATO in the event of war, the delivery systems were ultimately under the authority of the German chancellor, not the U.S. president. This meant that the chancellor could also prevent "German" nuclear operations.

Changes in the political environment and missed opportunities

Initiated by President Gorbachev's reform policy and the West's offer of dialog, the end of the Cold War offered the opportunity to reduce the military threat and replace confrontation with future security cooperation. Its first tangible expression was the Intermediate-Range Nuclear Forces (INF) Treaty of December 1987 between the United States and the Soviet Union, which prohibited the possession, production and testing of land-based intermediate-range and shorter-range missiles with a range of 500 to 5,500 km. In May 1991, all of the approximately 2,700 ballistic missiles and cruise missiles in this category were dismantled, with intrusive verification measures.¹⁵ That same year, the bilateral Strategic Arms Reduction Treaty (START I) limited the number of deployed strategic delivery systems to 1,600, with a maximum of 6,000 nuclear warheads. 16

The INF Treaty was followed in 1990 by the Treaty on Conventional Armed Forces in Europe (CFE Treaty), which reduced and limited key categories of conventional military equipment in Europe. It created a military balance between the two blocs at that time, and led to the elimination of around 50,000 treaty-limited weapon systems by 1996. Russia and Germany bore the main burden of the reductions. Turther reductions, including voluntary ones, followed until the turn of the millennium. The number of dismantled weapon systems rose to over 100,000.

The unification of Germany, the Paris Charter of the Conference on Security and Cooperation in Europe (CSCE) and its conversion into the Organization for Security and Cooperation in Europe (OSCE), the withdrawal of Russian

troops from Central Europe and the Baltic States, the dissolution of the Warsaw Pact and the disintegration of the Soviet Union marked the historical paradigm shift. The likelihood of an Alliance conflict had diminished, and with it the need to keep a large number of nuclear weapons ready for a nuclear escalation. Presidents Gorbachev and Reagan agreed that a nuclear war could never be won, and must never be fought.

In 1991/92, the presidents of the United States and the Soviet Union/Russia agreed to withdraw their tactical nuclear weapons (almost) completely from the stationing countries and to reduce their numbers considerably without any treaty agreements. However, the U.S. still retained around 600 free-fall bombs in the "nuclear sharing" countries, partly due to German reservations. ¹⁸ To date, the number of stationed nuclear weapons is thought to have fallen to 150, of which about 20 are in Germany.

Although NATO's strategic concept¹⁹ from now on stressed that the option of nuclear use

Although from the 1990s on, NATO stressed that the option of nuclear use was very distant under the given circumstances, it stuck to the principle of nuclear deterrence and never formally gave up the first-use option

was very distant under the given circumstances, it stuck to the principle of nuclear deterrence and never formally gave up the first-use option.

This stance also played a role in NATO's eastward expansion, which from 1999 to date has led to the accession of 14 countries in Central, Eastern and South-Eastern Europe. Moscow's concerns that NATO troops and American nuclear guarantees were moving closer to Russia's borders, destroying the CFE Treaty's concept of balance and jeopardizing the goal of security cooperation, were taken into account by the Alliance in the NATO-Russia Founding Act of 1997. Initially, this considered only three accession countries and gave an assurance that there would not be any additional permanent stationing of substantial combat forces in those

countries. There was also no intention, no plan and no reason to deploy nuclear weapons on the territory of new members. Furthermore, there was a commitment to adapt the CFE Treaty to the new situation, to strengthen the OSCE with the aim of creating a common space of security without dividing lines, and also to foster closer security cooperation between NATO and Russia.²⁰

Despite these renewed efforts to preserve the strategic balance of interests through declarations of restraint, Moscow after the turn of the millennium feared that the U.S. had started a new geopolitical zero-sum game to Russia's disadvantage. The initial reason for this was the Bush administration's withdrawal from the 1972 Anti-Ballistic Missile (ABM) Treaty in 2002, and its announcement that it would set up a strategic missile defense system in the continental U.S., in Europe and at sea. The Kremlin saw this as an attempt to undermine Russia's second-strike capability in the long term. In the wake of the terrorist attacks on the United States on September 11, 2001, the Kremlin had expressed its solidarity and supported the Afghanistan mission, but in 2003 it condemned the intervention in Iraq, as it did also in the case of the Kosovo and Libya interventions (1999/2011), as a violation of international law and a departure from the rules-based world order.

Although the Adapted Conventional Armed Forces in Europe Treaty (Adapted CFE Treaty) was signed by all States Parties to the CFE Treaty, it was ratified by only four, including Russia. The U.S. exerted pressure in the Alliance to prevent the ratification of the Adapted CFE Treaty, while at the same time pushing ahead with NATO's eastward expansion, stationing troops in Romania and Bulgaria, and finally pressing for Ukraine and Georgia to join NATO. This led to a radical change in policy in Moscow. At the end of 2007, Russia suspended its participation in the "old" CFE Treaty, whose concept of balance had become obsolete. The closer the U.S. moved its military presence to the Russian borders, as in Georgia, the more nervously Moscow reacted, and lent its support to separatist regimes in the post-Soviet territorial conflicts. The Georgian attack on Tskhinvali and Russian peacekeepers in South Ossetia in August 2008 heralded a low point in relationships with the West.²¹

For a while, the "reset" policy initiated by President Obama in 2009 succeeded in re-establishing constructive relations with Russia. In 2010, further reductions in strategic nuclear weapons were agreed in the New START treaty, which permits a maximum of 1,550 deployed warheads for up to 700 strategic delivery systems. A further 100 delivery vehicles can be kept in reserve. The treaty expires in February 2021. It can be extended for five years. But President Trump is hesitant and wants to involve China first.

The year 2014 marked a profound new paradigm shift in relationships between the West and Russia. On the assumption that a successful Maidan uprising would lead Ukraine into the Western camp, and that the U.S. could extend its military presence to the Don and the bases of the Russian Black Sea Fleet in Crimea, Moscow annexed Crimea in violation of international law and supported rebels in eastern Ukraine. The justification given by Moscow of having to protect Russian compatriots fueled latent fears especially in the Baltic States and Poland. To deter similar Russian tactics on its north-eastern flank, NATO took military countermeasures.²² It stepped up air and maritime surveillance, strengthened its rapid reaction forces, and stationed limited combat contingents in the Baltic States, Poland and Romania. Since then, the issue of nuclear guarantees has been back on the agenda, and so the dilemmas of Cold War escalation theories have returned.

Current political and conceptual considerations

Today's political and military situation is not comparable with that of the Cold War. The enlarged NATO extends geographically 700 to 1,000 km further east than in 1989. It is conventionally superior to Russia as a whole, even if Russian troops enjoy operational advantages over the Baltic countries. But Moscow has tied up forces in Ukraine and Syria, is compelled to support its few allies, and has reduced its mil-

itary budget following a reform of its armed forces. It cannot and does not want to risk an alliance war with global consequences, yet fears strategic destabilization through missile defense and the "Prompt Global Strike" system, and is advancing the arms race with its own arms projects.

While the operational need for a NATO nuclear first use remains very small, the dilemma of the escalation logic of "extended deterrence"

While the operational need for a NATO nuclear first use remains very small, the dilemma of the escalation logic of "extended deterrence" has become more acute

has become more acute. The geographical glacis that separated NATO from Russia during the Cold War has disappeared. Nuclear operations would have to take place either on Alliance territory or on Russian territory. But nuclear attacks against the "sanctuary" of a nuclear superpower carry a high risk of a reciprocal counter-strike against the attacker's territory. It is true that the arms control agreements SALT I/II, INF, START I, SORT and New START as well as unilateral reductions in substrategic weapons have reduced the number and variety of nuclear weapons held by the United States and Russia to around 20% of the stockpiles they possessed at the height of the Cold War. Yet both sides still have more than 6,000 warheads each, of which some 3,800 are in active service. This is about 91% of the global nuclear weapons stockpile.23 The "bottom line" of a mutually assured destruction capability has not fundamentally changed.

Consequently, several American experts and government officials have drawn the conclusion that the U.S. needs to be capable of conducting and winning a regionally limited nuclear war, while at the same time deterring strategic escalation. This conclusion takes into account Western analysis that Russia could be tempted to secure any gains from an attack by means of a limited nuclear escalation.²⁴ To nevertheless ensure the credibility of "extended deterrence", "low-yield" warheads should be available for strategic and substrategic de-

livery systems so that the impacts of nuclear operations can be limited. In this context, the United States' 2018 Nuclear Posture Review announced the development of such warheads for submarine-launched ballistic missiles (SL-BMs) and sea-launched cruise missiles. The B61-3/4 free-fall bombs that are intended for nuclear sharing also allow variable detonation strengths. The current modification to the B61-12 version increases the precision and standoff capability of the bombs, which are also stationed in Germany.²⁵ Although it would be difficult to justify the operational necessity of using nuclear weapons, there is an increased danger in a crisis that a limited nuclear war will be considered possible, and conducted at the expense of allies. This results from the national interests of the United States in avoiding an annihilating strategic exchange of strikes, and yet implementing extended deterrence in the event of a conflict.

The danger of nuclear proliferation is much more prominent today than it was during the Cold War. When the Cold War ended, the nuclear powers France and China as well as the potential nuclear powers South Africa, Ukraine, Belarus, Kazakhstan and Brazil signed the Non-Proliferation Treaty (NPT). Nearly all countries of the United Nations (UN) have now joined the treaty. But new nuclear powers have

The revived theories about options for limited nuclear warfare should be vigorously opposed

arisen which are not party to the NPT: India, Pakistan, Israel and North Korea. Iran is also suspected of enriching fissile material in order to gain a nuclear option. The Joint Comprehensive Plan of Action (JCPOA) or "Iran Deal" of 2015 put a stop to this option and placed Iran under unprecedented IAEA monitoring activities. With President Trump's withdrawal from the deal, the conflict has intensified again.²⁶

Not only the cases of Iran and North Korea show that the NPT has come under pressure. This is not just about escaping from the nuclear order to assert regional claims to power, or deter feared interventions. Many UN countries are growing increasingly dissatisfied with the stagnation of nuclear arms control, the renewed qualitative arms race, the resurgence of nuclear deterrence in military doctrines, and continuing inequality in the community of states. This is the main motive behind the new nuclear weapon ban treaty (Treaty on the Prohibition of Nuclear Weapons, TPNW) which justifies the ban mainly on grounds of the humanitarian consequences of nuclear operations.²⁷

It is hard to deny that militarily "effective" nuclear operations to restore deterrence in a war situation and possible reciprocal actions would have terrible impacts on the civilian population, and grossly violate the international law precept that the harm caused during military attacks must be proportional. However, it could be that it is precisely these dreadful consequences of an escalation which, if threatened, could deter war.

Conclusive proof does not seem possible. Nevertheless, the revived theories about options for limited nuclear warfare should be vigorously opposed. In a conflict scenario, they could lower the threshold for a limited first use even against an equal nuclear power, and set in motion an incalculable spiral of escalation – which would be mainly at the expense of the regions involved. The modernization of the B61 bombs and the concept of nuclear sharing should also be reassessed in this light.

The German discussion on this subject must not be confined to the question of a successor model to the elderly Tornado fighter-bomber, which also has to perform many other tasks.²⁸ Rather, it must be established whether and to what extent Germany can influence the U.S. nuclear doctrine and the American president's authorization decisions, for example through NATO's Nuclear Planning Group (NPG). This group also includes countries that do not have nuclear-capable aircraft (known as dual-capable aircraft [DCA]) and do not station nuclear weapons. The NPG discusses the role of nuclear weapons in the Alliance's strategic concept, and holds a vote in the event of conflict. However, it has no say over the American nuclear doctrine and the president's authorization of nuclear weapons.²⁹ This decision lies solely with the U.S. president, and his first commitment is to the vital interests of the American people.

Yet a responsible policy will also have to take into account the interests of European and Alliance cohesion. However much the logic of escalation is called into doubt, it cannot be denied that especially the Central and Eastern European Alliance partners firmly believe that the existence of American nuclear weapons in Europe serves their interests, and that nuclear sharing by Germany in particular, as a key state and logistical hub, binds the United States to Europe. Given the current crisis, German withdrawal from nuclear sharing would encourage the smaller sharing states to follow suit, but would alienate the NATO flank states and thus lead to a split in Europe and further destabilization of the European security order. A forward deployment of nuclear weapons in NATO's frontline states, in violation of the NA-TO-Russia Founding Act, could not be ruled out.30 Russia would view this as a provocation and react.

Conclusions

The admonishing reference to the likely humanitarian consequences of nuclear operations is legitimate; from the point of view of the church and international law it is also necessary and ethically imperative. But any politically responsible position adopted by Germany must not ignore the consequences of unilateral withdrawal from nuclear sharing. The TPNW ban on membership of a nuclear alliance is currently incompatible with Germany's leading role and responsibility for stability and solidarity in Europe. German policy should not only set normative goals, but must weigh up different values and act with concrete, effective and responsible steps, without losing sight of the goal of overcoming the logic of nuclear escalation.

To achieve this, German policy must first prevent further political and military destabilization in Europe. Second, it must oppose concepts that seek to promote the option of limited nuclear war and, within the Alliance, advocate limiting the role of nuclear weapons in the strategic concept. Third, it must preserve the integ-

rity of the NPT and work to prevent a splitting of the NPT community of states into two opposing camps: one that continues to seek its security in the U.S. nuclear guarantee, and another that doubts the nuclear powers' willingness to disarm, and supports a competing ban treaty. Germany should therefore adopt the role of a bridge-builder and driving force for the renewal of nuclear and conventional arms control.

In this context, the New START treaty must urgently be extended, as otherwise it will expire in eight months. This would allow time to negotiate a successor treaty that defines future strategic stability and takes account of new technological developments as well as other key

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actors. To prevent land-based medium-range missiles being stationed in Europe again following the end of the INF Treaty, conditions for a moratorium should be examined. Above all, the aim should be to de-escalate conflicts within and outside of Europe, and promote stabilizing arms control agreements in order to further reduce the role of nuclear weapons in Europe's security. Even a renewed commitment to the declaration by Presidents Gorbachev and Reagan would send an important political signal: a nuclear war can never be won, and must never be fought.

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NUCLEAR ARMS CONTROL, DISARMAMENT AND NONPROLIFERATION REGIMES IN DEEP CRISIS

Abstract

Discussions on nuclear weapons are becoming more and more polarized. Nuclear armed states and their allies remain in favor of the status quo, while a number of experts as well as non-nuclear states urge them to take concrete steps to nuclear elimination. This essay examines the main arguments of the parties involved in the ongoing discussion on nuclear weapons through the lens of their opponents. Whilst nuclear abolitionists are confronted with rising tensions in international politics that may not build an environment for deep cuts, nuclear hawks must admit that in contrary to their overarching argument there are escalating conflicts between nuclear powers in the real world, as we have seen in the Indian-Pakistani conflict lately. Nuclear arms controllers recognize the malfunctioning and the dismantling of cooperative arms control, and the NPT is under pressure. Once installed to avoid a world with 30-40 nuclear armed countries, one must conceive that the NPT may have slowed proliferation, but it was not able to halt it, neither to get nuclear powers to dismantle their stockpiles. This explains the arrival of the Treaty on the Prohibition of Nuclear Weapons (TPNW, or Nuclear Weapon Ban Treaty).

Given the fact that Russia and the U.S own more than 90% of the world's nuclear weapons, the crisis of nuclear arms control is due to the worsening political relationship between both countries after the Cold War. The West has failed to integrate Russia into its security architecture.

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Among both states and experts, thinking about nuclear weapons is becoming highly polarized: between those who want to see the nuclear-armed states take concrete and substantial steps toward nuclear elimination, and those who do not see the urgency. The politicization of the issue is supposed to be most uncomfortable for those who favor the status quo, namely the nuclear powers and their allies. However, the latter have never given much thought to elimination. Even the Humanitarian Initiative and the Treaty on the Prohibition of Nuclear Weapons (TPNW, 2017) did not rouse them to action, contrary to the expectations of those behind the initiative. On the one hand, they use different cognitive mechanisms - such as denial and cognitive dissonance - in order not to come to terms with the demands of the non-nuclear-weapon states. On the other, from the point of view of the nuclear-armed states and their allies, there are more urgent demands, namely the short-term moves by their opponents in the dangerous world out there.

Get real, abolitionists

"Welcome to the real world," abolitionists. Look how dangerous the world is, perhaps even more so today than in the past. Look at the annexation of Crimea by Russia. Powerful states take what they want from weaker states, just like in the pre-Westphalian world order. Back to the survival of the fittest. If Ukraine had kept the Soviet-era nuclear weapons on its soil, it is argued, Russia would not have invaded Crimea and the Eastern parts of Ukraine.

Russia is also introducing new strategic weapons, such as a hypersonic missile (the Avangard), a new heavy ICBM (the Sarmat), a new type of ground-launched cruise missile ("in violation of the Intermediate-Range Nuclear Forces [INF] Treaty") and a nuclear-powered torpedo (Poseidon). Some even suggest that Russia is willing to use tactical nuclear weapons to de-escalate a conventional conflict with NATO ("escalate to de-escalate").

NATO member states, especially in Eastern Europe, are nervous. States bordering Russia,

especially the Baltic states, which are hard for NATO to defend, are afraid of a repeat of what happened in 2014. The NATO reassurance is based in part on NATO's nuclear weapons, including U.S. tactical nuclear weapons in Europe. Withdraw them from the Benelux, Germany, Italy and Turkey because they are outdated and date back to the Cold War?¹ "Get real, abolitionists."

NATO has also been holding large-scale exercises near the Russian border, upgrading its conventional weapons capability, and sending more U.S. troops into Europe. In turn, these steps are copied by Russia. It looks as though we are stumbling into a new Cold War. Just like in the 1950s and 1960s, once again bombers are deployed in the air, sometimes chased away by tactical aircraft from the other side, playing a cat-and-mouse game. All this increases the risk of accidents and incidents.

Apart from the conflict between Russia and the West, there is a clash in the making between China the rising power, and the United States in relative decline. If there is one nuclear-armed state that comes closest to having a minimum nuclear deterrent, it is China. In contrast to the U.S. and Russia, China never acquired more than a couple of hundred nuclear weapons. It is also the only nuclear power that has promised never to use nuclear weapons first. Nevertheless, China's economic growth means it has plenty of financial resources to invest in defense, including in its atomic arsenal. China is gradually building up its nuclear arsenal, in terms of both quantity and quality. Most worrying for the U.S. - and China's neighbors is China's growing assertiveness in the region, especially in the South China Sea. There are border disputes with Japan, Vietnam, and the Philippines, as well as the conflict with Taiwan. China, for its part, resents the U.S. military presence in the region, which includes American troops in South Korea, Japan and Guam, as well as U.S. missile defense. The U.S. wants to keep playing first fiddle, including in that part of the world. Not surprisingly, this is where realists expect a future world war to start.

North Korea is the newest state to acquire nuclear weapons. The whole world was afraid of the rising tensions between Trump and Kim

Jong Un in the period 2017-18. By now, the de-escalation phase is already over. North Korea is again launching ballistic missiles in order to attract the attention of the rest of the world.

Get real, nuclear hawks

But if you ask most experts which region of the world is most dangerous from a nuclear weapons point of view, the answer is (or should be)

Just like in the 1950s and 1960s, once again bombers are deployed in the air, sometimes chased away by tactical aircraft from the other side, playing a cat-and-mouse game

South Asia. India and Pakistan both tested nuclear weapons in 1998. The theory of nuclear deterrence would predict stability and security, and peace. Quod non. Barely one year later, Pakistani forces and militants attacked the Indian part of Kashmir. The resulting Kargil conflict yielded more than 1,000 deaths - in other words a war, the opposite of peace. Under pressure from President Clinton, India did not react harshly. Here are more regional examples of the so-called nuclear stability/instability paradox. A similar attack in 2001 prompted President Bush to call the Indian prime minister. Again, the Indian response was muted. In 2008, Pakistani extremists murdered more than 100 Indians in Mumbai. The nuclear arsenals of both parties did not stop border clashes in 2016, nor in any year since. Advocates of nuclear weapons will respond that these clashes did not escalate to the nuclear level "thanks to the deterrent effect of nuclear weapons". Maybe. Maybe not.

The future does not bode well. The latest "incident" between India and Pakistan did escalate. In early 2019, Pakistani extremists again attacked Indian territory. This time, President Trump was either unwilling or unable to convince Prime Minister Modi, who was in full re-election campaign, not to react. Following its Cold Start doctrine, India sent military fighter jets to bomb Pakistan. Pakistan responded with a similar measure, one of the Indian jets was shot down, and the Indian pilot was cap-

tured (but later released). At the same time, India sent a nuclear submarine into Pakistani waters. Get real, nuclear hawks. Here, we have the first dogfight between two nuclear powers in nuclear history. Nuclear deterrence: an instrument of stability, security and peace? Yes, it did not escalate to the nuclear level. But what about next time? Will there always be a happy ending like in the Cuban Missile Crisis? Or was it luck that saved us in 1962, as former U.S. Secretary of Defense Robert McNamara hinted?

Get real, arms controllers

Despite this increased polarization between abolitionists and nuclear hawks, it is good to remind ourselves that the goal of both advocates and opponents of nuclear weapons is the same: security and peace. The difference is that the former believe that nuclear weapons help improve (their) security; opponents do not. Luckily, most advocates of nuclear weapons do not believe "the more nuclear weapons, the better". They too believe that the large-scale use of nuclear weapons should be prevented, as this would mean the destruction of the biosphere. They too believe that a never-ending nuclear arms race is too costly and unnecessary to create a deterrent effect. And they too believe that it is useful to try to limit numbers of nuclear weapons by means of arms control agreements. Even at the height of the Cold War, the U.S. and USSR saw it as

Unfortunately, since the mid-1990s, the success story of nuclear arms control and disarmament has come to an end

in their national interest to enter into legally binding agreements that limited the size of their arsenals. Not surprisingly, the first bilateral agreement was signed after the world came closest to nuclear war, namely after the Cuban Missile Crisis (1962). The Partial Test Ban Treaty (1963) limited nuclear testing to underground tests. Even less surprisingly, the nuclear powers also tried to prevent the further spread of nuclear weapons to other states in the form of an international legally binding treaty, name-

ly the Nuclear Non-Proliferation Treaty (NPT, 1968 – see below).

The first bilateral arms reduction treaty – the Strategic Arms Limitation Talks Agreement SALT I (1972) – froze the number of strategic ballistic missile launchers. It was followed by SALT II (1979), although this treaty never formally entered into force. Interestingly, the U.S. was able to convince the USSR to limit the deployment of missile defense systems – whose purpose is to defend against a nuclear attack – in the form of the Anti-Ballistic Missile (ABM) Treaty (1972).

The end of the *détente* period in the late 1970s meant a temporary halt to arms control, until Presidents Gorbachev and Reagan signed the Intermediate-Range Nuclear Forces (INF) Treaty in 1987. This treaty for the first time eliminated an entire class of missiles, namely the so-called Euromissiles, and also for the first time included a far-reaching on-site inspection regime.

As one could have expected, the end of the Cold War led to a whole series of arms control agreements: the Strategic Arms Reduction Treaties START I (1991) and START II (1993), as well as the Comprehensive Test Ban Treaty (CTBT) in 1996, which prohibited all nuclear tests. The latter was part of a package deal for the indefinite extension of the NPT in 1995.² In addition, many tactical (or sub-strategic) nuclear weapons were dismantled due to unilateral/reciprocal agreements (without a formal, legally binding treaty), thanks to the so-called Presidential Nuclear Initiatives in the period 1991-1992.

Unfortunately, since the mid-1990s, this success story of nuclear arms control and disarmament has come to an end. The CTBT, mentioned above, was the first victim. The Republican-led U.S. Senate refused to ratify it in 1999. As a result, China also refused to ratify, despite the UK, France, and Russia having done so in the meantime. As long as the U.S. and China (and six more states with nuclear facilities) do not ratify it, the CTBT cannot enter into force. The prospects are minimal that this will happen in the foreseeable future.

Another blow came in 2001 when the Bush administration unilaterally withdrew from the

ABM Treaty, something the Russians disliked a lot and are still unhappy with. The direct result was the Russian suspension of the Treaty on Conventional Armed Forces in Europe (CFE Treaty), as well as their withdrawal from START II in 2002. Apart from two limited bilateral strategic arms reduction treaties – the Strategic Offensive Reductions Treaty (SORT) in 2002 (without any verification procedures) and New START (2010) – not one new arms control treaty has been signed in the period 1996-2020. Since 2010, there has been a complete standstill.

At the same time, existing arms control agreements started to fall by the wayside. Not only did the U.S. unilaterally withdraw from the ABM Treaty, but the Trump administration also jettisoned the Joint Comprehensive Plan of Action (JCPOA, also known as the Iran nuclear deal) in 2018, and the INF Treaty one year later, accusing Russia of having violated the treaty. It also withdraws from the Open Skies Agreement in 2020. New START - the last remaining bilateral arms control treaty - can in principle be extended for five years in January 2021, which Russia is in favor of. However, if the Trump administration maintains its refusal, the world will end up without any bilateral arms control treaty in force in 2021, something the international community has not experienced at any time over the last 50 years.

Multilateral arms control is in tatters as well. Apart from the CTBT, which is in limbo, no multilateral negotiations have been set up for a socalled Fissile Material Cut-Off Treaty (FMCT) that would prohibit the production of military fissile material, despite the promise made at the 1995 NPT Review and Extension Conference. Worse still, the UN Conference on Disarmament in Geneva – which is supposedly the center of multilateral arms control (and for instance led to the conclusion of the Chemical Weapons Convention in 1993) - has not been able to agree on an agenda since the end of the 1990s. Most important of all, multilateral negotiations that were supposed to lead to the elimination of nuclear weapons, in accordance with article 6 of the NPT, have not been started either.

Looking to the global nuclear arms control and disarmament regime, one can only

conclude that the situation is going downhill and prospects are bleak. Existing arms control agreements are not working or have been set aside, and they are not being replaced by new agreements. Not by chance, in 2020 the Doomsday Clock of the Bulletin of the Atomic Scientists was set closer than ever – 100 seconds – to midnight. Get real, arms controllers.

Get real, NPT enthusiasts

Just because some experts at the beginning of the 1960s predicted 30-40 nuclear-armed states, and today there are "only" nine, it does not mean that the non-proliferation regime can be called a success. Each additional nucle-

It is understandable that many non-nuclear-weapon states are frustrated and impatient

ar-armed state is a failure. The NPT may have slowed further proliferation, but it did not prevent the further spread towards Israel, India, Pakistan, South Africa (temporarily), and North Korea. Hardly a success.

Four out of the nine nuclear-armed states (and three out of four in Asia) are completely outside the NPT process. More NPT Review Conferences have failed than succeeded (in the sense of ending up with a consensus document). Hardly any observers believe that the 2020 Review Conference (that will be postponed due to the corona crisis) will be a success. Thus for the first time, two Review Conferences in a row could fail, while the next Review Conference was supposed to be a celebration, 50 years after the NPT entered into force.

The main reason for the failure of the Review Conferences is the lack of nuclear disarmament. Despite promises to start multilateral negotiations to eliminate nuclear weapons, these negotiations have still to commence. Meanwhile there are still 14,000 nuclear weapons on earth, exactly 50 years after these promises were made. It is understandable that many non-nuclear-weapon states are frustrated and impatient. This ex-

plains the arrival of the Treaty on the Prohibition of Nuclear Weapons (TPNW, or Nuclear Weapon Ban Treaty).

But things could get even worse. The NPT itself is in danger. If more states follow the example of North Korea, a country that in 2003 decided to withdraw, this may be the end of the NPT. Iran may be next in line. As already mentioned, the U.S. unilaterally withdrew from the JCPOA in 2018. Iran has already threatened to leave the JCPOA and the NPT if its file is sent to the UN Security Council (again). If Iran leaves the NPT, Saudi Arabia will soon follow. In all likelihood, if both go nuclear, other states in the Middle East may follow. President Erdogan of Turkey openly criticized the discriminatory nature of the NPT - with a few "haves" versus a lot of "have nots" – at the UN General Assembly in September 2019, to much applause. Egypt for decades has been very critical of the NPT, and more particularly of the lack of meaningful negotiations for a weapons-of-mass-destruction-free zone in the Middle East (that was

With nuclear weapons, the story is not only about beliefs, or more specifically whether one is for or against nuclear deterrence. It is as much about parochial interests, jobs, and money

also promised in 1995). For that reason, Egypt once walked out of a PrepCom (Preparatory Committee) for the NPT Review Conference. In short, a nuclear arms race in the Middle East may be in the offing. That would certainly signify the end of the NPT. Note, however, that most observers are more optimistic and believe that the NPT will survive this crisis too.³

Explaining the crises of nuclear arms control, disarmament and proliferation

Various factors can account for these nuclear arms control, disarmament and nonproliferation crises. The non-proliferation crisis is easiest to explain. As the NPT can be regarded as a deal between the nuclear powers and the other states, it is abundantly clear that the others feel frustrated because most of the non-nuclear

weapon states fulfill their legal obligations under the treaty (by not acquiring nuclear weapons), while the five nuclear powers do not fulfill their obligations – namely to eliminate their nuclear arsenals.

This brings us to the question: how to explain the crisis in nuclear disarmament (or more widely in arms control)? The basic drivers of any arms race are those who gain from the nuclear weapons business: the defense industry, scientists (= nuclear labs), the military, politicians, in short the so-called military-industrial complex. While arms control in the past limited the size of the arsenal and even reduced the arms build-up, it did not prevent the arrival of new weapon systems. In other words, the qualitative arms race continued. Worse, the military-industrial complex, certainly in the United States, only goes along with any specific arms control agreement on condition that more money will be spent on developing other weapon systems. That tit-for-tat logic had already started in the 1970s. The latest example was the agreement by President Obama to modernize the whole gamut of nuclear weapons and their delivery systems at a cost of US\$ 1.7 trillion (including inflation) over the next 30 years, in exchange for the support of enough Republicans in the Senate to ratify New START in 2010. We should therefore remind ourselves that the story is not only about beliefs, or more specifically whether one is for or against nuclear deterrence. It is as much about parochial interests, jobs, and money. It is apparently very hard for politicians to go against these local interests. It requires knowledge, good judgment, and political courage characteristics that are unfortunately in short supply in the current generation of political decision-makers.

Another explanation for the arms control crisis has to do with party politics, especially in the United States. The polarization between Democrats and Republicans reached a level never seen before in the mid-1990s, with Newt Gingrich's aversion to the Clinton administration.⁴ Since then, the two parties have not collaborated anymore like they did during the Cold War. One of the victims is arms control, and the first symptom was the non-ratification of the Comprehensive Test Ban Treaty (CTBT) in 1999.

But the most fundamental reason why arms control has got stuck since the mid-1990s has to do with geopolitics, more particularly the worsening political relationship between the U.S. and Russia. Arms control - let alone disarmament - demands trust. Without a minimum amount of trust, it becomes extremely difficult to conclude arms control treaties. On the other hand, claiming that nuclear disarmament is not possible today because of the absence of trust is too deterministic and fatalistic. Trust and distrust are not a dichotomy, but a continuum. Crucially, arms control can help to turn distrust into trust. Arms control can be both a cause and a consequence of better political relations between states. Just like during the Cold War.

As 90% of nuclear arsenals worldwide are in the hands of the U.S. and Russia, their relationship is crucial for the next arms control steps (although Trump would like to see China climb on board, which is very unlikely). The crucial problem in this regard, as I have explained elsewhere⁵, is that the political relationship between the two actors has gone awry. In Russia's case, this stems from the fact that the West has failed to integrate this state into the Euro-Atlantic security architecture since the end of the Cold War, or at least not on an equal basis. To simplify, after 1815 and 1945 the victors of the war engaged with the losers - respectively France, and Germany and Japan - and included them in the regional or worldwide community of the time. Twice that led to decades of stability and security. In contrast, Germany was left alone after the First World War, which sowed the seeds for the Second World War.

Similarly, Russia was left alone after the Cold War. NATO for instance should have been dismantled, just like any other alliance after a (cold) war, such as after the First and the Second World War. The Warsaw Pact also imploded at the end of the Cold War. In contrast, NATO continued to exist, which is an aberration in the history of international politics. Worse, NATO expanded into the East, something to which the Russians were greatly opposed (unless they would have been integrated as well, but this was vetoed by the United States). There had even been spoken promises never to expand NATO to the east, by both the West German and U.S. Ministers of For-

eign Affairs in February 1990. These promises were made to Gorbachev and Shevardnadze during the German reunification talks. And what did the West do after German reunification? Expand NATO in the direction of Russia. Not once or twice, but several times. How would you have felt if you had been a decision-maker in Mos-

NATO should have been dismantled, just like any other alliance after a (cold) war. In contrast, NATO continued to exist, which is an aberration in the history of international politics

cow? This conflictual process started in 1994, which by no coincidence was the period when arms control started to slow down.

One could have expected that conflicts between Russia and the West would arise (again) after the end of the Cold War, even apart from NATO and NATO expansion: the Balkan wars (including Kosovo), the Iraq war in 2003, Syria, ... Only the establishment of a regional collective organization (like the Concert of Europe in 1815) could have limited the negative consequences of such conflicts between Russia and the West. Many experts in the 1990s, both realists (like George Kennan, Paul Nitze, Michael Mandelbaum) and liberals (like Charles Kupchan), had warned against NATO expansion. But the NATO member states, led by the United States, did not want to listen. Should the West be surprised that Russia felt neglected at the end of the 1990s? But even then, Russia – led by Putin - was still willing to cooperate, even with NATO. President Putin was the first leader who called President Bush, Jr. after 9/11. He also offered help to the West with respect to Afghanistan. But Russia did not gain very much from all these cooperative steps. On the contrary, President Bush announced only a couple of weeks later the unilateral withdrawal from the ABM Treaty, something Russia was not at all happy with. There is a moment when patience and goodwill run out. In my assessment, that moment for Putin came around 2003, at the time of the first color revolutions sponsored by the West. Those in the West who were not aware of the thinking in Moscow finally should have got the point when President Putin delivered a blistering speech at the Munich Conference in 2007. But afterwards, the West was still in a phase of denial, as the NATO Bucharest meeting welcomed not only Albania and Croatia (immediately), but also Georgia and Ukraine as future members. The latter was a clear red line for Russia. The annexation of Crimea by Russia, against all rules, made matters worse. However, seen from this perspective, it consisted of reactive rather than offensive behavior. If the West did not want to hear the Russian red lines, the Russian signal had to be clearer. And sure enough, it was.

Is there a way out?

Even realists like John Mearsheimer⁶ and Stephen Walt explain Russia's behavior in this way. But they are in a minority. Many observers and politicians in the West still blame Putin for the current state of affairs between Russia and the West. They are wrong. Putin should not be defended, certainly not for his domestic policies. But if we want to resurrect nuclear arms control, the West will need to do some introspection and take some unilateral/reciprocal positive steps towards Russia (as for instance Macron is suggesting), possibly in the domain of arms control. If arms control can resume between Russia and the West, the process can be extended to other nuclear-armed states later on. Unfortunately, the odds are that this is wishful thinking.

What remains are two worst-case scenarios, although one is slightly less worst-case than the other. The worst-case scenario is that arms control remains in limbo, and as a result of a new nuclear arms race, the world will again witness the use of nuclear weapons. By definition, this will be catastrophic. The impact of the corona crisis on national health systems is nothing compared

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to the consequences of using just one nuclear weapon, let alone a limited or large-scale nuclear war.⁷ The early warning signals are all red. But the nuclear-armed states and their allies refuse to see the red lights, partly because of the domestic political mechanisms explained above.

The alternative is only slightly better: more and more states will leave the NPT, either because of direct security concerns (Iran and Saudi Arabia) or out of frustration at the discriminatory nature of the NPT (e.g. Turkey, Brazil and Egypt). That would mean the end of the NPT.8 While at first sight this is in nobody's interest, it may provide the spark needed to convince enough people in the nuclear-armed states to rethink the whole non-proliferation and disarmament regime. In which case the outcome can only be: either all states that want nuclear weapons have nuclear weapons, or none of them do. If that does not do the trick, some of these states can threaten to build or acquire nuclear weapons, and some may even do so, until enough people and decision-makers within the nuclear-armed states and their allies (including Germany) wake up before the worst-case scenario becomes a

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During the 1962 Cuban Missile Crisis, the American movie director Stanley Kubrick decided to emigrate with his family to Australia. He had read that in the event of a nuclear confrontation between the two superpowers, Australia would be the place with the least radioactive fallout. However, when Kubrick, who had already ordered more than one hundred suitcases for his journey, found out that there was only one shared bathroom for every two cabins on the ship to Australia, he cancelled the trip. For the film-maker – a man plagued by all manner of phobias - the thought of having to share a bathroom with strangers suddenly seemed worse than the fear of dying in a nuclear inferno. Kubrick stayed in the United States – and a short time afterward worked through his fears of nuclear war in his satirical masterpiece Dr. Strangelove or: How I Learned to Stop Worrying and Love the Bomb.

Nuclear dilemmas

On the face of it, Kubrick's behavior seems utterly contradictory. Such was his embarrassment that the friend in whom he confided this episode only published details of it after Kubrick's death. But even though the American director was doubtless an eccentric character, his inner conflict cannot be held too much against him. Nuclear weapons are the absolute embodiment of contradiction. Their enormous destructive power makes their use latently suicidal. Yet it is precisely these potentially disastrous consequences that exercise a form of restraint over the international community. Thus the nuclear age has produced many conventional wars, but two nuclear powers have not yet used nuclear weapons against each other. Nuclear deterrence cannot prevent every type of war, but it is always present when existential issues are at stake. As the former U.S. Defense Secretary James Schlesinger accurately noted, in this sense nuclear weapons are "used" every

Orthodox security policy therefore "uses" the destructive potential of atomic weapons to prevent war, and, for this reason, considers

"NO WAY OUT"

NUCLEAR WEAPONS REMAIN AN IMPORTANT FACTOR IN INTERNATIONAL POLITICS

Abstract

While nuclear weapons carry the risk of annihilation for those who use them, their inherent contradictoriness can prevent wars – unlike conventional deterrence. Supporters of their abolition therefore leave themselves open to attack, ethically speaking, regardless of their arguments. Nevertheless, global-zero rhetoric is in vogue. For instance, President Obama's commitment to nuclear disarmament, designed to attract public attention, not only failed to defuse any nuclear trouble spots, it also irritated NATO partners, delegitimized the United States' own deterrence policy, and therefore proved counterproductive.

The same can be said of the attempt to ban nuclear weapons by means of the Treaty on the Prohibition of Nuclear Weapons (TPNW). Instead of offering concrete paths to disarmament and verification, it relies primarily on moral pressure. This will have little effect on more or less authoritarian regimes, but it does widen the split between nuclear-weapon states and non-nuclear-weapon states, while undermining the Non-Proliferation Treaty (NPT) as a basis for cooperation.

Even if it cannot be demonstrated that nuclear deterrence prevents wars, this idea cannot be relegated to the realm of myths. None of the numerous "deterrence revisionist" analyses of recent times offers intellectually convincing arguments, never mind solutions to real conflict situations. To prevent unchecked proliferation in the face of regional (conventional) imbalances or new nuclear threats, only the promise of U.S. protection has proven effective. Normative wishful thinking that cannot satisfy the fundamental need for security is not enough in the real political world. A global consensus to abolish nuclear weapons also remains an illusion, and would not survive the inevitable tensions in the community of states.

For Germany, this means that there is no alternative to nuclear sharing within NATO. And so far this has not been called into question by the German government. However, in the security policy discourse, it is important to defend nuclear deterrence as being morally acceptable, instead of keeping quiet about the nuclear issue.

them to be morally and ethically justifiable. In this school of thought, the fact that nuclear weapons have not been used again for over seven decades, and that no major conventional wars have taken place between nuclear powers and their allies, suggests that nuclear deterrence actually works. Purely conventional deterrence, on the other hand – as shown by the entire history of war – is highly unreliable. Therefore anyone who condemns nuclear deterrence as being ethically unjustifiable has to stand accused of actually encouraging the

Purely conventional deterrence – as shown by the entire history of war – is highly unreliable

return of large-scale conventional warfare – which of course is not exactly an ethically impeccable position either.

For the critics, these orthodox security policy arguments are irrelevant. They believe it is only a matter of time before nuclear weapons are used - either deliberately or by accident. Some will grant that the nuclear threat does have an impact on preventing war. But since the threat of nuclear force is indissolubly linked with preparations for the real use of these weapons, for such critics even the mere threat of nuclear disaster is morally unacceptable.1 It is all the more unacceptable given that nuclear weapons make it practically impossible to distinguish between combatants and non-combatants - a distinction that is essential to any discussion of just war. Therefore, as the Catholic bishops in the United States argued in 1983, for example, nuclear deterrence is still acceptable only as an auxiliary construct and for a transitional period at most. In their view, for military and ethical reasons, it is not a permanent solution. Ultimately the only way to avoid a nuclear disaster is to abolish all nuclear weapons.2

A world without nuclear weapons?

In light of these considerations, there have been repeated attempts in recent times to place the abolition of nuclear weapons high on the international agenda. U.S. President Barack Obama embraced the vision of a nuclear-weapons-free world. Through an elaborate political choreography, he attempted to regain the initiative in nuclear non-proliferation and arms control, which had faded under his predecessor George W. Bush. High-profile major events ("nuclear summits") were staged to raise global awareness of nuclear dangers. Nuclear modernization projects were suspended. America talked and acted as if it were a pioneer in nuclear disarmament. Just a short time after entering office. Obama even received the Nobel Peace Prize - effectively an advance on his anticipated future disarmament successes. The Global Zero campaign swelled as scientists and academics fell over themselves to write the nuclear-weapon-free world into existence. Under the sway of an imaginary zeitgeist, the numerous problems standing in the way of abolishing nuclear weapons were trivialized. This created the impression that all it would take would be a few political decisions, and the world would be liberated from nuclear weapons.

Obama's policy failed at every turn. No other nuclear power wanted to follow the American example. America's allies felt uneasy, having for decades sought security under the U.S. "nuclear umbrella". Nuclear programs in Iran and North Korea continued unhindered. Instead, the U.S. found that its bombastic disarmament posturing was undermining its own role in the global order. By constantly invoking the danger presented by nuclear weapons, the U.S. was delegitimizing its own nuclear defense and alliance policy, while making no progress toward any new, non-nuclear security policy. This was particularly the case since the public showed little interest in such matters. Abolishing nuclear weapons remained an elite project without a powerful grassroots movement that could have exerted pressure to change established policy.3

The deterioration of the international environment, as symbolized by Russia's annexation

of Crimea in March 2014, did the rest: by the end of Obama's second term in office, the U.S. was once again investing in the comprehensive modernization of its nuclear arsenal. At the same time, it warned its allies against joining the initiative for the new Treaty on the Prohibition of Nuclear Weapons (TPNW, also known as the Nuclear Weapon Ban Treaty). Nothing showed the disappointment in the course of events more clearly than the demand by two members of the Nobel Committee that Obama should give back his prize.

Ban the bomb?

The Treaty on the Prohibition of Nuclear Weapons (TPNW) attempts to bring about a nuclear-weapons-free world in a completely different way, namely by banning nuclear weapons altogether. Its supporters concede that such a treaty cannot in itself lead to the abolition of nuclear weapons. But the aim is to criminalize and delegitimize this category of weapons so as to create an international climate that puts the nuclear powers under ever greater moral pressure. However, this argument fails to recognize that a policy based on mobilizing public opinion can only be put into practice in democratic societies. The idea that a "managed democracy" (Vladimir Putin) or a dictatorship like North Korea could be moved by public opinion to give up its nuclear weapons seems very far-fetched, even thinking long-term. But in any case, the draft treaty itself, along with numerous statements by representatives of the International Campaign to Abolish Nuclear Weapons (ICAN), feed the suspicion that the movement is concerned less with global issues than with delegitimizing the three Western nuclear powers and their cooperation in NATO.4

The negative consequences of a ban treaty for the Nuclear Non-Proliferation Treaty (NPT) are also played down. Despite its shortcomings, the NPT is the only (almost) universally recognized framework for controlling which countries have or do not have nuclear weapons. While the TPNW refers to the NPT multiple times, several of its provisions are diametrically opposed to the NPT. For example, the ban on the possession of nuclear weapons contradicts

the NPT, which recognizes the five permanent members of the UN Security Council as nuclear-weapon states. The TPNW also prohibits any kind of nuclear cooperation, such as has been practiced in NATO for decades, and which is compliant with the NPT. The Nuclear Non-Proliferation Treaty would not become superfluous if nuclear weapons were banned, but it would lose its essential core: the hard-won compromise between nuclear powers and non-nuclear

The Nuclear Non-Proliferation Treaty would not become superfluous if nuclear weapons were banned, but it would lose its essential core

states on non-proliferation, disarmament and the peaceful use of nuclear energy. If the security policy of the nuclear-weapon states and their allies were to be declared "illegal", as it were, the NPT would lose precisely the flexibility that made its universality possible in the first place.

Like President Obama before them, ICAN also received the Nobel Peace Prize. Once again, the prize was presented not for an achievement, but for an attitude that was felt to be politically correct. But this path will not lead to a nuclear-weapon-free world either. Since the nuclear powers (and their allies) cannot be bound by a treaty which they persistently reject, the TPNW will achieve nothing except to widen the gulf between nuclear powers and non-nuclear powers. This is particularly the case since the treaty contains scant indication of how these weapons are actually supposed to be decommissioned, and how this disarmament can be reliably verified. Instead, its apologists are content to formulate extensive lists of prohibitions, with the primary aim of making nuclear cooperation between NATO allies impossible. Apart from that, the principle of hope applies.

Deterrence folklore

Finally, the attempt to analytically refute the concept of deterrence and thus remove the main obstacle on the path to a nuclear-weap-ons-free world is also likely to fail. In some ways,

questions of nuclear deterrence are questions of faith, because - fortunately - there is hardly any empirical data on the subject. But to conclude from this that the absence of empirical evidence allows for any opinion would be mistaken. To assume that the lack of rain has something to do with the complexity of the weather remains more plausible than to suppose that the sun dance of a shaman is the reason for the drought. Intellectual discipline is particularly called for when it comes to questions that have no conclusive answer. Yet it is precisely this intellectual discipline that is lacking. The number of studies seeking to prove that nuclear deterrence is a myth has risen sharply in recent years.⁵ Yet the political end often justifies the academic means. Thus the selected examples of the "failure" of deterrence are not plausible enough to be truly convincing. For example, the fact that Japan capitulated only several days after the atomic bombs were dropped on Hiroshima and Nagasaki has been interpreted as proof of the ineffectiveness of nuclear deter-

Where nuclear deterrence compensates for a conventional imbalance between two rivals, denuclearization would be an invitation to war

rence. Yet to take this view is to try to politically instrumentalize an event that occurred before the system of nuclear deterrence had formed. Hence this says little about its effectiveness.⁶

And there is more. Already in Obama's time, this deterrence revisionism was intended to pave the way for nuclear disarmament. Yet this approach always runs into trouble as soon as specific cases are considered. For example, where nuclear deterrence compensates for a conventional imbalance between two rivals, denuclearization would be an invitation to war. Where new nuclear powers are currently emerging, as in Asia or the Middle East, only the American "nuclear umbrella" prevents the countries neighboring North Korea or Iran from acquiring nuclear weapons.

The importance of the U.S.' promise of nuclear protection is illustrated by the examples of

South Korea and Taiwan. In the 1970s, Seoul's doubts about the promise of American protection led to the initiation of a secret nuclear program. Only a massive diplomatic intervention by Washington, culminating in the threat of terminating the bilateral security alliance, put an end to this episode. Developments in Taiwan followed a similar course. Immediately after the first successful Chinese test in 1964, a civilian nuclear program was launched that could also have produced weapons-grade plutonium. The program was only canceled when the U.S. intervened politically. If such situations are ignored in order to declare nuclear deterrence irrelevant, then disappointment is inevitable.

The continuing importance of nuclear weapons

All attempts to achieve a nuclear-weapon-free world have so far failed, and there are many reasons to suppose that nothing will change in the foreseeable future. Nuclear weapons have by no means lost their importance for security policy. On the contrary. All nuclear powers are modernizing their arsenals. Pakistan, conventionally inferior to its arch-rival India, is now even introducing tactical nuclear weapons into its armed forces. North Korea has developed long-range missiles that can reach the United States. Nor has Iran, the missile programs of which were not covered by the nuclear deal it signed with the five permanent members of the UN Security Council, given up its nuclear ambitions.7 But the most dramatic evidence of the continuing importance of nuclear weapons is provided by Russia. For years, the country has employed an offensive nuclear rhetoric that gives cause for concern. Speaking on the anniversary of the Russian annexation of Crimea, President Putin announced that he had been prepared to put the Russian nuclear forces on alert during the crisis in March 2014. It should have become clear to all at this point, if it was not already, that it will likely be some time before nuclear weapons are abolished.

The main reason for the undiminished importance of nuclear weapons lies in the structure of international politics itself. Visions of disarmament are based on normative wishful

thinking, neglecting the very dimension of international relations that in the end always turns out to be most important: the quest for national security. The nuclear option remains a latent temptation, especially for states that find themselves in a difficult regional environment. The path to a nuclear-weapons-free world therefore first requires solving the security problems underlying the desire for nuclear weapons.

Many proponents of a nuclear-weapons-free world acknowledge this point, and have repeatedly pointed out that resolving regional security issues is an integral part of their vision. But they are unable to explain convincingly why previously unsolvable problems in the Middle East, between India and Pakistan, or between North and South Korea, should suddenly become solvable in the context of nuclear disarmament. It is not surprising, therefore, that supporters of total nuclear disarmament have not yet found convincing answers to the three key questions: How do you get to zero? How do you stay at zero, in a world where the knowledge of how to build nuclear weapons still exists? And how do you create security, given the frequent failure of conventional deterrence?

Proponents of a world without nuclear weapons try to give the impression that nuclear disarmament is an overriding goal of the entire international community, and can therefore be immunized against political adversities. But in political reality, no such hierarchy of interests exists whereby nuclear disarmament is permanently at the top of the agenda. Arms control, disarmament and non-proliferation are only parts of a more comprehensive foreign and security policy. This means, however, that the success of this policy depends to a large degree on the international political and economic climate. Put concretely, a dispute with China about the Dalai Lama, a Russian intervention in Ukraine, or a worsening of the situation in Pakistan or the Middle East could bring about a change in the political climate that renders all global disarmament plans worthless overnight. However enticing a political vision of disarmament may be, sooner or later it will be overshadowed or even supplanted by other issues.

German sensitivities

Germany has benefited from the power of nuclear weapons for over 60 years. As a member of NATO, the Federal Republic is under the nuclear protection of the United States. Since the end of the Cold War, however, this role has hardly been discussed anymore. For years, a security policy debate leading to little more than empty phrases ("take on more responsibility")

In Germany, people think and act conventionally – in the fullest sense of the word

has largely ignored the nuclear issue. Following the self-destructive debate about the deployment of Intermediate Range Nuclear Missiles in Europe in the 1980s, political discourse has petered out into general calls for disarmament and occasional criticisms of the nuclear powers' policy as it is felt to be contradictory. Challenges such as the Iranian or North Korean nuclear program play only a minor part in the debate in Germany. People think and act conventionally – in the fullest sense of the word.

Nevertheless, the German Federal Government supports the stronger emphasis on the importance of nuclear deterrence in the relevant NATO documents. It can also be assumed that Berlin will not change Germany's role in "nuclear sharing" within NATO.8 Finally, the Federal Republic did not take part in the international TPNW negotiations, explaining in unusually explicit terms that this would have negative impacts on the NPT, while also underlining the continuing importance of nuclear deterrence within NATO. NATO, meanwhile, in the view of all of its members, will remain a "nuclear alliance" for as long as nuclear weapons exist.

For the time being, there is no nuclear alternative for Germany. A "European nuclear option" has been repeatedly suggested, but nevertheless remains a chimera. Europe has been battered by economic crises and populist temptations. To think that now of all times it could crack the toughest nut of a common

foreign and security policy, because the U.S. President is supposedly withdrawing nuclear protection from his allies, is to misinterpret the current situation in several respects. There is no nuclear consensus in Europe. Instead, there is massive dissent about the legitimacy of nuclear deterrence. The British nuclear arsenal is in any case no longer available to the EU after Brexit. And the idea that it would be possible

Through its role in nuclear sharing, Germany expresses its willingness to share nuclear burdens and risks

to seek protection under the French nuclear shield by co-funding the French nuclear armed forces also seems far-fetched. France's nuclear weapons have a certain deterrent value by the mere fact of their existence, because they influence an enemy's calculation of risk, but they are classic sanctuary weapons: first and foremost, they protect France. And Paris has never left any doubt that the decision to use French nuclear weapons will remain a purely national decision.

Shaping the nuclear reality

The United States remains the sole nuclear protective power for Germany. This protection is organized within NATO and nowhere else. A nuclear consensus is reflected in a strategy and military capabilities, and exists only in NATO – even there it has to be laboriously attained over and over again. Even in the alliance context, the American President alone decides on the use of nuclear weapons. But the United States – and only the United Sates – has the political will, the financial means and the military capabilities to

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underpin its position in the world order with credible promises of nuclear protection. These promises are also an important instrument of nuclear non-proliferation because they dampen the allies' incentive to acquire their own nuclear weapons. That is why America will not give up this role.

Germany, for its part, should stick to nuclear sharing. Nowhere is institutionalized cooperation on nuclear issues closer than in NATO – from political declarations to military exercises. It is hard to imagine a greater degree of commonality between sovereign nation states. Through its role in nuclear sharing, Germany expresses its willingness to share nuclear burdens and risks. Not only Germany's American but also its Eastern European allies should be able to expect this of Germany. Here it is important to stay on course – also and especially in view of the Nuclear Weapon Ban Treaty (TPNW) and Russian propaganda against nuclear sharing.

But even if Berlin manages to stay on course, recent developments show that Germany's political class must find again its basic ability to talk about nuclear issues. After all, not only will doubts about America's reliability as an ally of Europe continue for the foreseeable future, but the TPNW will soon become a permanent political and moral reality. The political and military leadership must therefore be in a position to defend nuclear deterrence against its critics, who will keep trying to discredit the concept. This defense also includes a clear statement to the effect that a policy based on deterrence to prevent war can be a moral policy. Those who make moral proclamations but at the same time create circumstances that could make conflicts more likely do not necessarily represent the morally superior alternative.

None of this precludes the desire for a world without nuclear weapons. But the focus should be on the conditions under which a nuclear-weapons-free world would be possible. It will then very quickly become clear that these conditions will not exist for the foreseeable future. Germany will therefore have to continue to live both in and with the nuclear reality. That is why, looking ahead, it will continue to be less a matter of overcoming this reality than of shaping it as part of a responsible and ethical security policy.

- 1 On this point, cf.: Deutsche Kommission Justitia et Pax (ed.) (2019): Outlawing Nuclear Weapons as the Start of Nuclear Disarmament. A position paper of the German Commission of Justice and Peace. Bonn. https://www.justitia-et-pax.de/jp/publikationen/pdf/guf_138.pdf (accessed February 25, 2020). However, apart from a general criticism of the dilemmas of nuclear deterrence and an unspecific call for more trust among the international community, the paper fails to answer the question of how banning nuclear weapons leads to their abolition.
- 2 The Challenge of Peace: God's Promise and Our Response. A Pastoral Letter on War and Peace by the National Conference of Catholic Bishops, May 3, 1983. http://www.usccb.org/ upload/challenge-peace-gods-promise-our-response-1983.pdf (accessed February 25, 2020). 3 Cf. Rühle, Michael (2011): "Die atomwaffenfreie Welt - zwischen Pragmatismus und Idealismus." In: Zeitschrift für Außen- und Sicherheitspolitik 4 (3), pp. 263-272. 4 Cf. Treaty on the Prohibition of Nuclear Weapons, Art. 1. https://undocs.org/A/CONF.229/2017/8. Some prominent supporters of the Nuclear Ban Treaty called the U.S.' allies that cooperate with Washington in the nuclear field "weasel states" which should be splitted away from the block of rejection; cf. Williams, Heather (2018): "Tailored Assurance: Balancing Deterrence and Disarmament in Responding to NATO-Russia Tensions." IFRI Proliferation Papers 59, Juli 2018, p. 19. https://www.ifri.org/sites/default/files/atoms/files/ williams_nato_russia_deterrence_2018.pdf (accessed February 25, 2020).
- 5 Cf. Barash, David P. (2008): "Nuclear deterrence is a myth, and a lethal one at that." *The Guardian*, January 14, 2008. https://www.theguardian.com/world/2018/jan/14/nuclear-deterrence-myth-lethal-david-barash (accessed February 25, 2020).
- 6 Cf. Wilson, Ward (2013): Five Myths About Nuclear Weapons. New York, p. 21 ff.
- 7 According to the International Atomic Energy Agency (IAEA), Iran has operated a secret nuclear program since the mid-1980s. The program was suspended in 2003 on fears of an American invasion. Iran has repeatedly violated the terms of the nuclear deal reached in 2015 (from which the U.S. has now withdrawn). The country is also running a missile program that includes a potential nuclear delivery capability. Furthermore, Tehran is refusing to grant the IAEA access to several facilities, while enriching uranium to a level far beyond that required for civilian use. Cf. Albright, David et al. (2018): "Iran's nuclear archive shows it originally planned to build five nuclear weapons by 2003." ISIS/FDD Research Memo, November 20, 2018. https://www.fdd. org/wp-content/uploads/2018/11/fdd-memo-the-planiran-nuclear-archive.pdf (accessed February 25, 2020). 8 Under nuclear sharing arrangements, the non-nuclear alliance partner provides nuclear-capable aircraft and appropriately trained crews. The nuclear delivery systems are provided by the United States.

RUSSIAN NUCLEAR WEAPONS:

REASON OR FEELINGS?

Abstract

It is currently highly likely that a new (nuclear) arms race will develop. To avoid making errors of judgment, it is important to ask about Russian interests and the significance of Russia's nuclear weapons stockpile. It was mainly the nuclear weapons from the Soviet era that secured Russia's status as an equal to the United States – a status which for some time the country found difficult to achieve. For precisely this reason, for the sake of prestige, the Russians aimed to maintain this status by adopting a very cooperative attitude. Unilateral decisions by the United States, such as the termination of the Anti-Ballistic Missile (ABM) Treaty, were therefore felt all the more strongly as an affront. Partly as a result of military reforms, this phase has now come to an end. From a military strategy perspective, the Russian nuclear arsenal serves to maintain a balance of power, and to compensate for qualitative and quantitative inferiority in conventional forces. The nuclear doctrine must also be read in its historical context, especially the national trauma of the German invasion in 1941. The defensive slant of strategic thinking, which has evolved historically, explains why the threshold for using nuclear weapons has been gradually raised with the increasing modernization of conventional armed forces.

There is a suspicion that Russia might take a gamble, hoping to create a fait accompli with limited nuclear strikes in the Baltic States. But all of the above makes this look like a gross distortion of reality. Nevertheless, the deliberate ambiguities of the Russian nuclear strategy and the possibility of unforeseen incidents also pose a considerable risk of escalation. For various reasons, this is less true of new weapon systems (hypersonic gliders, nuclear torpedoes, etc.), which have attracted much attention. Thus the role of nuclear weapons for Russia is determined partly by emotional factors, but also in part it is a rational means of securing influence in the current dynamic world situation. Unfortunately, however, other conditions, which are necessary for nuclear deterrence to have any kind of stabilizing effect at all, are increasingly disappearing.

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We are currently living in a time when it is highly likely that the world will witness the start of a new offensive arms race, including nuclear weapons. This is the result of a whole series of factors, from the dysfunctional state of global security organizations to breakthroughs in military technology. Under such conditions, it is critically important that the motives of the primary participants in such a race are understood – to prevent errors being made, and to avoid provoking a general deterioration in conditions, including through an artificial acceleration of the arms race.

What is the importance to Russia of having a major nuclear arsenal? Is it strategically essential in today's world, and a tool of political realism – or is it merely a phantom pain following the collapse of the Soviet Union, a form of ressentiment of the former empire?

To answer these questions, it is first necessary to understand how exactly Russia benefits from owning nuclear weapons, and from its relationship as the "key" nuclear deterrent vis-à-vis the United States. There are several dimensions to this question, and the situation may look different in each one.

The international political perspective on nuclear weapons

Russia is the country that inherited the Soviet Union's mantle in the field of nuclear arms control architecture. As such, with its place as a permanent member of the UN Security Council, Russia also inherited the status of a top-league player. Furthermore, for many years after the collapse of the USSR, this position was extremely unstable, and was in many ways only formal in nature. All that remained in Russia were Soviet nuclear weapons and several documents guaranteeing its place on the global stage.

As a result, increased attention was paid to all forms of exclusive relations with the United States. During the 1990s, Russia underwent a period of major social and economic upheaval, against the backdrop of a sudden weakening in state power. By the early 2000s, Russia essentially could not be compared on equal terms with the top league of global states in any way – ex-

cept for its parity in terms of nuclear deterrence and its special partnership role with the U.S. in nuclear non-proliferation. For this reason, it is impossible to overemphasize the role of a major nuclear arsenal. In legal terms, this had the same status as the U.S. arsenal in the series of agreements – START I, II, SORT and finally New START. Accordingly, any agreement in any one area that singles out Russia from the other global partners of the U.S. is highly valued and is seen as a major boost to Moscow's influence on the global system of international relations as a whole.

It is precisely for this reason that Russia reacted so negatively to the U.S. exit from the ABM Treaty in 2002. Despite the violation of one of the basic principles of strategic stability (the destructive impact of defensive weapons on the balance of nuclear deterrence), at that time, as was the case thirty years earlier when this principle was first recognized, there was no possibility of creating an ABM complex - i.e. a missile defense system - that was capable of seriously affecting the retaliatory strike. However, the exit from the agreement was an act of folly by the American administration, which failed to take into account the concerns of partners and the long-term consequences. Russia looked like a failing state. The idea of "Russia in decline", which was so popular in those years, seriously clouded the lens through which Western analysts perceived Russia. Nevertheless, in 2001-2002, Russia behaved extremely amicably toward the United States (indeed, in the most amicable way since 1994). Altogether, this encouraged the United States to withdraw from the treaty. Combined with the decision in favor of NATO enlargement that was made in 1997, this created the impression in Russia that it was being deliberately squeezed out to the margins of global politics, and - as had already occurred in its history – that a cordon sanitaire was being placed around it.

This is noticeable in the dramatic story of the collapse of the INF Treaty. This treaty, at least from the mid-2000s onward, generated if not harsh criticism then at least an extreme degree of skepticism in Russia. Furthermore, this sentiment was expressed by the highest representatives of the military and political leadership, including President Putin (who once called

this treaty the "unilateral disarmament of Soviet Union"). Nevertheless, at precisely the time when the real threat arose that the exclusive system of mutual relations with the U.S. would be destroyed, the Russian leadership abruptly changed its rhetoric. They started calling the

The idea of "Russia in decline", which was so popular during the 1990s and in the early 2000s, seriously clouded the lens through which Western analysts perceived Russia

treaty (which has now, unfortunately, been annulled) "the cornerstone of strategic stability", as had been the case with the ABM Treaty in the past

This stage has now largely passed, as Russia has succeeded in recovering some of its former economic status and a share of its political influence abroad that it lost after 1991. For the past ten years, the Russian armed forces have also undergone a significant change, as a result of which pure nuclear deterrence is no longer Russia's only way of retaining its military and political status in the world. Even so, as in former times, Russia places huge importance not purely on the possession of nuclear weapons, but on military and strategic parity in the nuclear arena with any other state in the world (in other words, with the United States, since the remaining countries are far inferior to Russia in this regard).

The military dimension: a balance on the continent

From a philosophical point of view, nuclear weapons are neither special-status weapons nor a political tool; they are a separate phenomenon whose influence dominates the art of war and international politics. Despite this, they do not lose either their political or military dimension, yet their importance extends beyond this.

The practical deterrent to be provided by nuclear weapons in Russia is primarily a function of the military and strategic balance on the continent. With its long borders with China, from the 1970s onwards the Soviet Union found it necessary to construct a system of deterrence in

relation to the East, as well as the West. Under such conditions, it was extremely important to create a balance of power with regard to conventional weapons. This, and this alone, determined the degree to which nuclear weapons were involved in creating a continental deterrent within its borders.

Let us look back to the history of confrontation in Europe during the Cold War. From the 1960s onwards, NATO relied on the U.S. forward-based nuclear systems as a tool for leveling out the military balance. At that time, the Warsaw Pact countries were superior to NATO in terms of military manpower and the numbers of conventional weapons. It was no coincidence that for two decades, the Soviet Union insisted that these systems should be included in the count of strategic offensive arms (SOA) by the American side – a demand that was consistently rejected.

During the 1990s, the situation was reversed. The collapse of the Warsaw Pact, the deep social and economic crisis in Russia, and the eastward enlargement of NATO created a new asymmetry. Russia was now forced to level out the unfavorable continental balance through a greater reli-

Trailing behind its neighbors from a military perspective in quantity terms, and lagging behind NATO headed by the U.S. in terms of quality, Moscow rationally uses the fact that it owns nuclear weapons to assert the independence of its policy

ance on nuclear weapons. It is no coincidence that over the last 10-15 years, the U.S. has actively linked the problem of further limiting and reducing SOA with a limitation and reduction in Russian tactical nuclear weapons – something with which Russia invariably refuses to comply.

This is the second reason why Russia is so concerned about the scale and potential of its nuclear arsenal: the direct military need to level the balance of power on the continent.

The stagnation in strategic relations between Russia and the West that persisted during the second half of the 1990s was followed by a general deterioration during the second half of the 2000s, despite a short-term improvement in relations between September 11, 2001 and the U.S. invasion of Iraq in the spring of 2003. Follow-

ing the military and political crisis over Ukraine in 2014, the situation deteriorated even further.

Throughout this period, Russia focused its attention in particular on preserving and developing the potential of its nuclear deterrent. Trailing behind its neighbors from a military perspective in quantity terms, and lagging behind NATO headed by the U.S. in terms of quality (with respect to precision-guided weapons, drones, air power, naval power, automated command and control, reconnaissance, and targeting systems), Moscow rationally uses the fact that it owns nuclear weapons to assert the independence of its policy. This includes the zone that it considers to be the sphere of its exclusive interests – namely the post-Soviet territory.

Getting Russian nuclear doctrine right

It is extremely difficult to understand Russian strategic culture without taking into account historical memory, including the traumas of the still relatively recent past. Without a comprehensive consideration of the historical-cultural narrative that creates a "genetic memory" in the system of state government, attempts to interpret the behavior of a major player will regularly lead to wrong conclusions and errors in strategic planning.

For the USSR, the Cold War occurred in the shadow of the events of June 1941, and the military made every possible effort to prevent a similar defeat during the first days of the new war. Eyewitness accounts reveal that as a result, the Soviet Union was ready to start a pre-emptive war with large-scale use of nuclear weapons in Europe only on the basis of signs that NATO was making "preparations for a nuclear missile attack". In the USSR, this was not seen as contravening the no-first-use principle that was officially declared in 1982. These actions were regarded as a retaliatory strike due to the "inevitability" of the enemy's forthcoming nuclear attack.

However, for centuries previously, Russia had primarily regarded and constructed itself as a giant military-administrative mechanism for defending its vulnerable territory (and not infrequently for ensuring the simple physical survival of the population). Its continental borders were

extensive and poorly defended, and on the other side were a sizeable number of enemy powers. To this day, Russian foreign policy, military strategy and art of war still bear the deep imprint of a defensive attitude that is hyper-sensitive to any potential threat from outside.²

The evolution of Russian nuclear doctrine is directly linked to these considerations. The sudden weakening of Russia's military potential led in 1993 to a refusal even to officially declare the no-first-use principle. The military doctrine of 2000 was adopted during the period of maximum decline in the potential of the armed forces in Russia, the high point of the Second Chechen Campaign, and following the NATO operation in Yugoslavia in the spring of 1999. The result was a statement of willingness to use nuclear weapons first in the extremely vague case of a "critical situation for national security", in the case of aggression against Russia involving the use of conventional armed forces.

However, as early as 2010, the next military doctrine raised the threshold for the use of nuclear weapons up to a more stringent level: now, aggression with conventional weapons had to pose a threat "to the very existence of the state". At the very end of 2014, at the peak of the deterioration in relations with the West following events in Crimea and the war in the Donbass region, Russia retained this wording in the new version of the doctrine, adding it to the concept of "non-nuclear strategic deterrence". In other words, Russia announced the emergence of a new capability associated with long-range, high-precision non-nuclear weapons intended to act as a further deterrent, which until that point was provided by nuclear arms. As a result of this combination of doctrinal provisions, the threshold for using nuclear weapons was implicitly raised in 2014 compared to 2010, without changing the basic doctrinal formulation.

In this way, Russia retained the right to compensate for its insufficient conventional weapons capability with the aid of nuclear weapons, to keep the general balance of deterrence. With this modernization of Russian military might and active rearmament (including the introduction of new types of precision-guided weapons and the creation of reconnaissance-strike systems), the dependence of Russian strategic deterrence

systems on nuclear weapons was gradually reduced. In this regard, the situation has already moved significantly away from the brink of the 1990s and 2000s towards a reduction in nuclear risks, and Moscow is pursing such a policy intentionally.

Nevertheless, even in this picture, which is generally clear, it transpired that there was room for conflicting interpretations. For example, there are regular attempts to ascribe to Russia a conscious, rational strategy of using nuclear weapons to raise the stakes in a conflict with NATO, which Russia itself intends to provoke beforehand. This is the so-called "escalate to de-escalate" concept. A caricature scenario is often painted in which "hybrid aggression" against the Baltic states ends with Russian soldiers being immediately dispatched there as quick as lightning, and pre-emptively using tactical nuclear weapons against some NATO military base

There are regular attempts to ascribe to Russia a conscious, rational strategy of using nuclear weapons to raise the stakes in a conflict with NATO. Such an interpretation of the Russian nuclear doctrine is extremely primitive

in Europe in order to force the Alliance to back off and recognize the annexation of the Baltic states as a fait accompli.

Such an interpretation of the Russian nuclear doctrine is extremely primitive, and proposed measures to compensate for it - a similar deployment of low-yield nuclear warheads for Trident II missiles - are logically contradictory and carry the threat of further destabilization.3 But mainly this contradicts the basic order of Russian strategic culture, which is deeply imbued with a defensive attitude, and traumatized by the history of military conflicts that have ended badly in the past. Russia is prepared to use nuclear weapons first, and has directly stated this since 1993. However, the circumstances under which such a strategy is intended to be implemented are a major military defeat threatening the existence of the state in its current form. It is difficult to see how these conditions could be fulfilled in the scenario of an adventurous game of "nuclear poker" played around the idea of a "hybrid" invasion of the Baltic states with their subsequent annexation (even if one casts aside notions of a rational strategic benefit to Moscow if such steps were taken).

Does this mean that the Russian nuclear doctrine is of a purely defensive, "dove-like" nature, and that it does not threaten the stability or the continent? No. and this, too, should be cause for concern on all sides of the current military-political confrontation in Europe. First, for the reasons given above, Russia regards itself as a "besieged fortress" (in this sense, the past 5 to 10 years have only exacerbated the situation). Russia intentionally blurs the "red lines" regarding first use of nuclear weapons, implementing the well-known strategy of "deterrence through uncertainty". The downside of such deterrence is the increased risk of nuclear war even in the early stages of escalation, which when they are reached cannot yet be perceived as being an existential threat.

The second problem is the tendency to analyze the behavior of the sides in the potential conflict between Russia and NATO from the perspective of rational players, consistently implementing well thought-through strategies. This assumption is misplaced for both sides in the discussion – both the apologists of the concept of "escalate to de-escalate" (which ultimately engenders new forms of tactical nuclear armament with the aim of reducing nuclear risks) and even their critics. Neither side is in any way able to counteract an "incident beyond the design base", i.e. an unintentional escalation in which every next step is taken reactively and serves only to further exacerbate the conflict.

From an accidental military clash in the air or at sea, such a process may lead to the early stages of limited military combat, and from there to the first use of nuclear weapons. Such an inci-

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dent will not develop according to any pre-war plans, let alone be influenced by any "tailored nuclear option" response strategy. The two sides will not reach for scenarios, but for their existing capabilities, including nuclear capabilities, and this is the direct path that inadvertently leads from a limited incident to a real war with nuclear weapons.

It is only possible to reduce the likelihood of such an outcome by working systematically to establish and consolidate political trust between Russia and NATO. This cannot be achieved by remaining solely within the logical framework of nuclear strategy or even within the logic of arms control.

"March 1st weapons"

One can now justifiably ask: but if Russia regards the role of nuclear weapons as being important yet limited and declining every year, why did it announce the development of what are in principle several new classes of nuclear weapons at once? These systems were presented by President Vladimir Putin in his address to the Federal Assembly on March 1, 2018; for this reason, they are known within Russia under the collective name "March 1st weapons".

It is somewhat premature to talk about these new weapons; the most contentious of them are still far from being ready for use, let alone serial production. As for those that are now ready (the Avangard and Kinzhal ["dagger"] missile systems), their deployment is still extremely limited, and they are only a minor addition to Russia's present nuclear arsenal. They do not alter the military and strategic balance with the United States.

All these new systems are built around the concept of countering the thick ABM complex, although such a system neither existed in reality, nor was it part of any imminent plans by the United States. Some of the proposed systems (Avangard and the Poseidon intercontinental nuclear torpedo) go back to proposals made in the USSR during the second half of the 1980s as part of measures to counteract the prospective means of the Strategic Defense Initiative (SDI).

None of these are new nuclear weapons as such. It seems strange, but the modernization of Russia's nuclear arsenal has mostly been completed, and is already coming to an end (with the exception of the construction of submarines with Bulava missiles, which is continuing at full pace). The final major change, which is scheduled for first half of the 2020s, is the replacement of the Voevoda ("warlord") heavy intercontinental missile (SS-18 Satan Mod 5/6) – whose service life has already been extended multiple times and is coming to an end – with the comparable, prospective Sarmat heavy missiles, which are just beginning flight tests.

These "March 1st weapons", which have attracted so much attention, are examples of the military technology of the future. If you like, they are portents of a future that is yet to come, and which quite possibly will never arrive. From a certain point of view, the preliminary presentation of these newly developed weapons is one of the deterrent steps aimed at reviving the discussion about the problems of strategic stability (primarily the ABM complex). Hence, ultimately, the aim is to prevent the onset of a future in which monstrous systems such as oceanic torpedoes with extremely powerful nuclear warheads, or cruise missiles with nuclear-powered engines, will be required in order to carry out an effective retaliatory strike.

* * *

One emotional element of Russian nuclear policy is in many ways the legacy of the traumatic experience of transformation that the country experienced from the end of the 1980s onward. The mood among the country's population at the end of Gorbachev's perestroika, and even at the very beginning of the 1990s, was unduly rosy, even naive. The expectation of full reintegration with the Western world has been replaced by feelings of resentment and disillusionment. As a result, the new generation of Russian elites took on a completely opposite attitude. Cautious and cynical toward the current situation, they had little trust in the West, its institutions and values, or its habit of relying on tools of real power in politics ("capabilities rather than intentions").

It is precisely for this reason that one cannot expect the Russian elites to have a positive attitude toward future processes of deep nuclear disarmament, which for them is associated (perhaps unfairly) with a national catastrophe and loss of

sovereignty. The experience of joint action with the U.S. during the 2000s and 2010s, including the dissolution of the ABM Treaty, also failed to add to a sense of optimism in this area.

The global order is undergoing a fundamental transformation. Currently, it is difficult to say in what precise way the process will consolidate again, what its mechanisms and collective security institutions will be, and what balance of power will be established (multipolarity, unipolarity or a new bipolarity).

Under these conditions, the system of nuclear deterrence is already viewed entirely pragmatically in Russia as a means of avoiding a major war or a new national catastrophe. We should note that similar processes are unfolding in at least two other leading nuclear powers in the world which are interested in preserving and consolidating their position: the United States and China. Nuclear deterrence as a guarantor of peace is an internally contradictory concept based on the fear of the deaths of tens or hundreds of millions of people. Nevertheless, it has long played an important role in the system of preserving international peace, and at a time in which the global order is undergoing transformation, with an unavoidable increase in the degree of uncertainty and the number of conflicts, this role should not be underestimated.

A rational, stable reliance on nuclear deterrence, however, implies raising the threshold for the use of nuclear weapons, reducing uncertainty over the red lines, and possibly eliminating scenarios in which there is limited use of such weapons on the battlefield. It is precisely this aspect of the problem that will now become the source of the greatest risk, insofar as the collapse of the former system of international relations goes hand in hand with the collapse of the nuclear arms control system, and the loss of the culture of mutual expert discussions on doctrinal issues.

¹ Гриневский, Олег (2004): Перелом. От Брежнева к Горбачеву. Москва, с. 71. [Grinevsky, Oleg (2004): *The Turning Point. From Brezhnev to Gorbachev*. Moscow, p. 71.] 2 Boston, Scott and Massicot, Dara (2017): *The Russian Way of Warfare*. Santa-Monica, CA. https://www.rand.org/pubs/perspectives/PE231.html (accessed March 27, 2020).

³ Bogdanov, Konstantin (2020): "Not-so-nuclear War". https://russiancouncil.ru/en/analytics-and-comments/analytics/not-so-nuclear-war/ (accessed March 27, 2020).

CHINA'S NUCLEAR STRATEGY IN A NEW GEOPOLITICAL ENVIRONMENT

Abstract

China's nuclear strategy has always been defensive and is aimed at minimal deterrence. However, China is increasingly competing with the United States in security issues. In the Indo-Pacific region there is a risk of a new Cold War including a nuclear arms race between these two major powers. The increasing tensions have led China to modernize its nuclear arsenal. The defensive nature of the Chinese nuclear strategy could also be put up for discussion. In order to prevent a dangerous escalation, both countries are tasked: The United States should not force China into a corner, and China, in turn, should combine its minimum deterrence with one-sided transparency of its nuclear capabilities so as not to further aggravate the already tense security situation. "China's National Defense in the New Era", published in 2019, keeps in line with strategic cornerstones of its nuclear strategy despite fundamental changes in China's geopolitical situation. With a strategic second strike capacity, the US should only be made aware of its own vulnerability through a possible retaliatory strike. In principle, China does not want to use nuclear weapons first in a conflict. In order to maintain this minimal deterrent, a qualitatively and quantitatively manageble small nuclear arsenal has been sufficient for a long time. Strategic parity or even superiority are therefore not necessary, neither is a first strike capacity. The modernization of the Chinese nuclear arsenal in order to maintain its second strike capacity must be considered against the backdrop of the security guarantees given by the U.S. to Chinas neighborhood, combined with the installation of modern missile

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Since its first successful nuclear test on October 16, 1964, the People's Republic of China has maintained a comparatively small and for a long time also technologically underdeveloped nuclear arsenal. While the U.S. and USSR superpowers kept each other in check during the Cold War with constantly growing overkill capacities, the People's Republic, constantly shaken by internal crises and economically stagnating, was able to stay out of a ruinous arms race. It relied on a nuclear strategy that was as simple as it was cost-effective: to renounce the first use of nuclear weapons and deter the use of nuclear weapons against China - which was in any case unlikely - through the ability to carry out a strategic retaliatory strike with unacceptable costs for the enemy.

The international system has gone through considerable changes since then, bringing new geopolitical power constellations and a number of additional nuclear-weapon states. But to the present day China still officially adheres to its concept of so-called minimal deterrence. This was most recently underlined in its white paper of July 2019, China's National Defense in the New Era. Nevertheless, China faces global strategic competition, driven mainly by the United States, which in its eyes also necessitates comprehensive military modernization, including the expansion of its nuclear capabilities. Since the 1990s, therefore, China has been working to reinforce its strategic second-strike capability, which for a long time existed only on paper, primarily by developing new delivery systems and platforms.

In a textbook example of the security dilemma, however, Beijing's armament efforts are in turn prompting the U.S. to take countermeasures to secure its military supremacy in the Indo-Pacific region and beyond. In the American National Security Strategy of 2017 and Nuclear Posture Review of 2018, the strengthening People's Republic appears as the most important adversary of the United States, and the main reason for the continuing development of U.S. armed forces, including in the nuclear arena. In Chapter III of its 2019 white paper, China counters this by stating that "[n]uclear capabil-

defense systems.

ity is the strategic cornerstone to safeguarding national sovereignty and security", and allows China to continue to work on credibly demonstrating to the U.S. its vulnerability to a Chinese retaliatory strike.

Even if neither the U.S. nor the People's Republic has any interest in a military conflict, such a conflict can by no means be ruled out in view of the "Sino-American World Conflict" (Peter Rudolf) which has been fueled in recent years mainly by the U.S. under President Donald Trump. This would also entail the danger of a nuclear escalation – for example, if the People's Republic, still conventionally far inferior to the United States, were to deviate from its principle of never using nuclear weapons first.

So what steps and developments can be expected from the People's Republic in this geopolitical setting? This will be examined below, as we look at China's nuclear strategy, its basic assumptions and capabilities based on these assumptions, and its weaknesses.

Starting point and basic elements of the Chinese nuclear strategy

China's pursuit of nuclear capabilities dates back to the early years of the People's Republic (founded in 1949). In large part, it was motivated by status-seeking. Mao Zedong wanted to see his country equal to the American and Soviet superpowers. But above all, there were also tangible security interests. U.S. General Douglas MacArthur had called for the use of nuclear weapons against the People's Republic during the Korean War, and this still resonated strongly in China. Mao did not want to remain defenseless against the use of such weapons. Significant support in developing technological capabilities came at first from China's socialist brother state, the Soviet Union. But under Nikita Khrushchev, the USSR grew farther apart from the People's Republic over questions of the inevitability of a nuclear war with the West, fell out with China over the disastrous industrialization strategy known as the "Great Leap Forward", and finally put a stop to cooperation in nuclear matters in June 1959.

China immediately began to develop its own nuclear weapons program (see Cheng 2006). As a result, with its successful test on October 16, 1964 in Lop Nur/Xinjiang, China became the fifth nuclear-weapon state alongside the United States, the USSR, France and the United Kingdom. While the first test device had a relatively low yield of around twenty kilotons, in June 1967 the People's Republic detonated a hydrogen bomb with an explosive force of three megatons. China had caught up technologically with the established nuclear powers. Unlike the U.S. and USSR, however, China did not develop a differentiated nuclear force of land, sea and air-based delivery systems for its warheads - the so-called triad. Instead, it focused mainly on ballistic ground-to-ground missiles with different ranges that could reach targets in the U.S. or its bases in the Pacific. As tensions with the Soviet Union mounted

China shrouded its nuclear capabilities in the utmost secrecy, but has always spoken out in favor of disarmament steps and ruled out a first use of nuclear weapons

during the second half of the 1960s, weapons systems were also deployed along the border with the former ally.

Apart from the high costs involved in developing a sophisticated triad, Mao Zedong's and his military strategists' vision of war also played a role in this decision: an invasion was expected, which would then be ended deep in Chinese territory with a people's war. Tactical nuclear weapons for limited strikes had no part to play in this scenario; the focus of defense was on conventional land warfare.

Based on this thinking, the People's Republic never developed or presented a proper nuclear strategy. Instead, it shrouded its nuclear capabilities in the utmost secrecy, but has always spoken out in favor of disarmament steps and ruled out a first use of nuclear weapons. On March 17, 1992, the People's Republic became the fourth nuclear-weapon state – before France – to accede to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT).

(The NPT had originally been signed by the Republic of China [Taiwan] and ratified in 1970.) China signed the Comprehensive Nuclear Test Ban Treaty (CTBT) on September 24, 1996, the date on which the treaty, having been adopted two weeks earlier by the UN General Assembly, opened for signature, but refuses to ratify it until the U.S. is ready to do so. After carrying out a total of 45 nuclear tests since 1964, China has observed a moratorium on testing since signing the CTBT.

In December 2006, in chapter II of its sixth national defense white paper, China for the first time published an outline of its "self-defensive nuclear strategy". The stated fundamental

The stated fundamental goal of China's "self-defensive nuclear strategy" is to deter other states from using nuclear weapons against China or threatening to do so

goal is to deter other states from using nuclear weapons against China or threatening to do so. At the same time, the People's Republic reaffirms its policy of no first use of nuclear weapons "at any time and under any circumstances", declares unreservedly that it will never use nuclear weapons against non-nuclear states or nuclear-weapon-free zones, and advocates a comprehensive ban on and the complete abolition of nuclear weapons. However, in pursuing its national security interests, China adheres to the principles of counter-attack for self-defense and the limited development of nuclear weapons, and strives for a lean and effective nuclear force. The white paper states that China's nuclear capabilities are under the direct command of the Central Military Commission (CMC), the highest leading organ of the People's Liberation Army, chaired by the head of state and party. China emphasizes its great reluctance to develop its nuclear capabilities and declares that it has never entered into a nuclear arms race with any other country and will not do so in the future.

Then, in its white paper presented in 2019, the People's Republic declares its continuation of this concept in principle, but at the same time refers to a security environment that has become more difficult from the Chinese perspective, which also requires adjustments in the nuclear arena. In addition to efforts to strengthen the safety management of its nuclear weapons, China seeks to "maintain the appropriate level of readiness" and "enhance [its] strategic deterrence capability to protect national strategic stability."

Basic strategic assumptions and adjustments

With its nuclear strategy, the People's Republic tries to deter a nuclear strike against its territory using the least possible resources. It does not need strategic parity with or superiority over a potential adversary in order to ensure minimal deterrence. Nor does it need a first strike capability that could completely or at least largely destroy a potential enemy's nuclear arsenal and make them unable to respond. China does, however, need to maintain a credible second-strike capability so that it can threaten a potential adversary with unacceptable losses in response to the use of nuclear weapons. It is easy for China to renounce first use insofar as nuclear weapons do not play a significant role in Chinese military strategy except for deterrence.

The idea of a second-strike capability is part of the concept of mutually assured destruction (MAD), which U.S. Defense Secretary Robert Mc-Namara was instrumental in developing in the early 1960s, and which subsequently made a significant contribution to maintaining strategic stability between the superpowers. The concept was given practical form in the Anti-Ballistic Missile (ABM) Treaty concluded in 1972 between the U.S. and the USSR. The ABM Treaty contained an extensive renunciation of defense systems against incoming missiles, thus ensuring mutual vulnerability and consequently reducing the risk of a nuclear strike to zero for both sides. China benefited from this treaty in that the vulnerability of the superpowers required the Chinese to have only a small and also technologically not very sophisticated deterrent force of warheads and delivery systems.

Following the terrorist attacks of September 11, 2001, the United States sought to de-

velop new defense systems against "weapons of mass destruction and their delivery systems in the hands of terrorists and rogue states". In April 2002, the U.S. withdrew from the ABM Treaty. At this point, President George W. Bush immediately offered to hold talks with the Chinese side to prevent a possible arms race in the Asian region. Nevertheless, China perceived the nuclear partnership that was initiated soon after, in July 2005, between the United States and India - which had become a nuclear power in 1998 – to be part of an American containment strategy. This also applies to the "pivot to Asia" proclaimed by the Obama administration in 2011, via which the U.S. wanted to support its allies and partners in the region, but also assert its regional hegemony over an economically, politically and militarily strengthened China. As the Democratic People's Republic of Korea developed its nuclear weapons and missile program, which China did not support but nevertheless accepted as being in its own interests (see Gareis 2020), the United States supported its regional allies Japan and South Korea with the state-of-theart sea-based and land-based missile defense systems Aegis and THAAD (Terminal High Altitude Area Defense). In conjunction with U.S. efforts to develop their own homeland missile defense system, this was seen by Beijing as an attempt to undermine its second-strike and hence strategic deterrence capability. This challenge is all the more serious from China's point of view because after turning away from the idea of a people's war in its own country and focusing on locally limited wars under modern conditions in areas claimed by China (such as Taiwan and the East/South China Sea), it is critically important to be able to fend off a U.S. intervention.

In view of these challenges, the People's Republic has not undergone a paradigm shift in security policy, but has taken steps as part of its existing nuclear strategy to enlarge and improve the quality of its nuclear arsenal. It is likely to continue along this path in the future. China's primary objective is to demonstrate credibly to the United States, its most important adversary, that it has the capability to overcome its missile defense systems.

Current arsenal and further developments

As mentioned above, the People's Republic built up a nuclear force that mainly comprised land-based delivery systems in the former 2nd Artillery. (In 2016, the 2nd Artillery was renamed in the People's Liberation Army Rocket Force.) In addition, in the 1960s atomic bombs had been dropped from Hong-6 (H-6) Air Force bombers for the Lop Nur tests, and there were also sea-based components in the form of (one or two) nuclear-weapon-capable and nuclear-powered Xia-class submarines (Ship Submersible Ballistic Nuclear, SSBN) with sealaunched ballistic missiles (SLBMs). However, these systems were not sufficient to establish a true strategic triad owing to their lack of range (H-6) and technical shortcomings (submarines). The Changzheng 6 (Long March 6)

> The People's Republic has not undergone a paradigm shift in security policy, but has taken steps as part of its existing nuclear strategy to enlarge and improve the quality of its nuclear arsenal

submarine was probably the only boat of this class that was actually put into service. Since its launch in 1981, it has not made any armed patrol trips, and has not fired any of its potentially twelve medium-range Ju Lang 1 (Giant Wave 1, JL-1) missiles for test purposes.

The Dong Feng 4 and 5 (East Wind 4 and 5) land-based ballistic intercontinental ballistic missiles (ICBMs) had sufficient range to reach targets in the Pacific such as Guam (DF-4) or the U.S. mainland (continental United States, CONUS) (DF-5). But because they were silo-based and had liquid-fueled delivery systems, they were easy to detect, took a long time to fuel, and were therefore very vulnerable and hardly viable for a rapid counterattack. In view of ever more accurate satellite reconnaissance and ever more precise cruise missiles (even conventional ones), especially those of the United States, these systems did not really constitute an effective second-strike capability.

To expand or rather maintain such a strategic capability, the People's Republic is pursuing a two-pronged approach: better protection of its arsenal and increasing the number of warheads. As for protective measures, with the land-based systems the mobility of the launchers and a switch to solid-fuel rocket propulsion systems has made a decisive difference. The most important modern systems with regard to ICBMs are the DF-31/31A and the newly developed DF-41, which are replacing or set to replace the silo-based DF-4 and DF-5 missiles. With regard to medium-range missiles, the DF-21, which has been in service for some time, has been modernized and a new missile with a longer range of up to

China continues to keep its arsenal small and therefore continues to accept the qualitative and quantitative nuclear superiority of the United States (and Russia)

around 4,000 kilometers, the DF-26, has been introduced. According to the report by Kristensen/Norris in the *Bulletin of the Atomic Scientists*, in 2018 the People's Republic had an estimated 280 nuclear warheads, which can be transported by 120 to 150 land-based delivery systems. The People's Republic expects greater protection as well as shorter missile flight distances from its current total of four submarines in the enhanced Jin class, each

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of which is equipped with twelve of the more modern JL-2 missiles (see Zhao 2018).

In increasing its number of warheads, China has for some time been using Multiple Independently targetable Re-entry Vehicle (MIRV) technology. In a MIRV system, multiple (smaller) warheads are used with one carrier missile. As it flies through space, they detach from the missile and after re-entering the earth's atmosphere they seek out their pre-programmed targets. The respective carrier missiles can each transport a different number of warheads; Kristensen/Norris assume an average configuration of three warheads.

Also under consideration is the development of a new generation of submarines (Tang class), an SLBM (JL-3), and a long-range bomber to replace the H-6, which is over fifty years old and has only a very limited nuclear weapon capability.

At present, there does not seem to be any intention to increase the operational readiness of the nuclear weapons by permanently equipping the delivery systems with nuclear warheads. The latter are stored centrally in depots in the Qinling Mountains, in the central Chinese province of Shaanxi. There is also no sign that the People's Republic wishes to expand its arsenal, which until now has been geared primarily to strategic retaliation, with tactical weapons for smaller and more limited forms of use. China continues to keep its arsenal small and therefore continues to accept the qualitative and quantitative nuclear superiority of the United States (and Russia). However, this focus on strategic deterrence is also accompanied by specific risks for crisis stability, which are discussed in the following section.

Deceptive stability

China's nuclear arsenal may be small, but it can still be used with devastating effects – for a potential enemy, but also for China itself. This could be the case if a crisis or conventional war suddenly gets out of control and a nuclear escalation occurs. There are several reasons to be concerned: as Cunningham/

Fravel convincingly demonstrate, Chinese perspectives on the problem of nuclear escalation differ markedly from those of the United States. While the U.S. assumes that a limited use of smaller nuclear weapons may be capable of de-escalating or ending a conventional war (escalate to de-escalate), Chinese strategists are highly skeptical in this regard. Most of them see the path to a strategic use of weapons as being inevitable once the nuclear threshold has been crossed, and trust that, for this reason, neither side will use nuclear weapons first. They also trust that the fear of an exchange of nuclear blows will prompt the U.S. to exert a de-escalating influence on its regional allies in the event of a conflict, and also pursue non-nuclear approaches itself. This would allow China to take action against Taiwan, for example, and keep U.S. forces at a distance using conventional means. But it is precisely this view that the United States opposes, with reference to its Alliance obligations, by considering the possibilities of a first use of tactical nuclear weapons against conventional targets (see Colby). In some ways, Chinese thinking here is similar to the Western strategy of massive retaliation during the Cold War of the 1950s, which proved to be a useless response to limited attacks by the Warsaw Pact, and was then replaced in the second half of the 1960s by the flexible response strategy. But the Chinese do not have the necessary equipment to carry out a flexible response to a tactical nuclear strike (see Ji).

Another problem is that China's nuclear weapons can also be attacked by conventional means, especially because SSBNs, for example, can be armed not only with nuclear but also with conventional weapons. The question is whether China would keep its promise never to use nuclear weapons first under any circumstances, if it were faced with a use-it-or-lose-it decision. On closer inspection, therefore, the strategic stability that China expects from its minimal deterrence by having a second-strike capability is very deceptive.

Conclusions

Great power rivalry in the Indo-Pacific region has reached a remarkable level. China and the United States are facing each other with growing distrust – in the belief that only the other side can threaten their own position of power. There is a real danger of a new Cold War, along with an arms race, despite the possible consequences

The question is whether China would keep its promise never to use nuclear weapons first under any circumstances

that would result from a further deterioration of relationships between the two extremely closely intertwined powers, not just for themselves, but also for the region and the world. A security dilemma like this can ultimately be alleviated only through diplomacy, greater transparency and growing trust. However, in view of the substantial and purposeful worsening of bilateral relations brought about by the U.S. administration under President Trump, there is currently little hope of this happening – especially since Beijing is hoping to benefit from the many uncertainties that Washington's policies have created among its allies in the region.

If the omens are not good for military and nuclear confidence-building measures, both sides should reflect on their economic interests, which after all are still closely intertwined, and also on their responsibilities as major powers. As a minimum, these include refraining from further exacerbating the tense situation. For the U.S. as the stronger actor, this would mean not trying to push China into a corner. For China the rising power, strategic restraint should be advisable – including in the military sphere - with respect not only to the United States, but also India and other neighbors in the Indo-Pacific region. As explained above, China claims to pursue a defensive nuclear strategy of minimal deterrence, yet this carries a residual risk of massive escalation – even if unintended. It is China's political responsibility to keep this risk as low as possible and, even unilaterally, to declare its willingness to be more transparent about its nuclear capabilities.

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MILITARY PERSONNEL IN CONFLICTS OF CONSCIENCE:

BETWEEN CHURCH IDEALISM AND POLITICAL REALISM

Author: Markus Bentler

Introduction

In 2019, the United States withdrew from the Intermediate-Range Nuclear Forces (INF) Treaty because, as they saw it, Russia had demonstrably violated its terms. This event marked a watershed moment when nuclear deterrence returned with force to the political agenda and into the consciousness of the wider public. Patterns of argument that had seemed consigned to history are being revived. Almost forgotten divisions in political opinion, especially in Germany, are resurfacing. With the termination of the INF Treaty, a key piece of European security architecture has broken away. There seems to be a real danger of a nuclear arms race with Russia. Against this background, the opportunity has been taken within the NATO Alliance to discuss the role of nuclear weapons in defense strategy. This contrasts with the clear position of the Catholic Church, and specifically the pope, who has condemned the strategy of nuclear deterrence as a moral failure. Similarly, the 2007 peace memorandum of the Protestant Church in Germany (Evangelische Kirche in Deutschland, EKD) declared that threatening to use nuclear weapons can no longer be regarded as a legitimate means of self-defense.1 Thus political actors – but especially also members of the military - are in a difficult situation where guidance is urgently

In 2019, the Catholic officers' study group under the Catholic Military Bishop for the German armed forces examined the topic of "Nuclear

deterrence – tensions between ethics and reality". They sought to investigate the issue from different perspectives. This article describes the group's detailed discussions.

The initial situation

Nuclear deterrence is back. Of course, it never really went away. But it had faded into the background - and, at least in Germany, had disappeared from public consciousness over the course of recent decades. Those of us of a certain age grew up with the threat of a nuclear apocalypse. In a sense, we learned nuclear strategy from scratch. We knew the NATO MC 14/3 "flexible response" strategy by heart. We had to, or we could never have passed any staff officer course. We were conversant with the NATO Double-Track Decision. and we learned about the peace movement. We remember the big demonstration in the Bonn Hofgarten park, lively debates as youth officers and in civic education classes, the blockade of Mutlangen, and so on. Those were exciting times. But then came the fall of the Berlin Wall, German reunification and the dissolution of the Soviet Union - and by that time at the latest, the subject had disappeared from public awareness. The nuclear stalemate between the superpowers was not an important issue anymore.

Nuclear weapons never went away, but they were no longer part of the strategic discussion. They were an ever fainter shadow in the background, so to speak. When we thought about weapons of mass destruction (WMDs), it was in terms of preventing proliferation. The danger of WMDs ending up in the wrong hands - in those of rogue states and terrorists - was the issue. But because there was a functioning arms control regime, at least between East and West (INF, START, AMB, NPT ...), people thought they were safe. German policymakers focused on defense initiatives, and consequently also supported U.S. President Obama when he called for a nuclear-weapons-free world in Prague in 2009.

NATO, meanwhile, stuck to the concept of nuclear deterrence. And the German federal government at times had great difficulty

defending the principle of nuclear sharing against critics of all kinds from the left of the spectrum, but also among the liberals. We recall the efforts of the then foreign minister, Guido Westerwelle, to end the stationing of nuclear weapons at Büchel, which would have meant Germany being excluded from strategic discussions and the nuclear planning process. The fact that the "ideal world" was changing had already become apparent at the end of 2001, when the United States withdrew from the Anti-Ballistic Missile (ABM) Treaty. On August 2, 2019, the U.S. terminated the INF Treaty with the agreement and support of all NATO partners. The INF Treaty banned land-based nuclear intermediate-range missiles (having a range of 500 to 5,500 km). It was one of the most important disarmament treaties between the United States and Russia - a strategic cornerstone, in effect. With the end of the treaty, both countries can build such weapons again without restrictions. A new arms race is feared

Pandora's box is open again. We are facing a worrying development, which challenges us as citizens and officers. In our professional capacity, we have to answer to the public. This is a matter of huge proportions: political, strategic, tactical and ethical questions are closely entangled. The deeper in you go, the denser the undergrowth becomes.

The public discussion does not reflect this situation at all. In my opinion, a truly in-depth debate on the complex issues involved in nuclear armaments is taking place in expert circles at most. Yet in regard to the continued existence of mankind, the nuclear threat should be taken at least as seriously as the current crises (COVID-19, climate). It is to be hoped that this important topic will soon again receive the attention it deserves. "The Federal Republic of Germany needs a productive debate on the difficult and complex problems of peacekeeping, which the world is clearly facing today."²

Discussions in the church are dominated by the dilemma arising from the fact that weapons whose use can never be ethically legitimate are nevertheless supposed to secure peace. The Catholic Church has struggled to find a response that is both in keeping with the Christian teaching tradition – which includes the doctrine of just war – and takes account of the wholly new ethical challenges brought about by advances in weapons technology. In a pastoral letter, the U.S. bishops raised the question of the legitimacy of threatening a nuclear first strike: "May a nation threaten what it may never do? May it possess what it may never use?" Following the Second Vatican Council, a church consensus emerged: the system

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of deterrence was justifiable only for a transitional period, until efforts to overcome this system would bear fruit. During this period, everything should be done to find humane ways of resolving conflicts (the doctrine of just peace). The pope's insistent words in this context indicate that this period has come to an end, at least in the teaching of the church.

In light of the discussed tensions arising between ethics and realpolitik when it comes to nuclear deterrence, the "Heidelberg Theses" are once again highly relevant - despite already being 60 years old. They situate the problems of nuclear armament in the wider context of a policy of securing peace and freedom, the legitimacy of nuclear weapons under international law and from an ethical standpoint, the military strategy of deterrence, and conscience counselling for military personnel and citizens. The theses deal with question of whether and to what extent nuclear deterrence can be ethically justifiable. The complementarity concept comes under increasing pressure: deterrence as a valid principle versus rejection of any use of military force. The basic consensus of "staying together under the Gospel" is placed under heavy strain.

Nuclear deterrence – a critical view of the concept

It is worth taking a closer look at the concept of nuclear deterrence. I spent my childhood, youth and the first 17 years of my military career under the all-dominating nuclear umbrella, and I cannot say that it overshadowed my life to any excessive degree. Perhaps I could be accused of naivety for this. Why did the Cold War not end in a nuclear Third World War? Doesn't that prove the concept of nuclear deterrence worked? Or was it not the case, several times during the Cold War, that we were on the verge of a nuclear confrontation

From the security policy, military strategy and ethical point of view, it is impossible not to be critical of the concept of nuclear deterrence

that never happened – as in the Cuban crisis, for example? Was that the blessing of nuclear deterrence? Or was it pure luck, perhaps also favorable circumstances, that we cannot influence or guarantee? From the security policy, military strategy and ethical point of view, it is impossible not to be critical of the concept.

Contrary to widespread beliefs, it is doubtful that deterrence can somehow be organized reliably and predictably. There is also the question of how deterrence can be guaranteed in the post-Cold War era (the "second nuclear age"), if "doomsday weapons" were to fall into the wrong hands. Deterrence inevitably makes us think of the "balance of terror" and "mutually assured destruction", although the term "balance of terror" probably obscures the problem more than it aids understanding. At first glance, the conditions for successful deterrence do not appear to be overwhelmingly difficult.

There are three necessary conditions:

- 1. Someone who is to be deterred must know the threat.
- 2. They must believe that the threat is credible
- They must be able and willing rationally to weigh up the potential cost of the threat against the value of continuing their actions.

In short, deterrence requires the capabilities and the will to follow through on the threat,

and the other party's perception that this is the case. The capacity to act rationally is key.

Successful deterrence is therefore a function of capability and credibility. But these conditions are not sufficient, there is more to them, and they are generally ignored. It takes:

- 1. Actors who are capable of following a rational decision-making process.
- 2. Governments that facilitate the implementation of rational decisions.
- 3. Actors who are informed about the interests, plans, values and obligations of their enemies.
- 4. Actors who understand and are able to correctly assess military capabilities and the consequences of their actions.

Whether these conditions are met in respect of the persons acting on the global stage is not difficult to answer. I have my doubts, and I am certain that these assumptions would not apply in the event that weapons of mass destruction were to find their way into the hands of non-state actors. It is safe to say that nuclear weapons cannot reliably or with any kind of guarantee ensure deterrence, even though the opposite is often claimed. But we have not found anything better, and we will probably have to keep working with the "deterrence crutch" for a while yet.

Arms control and nuclear deterrence – two sides of the same coin

Questions about the legitimacy of the use of military force are an important part of peace ethics. This is particularly true of weapons whose use could mean the end of human life on earth. Has the time granted to us now definitely run out? Many military personnel who examine their conscience ask themselves these questions. The fact weighs heavily that the major churches have withdrawn legitimacy from nuclear deterrence. Who could shut their eyes to the risks of a nuclear apocalypse? With all the misery, poverty and suffering in the world, who would not take a critical view of the amount of money spent on nuclear weapons? A world without nuclear weapons must be the goal! Most politicians and military

personnel who I know are in agreement on this. A nuclear war would place an unbearable load on their conscience. They would carry a heavy burden of guilt. However, we live in a world that unfortunately is not shaped according to our moral and ethical ideals. It is a very "real" and also "evil" world. The Holy See says this about banning nuclear weapons: "In short, to achieve nuclear abolition, we need to resist succumbing to the limits set by political realism." But we – and this particularly applies to us in the military – should face up to reality. That does not mean saying goodbye to our legitimate dreams. A world without nuclear weapons is the goal (as Heiko Maas, the German foreign minister, said on March 5, 2020). The 50th anniversary of the Non-Proliferation Treaty (NPT) reminds us of this. This goal must be persistently pursued.

In keeping with this goal, and in a sign of diminishing confidence in nuclear deterrence, 122 countries signed the Treaty on the Prohibition of Nuclear Weapons (TPNW) in 2017. This is surely an honorable, morally well founded position. The crucial question, however, is whether this really brings us any closer to the goal of a nuclear-weapons-free world. Does this unilateral step really promote peace and security on our planet, or does it primarily serve to soothe the conscience? This is where idealism and realism collide. For example, the NATO countries reject the TPNW because in their view it does not improve the security of any country. This is true. Would the world be safer if the vast majority of countries signed the TPNW but nuclear weapons "only" remained in the hands of a few - Putin's Russia, Kim Jong Un's North Korea, Ayatollah Ali Khameinei's Iran or Xi Jinping's China, to name just some? This question should be easy to answer.

Is it not possible to achieve the goal of a safer world by stepping up arms control efforts in accordance with the NPT (Article VI)? If we follow this path, and do not let ourselves be deterred, then isn't nuclear deterrence – at least on a transitional basis – ethically defensible? My view is: yes, it is! Every member of the military should interrogate their own conscience on this issue. No-one, not even democratic

consensus, can take this moral duty off their shoulders. Democratic consensus is not infallible. "For the moral identity of man is decided in obedience to conscience."4 Perhaps the belief that the defense of freedom also justifies nuclear deterrence will help. A quote by Konrad Adenauer springs to mind: "Peace without freedom is not peace". So military personnel must have a firm desire to bring peace. Let us remember the four cardinal virtues. I believe that part of the virtue of prudence is not to confuse the journey with the destination. Arms control and disarmament based on nuclear deterrence is the way - a world without nuclear weapons is the goal. The road is rocky and setbacks are numerous. Lots of people are losing patience. Who could blame them? But still we should continue unwavering on the path. We are united in the goal.

Arms control and disarmament – the order of the day

Admittedly, the conditions for far-reaching arms control agreements are not favorable. We are seeing an erosion of the rules-based, liberal, multilateral order. The competition between systems that we are witnessing is also being played out in the nuclear field. Nuclear weapons serve as a means of power for actors

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to assert their own interests. In this environment, interest in arms control and disarmament is waning. One key element of arms control (the INF Treaty) has already been dropped, and others such as the New Strategic Arms Reduction Treaty (New START) and even the NPT appear to be in danger. Nuclear weapons are still being developed. Proliferation is anything but contained. The number of nuclear powers has "officially" increased from six to nine (India, Pakistan, North Korea). Other states are striving to acquire nuclear weapons. The Joint

Comprehensive Plan of Action (JCPOA) – commonly known as the Iran nuclear deal – was a great success of Western diplomacy, but the United States withdrew from it. This increases the danger of nuclear escalation in the Middle East. On March 5, 2020, Rafael Grossi, Director General of the International Atomic Energy Agency (IAEA), expressed his serious concern that Iran was denying IAEA inspectors access

It is to be welcomed that Germany is taking the initiative and doing everything it can to strengthen the NPT as the basis of nuclear arms control

to suspect facilities and had far exceeded the limits on the enrichment of uranium set by the 2015 agreement. Not good news – so what should be done?

First of all, it is to be welcomed that Germany is taking the initiative and doing everything it can to strengthen the NPT as the basis of nuclear arms control. German foreign minister Heiko Maas said: "We want to break the nuclear disarmament logjam. The Non-Proliferation Treaty is in acute danger if we do not invest more political capital and make the treaty fit for the future!" The 16 countries involved in the Stockholm Initiative are firmly committed to making real progress on nuclear disarmament. They also want to diminish the role of nuclear weapons in security and defense policies, and prevent a new arms race. Furthermore, they aim to encourage the United States and Russia to extend New START and engage in talks on its possible expansion,

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thus contributing to strategic stability. It is also important to revive the recently terminated INF Treaty, with the inclusion of China. There are very real reasons why the U.S. and Russia have lost interest in the INF Treaty. It applies only to them, but not to other powers that have nuclear warheads and intermediate-range missiles: China, India, Iran, North Korea, Pakistan. Why should Putin and Trump just look on while others acquire weapons that are forbidden to them, but which shift regional balances of power? In general, it is important to reduce the incentives for states to acquire nuclear weapons as a means of power and self-assertion. The fate of Gaddafi, who was overthrown and killed eight years after renouncing his secret nuclear weapons program, is certainly in the minds of authoritarian rulers. It is hardly likely to increase their willingness to renounce nuclear weapons (North Korea, Iran). For this reason, the policy of maximum pressure pursued by the U.S. administration must be viewed very critically. If anything, the current Iran crisis is evidence of the end of liberal interventionism and the strategy of regime change. A prudent policy of incentives, of sticks and carrots, leads to better success in disarmament and conflict resolution. Here too, in practical policy terms realism proves superior to idealism, however well intentioned. The first task now is to rescue or revive the existing or recently dissolved arms control agreements: the INF Treaty to include China, the NPT and New START.

Deterrence - a necessary "evil"

It is no longer possible to avoid the question of what Germany's position is with regard to the future of its security through nuclear deterrence – and not only since the United States and Russia declared their withdrawal from the INF Treaty. A question mark can also be placed over whether the United States under President Trump can be relied on to assist Germany on mutually acceptable terms. The protection of the allies is referred to as "extended deterrence", which conversely means there is an original deterrence reserved for securing one's own existence. How much is "extended

deterrence" worth under the new conditions? In this context, the French president's offer is interesting. Firstly, interested European countries could start a dialog on deterrence issues, and secondly, Paris could declare a stronger European role for its national deterrent. This is surely a good initiative for strengthening the European pillar in NATO. But is it enough?

Germany would be well advised to continue its commitment to nuclear sharing in NATO, whose protective umbrella is an essential element of European security for us. There is no substitute for this. "Germany is under the NATO nuclear umbrella, which is provided primarily by the United States." (German defense minister Annegret Kramp-Karrenbauer, February 10, 2020.) Germany can only secure peace in freedom as part of the transatlantic community of values. This is also a profoundly ethical question. All calls to renounce nuclear sharing harm Germany's security interests. We have an interest in participating in the Alliance's nuclear strategy, including via our seat in the Nuclear Planning Group. There can be no nuclear German Sonderweg or "special

For our security, credible defense and deterrence within the NATO framework is and remains essential. It must consist of a balanced mix of nuclear and conventional capabilities. This integrated approach to deterrence is often overlooked. The lack of conventional capabilities tends to increase the risk of nuclear weapons being used, which today is extremely low. Or how did the Alliance intend to counter possible Russian aggression against the Baltic states (comparable to that against Crimea and eastern Ukraine) if it could not be prevented by conventional means? Isn't Putin's motive in stationing intermediate-range weapons precisely to deter NATO and drive a wedge into the Alliance? The Alliance's Eastern European states rely on us. It is a question of Alliance solidarity. In this context, the foreign ministers of the Stockholm Initiative made an alarming demand (point 11): "Nuclear-Weapon States to address increasing entanglement of conventional and nuclear systems and to take measures to reverse such development." But if you say A, you also have to say B conventionally, in other words strengthen conventional capabilities. That is why the Alliance's efforts to enhance operational readiness and response capacity should be welcomed. This includes the "4 x 30" program, under which by 2020 a total of 30 battalions on land, 30 squadrons in the air and 30 warships at sea should be ready for action within 30 days. NATO's "Defender 2020" exercise, which was conducted for the first time this year (but only to a limited extent, due to the corona pandemic), also serves the goal of increasing response capacity and demonstrating Alliance solidarity.

It is worth noting that in this context as well, Russia so far has been unable to divide the Alliance. On August 2, 2019, the Alliance clearly backed the United States' decision to withdraw from the INF Treaty, thereby showing unity. NATO wants to respond this year to the Russian stationing of nuclear-capable Russian cruise missiles in Europe. There are plans to station air defense and missile defense systems, as well as strengthen conventional capabilities and increase alert and response capabilities. NATO's response is therefore

We should critically oppose the idea that smaller nuclear weapons make it possible to wage a nuclear war

defensive, since there are no plans to station new land-based nuclear missiles in Europe. The Alliance is quite deliberately not responding symmetrically but instead allowing room for nuclear arms control and disarmament.

A critical view should also be taken of the first of the Stockholm Initiative's "stepping stones": "Nuclear-Weapon States to acknowledge the need to ensure that nuclear weapons will never be used again [...]." This demand undermines nuclear deterrence and brings us immediately to an aporia. Deterrence is impossible without being credible. However, we should critically oppose the idea that smaller nuclear weapons make it possible to wage a nuclear war. What they actually do is lower the threshold for their use. This is why

the program to modernize the United States' nuclear arsenal announced in the U.S. Nuclear Posture Review of February 2018 is rather worrying – particularly the acquisition of low-yield nuclear warheads.

It is time to reflect on (currently lacking) arms control approaches, and especially on the dilemmas involved in concrete nuclear deployment planning and the question of esca-

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lation control. A new debate on the Alliance's nuclear doctrine would seem necessary. Germany must take a position on this. How is it possible to promote the realization that a nuclear war cannot be won, and must not be waged? Is there any basic conceptual idea of how to escape the fatal logic that the world finds itself trapped in? Within the continuing framework of nuclear deterrence, what possibilities are there for minimizing the inherent risks (technological solutions, fairly negotiated arms control)?

These are complex questions, and the aporias that become visible in them appear insoluble. There is no way around nuclear deterrence with the right and proper intention of maintaining peace in freedom. Nuclear deterrence understood in this way can also pave the way to disarmament. Those who are in positions of responsibility are objectively in a situation where it is difficult to act. In this context, repeating over and over that nuclear weapons are political weapons is probably only going to soothe the crises of conscience experienced by such persons.

Conclusion and outlook

Our examination of nuclear deterrence has shown it to be a tough nut to crack, both intellectually and ethically. Of course we could not expect to solve the aporias of nuclear deterrence. It has become clear that the major

churches are increasingly withdrawing legitimacy from the concept of nuclear deterrence, as the pope did too during his recent visit to Japan. The so-called "interim ethics" is coming to an end - "still" is changing into "no longer". On the other hand, we have to face the realities. Nuclear weapons and the knowledge of how to make them are in the world. Nuclear weapons cannot be "uninvented". An increasing number of countries even see them as a "life insurance". A unilateral renunciation of nuclear weapons in all likelihood would not lead to the goal. At the end of the day, it would amount to losing a bargaining chip for negotiations between equals. In this situation, it seems important to me to continue to step up arms control efforts. I would also like to see a debate in Germany that does justice to the seriousness of the issue and extends beyond specialist circles.

1 Rat der Evangelischen Kirche in Deutschland (2007): Aus Gottes Frieden leben – für gerechten Frieden sorgen.
P. 103. https://www.ekd.de/ekd_de/ds_doc/ekd_friedensdenkschrift.pdf (accessed March 3, 2020).
2 Overbeck, Franz-Josef (2019): Konstruktive Konfliktkultur. Friedensethische Standortbestimmung des Katholischen Militärbischofs für die Deutsche Bundeswehr. Freiburg im Breisgau, p. 106.

3 Permanent Mission of the Holy See to the United Nations and Other International Organizations in Geneva (2014): *Nuclear Disarmament: Time for Abolition.* P. 11. https://www.bmeia.gv.at/fileadmin/user_upload/Zentrale/Aussenpolitik/Abruestung/HINW14/HINW14_Holy_See_Contribution.pdf (accessed March 3, 2020).

4 Overbeck, Franz-Josef (2019), p. 101.

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"Respondeo etsi mutabor" [I respond although I shall be changed] (Eugen Rosenstock-Huessy)

"Und in seltenen Augenblicken der Klarheit und des Mutes hören wir vielleicht, um verändert zu werden" [And in rare moments of clarity and courage we may hear, to be changed] (Walter Wink)

The military chaplaincy supports military personnel and their families in their professional and private lives, because no occupational field can be exempted from pastoral care. It is advantageous if the military chaplaincy can directly experience everyday professional life, and act and react in the local area instead of being flown in. This means that we are with the German air force, and present at the Büchel site, and involved in Germany's so-called "nuclear sharing" (by the German armed forces) in the nuclear potential of the United States.

Potential implies possibilities or options. Material, factual ones, or also rights to participate in discussions and decisions? Or at least possibilities to exert influence, if these have not become obsolete in principle in times of possibly new "flexible first use" policies and a "thermonuclear monarchy" (Elaine Scarry). This applies both politically and pastorally. Holding out is not a valid option. Taking a stand is. This always has to do with personal, socially shaped conscience. It can also be called sharpening ethical consciousness. This is one of the military chaplaincy's many tasks and responsibilities ("character guidance training" [Lebenskundlicher Unterricht, LKU] and ethical education). Military personnel should be able to think about and discuss controversial issues, including the nuclear issue. One place where they can do this is in character guidance training (LKU) classes, which are run by military chaplains and provide a protected internal forum.

Once something exists in the world ...

We are incapable of not communicating. Apart from quite meaningful Christian-Zen-Buddhist attempts to practice non-thinking (wu-wei) in

THE NUCLEAR QUESTION: PIOUS HOPES AND REAL OPPORTUNITIES SELECTED (NOT JUST POP-CULTURE) ASPECTS FROM A MILITARY CHAPI AIN IN THE FIELD

meditation, it is otherwise rather difficult not to think (anything). What matters is what we (ought to) think (about), in a practical and sensible way. One of the many arguments in the nuclear debate goes like this: because the knowledge and technology now exist (are known) in the world, it is impossible to put the genie back in the bottle. So what should we do with what came out of Pandora's nuclear box? Thinking ahead to the conclusion, to the consequences, would be an appropriate alternative. Taking a realistic approach to the remaining risk control possibilities, staying down-to-earth instead of giving in to human enthusiasm, would seem advisable.² Specifically, how should a member of the German armed forces or a German civilian employee of the Bundeswehr deal in their everyday professional life with the fact that, as a fait accompli, recently modernized nuclear weapons are stationed on German soil, and are being stockpiled for political and tactical purposes? The stationing itself should basically not be too much of a problem, considering the global ethical perspective – we will soon be in post-corona-crisis times. Or should we be less concerned about the fact that nuclear weapons are present at sites in other countries, based on a questionable and ill-considered isolationist and unilateral Saint Florian³ principle ("protect our house, let others burn")? One argument against this would be the pioneering role. But here again, the question must be asked: is being a role model merely a pious wish that serves only the subsequent retreat into one's self, or can it point the way to a global solution and serve as a tangible stimulus for change? Who ultimately bears the risk if solidarity is lost? And how, in a question of such global proportions, can the risk to the whole of humanity at least be actively minimized? The comparison with the climate change problem, which is developing in a slightly different time frame, is an obvious one. This can and should be discussed more broadly and, in view of the continuing threat to stability, a positive agreement should be reached to reduce the risk quickly and in

The principle of hope and the confidence that everything will turn out well in the end, is what defines the realistic Christian worldview

stages.⁴ Military personnel, just like military chaplains, should first of all arrive at their own understanding of the existing situation, in order to remain capable of acting responsibly. Constant new reflection and readjustment is not ruled out. An educated conscience is helpful. Rational and non-calculating thinking should also come into play alongside purely emotional defensive reactions and established political interests, including some hidden agendas of a power politics or conspiracy theory nature.

The world is not enough

We are simply people who sometimes also live in pop-culture worlds. Plus really rather a lot of people in the world seem to be afraid of somehow getting a raw deal. If James ("007" Bond, The World Is Not Enough, 19th Bond movie from 1999) had been around in the time of Jesus (the Christ), the world (really) would not have been enough. "In the world you have tribulation; but be of good cheer, I have overcome the world" (John 16:33, Revised Standard Version Catholic Edition); "In this world you will have trouble. But take heart! I have overcome the world" (New International Version), says the savior of man (Messiah, Christ) in John's Gospel. Which in no way means consolation in the afterlife; for as Charlie Brown (in the comic strip *Peanuts*) says to Snoopy: "Someday we will all die." To which Snoopy replies in his doggish wisdom: "True, but on all the other days, we will not."

Christians are world people like everyone else. With the crucial touch "more", the magis of the Spiritual Exercises of the soldier and mystic Ignatius of Loyola (1491-1556). In everything we do, we should always ask what more (magis) corresponds to the will of God, the real "Lord of all powers and authorities" (see the Sanctus of the Liturgy). 5 The principle of hope and the confidence that everything will turn out well in the end, as God intervenes to make everything all right, is what defines the realistic Christian worldview. Who knows what good will come of it or what the purpose is (or perhaps what other purpose it is good for), as the old German saying⁶ goes, sometimes somewhat sarcastically. With regard to the risks of the civilian use of atomic energy, the blessings of nuclear medicine that are derived from it seem to make sense at least in terms of the price. Is this still realistic when the U.S. film Armageddon (July 1998) takes up the theme with regard to nuclear weapons? At the time, this sci-fi film was competing with an almost simultaneous disaster movie Deep Impact (May 1998). Armageddon is named after the final battle between good and evil (Rev 16:16), which according to the Bible takes place there, today Tel Megiddo (or in Arabic: Tell al-Mutesellim) in Israel. In the film, the earth can only be saved from destruction by an approaching asteroid, which is 18 days away, by using (already existing!) nuclear weapons at short notice.7

On the other hand, in contrast to secular end-of-days scenarios that are often based only on fear, the believing worldview is qualitatively and hopefully different. In this view, a positive end-of-days prevails already, and can only be guided to completion by God himself in a remaking of the world – as loosely expressed in the saying often quoted in fashionable apocalypse scenarios: "If the world were to end tomorrow (because of a military or civilian nuclear disaster?), I would still plant my apple tree today." This is erroneously attributed to Martin Luther, but probably only arose in the historically notable circumstances of the 1930s.

Banning and controlling the possession of nuclear weapons worldwide

Instead of just planting new trees, we could also ban and contain nuclear weapons (and highly risky nuclear power plants that have no final storage solution), and control them by means of global treaties. In this case, even political criminals might for once think in the right direction: trust is good, checking is better (attributed to V.I. Lenin: "Trust, but verify" – Doveryai, no proveryai).

The present Pope Francis now considers any further extension of the unused moratorium, which was supposed to lead us beyond nuclear deterrence and to disarmament, to be no longer appropriate. He considers even the mere possession of nuclear weapons (by nation states, let alone privately by terrorists) in arsenals of any size to be ethically reprehensible and a sin in the eyes of God. In the face of possible terrorist threats, the journalist Werner Sonne⁹ warns against the further unsecure civilian "interim storage" of CASTORs (casks for storage and transport of radioactive material) in an above-ground facility instead of in the (only somewhat more secure) underground salt domes where they were intended to be stored. At the NATO airfield in Büchel, investments are now being made in infrastructural security (a special fence), in addition to the already existing military protection. This increased protection is now even appreciated by the on-site peace activists, who had previously indirectly pointed out the inadequate fence security via their successful "go in" campaigns.

The recently deceased German philosopher Robert Spaemann (1927-2018) believes that even civilian nuclear technology is unmanageable, as something like Murphy's Law prevails: "What can go wrong at some point, will go wrong at some point."10 Furthermore: "There is no greater crime than to make an entire habitat uninhabitable."11 In marked contrast to the Australian utilitarian philosopher Peter Singer, for example, Spaemann in his personally oriented philosophical ethics advocates an absolute12 observance of respect for human (and also animal) life in its own right. He argues - also in view of the Fukushima disaster – for a modern revival

of the original, very wise ethical principle of tutiorism (in dubio pro reo, in dubio pro vita):13 in case of doubt, the principle of preservation and sustainability should apply, instead of the principle "in dubio pro libertate" 14 which has been applied too often in modern times. Especially since we have good reason to question how free we really are under a "nuclear umbrella".

The American essayist and professor (Aesthetics and the General Theory of Value at Harvard University) Elaine Scarry, 15 with reference to the so-called "war powers clause" (Article I, Section 8. clause 11) and the Second Amendment to the U.S. Constitution, attempts to show that conditions are more like a "thermonuclear monarchy" than a democracy as soon as a political leadership decides (almost) independently on the use of nuclear weapons, instead of under rigorous scrutiny by an elected representative body of the people: "The danger of nuclear weapons comes from potential accidents or acquisition by terrorists, hackers or rogue countries. But the gravest danger comes from the mistaken idea that there exists some case compatible with legitimate governance. There can be no such case. Thermonuclear Monarchy shows the deformation of governance that occurs when a country gains nuclear weapons," as described in a review of her book.

Conscience takes priority

Military personnel (whether German or American) who willingly serve at a (presumed) nuclear weapons site do so, in my opinion, mostly with a certain pragmatic and realistic approach and, at the same time, in accordance with their own standards of high professionalism and conscientiousness. The actual political decisions are made elsewhere. One's own attitude to such complex

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ethical questions as the nuclear issue can but does not have to end in an immediate moral conflict. Any cognitive dissonances that arise are resolved in everyday practice into a presumption of stability: "It has worked quite well so far, and we are doing our security-conscious bit to maintain this stability." This always includes a consideration of international information and communication psychology as well. Personal freedom of conscience has its value on the level of individual ethics: if - as has happened before - a member of the armed forces finds their conscience is deeply troubled and they cannot (any longer) justify to themselves working in the immediate vicinity of special weapons, then a solution can be found, also with the help of the military chaplain, in which the Bundeswehr releases the specific person from a specific maintenance task assigned to them, and finds them other work to do (not necessarily at another location). This already results from the Bundeswehr's own leadership philosophy of Innere Führung. 16 From a soldier's point of view, it probably seems more reasonable to conscientiously fulfill one's duty to guarantee security than to engage in what may be only self-referential, locally limited actionism that is primarily about displaying a good moral image. Furthermore, in view of the problems facing the world, the question of urgency (setting priorities for resistance activities) arises in the immediate actual endangerment of

In the current world situation, the most likely lever for change would probably be creative trust-building measures

human life, along the lines of: "If you do not want to permanently live under the nuclear umbrella, then first of all help the world's poorer people to survive", instead of letting them die of hunger, malnutrition, undernourishment, childhood diarrhea, etc. in their thousands while you look on, or accept they might die. It would therefore need to be decided which current threat could be addressed directly in faster and more practicable attempts to remedy it, and whether practiced solidarity would not promote (common) security much more effectively.

According to the findings of the Swiss sociologist, UN Special Rapporteur on the Right

to Food, and critic of capitalism Jean Ziegler, some nine million people around the world die of starvation every year – and they are not just potentially threatened by starvation or probable death, but do actually die.¹⁷

In his apostolic exhortation *Evangelii gaudi- um*¹⁸ from 2013 (cf. *Evangelii gaudium* 203), Pope Francis also speaks in the style of a prophetic speech, deliberately leaving himself open to attack, in terms of political controversy, and provocation, of "an economy that kills". At least in the press of that time it was reported in this way, though in the context of the document itself, the statement was not meant to discredit capitalism so fundamentally.¹⁹

Instead of a miracle conclusion

How do we escape the apparent ethical dilemma between the still predominant belief in deterrence (out of fear of the alternative) and the lack of trust in (political) solutions as a way out? Only through perseverance, persistence, thinking ahead and unprejudiced and innovative20 communication at all levels. In the current world situation, the most likely lever for change would probably be creative trust-building measures. Personal/human relationships have also been helpful in earlier historical contexts (e.g. the relationship between Mr. Kohl and Mr. Gorbachev). Increasing global digital networking – especially in the hopefully soon arriving post-corona times - helps to make structures of injustice transparent, i.e. visible and changeable/amenable to modification. (The theologian and psychoanalyst Eugen Drewermann²¹ calls these "structures of evil", which arise out of human fearfulness.) It gives hope to see that a global sensus communis of human-ethical wisdom is forming through the spread of information and learning. However this always comes with a risk and the danger of failure.²² In his 2009 Prague speech, President Barack Obama nourished the hope that the abolition of nuclear weapons could become possible: "As the only nuclear power to have used a nuclear weapon, the United States has a moral responsibility to act. We cannot succeed in this endeavor alone, but we can lead it, we can start it. [...] I'm not naive. This goal will not be reached quickly – perhaps not in my lifetime."²³

Finally, the deontologically arguing philosophical ethicist Robert Spaemann should once again be heard on the nuclear (energy) question. He considers the current zeitgeist-driven, fashionable concept of unilateral liberalistic utilitarianism to be extremely morally corrupting and incompatible with (the divine root of) human reason: "Bad uses are inherent in this technology. [...] The will to knowledge is and remains legitimate, but it seems to me that wherever it is a question of its application - of technology, that is - one must learn to be very morally careful in its handling. Not everything that serves knowledge serves humankind; neither in nuclear research nor in embryonic research. The urge for knowledge does not justify the destruction of children in the mother's womb; it is not an absolute value. [...] The costs here are human life. There are some types of research that must not be done. [...] Exactly this question should also be asked about atomic energy: isn't the price of progress in energy generation too high?"24 How much more would this apply to the question of ever more sophisticated tactical nuclear weapons, whose real or even only possible existence gives rise to fears that the threshold for their use might be lowered and breaking the taboo might become easier.²⁵ The "powerful international supervisory authority, which would be equipped with rigorous powers of control and possibly retain a monopoly on the possession of nuclear technology"26, will not in the foreseeable future exist as an internationally democratically legitimized agency with powers to act. And terrible so-called conventional weapons will continue to be used, and the international community of states will continue to be destabilized as a result.

So what's left? To keep working and communicating in a reasonable hope that of course politicians and military officers are also (ethically) thinking people and open to alternatives, and that perhaps even as a change management stroke of luck, a real historical sudden fall-of-the-Berlin-Wall, freedom-to-travel moment (Schabowski: "to my knowledge it applies immediately")²⁷ could happen, or rather a children's fairytale The-Emperor's-New-Clothes insight²⁸ ("The emperor is naked!"), which will once again allow people to see the actually better alternative. Just a pious wish again? On the contrary – let's go for it!²⁹

- 1 See Watzlawick, Paul et al. (1967): Pragmatics of Human Communication. New York.
- 2 See Spaemann, Robert (2011): Nach uns die Kernschmelze. Hybris im atomaren Zeitalter. Stuttgart.
- 3 (Patron saint of chimney sweeps and firefighters.) Comparable to the NIMBY-principle ("not in my backyard").
- 4 Helpful in this context are the dramatic theology remarks by Willibald Sandler, in the tradition of Raymund Schwager and René Girard, about a "crossway" [Kreuz-Weg] between the roadside ditches of arrogance and "sympathizance". Sandler, Willibald (2008): Der Sündenfall von Dogville. Interpretation von Lars von Triers Film aus einer dramatisch-theologischen Perspektive. Innsbruck, p. 14, paragraph 68. https://www.uibk.ac.at/theol/leseraum/texte/735.html (accessed May 27, 2020).
- 5 Sandler, Willibald (2008). Here on pp.15 ff. he talks about a third way between arrogance and "sympathizance", the real Christian (cross-)way of critical solidarity as a middle way (p. 16, paragraph 79): "From this middle way it is possible to approach a new understanding of what arrogance and sympathizance mean here. Sympathizance is solidarity without criticism [...] which therefore cannot be understood as authentically Christian. Arrogance is criticism without solidarity, i.e. a judgment, condemnation or a desire to improve, in which one leaves oneself out - without a willingness to risk oneself in doing something for the other or in self-criticism. Thus one falls into precisely that trap which one self-righteously reproaches the other for. In the Bible's words: 'Why do you see the speck that is in your brother's eye, but do not notice the log that is in your own eye?' (Matt. 7:3-5)." (Translated from
- 6 ("Wer weiß, wozu das gut ist?")
- 7 On the probability of asteroid strikes and rescue scenarios that are already being planned, see e.g. https://www.nasa.gov/planetarydefense/did-you-know (accessed May 27, 2020).
- 8 However here again is the interpretation in Sandler, Willibald (2008), p. 15, section 73: "The dramatic-theological interpretation of Last Judgment texts and apocalyptic texts aims in this direction for example John's Apocalypse: it is to be understood as self-judgment, which people do to themselves and to each other when God, the divine grace, turns his back on them, or they turn their backs on Him and divine grace." (Translated from German.)
- 9 Sonne, Werner (2018): Leben mit der Bombe. Atomwaffen in Deutschland. Wiesbaden, pp. 194 f.
- 10 (Translated from German.)
- 11 (Translated from German.) Spaemann, Robert (2011), p. 101; particularly regarding the unresolved question of the final storage of radioactive material.
- 12 (Translated from German. "Unteilbar", literally: "indivisible".)
- 13 ("When in doubt, for the accused, when in doubt, for life".)
- 14 ("When in doubt, for liberty".) Spaemann, Robert (2011), pp. 103 f.
- 15 Scarry, Elaine (2014): *Thermonuclear Monarchy.*Choosing between Democracy and Doom. New York.
 16 (Officially translated as "leadership development and civic education".)
- 17 Ziegler, Jean (2018): "Ich helfe denen, die keine Stimme haben." In: *chrismon. Das evangelische Magazin* 5/2020, p. 18.

18 ("The Joy of the Gospel".)

19 http://www.vatican.va/content/francesco/en/apost_exhortations/documents/papa-francesco_esortazione-ap_20131124_evangelii-gaudium.html (accessed May 27, 2020).

20 At least for an analogous, innovative way of thinking adapted to the respective situation, cf. the reference to "non-violent resistance" in Wink, Walter (1999): The Powers That Be. Theology for a New Millennium. New York: "Just-war theory misinterpreted 'Do not resist an evildoer' (Matt. 5:39) as meaning nonresistance. In an earlier chapter I tried to demonstrate the error of this interpretation. Jesus did not teach nonresistance; rather, he disavowed violent resistance in favor of nonviolent resistance. Of course Christians must resist evil! No decent human being could conceivably stand by and watch innocents suffer without trying to do, or at least wishing to do something to save them. The question is one of means. Likewise Christians are not forbidden by Jesus to engage in self-defense. But they are to do so nonviolently. Jesus did not teach supine passivity in the face of evil. That was precisely what he was attempting to overcome!" - in more detail in Wink, Walter: Engaging the Powers. Discernment and Resistance in a World of Domination. Minneapolis 1992, pp. 175-192 (9. Jesus' Third Way: Nonviolent Engagement); and cf. similarly the reference to the Jesuist wisdom tactic of "provocative defenselessness" (e.g. Matt. 5:41) in Ebner, Martin (2012): Jesus von Nazareth. Was wir von ihm wissen können. Stuttgart, pp. 138 f.: "Such reactions must be astonishing. And that is obviously the tactics behind them. They do not play the game of violence. Instead they make their counterpart aware of their own aggression, by means of a paradoxical intervention." (Translated from German.) 21 Drewermann, Eugen (1988): Strukturen des Bösen. 1: Die jahwistische Urgeschichte in exegetischer Sicht / $2: Die\ jahwistische\ Urgeschichte\ in\ psychoanalytischer\ Sicht\ /$ 3: Die jahwistische Urgeschichte in philosophischer Sicht. Paderborn.

controversial Danish Catholic director Lars von Trier in his film Dogville (2003) produces a modern illustrated film story of the (biblical) Fall of Man: a pure dominating power perverts of its own accord the "gift" of peace, as previously shown by the greedy grab for the fruit of paradise in the wrong "mode of appropriation". At the same time, the movie aims to criticize a Christian fundamentalist perverted civil religion. 23 Scarry, Elaine (2014), note 22, p. 411. 24 Spaemann, Robert (2011), pp. 105 f.; cf. on this point also Schockenhoff, Eberhard (2018): Kein Ende der Gewalt. Friedensethik für eine globalisierte Welt. Freiburg im Breisgau, pp. 385 f.; cf. also Bartoszewski, Wladislaw (1986): Wer ein Leben rettet, der rettet die ganze Welt. Die Erfahrung meines Lebens. Freiburg im Breisgau, pp. 47 f.: "Peace at any price [...] means in practice giving in to all kinds of blackmail, recognizing the politics of strength, the politics of the stronger. It means making the gesture of humility before the conflict even begins. [...] What the preachers consider to be an act of reason, of pragmatic thinking, even of love toward humanity for peace at any price, is ultimately the latent willingness to accept tyranny, violence, brutality." (Translated from German.)

22 According to Sandler, Willibald (2008), the

26 (Translated from German.) Schockenhoff, Eberhard (2018), p. 390.

25 Cf. also Schockenhoff, Eberhard (2018), p. 391, note

27 Giinter Schabowski (1929-2015) was a German journalist and politician, member of the Central Committee of the Socialist Unity Party of Germany (SED), and a member of the SED Politburo from 1981 until 1989. In his role as Secretary for Information, he gave a press conference on the evening of November 9, 1989, at which he read out from a sheet of paper a new regulation on travel by GDR citizens to Western countries. In response to a question from a reporter, he said that this new rule, to his knowledge, would come into effect "immediately, without delay". That same evening, this news triggered a mass rush of East German citizens to the border with West Berlin. This led the overstretched GDR border guards to open the Wall a few hours later, in a totally unplanned way. Cf. https:// de.wikipedia.org/wiki/G%C3%BCnter_Schabowski (accessed May 27, 2020).

28 The Emperor's New Clothes (Danish: Kejserens nye klæder), first published in 1837, is a famous literary fairytale by Danish author Hans Christian Andersen. In it, an emperor has expensive new robes made for him by two weavers who are con-men. They claim that the clothes are invisible to anyone who is unfit for his position or "hopelessly stupid". The emperor and all the townsfolk play along, because they are uncertain or fear for their positions. The deception is only revealed at a procession when a child speaks the truth. Cf. https://en.wikipedia.org/wiki/The_Emperor%27s_New_Clothes (accessed May 27, 2020).

29 Not only, but also in the sense of the provocative claim of the "World Days of Prayer" at Assisi and elsewhere: "It is not enough to do something for peace, one must pray for it." Or – and this really is the last film reference – the protagonist's cry at the very end of the excellent Japanese feature film *Sweet Bean* (German title: *Kirschblüten und rote Bohnen*) by Naomi Kawase (Japan/France/Germany 2015), which is also fitting for corona times: "Dorayaki! Come and get 'em!" Dorayaki are small sweet pancakes with a red bean filling.

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