

Nuclear sharing - a European Tightrope Walk between Deterrence and Devotion

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In 1957, the "Göttingen 18" German nuclear physicists had refused Adenauer any support for a German nuclear weapon. This taboo still exists today. Another, central taboo is endangered: Since the damage caused by two atomic bombs in Japan in 1945, nuclear weapons have never been used worldwide. Although: 30 years ago, there were about 70,000 nuclear weapons. Through arms control, in an era of "confidence building measures" (**CBMs**), the number was reduced to less than 14,000 by 2022. That was an enormous success.

Confidence-building measures for arms control in the crisis

But in 2022, trust has been significantly disrupted. The bitterly fought war in Ukraine is both a consequence and a cause of this. Ukraine had returned nuclear weapons to the Soviet Union, in the context of the dissolution of the Warsaw Pact, in reliance on treaty reassurances by Russia of Ukraine's security. Now, by openly saying that trust is more important than treaties-while aggressively violating treaties-Putin is destroying the established global security system. Trust in arms control has been shaken in several ways. This complicates:

- The negotiations on arms limitation
- The willingness to observe the central taboo of "no use of nuclear weapons"
- The negotiations and actions to avoid escalation after the start of a nuclear war.
- And the arms limitation through the Nuclear Non-Proliferation Treaty, which came into force on March 5, 1970. With this treaty, the nuclear armament originally planned in a very large number of states could be limited to at least nine states to date.

This limitation is in danger, especially as soon as dictators worldwide gain the impression that nuclear armament "pays off". However, as soon as North Korea, for example, would bomb American forces or cities, the complete destruction of North Korea by the USA would be quite conceivable. There have been a high number of mishaps in the handling of nuclear weapons, often close to catastrophe - in the context of a growing number of "nuclear powers" any hope of avoiding unintended explosions - and avoiding escalation - would be very slim.

The dilemma is always: own nuclear armament can provide some deterrence - but the risk of huge damage is increased.

Meanwhile, there are nuclear weapons of a smaller caliber than the bomb used in Hiroshima. In addition, it is argued that the damage to the civilian population would be less in this way in a nuclear war and that these weapons would be "easier to use".

This is no coincidence, but intentional, because "A global race for the smaller arms is intensifying" and is widely discussed controversially¹ .

For us in Europe, therefore, the situation in Ukraine at the end of March 2022 is particularly dangerous, especially after Russian troops fail to advance as planned. Putin has already prepared the Russian troops in military maneuvers quite concretely to include nuclear weapons in such cases. He sees this very much in the spirit of Adenauer, as a kind of "extension of the artillery."

Confidence is dangerously shaken

The successful arms limitation of nuclear weapons in recent decades should have continued. With under 14,000 nuclear weapons, largely from Russia and the U.S., the destructive power, the "overkill," is still existentially dangerous. New agreements failed. Finally, a low point for trust has now been reached by Russia's wars of aggression.

Putin's threats of "deterrent weapons" are new, which initially left the nuclear part unclear, but then deliberately emphasized it. The Russian armed forces' conspicuously careless handling of the nuclear power plants in Chernobyl and Zaporizhzhya is possibly intended to provoke. The obvious violations of existing treaties and of generally applicable international law by Russia make any new treaties with Russia appear pointless for the time being.

An open nuclear threat is avoided by the countries of NATO. However, NATO countries counter with intensive rearmament and strong community solidarity. For Putin, this means that he has achieved the opposite of his war aims. Russia is threatened as it has not been for many years.

Successful arms control lives on trust, on interests recognized as common, on reason - many escalations were avoided with actions of reasonable, often military experts. So it is bad that Defense Secretary Lloyd Austin and Chief of Staff Mark Milley from USA could not even reach their Russian colleagues Sergey Shoigu and Valery Gerasimov by phone² .

There are almost endless arguments here about who is to blame, who is disregarding laws, who is negligently to intentionally causing damage, and which fears are realistic. In this way, people turn away from each other. It would be existentially important to turn to each other, to work together.

A comparison of the behavioral abnormalities of those in power with the corresponding mental disorders is very informative. Already decades ago, there was a wealth of data on this, including several presidents of the USA. In many such cases escalations, up to genocide, could be avoided repeatedly only by circumspection of the close coworkers. It is difficult to assess what this means at the moment with Putin, also because of limited freedom of action and thought of his staff. In the face of such dangers, decisiveness and diplomatic prudence must be finely tuned.

Any spontaneous arbitrariness is dangerous. One of the greatest uncertainties is the influence of the human factor on those in power. I compiled 1981 results of mental instability of crucial politicians, especially American presidents: Many were

¹ William J. Broad: Weapons that could turn conflict nuclear - New generation of bombs has potential to leap past psychological deterrence. In: NYT, March 23, 2022; p. 1-2

² Tagesspiegel 25. 3. 2022, p. 1

demonstrably mentally disturbed. It is known of Richard Nixon that even without a concrete threat he threatened to trigger the use of nuclear weapons. What would it be like then under stress? Henry Kissinger wrote in his memoirs (1979) about Richard Nixon:

"The North Vietnamese clearly recognized that there was considerable disagreement between Washington and Saigon, and probably also guessed, quite correctly, what Congress would do in January. They believed they could accomplish anything now, demoralize Saigon, and force us to give in. But the North Vietnamese had made a grave mistake in cornering Nixon. Nixon was never more dangerous than when he believed he was no longer free in his decisions."

Danger of global nuclear proliferation

Threats and deployments of nuclear weapons must not produce "successes." Otherwise, there is a danger of global proliferation of nuclear weapons. The central taboo: "no use of nuclear weapons" must be preserved. It matters less to what extent one calls oneself a democrat and whether one emphasizes human rights again and again. The historically informed around the world hardly believe us anyway. It is existentially important, that those in power around the world who are under psychological pressure recognize why it is in their own interest to avoid nuclear weapons.

An example is the nuclear armament of Pakistan. There, there are constantly brutal lynchings of people who "have offended God", but the government prevents an intervention of police and justice³. Against nuclear use of such governments in wars deterrence could indeed help, but this would enormously increase the regional risk of escalation to mutual annihilation. There are many brutal governments and groups worldwide⁴. If this cannot be contained, "the planet" may become completely uncontrollable with the threat of nuclear proliferation.

In Germany there is a kind of regret that we have neglected the operational readiness of the Bundeswehr and are now "belatedly" committing ourselves to spending 2% of GNP by law. A certain rearmament is obvious against Putin, - but by no means in the long run against Russia. This is true for almost every Russia after Putin. If the FRG had not strictly restrained itself in the nuclear armament after World War II, our country would possibly have suffered massive damage long ago by an escalation "actually not wanted" by both sides.

In the period after the fall of communism, the FRG basically behaved in a cautious, potentially confidence-building manner. It clearly promoted worthwhile economic cooperation, accompanied by little threat from the FRG, as far as this was possible as an ally within NATO. All of this occurred within the framework and protection of NATO. It created tensions there - perhaps too little: What would have happened if NATO had taken over our attitude and actions as well cannot be guessed. Basically, what matters is ongoing alertness and ever-new peacemaking capability at the same time. One should be resolutely defensive and at the same time diplomatically constructive - and react quickly and pragmatically. An enormous challenge!

³ Zia Ur-Rehman, Salman Masood: NYT 23. 3. 2022, p. 4: Islamic militants fuel mob violence in Pakistan

⁴ iz3w: Crime pays - Rackets & gang rule. March/April 2022 issue

The nuclear sharing of Germany

The fundamentals of nuclear deterrence are well known and remain unchanged. There had been lively discussions about this in the Bundestag, for example between Fritz Erler, Helmut Schmidt and Franz Josef Strauß on 29/30 Nov. 1965. The following still applies: In Germany, American nuclear bombs can be quickly made ready for use by German pilots. Without modernization, such a military task is unreasonable - and even with modernization, any task remains incalculably dangerous, for every soldier, for Germany, for Europe.

What is striking in this regard is the decades-long reticence of German military policy:

- There is no fundamental democratic discussion of German military strategy, although new war scenarios are constantly possible, with correspondingly different demands on our behavior.
- Our participation in deterrence has been viewed with discernible reluctance. What is needed now is a strong NATO alliance, with an operational Bundeswehr. It is a defensive alliance. At the same time, we continue to observe that no threat should emanate from us.

This cultivation of German restraint (irresponsibility?) became clear in the "WEISSBUCH 2016 zur Sicherheitspolitik und zur Zukunft der Bundeswehr" (White Book 2016 on Security Policy and the Future of the German Armed Forces): The words nuclear weapon and nuclear bomb do not appear once, the term "nuclear" does appear thirteen times, in each case only in general terms, for example in the context of "nuclear sharing".

Dealing with nuclear weapons 50 years ago and application to the present day

Basically, for any situation, we need to know the nuclear risks and be prepared for responses.

It was precisely for this purpose, that the "Göttingen 18" carried out targeted preparatory work. They founded the VDW (Vereinigung Deutscher Wissenschaftler e. V. - Association of German Scientists) and studied the dynamics of risks systematically and in detail in 1964-1971⁵

My personal responsibility was the elaboration of the computer programs:

- for both the physical, structural and medical effects of conceivable nuclear war scenarios in Germany.
- as well as for the dynamics of escalation, and attempts to preserve political control of nuclear weapons.

It soon became clear then:

Nuclear weapons are neither technically, militarily, nor politically controllable after the beginning of a nuclear war. With continuously refined military electronics, the controllability is increased (in peace), but at the same time, unfortunately, all the more the disturbability and mutual destructibility (in the chaos of an initiated war).

⁵ *Carl-Friedrich von Weizsäcker (ed.): Kriegsfolgen und Kriegsverhütung. Hanser München, 1971, 699 pages.*

Such a specific statement was difficult to convey for a public discussion. After publication of all the facts, we had to recognize a new challenge: How should a German military policy pragmatically deal with the many facts? The four scientists who were mainly involved in VDW for this purpose at that time were supplemented: they formed a new team in 1972 with the journalist Christian Potyka. As a result, the team soon had an astonishing amount of disagreement (stronger than in the years 1964-1971 before) about what to do.

In the end, we deliberately forced ourselves to formulate the results as pragmatic pointers on the back of a paperback, concise and clear. Since then, these have virtually characterized the broad development of armaments right up to the present day, so I note them here unabridged⁶ :

On the back:

"THESIS

1. The Federal Republic cannot be defended with conventional weapons.
2. The use of nuclear weapons with the intention of defending the Federal Republic would lead to nuclear self-destruction.
3. For the Federal Republic, there is only one contradictory deterrence (deterrence by risk incalculable for both sides).
4. Between the superpowers today there is a strategy of deterrence without contradiction in its military logic.
5. Deterrence between superpowers (but) leads to arms race.
6. The arms race leads to an increase in the risk of war.
7. The attempt to maintain the deterrence balance through armaments paralyzes the superpowers politically and militarily.

CONSEQUENCES

- A. It is precisely the questionable nature of the deterrence system that opens up scope for the Federal Republic to use arms policy decisions as a means of foreign policy.
- B. In assessing any policy today, the first priority is the contribution to the creation of a politically secure world peace."

This was fundamental in 1972. Is it still suitable in 2022 to know the dangers and to specify clues for the influence of the military-political behavior? Changed since 1972 is the increasing attention to consequence "B", most clearly finally by our current government in the FRG. "B" was especially close to Carl Friedrich von Weizsäcker's heart. During his lifetime, he was pained by the little attention paid to it. Thus, he did not believe that deterrence could succeed for decades (about until 2022).

⁶ Horst Afheldt, Christian Potyka, Utz-Peter Reich, Philipp Sonntag, Carl Friedrich von Weizsäcker: Durch Kriegsverhütung zum Krieg - Die politischen Aussagen der Weizsäcker Studie "Kriegsfolgen und Kriegsverhütung: Hanser, 1972, 178 pages.

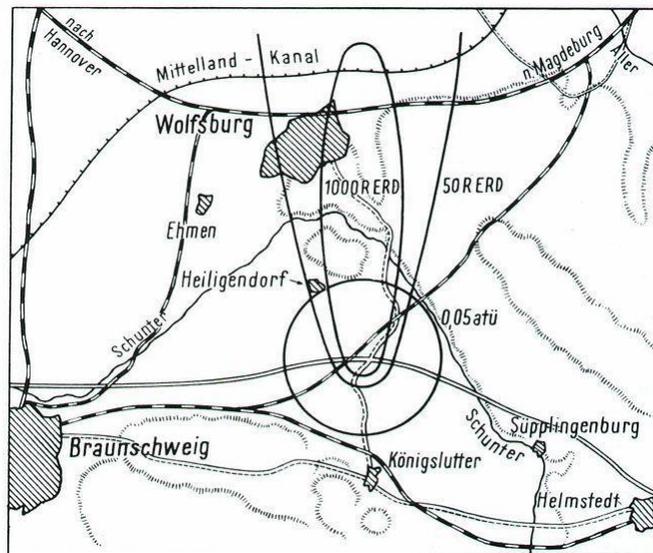
Nuclear risks today

I now apply details of our findings to current and possible further developments in Eastern Europe, as an illustration of what kind of nuclear risks remain relevant for Germany:

- You cannot disarm an adversary because you cannot limit his nuclear counterattack. Attempting a preemptive strike would only provoke a devastating counterstrike. Even attempting a disarming strike against relatively small nuclear powers like North Korea would be risky. There is no "nuclear defense," only risky deterrence. This dilemma applies "strategically" (with respect to a destruction of major cities) as well as tactically (in fighting enemy forces).
- Strategic: The insecurity caused by combining cyber war (military electronics) with nuclear bombs has long been much worse than it was before 1972. Even then, as input, we had systematically varied the hit probability of defensive missiles in our analyses, from zero to ten percent, 20 percent, etc., to one hundred percent. Were we crazy? No, the military electronic networks and combat equipment, depending on the war scenario, were already interfering with enemy military electronics at that time in such a way that any assumption from zero to one hundred was conceivable. This even applied to the assessment of the effectiveness of a single offensive or defensive missile in a nuclear exchange. As output came out that stability, that any attempt to control escalation, was an impossibility - even then. And the best intelligence cannot find out what the enemy military engineer himself does not know - what he cannot know.
- Tactical: The current fear is that Putin will launch an attack - initially conventional - on the Baltic states. NATO would counterattack. Aircraft from both sides would engage in ground combat. Rapidly, airfields on both sides would then be attacked. The way Putin behaves, we do not know whether nuclear weapons are also ready for use at his airfields - and Putin would have quite corresponding fears the other way around. A common military reflex is to use one's own threatened weapons "before it is too late (use them or lose them)." In addition, there are risks due to the partially destroyed command centers in the initial conventional war, as well as further uncertainties due to "cyber-war" and highly irritated human behavior on the battlefields. In this context, many things are "human": If I, as a soldier, am sitting in a bunker in front of a button to trigger an attack and have to be prepared for the extinction of my life at any moment - as well as my opponent - then it is obvious to press the button first. As far as the internalization of such reflexes at the USA is concerned, we know (know the Indians) this from movies about the "Wild West" (motto first shoot, then talk ...). In the nuclear war area military experts react recently in some situations more cautiously than some politicians. How pronounced this is currently possible and real in Russia, possibly not even the FSB (domestic intelligence service of the Russian Federation.), a successor of the KGB for the internal area, knows there.
- Could France be a deterrent for Europe? Probably not, because the strategic weapons on French nuclear submarines would be used only after destruction in the territory of France. Likewise hardly with the tactical nuclear weapons, these were (see at that time the operational readiness of Pluton) intended only for an employment exactly in the area of Baden-Wuerttemberg. Politically, such things are not discussed gladly, not even in the civil and disaster protection. When I explained these facts to about a hundred foresters in Baden-Württemberg decades ago, there was great surprise and consternation. There had hardly been

any military-political considerations about it in the FRG. With the current support of the French reactors neither their use for atomic bombs nor the associated military-political planning was discussed in the EU.

- A political control of the extent of damage is already highly uncertain for "limited" attacks: We calculated in 1964-1971 what a single atomic bomb could do if it destroyed a highway bridge near Königslutter (at that time "against Russian tanks"). Just small changes in the assumed wind direction would be decisive for whether Braunschweig, or Wolfsburg, or "just a few villages" would be affected by deadly fallout. Alone, if one would not be allowed to enter the VW plant for a while, in addition to all the despair of the victims, an economic damage would be remarkable. Any attempt of evacuation would be too late, or would possibly lead fugitives exactly into a contaminated area.



Calculation for the destruction of a highway bridge, with drifting of sickening to deadly radioactivity

Dealing with the current risks

Any defensive missiles are problematic. In VDW's 1971 study of the consequences of war, our calculations in this regard showed a high breadth of assumptions:

- Disarming an opponent hardly succeeds - at least not reliably to limit a counterattack
- Destruction of cities as civilian targets can hardly ever be avoided.

In addition, command centers on both sides quickly become inoperable, either through destruction or lack of accessible receivers for orders. The surprise in the Ukraine war was that relatively cheap drones manufactured in Turkey could destroy expensive Russian weapons - contrary to all assumptions.

For Germany, the purchase of technically high-quality systems that have proven themselves under special conditions is being considered. One example in Israel are those components of the Arrow-3 system, which offer usable protection against offensive weapons from short and medium distances (up to a few hundred kilometers). These defenses have proven effective against technically inferior opponents who suffer high casualties in counterattack after attack.

Applied to our situation, the value is disputed among our military experts. For example: While individual interception maneuvers may succeed with expensive defensive missiles, offensive missiles are for the most part noticeably cheaper and a large number of, especially at the moment, surprise attack actions overwhelm any defense. This cannot be shown in detail for new systems in this article - but I think "security" in the sense of expected protection of a civilian population would be almost impossible.

It is significant that our Chancellor Olaf Scholz is being advised by Defense Minister Christine Lambrecht and Inspector General Eberhard Zorn on whether the FRG should use Israel's state-of-the-art Arrow-3 system at three sites, and they are hardly getting any closer to a decision. At the same time, it is said on the same day that the defense committee has yet to analyze the "greatest Russian threat scenarios" - a declaration of bankruptcy⁷. Anyone who is somewhat familiar with Russia's many and varied formidable attack techniques and options knows that the politically desired "avoidance of blackmail" is unrealistic. In addition, new types of offensive weapons are constantly being developed, such as the Russian hypersonic weapons, with the declared aim that they cannot be defended against.

A term like "missile shield" is used suggestively by defense companies. In every society there is a vague fear and hope that in some concrete cases a defense might succeed at least for a moment. This is humanly understandable and thus politically effective, but de facto it easily leads to financial waste, military deception, and most importantly, it is politically and for military action misleading when escalation is imminent.

Experiences in dealing with risks should therefore only be applied with due caution to any conceivable East/West confrontation. In dealing with Putin, it is important to avoid any unnecessary, above all any emotionally confusing provocation. At the same time, it is necessary to speak plainly.

It is therefore correct to announce in the context of the war in Ukraine that we are spending a hundred billion euros to make the Bundeswehr more operational. It is more difficult to make a "due" modernization of German nuclear sharing appear as a measure to better prevent escalation. It would already be more than difficult to convince the German pilots who are to fly and deploy nuclear weapons from Büchel toward Russia to take any action. On the one hand, obsolete technology forces a suicide mission. Tornado aircraft, commissioned in 1980, were declared "political weapons" to the pilots. On the other hand, modern electronic weapons are hardly calculable in a confrontation of attack and defense. There would probably be very different views, i.e. assumptions, on how a certain modernization affects the political and military perception of deterrence.

Sanctions are a completely different problem. They are supposed to have a strong but limited effect. However, as soon as Putin gets the impression that he has much better "chances of success" now, than after a few years, he might be tempted to attack even NATO territories "in time" - for example, in order to achieve more for Russia in negotiations.

In such a situation, it is not a matter of repeatedly admonishing Putin about how criminal, how deterrent and unethical he seems to us. By doing so, we only confirm to him that it is precisely his approach that succeeds with his goals.

⁷ Georg Ismar, Sonja Wurtscheid and Claudia von Salzen: "Germany considers purchase of missile shield," Tagesspiegel March 28, 2022, p. 1.

How to deal with someone who almost deliberately demonstrates that treaties signed by the Russians do not guarantee peaceful behavior at all? In the game of chess, there must be no "air attacks" by manually throwing the opponent's pieces off the chessboard - apart from any "rules of the game". Accordingly, the Russian war in Ukraine is condemned by the West as a violation of the rules, in effect as a crime.

Conversely, it is important to understand how Putin sees the broad expansion of NATO to the east as an existential and ever-growing threat. In the program "INSIDE NATO" on television at the channel PHÖNIX, on 4. 3. 2022 in the evening, it was emphasized that for Russia a breach of trust is worse than a breach of contract! And with inclusion of a public statement of Dietrich Genscher it became clear beyond doubt, how in the East/West negotiations with Gorbachev Russia had been assured that those nations, which belonged to the Warsaw Pact until then, would not become members of NATO now. Arms deliveries to "buffer states," intensively even before wars, are similarly perceived in Russia as a deliberate provocation, by no means only by Putin. In fact, Russia has since been increasingly "encircled" by NATO countries.

Therefore, it is at least understandable that Putin compares his situation with that of the USA in the Cuban missile crisis: "is it so hard to understand" he said literally. For us it may be self-evident that "any free country" can join an alliance, such as NATO.

For Putin, the clear and committed turning away of the Eastern European countries, the "old friends of Russia", is more than a disappointment - it comes across to him as a new and grave threat, as a contribution to a virtually foreseeable attack coming from NATO towards Russia, up to and including genocide in Russia. There is a certain tragedy: Over the years, Russia had failed to honestly provide CBMs to the members of the Warsaw Pact.

Over the years, he has tried in vain to warn us in Germany. In his speech to the German Bundestag on September 25, 2001, he had said⁸ :

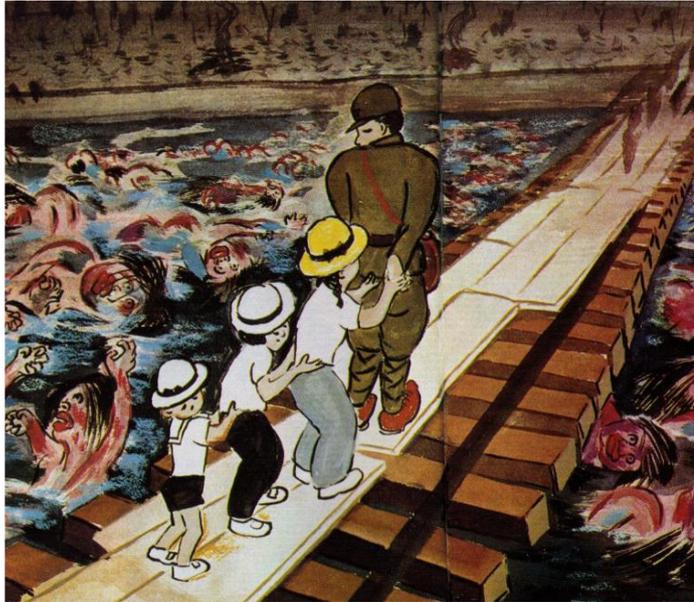
"No one doubts the great value of Europe's relations with the United States. But I believe that in the long run Europe will consolidate its reputation as a powerful and independent center of world politics only if it unites its own capabilities with Russia's human, territorial, and natural resources, as well as its economic, cultural, and defense potentials."

He received a standing ovation from all political groups - but there was no diplomatic reaction afterwards. Russia submitted draft agreements on security guarantees as late as December 17, 2021, and Europe and the United States failed to conduct serious negotiations on them.

No matter how real, honest and credible - or delusional - Putin is to be assessed before the war, it is precisely with unrealistic ideas that one must be warned. Certainly, Putin's attack practice in Ukraine appears to us as paranoia. A person can adopt psychotic, demonic, even momentarily panic behavior and do a lot of damage.

As for the possibility of a nuclear war, Putin risks to go down in the history books as the catalyst for a III. World War waged with nuclear weapons, with hitherto undreamt-of and permanent destruction. I say this as a child survivor who knows the Holocaust – but I was also in Hiroshima.

⁸ Minutes of Vladimir Putin's speech in the German Bundestag on 25.09.2001 (simultaneous translation) https://www.bundestag.de/parlament/geschichte/gastredner/putin/putin_wort-244966



Soldier leads children across makeshift bridge, children see severely injured drowning victims, after Hiroshima explosion in 1945⁹

Confidence-building measures (CBMs)

The situation is tragic for Putin - and for us as well. Because trust is at the heart of any hope of avoiding nuclear war.

Not even Trump wanted to endanger business conditions through war, the same goes for Xi Jinping. And Russia has wanted to be considered an equally accepted part of Europe for centuries. Currently, Putin sees that the populations of countries close to Russia worship neither Hitler, nor Stalin. What is new for him is the extent to which the former "friendly" states of the Warsaw Pact are critical.

We must not overlook that before the turnaround (with Gorbachev) the Russians, for example in the Baltic states, had advantages over the population there - and after the turnaround vice versa. Putin knows that there were fascists there during World War II who murdered as stooges of the German Nazi occupation - and thus acquired valid pension rights in the FRG. Many old Nazis came back into German ministries through Adenauer. We should not deny such outrages - but honestly regret them and keep the memory alive. Only in this way can we at least counter Putin's impression that there are fascists everywhere in the West. And after all, he knows Germany somewhat from his work in Leipzig in 1988-1990.

We see every day on television what the destruction of livelihoods means, so in Syria, so in Ukraine. Therefore, because of threats to peace, climate and other livelihoods, citizens like me, for example, would be willing to heat only one room in their own home – I remember that after 1945 it was troublesome, it hurt, and yet it was comparatively easy to manage.

In our democracy, most voters have not experienced such harshness of survival conditions, as forced by Putin in Syria and Ukraine, for example. Accordingly, our politicians still think they have to act as if they might continue to guarantee our prosperity. This happens despite high expenses because of war, climate, pandemic,

⁹ Picture by Toshiko Kihara, in a picture book painted by victims of the atomic bomb: Hiroshima Peace Culture Foundation Center and Japan Broadc. Corp.: Hiroshima City 1976, pages 75 and 76

burdens of the children! Scientifically, civil defense (today: protection of critical infrastructures) has been meticulously developed continuously since 1950 (foundation of the German Federal Agency for Technical Relief (THW)), but without strong intervention in society, so to speak "without impositions" for the population¹⁰. Therefore, the weakness of Germany – and Europe – compared to countries such as China, Russia and the USA, which are ready to make decisions, is striking.

Putin is destroying the economic power and social fabric of his own country through his gigantic armaments. He has long since destroyed Russia far more than any enemy military would ever destroy it in a conventional war. Nuclear war would be a different order of magnitude.

I will cite a precedent in which an insight was achieved: 50 years ago, there was an arms race between Egypt and Israel. Poor Egypt invested more than 5% of its GNP in the military. Egypt bought expensive Mirage airplanes, while the children had to slave all day for a few pennies, in great heat and with dangerous epidemics. The population increase in Egypt within five years (1971-1976) was already greater than the total population of Israel - the result: one teacher for 80 children, practically without teaching materials. Reflection (more social than international law and military strategy) showed Egypt was destroying itself through its own military more than an attack from Israel ever would. With recognition of the facts, CBMs arrive including concrete measures to limit arms.

The dissolution of the Soviet Union was preceded by CBMs, which Russia engaged in at the time. It may even have avoided nuclear war for the last 30 years. In Russia, however, many are critical of Gorbachev for not achieving a treaty to restrain NATO in Eastern Europe. Through the Organization for Security and Cooperation in Europe (OSCE), countries (and citizens!) in Eastern Europe had acquired a taste for democracy and freedom, and even Russia had (reluctantly) gotten involved. Meanwhile, as in the Cold War, East and West keep finding occasions to call the other side criminal. Such views, prevent CBM and thus the chance to stop an escalation once started. After a nuclear war, arguments about guilt would be irrelevant.

We must never lose sight of CBM. Nothing else could fundamentally help Russia, nothing else Russia basically craves more than credible (!) CBMs. For us, too, no security policy can succeed in the long run without CBM. It is German responsibility, after all, the first atomic bomb was to be used against the Nazis in Berlin in 1945. It was developed in the Manhattan Project of the USA. It was made possible with experts whom Hitler had driven out of Berlin. These same experts agonized before and after 1945 over their own misgivings about whether the buildup to the atomic bomb was the right thing to do. In their spirit, we should take our responsibility for arms control seriously - even to the point of dealing with Putin in a difficult way. The revival of trust is the prerequisite for this.

Conclusion: Deterrence, turning away from each other cannot guarantee security in the long run. For common survival, it is important to develop suitable forms of mutual caring and finally affection.

¹⁰ https://www.bbk.bund.de/DE/Themen/Kritische-Infrastrukturen/kritische-infrastrukturen_node.html

About the author:

Philipp Sonntag, born in Halle/Saale in 1938. He worked as a physicist from 1964 to 1971, initially in the "Research Center of the VDW" in Hamburg, and was involved in the study of the consequences of nuclear war. In 1977 he headed a "Civil Protection Initiative Committee" in the VDW. Later focal points were the information society (WZB Berlin), microsystems technology (VDI/VDE-IT), bionic saws (as an entrepreneur). Until the end of 2020 he was active on the board of "Child Survivors Germany - Surviving Children of the Shoah e. V." Philipp Sonntag is the author of over 20 books and countless articles in books and magazines, see

<https://www.philipp-sonntag.de/bibliografie.html>