

Germany's Nuclear Education: Why a Few Elites Are Testing a Taboo*

The tectonic plates of geopolitics in Europe began to shift a decade ago as the United States pivoted away from the region amid the rise of Russian aggression and German political-economic power. Russia's annexation of Crimea in 2014 and U.S. President Donald Trump's mercurial policy toward Europe in 2017 have accelerated these driving forces. Germany increasingly found itself pushed onto the horns of a dilemma: How could Berlin act as a security patron for Europe without reigniting fears of continental hegemony among other European nations?¹

In January 2014, then-President Joachim Gauck opened the Munich Security Conference with a rousing call for Germany “to do more to guarantee the security that others have provided it with for decades,” especially in response to “new threats and the changing structure of the international order.”² Subsequently, Germans started to discuss hard power. Some focused on ways to build up conventional military capability within an integrated European framework to avoid sparking negative

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reactions.³ Yet only a few days after the U.S. presidential election in November 2016, a small group of pundits, scholars, journalists, as well as a senior Member of the German Bundestag also began to individually debate whether Germany should, perhaps, pursue one of three nuclear options: (1) fielding an indigenous nuclear force; (2) preserving a latent nuclear hedge capacity; or (3) cooperating with the French to open an extended nuclear deterrent umbrella over Europe.

For most observers, that debate, which almost exclusively took place in the German and later English-speaking media, came as a shock. Germany is one of the staunchest supporters of nuclear nonproliferation and global disarmament. Moreover, German public opinion remains overwhelmingly opposed to nuclear weapons and even civil nuclear energy. As a result, the German nuclear debate is often portrayed as a “phantom debate”—one that was either too short-lived to warrant serious consideration or never gained traction with official German decision makers.⁴ The latter charge is certainly valid, as only one German politician voiced support for a Eurodeterrent in public: Roderich Kiesewetter, a senior member of Angela Merkel’s ruling party and the Chairman of the Bundestag’s Committee on Foreign Affairs. Yet the debate attracted proponents and opponents from across the political spectrum in Germany. It has been repeatedly covered by all major news outlets in Germany—most notably *Der Spiegel*, *Frankfurter Allgemeine Zeitung*, *Süddeutsche Zeitung*, *Zeit*, *Welt*, *Frankfurter Rundschau*, and *ARD*—and reporting only started to fade out a few months after Trump’s election.⁵ Indeed, the magnitude of public German attention to this small group’s nuclear musings has no recent historical precedent in the country.

Despite this obvious contradiction between broad coverage and the lack of official support or even engagement in the debate, there is another striking

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factor: Germany’s nuclear proponents have failed to explain how the country would use its nuclear capabilities to accomplish foreign policy goals. Upon close examination, we find that the three options capture a wide range of views about the political utility of nuclear weapons. For some, a German deterrent would somehow prevent Russia from waging hybrid warfare or even meddling in European elections. Others focus on augmenting the technical ability to field an existential deterrent, signaling alliance concerns to Washington, or

bolstering Europe’s extended deterrence architecture. Yet none makes the clear case that Germany would be able to achieve these diverse goals by investing in new nuclear options. There is not even a basic assessment of whether the concrete benefits to be reaped from going nuclear would outweigh the costs and risks.

These major shortcomings in German strategic thought raise an obvious question: why has the nuclear debate happened at all? Was it just a passing reaction to Trump's incoherent stance on NATO and Russia? We uncover evidence that the discussion is not primarily intended to garner traction among government officials—at least not now. Rather, as Kiesewetter admitted, it is a longer educational effort to remove “thought taboos” held by ordinary Germans about assessing nuclear policy issues.⁶ Viewed through this lens, each of the three nuclear options attempts to bring one or more *verboten* topics out of the shadows: the basic concept of nuclear deterrence; the strategic value of preserving Germany's nuclear industry; and the future landscape for European extended deterrence.

For the time being, vociferous domestic opposition in Germany is the greatest barrier to any nuclear pathway. Given the serious flaws we document in the case for Germany going nuclear, however, proponents must pause to consider the consequences if their educational movement ends up eroding this critical bulwark and leading Germany down one of three pathways to a more insecure future.

Option I: German Indigenous Nuclear Deterrent

The first option proposed in the nuclear debate is for Germany to acquire its own indigenous nuclear deterrent. This radical policy proposal emerged in November 2016 when Berthold Kohler, one of the publishers of the influential conservative newspaper *Frankfurter Allgemeine Zeitung*, prepared Germans to consider “an indigenous nuclear deterrent which could ward off doubts about America's guarantees” if “America will leave the defense of Europe to Europeans to an extent that they have not known since 1945.” Kohler argued that only those who have “the capability to defend their interests, values, and allies can successfully negotiate with the Kremlin” and that “French and British arsenals are too weak in their present condition”.⁷

A few days after Trump's inauguration, Maximilian Terhalle from the University of Potsdam went even further, worrying that the purported pro-Russian outlook of the Trump administration would “rattle the central strategic basis of German security policy—that is, conventional and nuclear deterrence against Russia by NATO.” As a result, Terhalle concluded, “Germany needs nuclear weapons.”⁸ A wave of criticism prompted Terhalle to rehash his position for the Washingtonian readership of *Foreign Policy* in April. With the United States “now committed to signaling its unreliability,” he advised Germany to consider “pursuing its own nuclear deterrent.”⁹ In response to Terhalle, Thorsten Benner, head of a center-left Berlin-based think tank, underscored that the “debate on nuclear strategy ... is one Germany cannot and should not avoid.” Benner pointed towards a “newly aggressive Russia that is rapidly modernizing

its nuclear arsenal” as the key reason why Berlin might need “a German bomb,” but only as an option of “last resort in case of a total breakdown of the Euro–Atlantic security arrangements.”¹⁰

By the summer of 2017, the scenario of a nuclear-armed Germany was no longer a *verboten* national security issue shunned to the most ultraconservative fringe elements in the country.¹¹ In essence, the proponents all forecast a dire future when Germany would need nuclear weapons because the United States has withdrawn its nuclear umbrella over NATO, while the relationship with Russia has deteriorated into open competition over the future of Europe.

By summer 2017, a nuclear-armed Germany scenario was no longer a *verboten* national security issue.

At face value, this logic of self-help might seem intuitive; one could argue that Germany would have to at least consider fielding nuclear weapons if it was left to fend for itself. Upon further investigation, however,

the German indigenous deterrent rings hollow because three elements of strategy are absent.

First, the proponents never specify how Germany would posture its nuclear forces to protect national or European interests.¹² Instead, nuclear weapons are championed as a panacea for a wide range of security problems with Russia. On the high end, Terhalle claims that Germany could deter Moscow from nuclear blackmail with “even a relatively small” nuclear force, a position that Benner seems to support as well.¹³ But they ignore the requirements for operationalizing this type of assured retaliation posture in the face of Russia’s large and complex nuclear arsenal. Germany would need to (1) deploy sufficient reserves of nuclear warheads in a survivable force configuration; (2) develop a doctrine of pre-planned nuclear employment options that could be executed as part of retaliatory strike; (3) acquire a robust command-and-control system capable of executing these orders after a Russian first strike; and (4) articulate credible threats to deter Russia from challenging core national interests.¹⁴ More problematically, Terhalle and to some degree Kohler insinuate that nuclear forces would automatically dissuade Russia from waging hybrid warfare in the Baltics, conducting influencing campaigns against European elections, or pressuring “Western Europe into accepting [Putin’s] authoritarian view of the world.”¹⁵ Yet, as American and NATO strategists know well, it is quite difficult to use nuclear forces to shape states’ behavior at the lower end of the security spectrum.¹⁶

Second, there is no plan for extending Germany’s strategic deterrent to other nonnuclear NATO members. To be sure, Terhalle advocates that “Germany needs to shield Eastern Europe” against Putin and Trump “and nuclear weapons

are the only way to guarantee its neighbors independence.” But any type of extended deterrence scheme would require Germany to communicate the vital interests it has at stake in Eastern Europe, along with credible assurance mechanisms to defend these protégés with German nuclear forces in a crisis with Russia. Instead of fleshing out these essential details, Terhalle simply claims that German nuclear weapons “would be accepted as legitimate,” because “World War II has no real political weight in today’s relations.”¹⁷ The Russian threat, as described by Terhalle, may be driving European nations together, but German proliferation could quickly unravel this coalition, especially in the absence of an agreed upon approach to extended deterrence.

Third, proponents imply that Berlin could field nuclear forces rapidly without incurring severe costs or risks. In reality, Germany no longer has the capabilities in place to produce nuclear weapons “almost instantly,” as many security analysts have long assumed.¹⁸ The most direct pathway to a German bomb would be the so-called breakout route: civil nuclear energy facilities would be repurposed to produce fissile material, and then this highly enriched uranium (HEU) or plutonium would be manufactured into nuclear explosive devices as quickly as possible. Since Germany shut down its reprocessing program in 1990, Berlin would have to go down the uranium route by nationalizing the Urenco fuel enrichment plant at Gronau or weaponizing the modest stockpile of HEU under contract from Avera for the Heinz-Maier-Leibnitz (FRM-II) research reactor at the Technical University of Munich.¹⁹ Neither capability would be optimally suited to sustain a weapons production program; nationalizing these resources would take time, set off alarm bells, and create a deep rift in political relations with other European nations.

Moreover, the political ramifications would be disastrous, as Germany would have to exit from the Treaty on the Non-Proliferation of Nuclear Weapons (NPT). Such a move could fatally damage global efforts to inhibit proliferation, while sparking political outrage at home from a public that remains strongly opposed to nuclear weapons. In addition, Berlin would make its power dilemma worse as it withdrew from an additional web of treaties, supplier contracts, and legal agreements designed to bind the German civil nuclear program into a multinational European technology project.²⁰ The alternative strategy of sneaking out to the bomb would fare no better, as it would hinge on Germany’s ability to build and then operate a clandestine weapons production complex in total secrecy until an assured retaliation force would be ready to be deployed. Premature detection would create dangerous security risks, as Russia would likely be highly motivated to prevent Germany from fielding nuclear weapons.

With no nuclear posture, no extended deterrence plan, and no proliferation strategy, the case for nuclear weapons as a means to dampen Germany’s power dilemma rests on a shaky foundation. This raises the question of whether the

proponents harbor an ulterior motive. Terhalle exposed his hand with a frank admission: “All this talk of a Berlin deterrent has another purpose ... [it] has been a reminder to the more cautious or wiser elements in the U.S. government of the stark consequences of abandoning NATO.”²¹ In other words, the real purpose is to bluff and to prevent American isolationism. But this signal is simply not credible because so little effort went into thinking through how Germany might surmount the strategic and operational hurdles. In fact, the proponents run the risk of fueling isolationist elements in the Trump administration by giving them an excuse to disengage from Europe.²²

Option II: Hedging with Nuclear Latency

Preserving German nuclear latency would raise deep suspicions and incur high costs in practice.

A second option also emerged from Thorsten Benner, who complemented his musings about “a German bomb” as a “last resort” with the more immediate recommendation that “Germany should preserve its latent capability to build nuclear weapons.”²³ To be clear, this single proposition constitutes the entirety of Benner’s rumination on nuclear latency. So, what exactly would it mean for Germany to retain nuclear latency? Even a quick analysis makes clear that preserving German latency would raise deep suspicions and incur high costs in practice.

Nuclear latency is a technical measure of how quickly it would take a state like Germany to produce the fissile material at the heart of a nuclear weapon with enrichment and/or reprocessing (ENR) facilities.²⁴ Under the terms of the NPT, Germany can develop these dual-use technologies for use in civil nuclear energy production, so long as the sensitive facilities are kept under international monitoring of peaceful use.²⁵ Indeed, German industry mastered ENR technology many decades ago in the hopes of providing complete fuel cycle services for the nuclear energy market.

Yet, Germany’s nuclear latency is undergoing a major decrease as the country abandons nuclear energy. In the wake of the 2011 Fukushima disaster, Chancellor Merkel responded to a groundswell of public opposition toward nuclear technology. Her ruling coalition decided that all nuclear power plants be phased out by 2022, leaving Germany with a handful of small research reactors, the Urenco enrichment plant, fuel fabrication facilities, research and development projects, and interim spent fuel storage sites.²⁶ Consequently, Josef Joffe, publisher of the liberal German newspaper *Die Zeit*, denounced a German latent hedge capacity

as “undoable,” because the country was losing its “wherewithal for a weapons option, except for a limited low-enrichment capability doomed to go when the last power reactor goes.”²⁷ In a similar vein, Theo Sommer, former editor-in-chief of *Die Zeit*, argued that detachment from America was “no real option” because “Germany no longer has the technical infrastructure for nuclear weapons production,” and it “would take decades” to rebuild sufficient ENR capabilities.²⁸

The strategic implications of Benner’s contemplation stand out in stark relief against this backdrop of nuclear energy abandonment. Rather than incur the costs and risks associated with overt proliferation, Germany could, perhaps, dial-up its nuclear latency by constructing an above-board hedge capability under full International Atomic Energy Agency (IAEA) safeguards and within the legal confines of NPT Article IV, which permits the development of ENR technology for peaceful nuclear energy applications. The technical goal would be to increase Germany’s capacity to produce large quantities of fissile material at ENR facilities, all while convincing other countries that this investment was intended for peaceful purposes. From a political perspective, Germany could use nuclear latency to guard against strategic surprise, or dissuade changes to the status quo by casting a short shadow of proliferation over decision making in Moscow and Washington.²⁹

But how would Berlin actually go about augmenting its hedge posture? In practice, there is no production pathway for Germany to dial-up its nuclear latency without setting off alarm bells about its intentions. The looming failure of nuclear energy in Germany makes new investments in enrichment or reprocessing facilities fundamentally incompatible with peaceful purposes.³⁰ As the Iranians know well, there are few legitimate reasons to build indigenous ENR infrastructure in the absence of a vibrant nuclear energy sector at home. To avoid suspicion, Berlin would either need to keep nuclear reactors online or become a global supplier of nuclear fuel cycle services. Both options are difficult, costly, and provide partial solutions at best.

On one hand, there is an economic case for modifying the 2011 phase-out plan to keep a handful of industrial reactors online. So far, Germany has not been able to replace the baseload electricity generated by nuclear power plants with alternative energy sources.³¹ But keeping the nuclear industry on life support hardly creates a need to expand enrichment or reprocessing capabilities. The practical obstacles are also daunting. In the aftermath of Japan’s Fukushima nuclear accident in 2011, Chancellor Merkel’s coalition of Christian Democrats (CDU/CSU) and Liberal Democrats (FDP) invested much political capital in the phase-out plan, which remains widely popular among an electorate that is strongly opposed to nuclear energy. For instance, a 2016 public opinion poll found that 70 percent of Germans still support the decision to abandon nuclear energy.³²

Furthermore, German industrial companies such as Siemens already exited the nuclear market. The remaining nuclear energy groups—E.ON, RWE, and EnBW—have been financially eviscerated over the last five years.³³ Even if Berlin would roll back the anti-nuclear pledge down the road, it remains unclear whether any firms would be willing to shoulder the financial risks and costs associated with such projects.

Since nuclear energy appears to be doomed within Germany, Berlin also would not be able to maintain plausible deniability over its hedge by providing other countries with enrichment services. French, Russian, and Chinese firms already dominate the global civil nuclear supply market with cheap services backed by generous financing packages.³⁴ Moreover, Germany is a founding member of the multinational Urenco Group, a venerable nuclear fuel company that operates enrichment services in collaboration with the United Kingdom, the Netherlands, and the United States under the auspices of the Treaty of Almelo.³⁵ Berlin would find itself hard pressed to justify building new German facilities beyond the enrichment plant that Urenco operates in Gronau. Furthermore, when the Treaty of Almelo laid the legal foundation for Urenco in 1970, it also prohibited Germany from building an indigenous enrichment capability outside of joint multinational enterprises with Urenco members.³⁶ As noted before, withdrawing from such treaty agreements would be viewed with alarm in other European capitals.

In sum, the phaseout of nuclear energy in Germany would make it very difficult for Berlin to construct a hedge capacity without incurring the very same costs and risks associated with overt proliferation. The challenge of preserving German nuclear latency would only become more acute as the technical skill and tacit knowledge required to develop large industrial-scale nuclear projects atrophies in the years ahead. Unless there is a dramatic reversal of energy policy and public opinion in Germany, Benner's call to preserve German latency would require the federal government to surmount significant barriers while fending off serious questions about its purportedly peaceful intentions. Yet, while an augmented hedge posture is neither plausible nor prudent in the current environment, any potential future efforts to move in this direction should be viewed as a profound metric of German insecurity.³⁷

Option III: Franco–German Eurodeterrent

The third, and most detailed, option comes from Roderich Kiesewetter, the aforementioned defense expert of the CDU. Kiesewetter proposed a British–French nuclear umbrella for Europe, financed through a joint European military budget, in case “the Americans sharply raise the cost of defending the continent, or if they decide to leave completely.”³⁸ Taking into account Brexit, Kiesewetter later clarified that a Franco-German Eurodeterrent would require four ingredients: “a French pledge

to commit its weapons to a common European defense, German financing to demonstrate the program's collective nature, a joint command, and a plan to place French warheads in other European countries." His plan "would provide a replacement or parallel program" to NATO's current nuclear-sharing arrangement.³⁹

Kiesewetter went as far as to commission an assessment by the Bundestag's research service about whether co-financing the nuclear deterrent of another country would be in line with Germany's international legal obligations. The assessment, which was concluded in May 2017, stated: "The current international obligations of Germany under the NPT and the 'Two-Plus-Four Treaty' are limited to prohibiting the acquisition of its own nuclear weapons ('German bomb'). 'Nuclear sharing,' as it is already common practice with regard to U.S. nuclear weapons deployed in Germany, does not violate the NPT as does the co-financing of a foreign (e.g., French or British) nuclear weapons arsenal. Such funding could not be derived from the EU budget, but from the German defense budget and on the basis of a respective bilateral international agreement, which also regulates the 'service in return' of the financing."⁴⁰

Even though high-ranking German officials were quick to dismiss Kiesewetter's idea as "off base,"⁴¹ *Der Spiegel* quoted him as having discussed the issue previously with Christoph Heusgen, Merkel's security adviser, and with Defense Ministry Policy Director Géza von Geyr. According to Kiesewetter, "the issue is not one that either the Chancellery or the Defense Ministry is taking up." But he also "didn't get the impression that his ideas had been dismissed as fantasy either."⁴² Further investigations by *Der Spiegel* suggested that "French diplomats in Brussels have already been discussing the issue with their counterparts from other member states," and an unnamed diplomat was quoted saying that "these ideas have been circulating 'informally and off-the-record' inside NATO headquarters for a few months now."⁴³ The *New York Times* cited Kiesewetter as having "heard interest from officials in the Polish and Hungarian governments, at NATO headquarters in Brussels and within relevant German ministries."⁴⁴ When former Polish Prime Minister Jarosław Kaczyński, although skeptical, affirmed his general support,⁴⁵ even the Chancellery weighed in with a brief denial. "There are no plans for nuclear armament in Europe involving the federal government," Chancellor Merkel's spokesperson told the press.⁴⁶

At face value, the Franco–Eurodeterrent appears to be the most plausible option in the German nuclear debate for the simple fact that France already has a nuclear force. Yet, there are two core reasons to believe that France will prove unwilling and unable to provide extended deterrence guarantees to Berlin and perhaps other European capitals. First, nuclear

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weapons have long been perceived in Paris as guaranteeing strategic autonomy and thus should not be shared.⁴⁷ This is precisely why France does not participate in NATO's nuclear sharing and consultation mechanisms. The prime decision to use nuclear weapons remains exclusively in the hands of the French president. In the past, public contemplations by Presidents Chirac (in 2006), Sarkozy (in 2008), and Hollande (in 2015) about expanding the purpose of the French strategic deterrent to include other European allies were left intentionally ambiguous.⁴⁸ All three of them had referred to the context of European security and defense, and underscored the vital national interests that derive from France's deep integration in the European Union. When Prime Minister Juppé back in 1995 invited Germany to discuss the role of the *force de frappe* in a European context, he used the term *dissuasion concertée* ('concerted deterrence').⁴⁹

'Concerted deterrence,' as discussed by the French following the end of the Cold War, basically meant that France would consult with its European partners on nuclear issues.⁵⁰ While this proposal went quite far theoretically, it never came into being, partly because the French saw the idea of a joint command and thus the full Europeanization of the *force de frappe* as too far down the line. Whether the current conditions in Europe have made full Europeanization more plausible and realistic is a matter of debate. But if the chasm between the French desire for strategic autonomy and external calls for a joint command remains, the Kiesewetter proposal is dead on arrival.

However, the *force de frappe* is currently undergoing a very costly modernization at a time when Paris is already facing enormous fiscal pressure on its defense budget.⁵¹ Proponents such as Stefan Fröhlich or the doyen of German foreign grand strategy Karl Kaiser seem to assume that a German bid to finance parts of the French deterrent might change some of the more traditional thinking in Paris.⁵² French strategist François Heisbourg already sees "room for French-German talks" in that regard.⁵³ Benner recommended that Germany "should seek talks on nuclear cooperation with the new French president in May"⁵⁴ and reiterated his calls once Emmanuel Macron was elected.⁵⁵

Second, even if French nuclear strategy undergoes a major revolution, France may not have the operational capabilities in place to credibly backstop extended deterrence promises. Kiesewetter seems to understand that deterring Russia with its enormous nuclear arsenal would be no easy feat.⁵⁶ The Russian strategic triad currently consists of 1,550 deployed warheads on strategic delivery vehicles (over 5,500 km). Of the total Russian inventory of over 7,000 warheads, Russia is estimated to have roughly 2,000 non-strategic nuclear warheads for weapons ranges below 500 km. Moscow is also engaged in an ongoing effort to significantly modernize its arsenal and acquire new conventional precision-guided capabilities.⁵⁷ In comparison, France currently fields fewer than 300 nuclear warheads on a dyad consisting of submarine-launched ballistic missiles with strategic

ranges of up to 8,000 km and aircraft-delivered cruise missiles with sub-strategic ranges between 300 and 400 km.⁵⁸

As an astute security analyst, Kiesewetter gets around this quantitative asymmetry by claiming that France still retains sufficient forces to deter threats from Russia. “It’s not a question of numbers,” he claims, since the “reassurance and deterrence comes from the existence of the weapons and their deployability.”⁵⁹ This is correct so long as France aims to protect its own territory and national interests. The configuration of French sub-strategic and strategic nuclear forces, along with deliberate ambiguity about nuclear employment, provides a strong existential deterrent.⁶⁰ But this kind of posture would run into credibility problems if France were to extend its security guarantees to the EU’s eastern members to deter Russian aggression. One key problem is that French officials have long rejected a calibrated warfighting role for nuclear weapons.⁶¹ During the Cold War, Paris relied on the concept of the final warning (*l’ultime avertissement*), which still seems to be the central element of the French version of a flexible response.⁶² But in the event that *l’ultime avertissement* failed to deter Russia from a land grab in, say, Latvia, France would be left with few options except rapid escalation to threats at the strategic nuclear level, thereby risking the loss of Paris for Riga.

The onus would be on Paris to demonstrate how it would resolve this classic problem of making deterrent commitments to other nations credible. Of course, the French principles of maintaining exclusive control and deliberate ambiguity over nuclear forces make this a heavy lift. Paris would have to clarify to its allies who exactly it wants to deter from doing what with the threat of nuclear punishment. But consensus would be hard to come by—European nations disagree about the main inputs to this basic deterrence equation, with some taking a more sanguine view of Russia or dismissing the utility of nuclear weapons altogether. (As Oliver Thränert, one of Germany’s leading strategists, pointed out, EU member states are deeply divided on nuclear matters.)⁶³ Any exclusion of critical EU nations such as Poland or Italy could be perceived as a Franco–German attempt at establishing an exclusive nuclear club. If decision makers in Berlin (or other European capitals) insist on exerting positive and negative control over the use of French nuclear weapons—something that Kiesewetter explicitly demands—this would mean a complete reconstruction of the French command-and-control infrastructure.

Under certain conditions, Paris and Berlin may be able to overcome these manifold political and operational hurdles. But German domestic political forces are likely to align against even co-financing the French program. In addition, the security risks with Russia would still be high. At first, Moscow might

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perhaps welcome the Eurodeterrent as less threatening than U.S. forward-deployed forces. But the already tense EU–Russia relationship could quickly introduce an arms race and instability into the region. If Kiesewetter’s foray was an attempt at signaling German concern over American retrenchment, it came way too early because Washington was fully occupied with digesting Donald Trump’s ascent to the White House.

The only upshot is that Franco–German nuclear cooperation would dampen Germany’s power dilemma. According to a well-known *realpolitik* concept, the ‘tandem of Europe’ needs both a strong Germany *and* a prosperous France to lead the EU.⁶⁴ So far, Berlin’s military weakness vis-à-vis France and Paris’ economic malaise in comparison to Germany compensate for each other in terms of a classical balance-of-power approach. As of now, French conventional forces outnumber the *Bundeswehr* when it comes to manpower, power projection capabilities, modern equipment, and readiness.⁶⁵ But Trump’s efforts to compel Germany into spending two percent of national GDP on defense could in fact lead Germany to becoming the world’s third-largest military spender—thus, outpacing the French.⁶⁶ Whether such an outcome would be welcomed in Paris and throughout Europe is open to debate. According to Germany’s Minister of Foreign Affairs, Sigmar Gabriel, “This would be military supremacy in Europe, and I think our neighbors would not like to see that.”⁶⁷ Against this background, it should not come as a surprise that some in Berlin and Paris might view Franco–German nuclear cooperation as reinforcing the tandem and ultimately leading to deeper European integration.⁶⁸

A New Tableau for Thinking about the Unthinkable

All three nuclear options currently discussed in the German debate come with high costs and risks, and thus are not feasible solutions. Since none of the proposals would set Germany on a course to better provide for its own security, the debate is also a poor way to signal concern about the U.S. alliance relationship. One proviso is in order: if Germany paid the high costs associated with dialing-up its nuclear latency in the future, this would be a clear signal that it was no longer assured by U.S. defense commitments.⁶⁹ But with the exception of the Eurodeterrent option, efforts to acquire latent or operational nuclear capabilities would simply make Germany’s power dilemma worse.

Given our negative assessment of the proposals (Table 1), why are serious scholars and seasoned politicians like Kiesewetter even engaged in this discussion at all? In fact, the German nuclear debate is not a chimeric response to an impending threat or an ill-designed attempt to signal concerns to either Washington or Moscow. Instead, the debate appears to have been crafted by some of its key

proponents primarily for domestic consumption, with an explicit aim of at least having the effect of familiarizing Germans with strategic nuclear policy issues.

In order to better understand this logic, one has to take into account the two fundamental drivers underlying this debate. The first is the geopolitical shift on the European continent in conjunction with the new confrontation with Russia. As we mentioned at the start of this article, the multiple crises rattling the continent have made German politicians aware of the fact that Berlin has to take on a new role of leading the EU. Back in 2013, when President Joachim Gauck cautioned Germans that “in a world full of crises and upheaval, Germany has to take on new responsibilities,” he also meant that Germany would have to re-think its traditional approach toward foreign and security policy, one which hitherto was known as “*Frieden schaffen ohne Waffen*” (“make peace without weapons”).⁷⁰ In an effort to avoid misperceptions of German hegemony, Ursula von der Leyen, Germany’s Minister of Defense, coined the term “*Führung aus der Mitte*,” meaning “leadership from the center.”⁷¹ Since the Russian annexation of Crimea in 2014, Germany has experienced a vivid debate about what German responsibility and leadership should and could mean, with most of the public remaining skeptical about a new approach. Von der Leyen herself had to admit that, when asked in 2015, 62 percent of Germans “were not in favor of greater German commitment in international crises—while only 34 percent stated their support.”⁷² Even more worrisome from the angle of alliance commitments, in another 2015 poll, only 38 percent of Germans were in favor of using force against Russia in order to defend an ally.⁷³

This general reluctance toward military power extends and translates directly into the nuclear realm, the second driver of the debate. Since the Adenauer era when then-Chancellor Konrad Adenauer (CDU) secretly fathomed a potential trilateral German-French-Italian nuclear weapons program, the German public has opposed a nuclear-armed *Bundeswehr*, with rejection rates only increasing. Today, 93 percent of Germans are in favor of an international ban on nuclear weapons (though the German government did not participate in negotiations

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Table 1: The Three German Nuclear Policy Options

	Costs	Risks	Feasibility	Signaling credibility	German Power dilemma
Strategic deterrent	Very high	Very high	Very low	Very low	Increasing
Latency	High	High	Low	High	Increasing
Eurodeterrent	High	Medium	Low-Medium	Low	Decreasing

that only recently resulted in the successful conclusion of such a treaty). Even more telling, a majority of Germans seems to doubt the concept of extended nuclear deterrence, with 85 percent of Germans supporting the removal of all forward-deployed U.S. short-range nuclear missiles from Germany.⁷⁴ The public rejection of nuclear weapons, nuclear deterrence, and civil nuclear energy represent the single most critical obstacle to any German nuclear weapons option—even if the federal government decided in the future that the security situation was driving them down this path. The current debate is thus an early educational effort from some elites who want to change perceptions about the necessity of nuclear weapons and nuclear deterrence in the twenty-first century.

This educational effort was perhaps best captured by Jan Techau, an influential German analyst, and Leon Mangasarian, his American co-author: “Germans deny the role of nuclear deterrence. They feign astonishment at Berlin’s nuclear sharing with the U.S. and ignore the importance of the American nuclear umbrella in staving off Russian nuclear blackmail. Now the question is whether President Trump will maintain NATO and the nuclear umbrella for allies. Germany needs a discussion on what it will do if it’s dumped by its nuclear protector in Washington. Can British and French nuclear weapons serve as a European deterrent? If not, the ‘unthinkable’ will happen: the nuclear arming of Germany.”⁷⁵

As every politician in Germany is aware, any serious consideration from the government about a nuclear-armed Germany or even Germany co-financing

The first move in Germany’s nuclear education has been made.

another state’s deterrent “would trigger a moderate political earthquake,”⁷⁶ as Techau puts it in another interview. Kiesewetter, who is not a novice to defense debates, certainly knew this hard political reality. His initial musing was timed to coincide with the sudden unpleasant realization in late November 2016 that the U.S. relationship with Europe could change for the worse. As other proponents explored

alternative nuclear policy options, the debate quickly gained momentum from extensive media coverage in Germany and then caught a second wind from an astonished English-speaking media. Even though Kiesewetter has meanwhile renounced his initial suggestions,⁷⁷ the first move in Germany’s nuclear education has been made. In the words of Techau, “it’s good that this is finally being discussed.”⁷⁸

A Bellwether in German Nuclear Politics?

What might first look innocuous from an American perspective could in fact amount to a fundamental change of Germany’s national identity. It is also an

early sign of broader changes ahead to the international order. Educating Germans for a future nuclear debate is in line with an overall effort at preparing for the day that Europe will have to go it alone. At an election rally following Trump's first visit to NATO Headquarters, Chancellor Merkel told the crowd that "The times in which we could rely completely on others are partly over. [...] We Europeans have to really take our fate into our own hands."⁷⁹ But nuclear deterrence proponents such as Terhalle and Kiesewetter have so far failed to explain why shifting the many costs and risks associated with this strategy from Washington to Berlin or Paris would provide Europe with more security. They also have not specified what kinds of threats they want to deter and what utility they expect from nuclear weapons in international affairs. As the debate is likely to return, responsible German nuclear proponents must start addressing some of these more fundamental questions about strategy.

Unfortunately, the debate has created a real risk that mainstream political groups in Germany come to view nuclear weapons as a panacea for solving whatever security woes come to the fore in the years ahead. For German Liberals and Greens, nuclear weapons might at some point be attractive to fend off Russian and Turkish authoritarianism. For left-leaning Germans, a nuclear deterrent could finally bring independence from Washington. For conservatives, nuclear weapons could be a powerful symbol of German prestige and return to the world leadership. The educational effort could end up transforming nuclear weapons from an anathema into a position supported by crosscutting segments. Unfortunately as Harald Müller and Thomas Risse predicted back in 1987, "if the present conditions persist—a strong Soviet threat and relentless U.S. pressures for confrontationist policies and provocation strategies—it is not inconceivable that some antinuclear protesters may, within a decade or so, end up supporting a German nuclear deterrent."⁸⁰ Although they probably did not foresee it, thirty years later, albeit under totally different circumstances, their prediction might become reality.

At a societal level, though, the nuclear debate underscores a glaring disconnect between elite-driven foreign policy aspirations and the opinions of the broader public in Germany. While most of Germany's leading defense experts vividly opposed the nuclear musings for potentially undermining NATO, they largely ignored the main reasons put forth by ordinary Germans, such as a moral obligation never to use nuclear weapons except under extreme circumstances.⁸¹ It might well be that domestic opposition to the bomb is an unhealthy and outdated expression of German *Realitätsverweigerung* (denial of reality). But proponents of the bomb should consider the possibility that they too are denying or at least conveniently ignoring the major costs, risks, and limitations associated with Germany going nuclear in any form.

Notes

1. For a full explanation of why Germany's power dilemma is the taproot for the nuclear ruminations, see Ulrich Kühn and Tristan Volpe, "Keine Atombombe, Bitte: Why Germany Should Not Go Nuclear," *Foreign Affairs* 96, no. 4 (July/August 2017): 103-112.
2. Joachim Gauck, "Germany's role in the world: Reflections on responsibility, norms and alliances," Opening Speech at the Munich Security Conference, Munich, Germany, January 31, 2014.
3. See e.g. *Air Power Development Strategy*, Federal Ministry of Defense, Bundeswehr, May 11, 2016: 18; *White Paper 2016 On German Security Policy and the Future of the Bundeswehr*, The Federal Government of Germany, signed July 13, 2016: 69.
4. See e.g. Hans Rühle and Michael Rühle, "German Nukes: The Phantom Menace," National Institute for Public Policy (March 22, 2017); Anna Sauerbrey, "Deutschland will die Bombe ...," [in German] *Der Tagesspiegel* June 30, 2017, <http://www.tagesspiegel.de/politik/atomare-aufruestung-deutschland-will-die-bombe-/20000364.html>. All translations from German into English for this article have been provided by Ulrich Kühn.
5. From November 2016 until July 2017, we collected over eighty instances of mainstream media coverage. For the complete list of sources, see the online appendix available at Ulrich Kühn, Tristan Volpe, and Bert Thompson, "Tracking the German Nuclear Debate," Carnegie Endowment for International Peace, <http://CarnegieEndowment.org/GermanNuclearDebate>.
6. Roderich Kiesewetter quoted in, "Eine deutsche Atombombe – Germans are debating getting their own nuclear weapon," *The Economist* (March 2, 2017), <http://www.economist.com/news/europe/21717981-donald-trumps-questioning-natos-credibility-has-berlin-thinking-unthinkable-germans-are?fsrc=scn/tw/te/rfd/pe>.
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8. Maximilian Terhalle, "Deutschland braucht Atomwaffen" [in German], *Tagesspiegel Causa*, January 23, 2017, <https://causa.tagesspiegel.de/politik/europa-und-die-weltweiten-krisen/deutschland-braucht-atomwaffen.html>.
9. Maximilian Terhalle, "If Germany Goes Nuclear, Blame Trump Before Putin," *Foreign Policy*, April 3, 2017, <http://foreignpolicy.com/2017/04/03/if-germany-goes-nuclear-blame-trump/>.
10. Thorsten Benner, "Über Atomwaffen reden" [in German], *Wirtschaftswoche* 7, February 2, 2017: 6-7, http://www.gppi.net/fileadmin/user_upload/media/pub/2017/Benner__2017__Wir_mu_ssen_u_ber_Atomwaffen_reden__Wirtschaftswoche.pdf; Thorsten Benner, "Germany's Necessary Nuclear Debate," GPPI, February 10, 2017, <http://www.gppi.net/publications/peace-security/article/germanys-necessary-nuclear-debate/>.
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12. Vipin Narang, *Nuclear Strategy in the Modern Era: Regional Powers and International Conflict* (New Jersey: Princeton University Press, 2014).
13. Terhalle, "If Germany Goes Nuclear."

14. See Charles L. Glaser, *Analyzing Strategic Nuclear Policy* (New Jersey: Princeton University Press, 1990).
15. Terhalle, "If Germany Goes Nuclear."
16. Brad Roberts, *The Case for U.S. Nuclear Weapons in the 21st Century* (California: Stanford University Press, 2015), ch. 4; Jacek Durkalec, "NATO must adapt to address Russia's nuclear brinkmanship," European Leadership Network, October 30, 2015, http://www.europeanleadershipnetwork.org/nato-must-adapt-to-address-russias-nuclear-brinkmanship_3263.html.
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20. John Krige, *Sharing Knowledge, Shaping Europe: US Technological Collaboration and Nonproliferation* (Massachusetts: MIT Press, 2016).
21. Terhalle, "If Germany Goes Nuclear."
22. See for instance Doug Bandow, "The Case for a European Nuke – Why the Continent Needs Its Own Deterrent," *Foreign Affairs* (March 27, 2017), <https://www.foreignaffairs.com/articles/europe/2017-03-27/case-european-nuke?cid=int-lea&pgtype=hpg>.
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33. See World Nuclear Association, "Nuclear Power in Germany," last updated April 2017, <http://www.world-nuclear.org/information-library/country-profiles/countries-g-n/germany.aspx>.
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52. See Stefan Fröhlich, "Looking to Germany – What Berlin Can and Can't Do for the Liberal Order," *Foreign Affairs*, January 29, 2017, <https://www.foreignaffairs.com/articles/germany/2017-01-29/looking-germany?t=1487344984>; Karl Kaiser, "Abbruchunternehmen Trump – Eine Handlungsanweisung zur Rettung der transatlantischen Beziehungen" [in German], *Internationale Politik und Gesellschaft*, February 2, 2017, <http://www.ipg-journal.de/regionen/nordamerika/artikel/detail/abbruchunternehmen-trump-1820/>.
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59. Quoted from "Europeans Debate Nuclear Self-Defense after Trump Win," *Spiegel Online*.

60. Cf. Statement by Henri Bentégeat in David S. Yost, "France's Evolving Nuclear Strategy," *Survival* 47, no. 3 (2005): 120.
61. Cf. Statement by Henri Bentégeat in David S. Yost, "France's Evolving Nuclear Strategy," *Survival* 47, no. 3 (2005): 117-146.
62. Cf. Venance Journé, "France's Nuclear Stance: Independence, Unilateralism, and Adaptation" in *Getting to Zero: The Path to Nuclear Disarmament?* (Stanford: Stanford University Press) edited by Catherine M. Kelleher and Judith Reppy.
63. See Oliver Thränert, *No Shortcut to a European Deterrent* (Zurich: ETHZ CSS, 2017), <http://www.css.ethz.ch/content/dam/ethz/special-interest/gess/cis/center-for-securities-studies/pdfs/PP5-2.pdf>.
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