CHAPTER 3

The Nuclear Straitjacket

AMERICAN EXTENDED DETERRENCE AND NONPROLIFERATION

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In this chapter, I discuss the future of US extended nuclear deterrence and the possibility of change in nuclear weapons and alliance policies. While several chapters in this book document and analyze the limits of extended deterrence arrangements, the goal of this chapter is to take a step back and look at the understanding of history that frames possible and desirable change in US nuclear weapons policy and submit it to historical critique based on European case studies. I start by asking a specific question: Does the historical record suggest that extended nuclear deterrence has been a relevant tool for nuclear nonproliferation? To answer it, I identify a common and problematic framing of the question, the nuclear straitjacket, and analyze its policy implications before focusing on two European case studies: the United Kingdom and France.

The nuclear straitjacket frames the requirements of national security as a binary choice between nuclear security guarantees from an ally and the quest for an independent nuclear deterrent. I call it the nuclear straitjacket because it limits itself to two ultimate security guarantors, both of which are nuclear. Most important, it does not leave any room for a third understanding of national security that would not rely on nuclear weapons.

To assess the nuclear straitjacket, negative security guarantees will be set aside and the focus will be on the positive ones. In other words, the security guarantees coming from a nuclear-weapons-free zone (NWFZ) membership or a non-nuclear status under the nonproliferation treaty (NPT) are outside the realm of this analysis. The relationship that will be tested as a decisive component of the nuclear straitjacket is based on a strategy of
extended nuclear deterrence.\textsuperscript{4} This strategy introduces a relationship among three types of actors: the protector, the protégé, and the potential aggressor.\textsuperscript{5} It is worth highlighting that these are categories of actors and not single actors; thus, the number of actors in each category can be more than one.

The nuclear straitjacket assumes a specific type of this relationship based on the idea that extended nuclear deterrence is a necessary tool for nuclear nonproliferation and disarmament, which are two modalities of renunciation of nuclear weapons.\textsuperscript{6} It significantly affects the relationship I have just depicted. Classical extended deterrence is a promise of action from the protector that is expected to deter the potential aggressor from attacking the protégé. If you consider that these weapons have to play a role in nonproliferation policy or, more broadly, in a policy producing incentives to give up nuclear weapons ambitions, the assumptions about the relationship among the three types of players become much more demanding. The protector is still threatening to use its weapons to deter the potential aggressor from attacking but, in addition, this move from the protector is supposed to have an impact on the protégé and deter it from producing its own nuclear weapons.

It is now clearer how the notion of nuclear straitjacket is based on the idea that a commitment of extended nuclear deterrence is at least a necessary condition for renunciation of nuclear weapons.

In this chapter, I will demonstrate the importance of identifying and investigating the nuclear straitjacket and test the version of the nuclear straitjacket that assumes that positive nuclear security guarantees are both necessary and sufficient conditions across cases for states to give up nuclear weapons. Even though there is less commentary implying that nuclear security guarantees are sufficient because of the credibility issue, it is worth showing that even when they were as credible as possible, they were still not sufficient to prevent proliferation.\textsuperscript{7} This is why I focus on the United Kingdom and France before 1957–1958: They were founding members of NATO and close US allies, in a context in which only few other states possessed nuclear weapons and the protector’s homeland was not yet vulnerable to a massive nuclear retaliatory strike from the potential aggressor, which made its pledge of using nuclear weapons against the aggressor of an ally as credible as possible. To do so, I will show that (1) the nuclear straitjacket is implicit in the mainstream paradigms of international relations (IR) theory dealing with proliferation issues, and (2) it has political effects on the framing of possible and desirable nuclear weapons policies in the United States even though (3) it is not supported by the historical record and does not adequately portray the way French and British leaders conceived of the nuclear choices they could make.
The Nuclear Straitjacket and Nuclear History in Mainstream International Relations

In international relations theory, the most famous proponents of structural realism, area studies specialists inspired by it, and even critical voices have formulated forecasts and policy recommendations based on the nuclear straitjacket, even if their analytical assessments are often formulated in probabilistic terms.8 Major proponents of structural realism argued that the protection offered by the two superpowers during the Cold War was the essential cause of nuclear nonproliferation during that period. This led to a series of proliferation forecasts about the post–Cold War period.9 Benjamin Frankel offers the clearest formulation of this alternative when he writes that “there is an inherent contradiction between welcoming the end of bipolarity and deploring the spread of nuclear weapons” and “it is precisely the large size and sophistication of the superpowers’ nuclear forces, and the avowed willingness of the superpowers to threaten to use them on behalf of their clients, . . . that have prevented a more pervasive weapons proliferation.”10 Most recently, Michael Horowitz phrases the nuclear straitjacket in terms of likelihood when he writes that “[i]n a world where progress towards arms reductions reverses, some states with civilian nuclear power might begin to prepare quietly for a world where they need to build their own small nuclear arsenal. Such an outcome might become likely if the economic struggles in the United States lead the country to pull back significantly from its international obligations, including its extended deterrence umbrella.”11

A similar tendency can be identified in works of area studies specialists inspired by structural realism. Beyond the works of John Mearsheimer on the necessity of an independent nuclear deterrent in Ukraine, Fiona Hill and Pamela Jewett can be mentioned.12 A few months before Kiev decided to give its weapons back to Russia, it insisted on the protection that these weapons would offer against a Russia depicted as expansionist, notably because of the remaining Russian minority in Eastern Ukraine.13 Similarly, Yair Evron accepts the idea that the end of bipolarity created additional incentives to get nuclear weapons.14 Some interpretations of the German case and, more broadly, of nuclear abstinence inside the European community tend to rely on the nuclear straitjacket.15 Most recently, Andrew Kennedy argued that “implicit nuclear umbrellas” and disarmament diplomacy were key drivers of Indian nuclear restraint until 1998.16

Even critical voices like Glenn Chafetz, who intends to build an “alternative to the neo-realist perspective” for the post–Cold War world, ends up transposing the argument of the nuclear straitjacket at the level of
perceptions. In his view, what matters for forecasting proliferation is not whether the protector will maintain its security guarantee but if the protégé believes the protector will do so.\textsuperscript{17} This approach leaves room for the possibility that the protégé could misinterpret the intentions of the protector and decide not to go for the bomb even though the protector has not made a sincere credible pledge. Thus, the protégé in this instance would not go nuclear because it believes that the protector’s defective pledge of extended nuclear deterrence is valid. The fact that the protégé makes a mistake should not mask that its supposed reasoning remains the same.\textsuperscript{18} Most recently, Francis Gavin argues that the resolve to strike as a foundation of a credible nuclear security guarantee might have created incentives to go for the bomb for countries to which the deterrent pledge is not extended, but he does not criticize the efficacy of extended nuclear deterrence as a nonproliferation tool.\textsuperscript{19}

The latest instance of the nuclear straitjacket can be found in the contemporary studies of the Saudi case in the context of the Iranian nuclear crisis. The two sides of the nuclear straitjacket now appear as prominent voices in the discussion: Either Saudi Arabia will receive a nuclear security guarantee from the United States, or it will develop its own nuclear arsenal in the near future.\textsuperscript{20} The nuclear straitjacket, defined as an alternative between nuclear positive security guarantees and the quest for an independent nuclear deterrent, seems to be an implicit understanding of nuclear choices for more than just structural realist IR theorists. Let us now examine the impact of this view on contemporary debates related to nuclear weapons.

### The Political Effects of the Nuclear Straitjacket on Contemporary US Debates

The Russian Federation and the United States possess more than 90 percent of the nuclear warheads on Earth, and these two states are still using some form of extended nuclear deterrence inherited from the Cold War.\textsuperscript{21} The Russian military doctrine of 2000 read that:

> The Russian Federation will not use nuclear weapons against states party to the Nonproliferation Treaty that do not possess nuclear weapons except in the event of an attack on the Russian Federation, the Russian Federation Armed Forces or other troops, its allies, or a state to which it has security commitments that is carried out or supported by a state without nuclear weapons jointly or in the context of allied commitments with a state with nuclear weapons.\textsuperscript{22}
The doctrines published in February 2010 and December 2014 repeat the same idea. The Russian commitments under the Tashkent Treaty (also known as the Collective Security Treaty) suggest, however, that an attack against one member of the alliance is tantamount to an attack against all, and this in turn suggests a commitment that is close to the concept of extended nuclear deterrence. Even if that is the case, and given that it is not the essential mission assigned to Russian nuclear forces, the United States is the only country that cites the requirements of extended nuclear deterrence as justifying the size of its arsenal.

The other nuclear weapons states, whose arsenals are considerably smaller, adopt three different attitudes toward extended nuclear deterrence, all of which have one thing in common: None of them use the criterion of the imperative to protect allies to justify the size of the national arsenal. Some offer an extended nuclear deterrence of some sort to other states without legally binding agreements, a second group does not offer extended nuclear deterrence at all, and a third group not only refrains from offering it but publicly criticizes the United States and Russia for their extended deterrence commitments.

In the 2008 and 2013 White Books on National Defense and Security, France reaffirms that its strategic nuclear forces contribute to the security of the EU and NATO. This builds on the 1974 Ottawa Declaration, which states that its nuclear forces are “capable of playing a deterrent role of their own contributing to the overall strengthening of the deterrence of the Alliance.” It does not refer to extended deterrence to justify the size of its nuclear arsenal. The 2008 White Book insists on the independence of the national nuclear forces vis-à-vis NATO and the fact that the engagement of French forces in any case would not be automatic. Thus, “France will keep on maintaining its nuclear forces at a level of strict sufficiency. Paris will adjust them constantly at the lowest level compatible with its security.” Compared to the American case, what can be called a French extended deterrence is offered to allies that do not necessarily demand it or might even be opposed to it. Except for the Lisbon Treaty, these French commitments are not legally binding. In spite of the first comments that were given, the defense agreement between France and the United Arab Emirates signed in 2009 cannot be considered as an extended deterrence agreement. The assessments stating that France was committing itself to guarantee the security of the Emirates with all means at its disposal, including nuclear weapons, have been denied by the French authorities.

In the second category, the United Kingdom, India, Pakistan, and North Korea simply do not offer any form of extended nuclear deterrence.
obviously does not do it either because one of the requirements of an extended deterrence pledge is that the protector has to convey the message clearly both to the protégé and the potential aggressor. Israel’s official policy of not being the first nation to introduce nuclear weapons in the Middle East does not make this possible.\textsuperscript{32}

Finally, in the third category, China sticks to the notion of minimum deterrence.\textsuperscript{33} It does not practice extended nuclear deterrence and has issued several proposals to give incentives to the United States and Russia to give up this practice.\textsuperscript{34}

With respect to contemporary positive nuclear security guarantees, the United States is thus an exceptional case because it both offers positive nuclear security guarantees and defines the size of its nuclear arsenal based on the perceived requirements of these guarantees. This suggests that it is necessary to focus on the US case in order to assess the historical record of the nuclear straitjacket. The nuclear straitjacket has three consequences: justification of past extended deterrence policies as successes in nonproliferation, denial of the possibility for the protector to give up nuclear weapons, and limitation of the possible reduction of its arsenal in the name of nonproliferation.

Since the beginning of NATO, US positive nuclear security guarantees have been part of a policy of reassurance toward its allies, one that has continued after the end of the Cold War.\textsuperscript{35} On October 18, 2006, less than ten days after the first North Korean nuclear test, US secretary of state Condoleezza Rice went to Tokyo and declared publicly that “[t]he United States has the will and capability to meet the full range—and I underscore full range—of its deterrent and security commitments to Japan.”\textsuperscript{36} Three days later, US secretary of defense Donald Rumsfeld reaffirmed US support for South Korea who, he said, was still included under a US “nuclear umbrella.”\textsuperscript{37} His successor, Robert Gates, made a similar move on October 21, 2009, five months after the second North Korean nuclear test.\textsuperscript{38} The United States has long made similar declarations with respect to the Atlantic Alliance in Europe and, at least until the 2010 Nuclear Posture Review (NPR), its extended deterrence commitments have represented positive nuclear security guarantees that included potential first use of nuclear weapons to protect an ally that would be attacked with chemical, biological, or nuclear weapons.\textsuperscript{39}

Beyond the goal of reassurance, this practice of offering positive nuclear security guarantees is now presented as a nonproliferation tool and it has been retrospectively declared successful in that respect. This is the first political effect of the nuclear straitjacket. In December 2008, the Report of the Secretary of Defense Task Force on DOD Nuclear Weapons Management stated
that “[t]he United States has extended its nuclear protective umbrella to 30-
plus friends and allies as an expression of commitment and common purpose
as well as a disincentive for proliferation.”40 This report also quotes the 1998
annual defense report stating that “[n]uclear forces remain an important dis-
incentive to nuclear, biological, and chemical proliferation.”41 The exact same
idea is expressed in the May 2009 report to the US Congress in preparation
for the Nuclear Posture Review. “During the Cold War,” it said, “prolifera-
tion was strongly inhibited by the relationships of extended deterrence es-
established by the United States (and also by the Soviet Union).”42 One can
argue that during the Cold War, the politics of the two blocs were based on
the nuclear straitjacket.43 The classical formulation of this approach is Wil-
liam Walker’s notion of a nuclear order based on a “managed system of de-
terrence” and a “managed system of abstinence.”44 The meeting between
French president Charles de Gaulle and US secretary of state John Foster
Dulles on June 5, 1958, offers an explicit illustration of the nuclear straitjacket
as a framework of the early US nonproliferation policy.45 On the one hand,
de Gaulle affirmed that France was becoming a nuclear power and intended
to proceed to a test soon. As a consequence, the United States limited its nu-
clear cooperation with France in the name of nonproliferation. Washington
argued that its resolve to protect Europe and its openness to share its strate-
gic forces should deter the Europeans from developing autonomous nuclear
 arsenals.46

This dual role assigned to nuclear weapons—where they act both as a
security guarantee for the United States and allies and as a nonproliferation
tool—has another major effect beyond the justification of past extended de-
terrence policy as a success of nonproliferation: It limits the possible reduc-
tions in size of the US arsenal, to say nothing of complete disarmament. This
reasoning has been expressed in preparatory reports leading to the 2010 Nu-
clear Posture Review as well as in the final document itself and in several
public speeches by US officials. The report to Congress is consistent with
the view previously quoted and repeats that “the United States will need to
sustain a deterrent for the indefinite future.”47 This echoes several official
speeches delivered by Barack Obama before and after he took office as well
as by Secretary Gates. For example, in his interview with Arms Control Today
in December 2008, president-elect Obama said the following: “I have made
it clear that America will not disarm unilaterally. Indeed, as long as states
retain nuclear weapons, the United States will maintain a nuclear deterrent
that is strong, safe, secure, and reliable.”48 At the same time, Secretary Gates
was explaining that “the nuclear arsenal is vital because the future cannot
be predicted.”49 The 2010 Quadriennal Defense Review restated the need to
maintain a nuclear arsenal for reasons including the security of allies: “We will maintain a safe, secure, and effective nuclear arsenal to deter attack on the United States, and on our allies and partners.” The May 2009 Report to Congress is particularly interesting because it articulated explicitly the link between extended deterrence and the limitation of nuclear arms reduction: “A policy agenda that emphasizes unilateral reductions could weaken the deterrence of foes and the assurance of allies.” If even the political goal of unilateral deep reductions is described as contradictory to the US commitments in terms of extended deterrence, complete unilateral nuclear disarmament is pushed even further into the realm of the impossible. This argument about the limitation of possible arms reduction relies on the assumption that the requirements of extended deterrence justify the existence of a larger arsenal than the one that would have been assigned to the defense of the national territory only. This is articulated most clearly in the Council on Foreign Relations April 2009 report entitled U.S. Nuclear Policy.

Although the United States does not need nuclear weapons to compensate for conventional military weaknesses, other states are not in a similar position—they may consider acquiring nuclear weapons to deter attacks. The United States has the responsibility to assure allies through extended deterrence commitments. This assurance helps convince many of these allies not to acquire their own nuclear weapons. A related pillar, necessary to maintain the credibility of the U.S. nuclear deterrent for as long as it is needed, is to ensure that the U.S. nuclear arsenal is safe, secure and reliable.

The text of the May 2009 report to the US Congress in preparation for the Nuclear Posture Review explicitly echoes this reasoning.

[The United States] must continue to safeguard the interests of its allies [. . .]. Their assurance that extended deterrence remains credible and effective may require that the United States retain numbers or types of nuclear capabilities that it might not deem necessary if it were concerned only with its own defense.

The final text of the Nuclear Posture Review restates the same two arguments about the role of extended nuclear deterrence. It is meant to reassure the allies as well as to deter them from acquiring their own nuclear weapons.

The United States will retain the smallest possible nuclear stockpile consistent with our need to deter adversaries, reassure our allies. . . . By main-
The Nuclear Straitjacket

... we can reassure our non-nuclear allies and partners worldwide of our security commitments to them and confirm that they do not need nuclear weapons capabilities of their own.\textsuperscript{54}

The last formulation is worth noting because it relates to the formulation of the nuclear straitjacket in terms of a necessary condition: Extended nuclear deterrence helps to convince other actors not to go nuclear but is not perceived as sufficient for preventing them from doing so. Other conventional security guarantees should be added to constitute an effective nonproliferation architecture.\textsuperscript{55}

Now that the three political effects of the nuclear straitjacket—justifying past extended deterrence policies as successes in nonproliferation, denying the possibility for the protector to give up nuclear weapons ambitions, and limiting the possible reduction of its arsenal—have been identified, it is time to assess its historical accuracy.\textsuperscript{56}

The Nuclear Straitjacket in France and the United Kingdom

This section will shed light on the two European nuclear weapons states as parts of a broader investigation of one side of the nuclear straitjacket: Could a positive nuclear security guarantee be a sufficient condition for giving up nuclear weapons ambitions?\textsuperscript{57} If one admits that both the United States and the Soviet Union also committed their nuclear weapons to the protection of their allies through the Atlantic Alliance and the Warsaw Pact, any successful proliferator coming from any of these alliances should be considered an anomaly.\textsuperscript{58}

To strengthen my critique of the positive nuclear security guarantee as a sufficient condition for giving up nuclear weapons ambitions, I test this argument against cases in which it should be easily established. To that effect, I focus on cases in which the protector's pledge is most credible, the relationship between protector and protégé is deep and well-established, and the presence of nuclear-armed powers considered as potentially hostile to the protégé is minimal. Regarding the first condition of the highest credibility of the pledge, I assume that the credibility has to do with the expected costs of keeping the pledge, and those costs are lowest when the protector is not vulnerable to a massive nuclear retaliatory strike from the protégé's expected aggressor and when the number of potential nuclear-armed aggressors is lower.\textsuperscript{59} Those are not the only factors but, for the purpose of this essay, I will consider them as the most important ones. So I will focus on the first
years of the nuclear age, until 1957–1958, which, as shown below, meet all criteria.

At least until the successful launch of Sputnik in October 1957, which suggested that the Soviet rocket program was more advanced than had been expected, the French and British realized that the US homeland was not vulnerable to a massive Soviet nuclear attack. There is no evidence that the earlier American concerns of the vulnerability of their homeland were communicated to their allies.

On the French side, retrospective assessments suggest that a few strategists raised questions before Sputnik, but it did not really change the conversation. We know that on November 15, 1957, four members of the new French government had a confidential meeting about the consequences of Sputnik, about the consequences of the increasing threat of Soviet intercontinental ballistic missiles (ICBMs) on the US homeland, and on the US commitment to deploy troops in Europe.

On the British side, even Sputnik did not make much of a difference. Before Sputnik, British intelligence assessed that the trial tests of Soviet ICBMs would not be completed before 1962 and that operational quantities would not be available before 1964. After Sputnik, the Joint Intelligence Council maintained that it did not mean a greatly increased Soviet capacity in the near future. It never believed that there was a missile gap and, as late as January 1958, it wrote that it was “most improbable that sufficient stocks of ICBMs are now available to enable the Soviet leaders to launch a massive attack on the US, or that they will be in a position to do so for some time to come.”

Summarizing the US and British intelligence on the issue, Michael Goodeman concluded that “there were never any serious beliefs that the USSR would launch a nuclear offensive largely because the means did not exist to effectively threaten the American mainland.” The expected reputation costs of using nuclear weapons also increase with time if you accept the existence of a taboo or tradition of nonuse of nuclear weapons. So the costs of keeping the extended deterrence pledge were lower prior to 1958.

One might object that the doctrine of massive retaliation, publicized in January 1954, made a credible extended deterrence pledge more difficult than a doctrine that would involve using nuclear weapons later in the conflict. However, this theoretical objection is irrelevant as it does not match the perception of the European allies at the time. Reflecting in 1983 on the debate on alternatives to massive retaliation in the early 1960s, Raymond Aron offers the best summary of why the allies did not see them as improving the credibility of the US extended deterrence pledge. He writes: “Valid in the abstract, this theory [that the use of nuclear weapons becomes more credible
when it is contemplated only as a last resort, after all other means have been used] never convinced the Europeans for two main reasons: they did not ac-
cept the great battle, waged on their soil [and] they did not consent to the effort in terms of conventional weaponry which was asked of them." Not only is this theoretical objection irrelevant to the actors at the time. Even if it was, it would not compensate for the fact that until 1958, the United States did not need to fear a Soviet nuclear retaliation or large reputation costs and that the allies realized it.67

So the credibility of the US pledge to retaliate with nuclear weapons if one of its allies is attacked is at its peak before 1957–1958 because the costs of keeping it are lower than ever and the allies know it: The US homeland is not yet vulnerable to a massive nuclear strike from the Soviet Union and there is no other nuclear-armed enemy. So if extended nuclear deterrence was a sufficient condition for nonproliferation, as assumed by the variant of the nuclear straitjacket tested here, it should be easier to establish in this period. Even then, however, the United Kingdom and France appear as two major anomalies, which will be analyzed below.68

Both nations are founding members of NATO and, before going nuclear, the United Kingdom had developed a special relationship with the United States: The relationship between the former imperial power and its former colony significantly improved after the First World War. I will show that, in both cases, the nuclear straitjacket does not accurately portray the set of choices available to British and French leaders as they saw it at the time.

**The United Kingdom**

The United Kingdom has had a strategic and nuclear partnership with the United States since the beginning of World War II, when the Crown sent Sir Henry Tizard and his scientific team to the United States to share information on nuclear energy.69 However, London did test an A-bomb in the Monte Bello Islands on October 3, 1952, and an H-bomb in 1957–1958. This represents a strong anomaly for the variant of the nuclear straitjacket tested here for the following reasons.

First, a deep alliance between the United States and the United Kingdom has developed since the 1940s, even before the foundation of NATO. The fact that the Mutual Defense Agreement between the two countries was not signed before July 3, 1958, should not lead one to neglect the depth of cooperation since World War II.70 The signing of the Québec Agreement, which included Canada as a third party, on August 19, 1943, made the cooperation official and added a military component.71 This agreement shaped
technical cooperation as well as the sharing of information and ideas. In addition, the three states agreed not to use the bomb against one another or to provide information to a third entity without the consent of the other two. As for the bilateral US-UK relationship, which is my focus here, an interesting fact is that the British authorities were asked to approve the use of nuclear weapons on Hiroshima before the bombing took place. It is true that the US Congress did pass the Atomic Energy Act, also known as the McMahon Act, in August 1946, and it put an end to the exchange of information related to nuclear weapons among the three parties of the Québec Agreement. However, there was room for restored cooperation in 1948, when the British committed to provide uranium to the United States if it offered nuclear assistance in return. This was difficult in the late 1940s and early 1950s because of the scandals of espionage involving British scientists and high-level diplomats. However, the alliance remained and the 1946 Spaatz-Tedder Agreement had since authorized the United States to use British air bases in peacetime. In August 1948, after the Berlin blockade, the first US bombers able to reach the Soviet Union were deployed in the United Kingdom. In September, the chief of the US Air Force, General Norstad, informed the British allies that a group of B-29 bombers would be stationed in the United Kingdom permanently from this moment on. So post–World War II tensions should not hide the depth of the alliance between the United States and the United Kingdom, which included a military dimension that was built and consolidated before the creation of NATO.

Second, this military alliance could be perceived as based on a positive nuclear security guarantee before the United Kingdom decided to test a nuclear device. It is true that President Truman did not allow the deployment of nuclear weapons abroad before April 1951. The bombers previously deployed in the United Kingdom were able to carry and deliver nuclear weapons, but they were originally deployed without those weapons. However, the cooperation between the Royal Air Force and the US Air Force increased to such an extent that the British were convinced a positive nuclear security guarantee did exist. Prime Minister Attlee was also convinced that the United States would consult him before using the nuclear weapons stationed in the United Kingdom, and this conviction is based on no official written document. From the summer of 1956, the V-bomber force, which was able to carry fission bombs, entered service. From that moment on, the United States has shared part of its strategic planning with the United Kingdom. After a period of tension following the Suez crisis, detailed agreements were signed in 1957–1958 between the Strategic Air Command and its British counterpart. So the presence of US nuclear weapons on British soil, the cooperation
between both the British and US air forces, and the personal convictions of Prime Minister Attlee suggest that an implicit nuclear security guarantee was perceived to be in place. The British conviction that the United States was ready to extend its nuclear deterrent to the United Kingdom was therefore in existence from the end of the 1940s.84

Third, in spite of this military alliance and the shared perception that it included a positive nuclear security guarantee, on January 8, 1947, Attlee decided that his country had to build an independent nuclear deterrent, and the additional guarantees given after that date did not change the course of British nuclear history.85 The 1957 and 1958 White Papers insisted on the independence of the British “deterrent”: the first one emphasized that Britain required “an appreciable element of nuclear deterrent power of her own” and that of 1958 proclaimed that Britain’s nuclear force “in itself constitutes a formidable deterrent.”86 In spite of the strength of the ties between the two countries and the British project to include the national deterrent in a “deterrence in concert” with the United States, not only did the US positive nuclear security guarantee never convince the British to give up their weapons but plans for the use of nuclear weapons on a strictly national basis were elaborated in parallel in case the NATO security guarantee was withdrawn.87

Finally, the variant of the nuclear straitjacket tested here does not grasp the thinking of the British decision makers. The causes of the 1947 decision have almost nothing to do with US extended nuclear deterrence. Rationales focused on possessing an independent capability in case of a conflict; restarting a nuclear effort in order to restore the nuclear cooperation with the United States, which had stopped in 1946; and an “instinctive” desire to possess the newest weapons.88

Even if one superimposes the nuclear straitjacket onto decision making at the time, it becomes clear that it never really convinced because the nuclear alternative to an independent nuclear weapons system was not believed to be credible enough. The existing scholarship on British nuclear history shows that doubts about the credibility of the US nuclear security guarantee emerged among the chiefs of staff as early as 1957–1958, with the debate on “nuclear sufficiency.”89 But one can find traces of those doubts even earlier. In the very early 1950s, the British chief of staff subcommittee on air defense already anticipated the coming vulnerability of American cities and its impact on the credibility of the extended deterrence pledge: “Retaliation does not provide a global defence, it can only defend those places that are completely integrated politically. When New York is vulnerable to attack the United States will not use her strategic weapon in defence of London. The United Kingdom must, therefore, have its own retaliatory defence. Similarly,
however, we will not be prepared to sacrifice the United Kingdom in the defence of say Darwin, and eventually each political unit must have its own means of retaliation."\textsuperscript{90}

Other rationales were developed afterward, and they still remained incompatible with the variant of the nuclear straitjacket tested here. On March 1, 1955, for instance, Churchill made a military case for British nuclear weapons as capable of hitting targets of relevance that US weapons might not give adequate priority to.\textsuperscript{91} More generally, since the Global Strategy Paper of June 1952, the alternative to an independent nuclear deterrent was not the US positive security guarantee but the development of conventional forces.\textsuperscript{92} In spite of the effect of the Korean War, which created an incentive for conventional rearmament, the long-term trend of British military planning consisted of decreasing military spending and increasing reliance on the US security guarantee.\textsuperscript{93} This reasoning, shared by the Labour and Conservative parties, never included the possibility of giving up an independent deterrent.\textsuperscript{94} Instead, it was perceived both as a way to save money on conventional military spending and as a power multiplier when combined with the US security guarantee.\textsuperscript{95}

So British nuclear history appears as a strong anomaly for the variant of the nuclear straitjacket tested here. The independent national deterrent and the positive security guarantee from the ally, both of which were nuclear, became combined in British thinking. The same can be said for France.\textsuperscript{96}

\textit{France}

France is a founding member of the Atlantic Alliance in 1949 and of the associated organization the year after. As such, it benefitted from the implicit positive nuclear security guarantee that protects all the members. American and Canadian bases as well as the Supreme Headquarters of Allied Powers Europe were even installed on French soil.\textsuperscript{97} However, France did test its first A-bomb in the Reggane Desert in Algeria in February 1960, and its nuclear capability became fully operational in October 1964 when the Mirage IV bombers entered service.\textsuperscript{98} France then tested its H-bomb in August 1968.\textsuperscript{99} For reasons explained above, though, the analysis presented here will not cover the period after 1958.

I previously showed that the US authorities approached the French case with the nuclear straitjacket logic in the late 1950s. However, France is another strong anomaly for the variant of the nuclear straitjacket tested here, even though it is sometimes neglected because of the misleading identification of the French nuclear program with the personality of Charles de Gaulle.
It is true that the degradation of the relationship between France and NATO as well as the acceleration of the French nuclear weapons program coincided with de Gaulle returning to power in May 1958. Indeed, the room for negotiation between France and NATO somewhat disappeared in 1959 when de Gaulle warned Germany and the United States that France intended to withdraw from the Alliance’s operational structure after the settlement of the Algerian crisis or the US presidential elections.100 And on March 17 of this same year, the defense council gave the nuclear weapons program (known as the force de frappe) “absolute priority.”101 However, interpreting this simultaneity is not as easy as it seems and should not reconcile the French case with the nuclear straitjacket or with the idea that a positive nuclear security guarantee could be sufficient for states to give up nuclear weapons ambitions.

First, the acceleration of the program or the change in the level of priority does not mean that there was no previous desire to acquire these weapons. Such an assessment would neglect the decisive roles of Pierre Mendès-France and Félix Gaillard in advancing the program, an attempt at cooperating with Italy and Germany, as well as fund transfers from the defense budget to the Atomic Energy Commission before de Gaulle returned. As early as 1954, Prime Minister Pierre Mendès-France authorized significant progress in the militarization of the program.102 On October 26, he signed a secret decree that created a superior commission for military applications of atomic energy as well as a committee dedicated to nuclear explosives. The commission never met, but the committee did begin working in secret as soon as it was created on November 4, 1954.103 On December 26, Mendès-France, president of the Council of Ministers, also participated in a meeting at the Foreign Ministry during which some analysts believe the final decision to build the bomb was made.104 On December 29, the Commissariat à l’Énergie Atomique (CEA; Atomic Energy Commission) created the Bureau d’Études Générales (Office of General Studies), which would later become the Direction des Applications Militaires (Direction of Military Applications).105 A few days later, Mendès-France reconsidered the decision of December 26 and only wanted to leave the option open. Afterward, he always tried to underplay his role in French nuclear history.106

Beyond the personal role of Pierre Mendès-France and of the institutions that were created during his time in office, signs of a persistent will to develop an independent nuclear weapons capability can be traced back to the period between the fall of the Mendès-France cabinet and the return of de Gaulle. Major money transfers to fund the weapons program took place during that period.107 On May 20, 1955, the minister in charge of atomic energy, Gaston Palewski, signed a secret protocol with his counterparts in the
ministries of National Defense and Finance to fund the activities of the CEA for the period 1955–1957. The protocol stated that 20 billion francs would be transferred from the French defense budget to fund the activities of the CEA, including the building of a nuclear-powered ship and technical studies. It included reciprocal measures suggesting that the sections of the three armies dedicated to nuclear issues could also receive money to fund activities in which both the CEA and the Ministry of Defense considered they would best perform. This possibility to transfer funding to the armies would prove crucial at the time of testing because that phase was delegated to them.\textsuperscript{108} Physicist and chief scientist at the CEA Yves Rocard claims that around 1957, 100 billion francs were transferred from the defense budget to the CEA to fund all the military experiments except testing.\textsuperscript{109} And in the defense budget for 1957, 37 billion francs were allocated to studies and prototypes of a nuclear-capable aircraft, which was at the time considered the most promising delivery vehicle for a nuclear payload to reach a target beyond the Iron Curtain.\textsuperscript{110}

Beyond secret money transfers and financial provisions, parliamentarians started acting explicitly in favor of a military program, even before the Suez crisis. For instance, within the context of the Euratom debate, eight French senators feared that treaty commitments might impose restrictions on the development of an independent nuclear force. So, on April 17, 1956, they tabled a bill proposing a modification of the 1945 order (ordonnance) giving birth to the Atomic Energy Commission to create a military division within it.\textsuperscript{111}

The attitude of the French representatives during the negotiations of the 1957 Euratom Treaty and vis-à-vis their European partners is also very telling of their military ambitions. They lobbied for the construction of power plants fueled by natural uranium as well as a European enrichment plant. They did not seem to want to use the enriched uranium as fuel, so the logical explanation for the French position is that the enriched uranium would be used to build weapons.\textsuperscript{112} As Colonel Charles Ailleret, commander of “special weapons” in charge of organizing the first French nuclear test, remembers, “by January 1, 1957, one could consider that the practical decision to build and detonate the national atomic bomb was made and that the means to start the operations to this end were already at the disposal of the authorities.”\textsuperscript{113} In 1957 and 1958, the French authorities went so far as to sign a bilateral agreement with Germany and multiple trilateral agreements with Germany and Italy for future cooperation regarding the Pierrlate uranium enrichment plant as well as nuclear-weapons-related cooperation. Even if several aspects of this story remain unclear, the French drive for cooperation to
speed up the national nuclear weapons program, and its desire to keep it secret from the United Kingdom and the United States and to make sure that it would benefit from it are yet other clues of a nuclear weapons project that is meant to be independent from the United States and, as such, incompatible with the variant of the nuclear straitjacket tested here.\footnote{Most important, in April 1958, former Prime Minister Felix Gaillard made the decision to test a nuclear device at the beginning of 1960 and antedated the document to April 11, before the fall of his government. De Gaulle only confirmed it. Even before the strongest moments of the crisis between NATO and France that would coincide with the return of de Gaulle and the increasing level of priority given to the nuclear weapons program, Pierre Mendès-France’s role, several money transfers, creations of institutions, and Felix Gaillard’s decision to authorize the testing of a device show that the drive toward nuclear weapons in France predates de Gaulle and the degradation of French relations with NATO.}

Third, neither de Gaulle nor Mendès-France ever thought about the independent national deterrent in terms of the nuclear straitjacket.\footnote{The key problem was not about the credibility of the nuclear security guarantee; it was about the risk of losing independence. In spite of their ideological differences, Mendès-France and de Gaulle shared this sense that “France’s independence had to be defended against the United States.” The same could be said for Defense Minister Jacques Chaban-Delmas. US nuclear weapons could be accepted as possibly strengthening the Alliance and saving some money, but they could not be an alternative to an independent national deterrent. Several explicit statements were made to that effect. On January 24, 1958, French minister of national defense Jacques Chaban-Delmas told \textit{Le Monde} that “it is impossible for France to give up the bomb. . . . It would give up its rank of world power.” De Gaulle was as explicit in his interview with Dulles in June 1958 when he told him “this is why we will not refuse your weapons.” It is true that France perceived a threat from the Soviet Union and was afraid of the prospect of Germany rearming. The Soviet threat helps to understand why France participated in NATO and the Union of Western Europe; the German threat accounts for the rhythm of the national program as well as the support from Mendès-France. However, nuclear weapons appeared above all as instruments of independence and prestige, and the nuclear straitjacket does not approach them as such. Under the Fourth Republic, they were supposed to strengthen the French voice in NATO and the Union of Western Europe. The period following the Suez crisis of October 1956 radicalized this approach and made the nuclear weapons program an instrument to affirm the independence of France from the NATO Allies as well as}
from any other power. De Gaulle, who showed little interest in the subtleties of nuclear deterrence, personified this understanding of the purpose of the French nuclear program after he returned to power.122

The memory of the Suez crisis should be reinterpreted along this line. The nuclear straitjacket reads the crisis as a sign that the United States was not an unconditional ally, which decreased the credibility of its positive nuclear security guarantee and therefore created an additional incentive to go for the bomb. Instead, Dominique Mongin convincingly shows that Suez was a step toward the officialization of a policy rather than a window of opportunity for change at the level of policymakers; it was only decisive vis-à-vis the public opinion.123 Once you take into account the primacy of the quest for independence, the crisis reveals that “the security of France is entirely dependent on the American alliance.”124 Indeed, the integrated command between the French and the British in the operation Mousquetaire proved to be a total failure. It deprived both parties of the ability to take initiatives at critical moments and ended up with the British yielding to US demands to withdraw troops from Egypt.125 Therefore, the reasoning went, in the name of national independence, a national nuclear deterrent had to be built. Even the reasons for the crisis with NATO at the beginning of the de Gaulle era, which are often presented as supporting the nuclear straitjacket, point to this fundamental driver. The heart of the crisis was that de Gaulle wanted the French to control the US weapons stationed on their soil. This demand eventually led to the withdrawal of the French Mediterranean fleet from NATO integrated command and the expulsion of US nuclear forces on French soil.126

In sum, a careful reading of French nuclear history shows that the nuclear straitjacket was not successful as a policy and was so far away from the mind-set of the leaders that it did not provide much leverage.127 This critique of the nuclear straitjacket is all the stronger in cases having strong relationships with a protector whose territory is not yet vulnerable to a massive nuclear retaliation, in a world of few potentially hostile nuclear weapons states. In such circumstances, the promise of extended nuclear deterrence should therefore be as credible as possible so the hypothesis of the nuclear straitjacket should be easier to confirm. Instead, both the British and the French cases indicate that a positive nuclear security guarantee is not a sufficient condition for all states to give up nuclear weapons and, most important, that the nuclear straitjacket does not capture adequately the options available at the time to the leaders. For French and British leaders, the decision to go nuclear was not a matter of extended nuclear deterrence or of its degree of credibility.
Conclusion

The behavior of two of the closest allies of the United States, the United Kingdom and France, shows that extended nuclear deterrence did not prevent them from developing their own national nuclear arsenals. This was the case in a world composed of only a few potentially hostile nuclear-armed states against which the protector would have had to act, a world in which the tradition of nonuse was still in its early years and, most important, a world where their protector was not yet vulnerable to a massive nuclear retaliatory strike. Since the European allies were not convinced of the higher credibility of alternatives to massive retaliation, the pre-1958 context made the US pledge of nuclear retaliation in case of an attack against a protégé as credible as it ever was. In spite of those conditions, which are particularly favorable to the variant of the nuclear straitjacket tested here, the British and French cases remain anomalies and developed their own nuclear arsenals.

The British and the French cases also illustrate the ways in which the nuclear straitjacket mischaracterizes the set of policy options available to decision-making elites. Nuclear-weapons-related choices are not only dependent on a subjective measurement of the credibility of a pledge based on nuclear weapons capabilities, which is why this critique should not be misinterpreted as a case for the inevitability of proliferation. On the contrary, the number of non-nuclear-weapons states whose security strategies do not depend on an extended nuclear deterrent underlines the widespread existence of a non-nuclear understanding of security that is also incompatible with the nuclear straitjacket. Indeed, a number of states that have tried to acquire nuclear weapons systems for a long time or have managed to acquire them after a long and costly effort have given up without receiving a pledge of extended nuclear deterrence. For instance, in the post-Soviet states, during the negotiations that would lead to the renunciation, the strongest emphasis was laid on the independence of the state and the respect of its sovereignty, separate from the nuclear instrument. Similarly, Libya put an end to an effort of more than thirty years, and South Africa dismantled its nuclear arsenal and neither received anything close to an extended nuclear deterrence pledge.

This has important implications for historians, analysts, and policymakers: The belief in the nuclear straitjacket as a principle working throughout nuclear history creates an overestimation of the role of extended deterrence, of the need to make the pledge credible, and of the successes of past policies based on it. More broadly, neglecting a political approach of nuclear choices—which gives room for the possibility of radical peaceful change over time
and accepts the possibility of a non-nuclear understanding of security—could lead to misguided policies. As I have shown in the case of the nuclear straitjacket, rigid and structural approaches unduly oppose renunciation of nuclear weapons on the part of the protector, the reduction of its arsenal beyond a given size, and consequently the feasibility and desirability of a world without nuclear weapons. Most important, they induce policymakers to continue a nonproliferation policy based on a partial understanding of nuclear history and discourage policy innovation outside the proliferation paradigm.130

Notes


3. Nuclear security guarantees are usually presented as positive or negative, depending on the kind of action expected from the actor offering them. The provider of positive security guarantees commits itself to act in a certain way to protect the beneficiary of the guarantees; the provider of negative security guarantees commits itself not to act in a given fashion, in this case, not to use or threaten to use nuclear weapons against the other party. What matters for my argument here is that negative security guarantees only limit the nuclear threats coming from one actor, whereas positive security guarantees can cover actions against several sets of threats coming from different actors.

4. I am aware of the fact that resolutions 255 and 984 of the United Nations Security Council, passed on June 19, 1968, and April 11, 1995, respectively, also include security guarantees that are said to be positive. I do not include them because they take effect after a nuclear strike only, and are indirect, conditional, and very limited. The relevant part of the resolution 984 reads as follows: “in case of aggression with nuclear weapons or the threat of such aggression against a non-nuclear-weapon State Party to the Treaty on the Nonproliferation of Nuclear Weapons, any State may bring the matter immediately to the attention of the Security Council to enable the Council to take urgent action to provide assistance, in accordance with the Charter, to the State victim of an act of, or object of a threat of, such aggression; and recognizes also that the nuclear-weapon State permanent members of the Security Council will bring the matter immediately to the attention of the Council and seek Council action to provide, in accordance with the Charter, the necessary assistance to the State victim.”


15. For a very prudent statement along this line, see David Yost, The U.S. and Nuclear Deterrence in Europe, Adelphi Paper no. 326 (Oxford: Oxford University Press, 1999), 25–27. See also the works by Bruno Tertrais, “Nuclear Proliferation in Europe: Could It Still Happen?” Nonproliferation Review 13 no.3 (November 2006): 570.

One has to recognize, however, that Tertrais’ argument is slightly different. He tends to explain the absence of nuclear proliferation in Europe with the US nuclear security guarantee. However, on the one hand, he considers all the cases of nuclear temptations and not only the successful ones, which tends to give the nuclear security guarantee a role that goes beyond what the nuclear straitjacket assumes. On the other hand, the progress of the European construction is part of the explanation he provides. Along the same lines and more recently, he considers that the removal of the US extended nuclear deterrence would increase the Saudis’ incentive to develop their...

16. Andrew B. Kennedy, “India’s Nuclear Odyssey: Implicit Umbrellas, Diplomatic Disappointments and the Bomb,” *International Security* 36, no. 2 (Fall 2011): 120–53. One has to note that the argument about “implicit nuclear umbrellas” was strongly criticized, emphasizing the key problem of credibility to which I will return. See Gaurav Kampani, Karthika Sasikumar, Jason Stone, and Andrew B. Kennedy, “Correspondence: Debating India’s Pathway to Nuclearization,” *International Security* 36, no. 2 (Fall 2012): 183–96, in particular 183, 185–91.


18. This line of argument can be found among the opponents to a US shift to no first use of nuclear weapons. They say that the mere decrease of the credibility of the pledge of extended deterrence, let alone the removal of the pledge, would be enough to increase greatly the probability of proliferation. Tertrais expresses it very clearly when he writes, “If allies covered by the US nuclear umbrella saw such a policy shift as a reduction in the value of American protection, they could conclude that they should embark in their own nuclear programmes.” Bruno Tertrais, “The Trouble with No First Use,” *Survival* 51, no. 5 (October–November 2009): 25.


21. This figure is based on the latest numbers published by the Ploughshares Fund. They are available at http://ploughshares.org/world-nuclear-stockpile-report.


25. Sokov describes three main roles for these weapons in contemporary Russia: status symbol, existential deterrence in case of an attack from NATO forces, and deterrence of a conventional attack. Nikolai Sokov, “The Evolving Role of Nuclear Weapons in Russia’s Security Policy” in *Engaging China and Russia in Nuclear Disarmament*, ed. Cristina Hansell and William Potter, Occasional Paper no. 15, James Martin Center for Nonproliferation Studies, Monterey, April 2009, 73–76. See also


33. I am aware of the debates about the modernization of Chinese nuclear forces, which might lead to a shift away from minimum deterrence. For the purpose of this argument, one has to recognize that the jury is still out on the issue and that the debate never really mentions the possibility that China will offer extended deterrence. See Jeffrey Lewis, “Minimum Deterrence,” *Bulletin of the Atomic Scientists* (July–August 2008), http://www.newamerica.net/publications/articles/2008/minimum_deterrence_7552.

34. See “Recommendations for Achieving the Objective of Nuclear Disarmament and Nonproliferation of Nuclear Weapons,” working paper submitted by China,


36. Quoted in Thom Shanker and Norimitsu Onishi, “Japan Assures Rice That It Has No Nuclear Intentions,” New York Times, October 19, 2006, 14. I believe the umbrella analogy is seriously misleading, but this is not the right place to offer this critique in detail.


45. For an account of the meeting between De Gaulle and Dulles, see Bernard Ledwige, De Gaulle et les Américains: conversations avec Eisenhower, Kennedy, Rusk, 1958–1964 (Paris: Flammarion, 1984), 14–33. One should, of course, recognize the diversity of view within the US administration and the fact that in the early 1950s, the Pentagon tended to feel that the acquisition of nuclear weapons by France was inevitable and might even improve US security. See Shane Maddock, Nuclear Apartheid:
The Nuclear Straitjacket


47. Perry, Schlesinger, et al., America’s Strategic Posture, 13, 17, 98, 123.

48. The Obama campaign website is also a valuable source in that regard: http://origin.barackobama.com/issues/foreign_policy/#nuclear.


51. Perry, Schlesinger, et al., America’s Strategic Posture, 15.

52. William Perry, Brent Scowcroft, and Charles Ferguson, U.S. Nuclear Weapons Policy (New York: Council on Foreign Relations, 2009), 5. These points are reaffirmed on pages 8, 14–16, 81, and 90–91.


55. The section I omitted in the previous quote expresses this point: “By maintaining a credible nuclear deterrent, and reinforcing regional security architectures with missile defenses and other conventional military capabilities, we can reassure our non-nuclear allies and partners worldwide of our security commitments to them.”


57. The other side of the problem, that is, extended nuclear deterrence being a necessary condition for nonproliferation, is considered in Pelopidas, Renoncer à l’arme nucléaire, chapter 4. In the deterrence theory literature, the problem has been addressed in terms of passivity of the protégé. Alexander George and Richard Smoke showed that the protégé is not passive in the relationship of extended deterrence. It can manipulate the pledge it has received, creating a classical problem of moral hazard. Alexander George and Richard Smoke, Deterrence in American Foreign Policy: Theory and Practice (New York: Columbia University Press, 1974), 370. This problem can explain why a positive security guarantee is not a sufficient condition for renunciation of nuclear weapons.

58. Given that the Warsaw Pact was a military alliance, the fact that it included a nuclear security guarantee was implicit but well known. Interview with Nikolaï Sokov, Monterey, California, 13 November 2009.

59. Deterrence theory recognizes that nuclear threats suffer from a major credibility problem, which is all the more important in the case of extended deterrence because the vital interests of the nation expected to retaliate with nuclear weapons
are not directly at stake. For an overview, see Crawford, “The Endurance of Extended Deterrence.” During the May 17, 1956, meeting of the US National Security Council, President Eisenhower offered an exemplary statement of this problem. He said, “[I]n the defense of the United States itself we will certainly use nuclear weapons, but to use them in other situations will prove very difficult.” Foreign Relations of the United States 1955–1957, vol. XIX, National Security Policy, document 79.

60. It is worth keeping in mind that first tests of Soviet ICBMs were not successful and the first of those missiles, an SS–6, actually became operational in early 1960. Even by the end of 1960, the Soviet Union had only two ICBMs. It is true that from 1956 onward, the Tu 95 (Bison) and 3M (Bear) strategic bombers were able to reach US territory and deliver nuclear weapons there, and by the end of 1959, the Soviet Union possessed 105 intercontinental bombers able to deliver 310 bombs. However, given the time it would take for those bombers to reach their target and the possibility to shoot them down, the American homeland was not vulnerable to a massive nuclear strike before at least 1959. See Natural Resources Defense Council, “Table of Soviet/Russian ICBM Forces,” http://www.nrdc.org/nuclear/nudb/datab4.asp; Natural Resources Defense Council, “Table of USSR/Russian Strategic Bomber Forces,” http://www.nrdc.org/nuclear/nudb/datab8.asp#fiftysix; and “Soviet and Russian Strategic Nuclear Forces,” in Russian Strategic Nuclear Forces, ed. Pavel Podvig (Boston, MA: MIT Press, 2001), 4–5; and Georges Le Guelte, Les armes nucléaires: mythes et réalités (Arles: Actes Sud, 2009), 95–99.


68. If this chapter had been about the Soviet Union as a protector, China would have been the anomaly for the variant of the nuclear straitjacket argument tested here because it acquired nuclear weapons in spite of its 1950 agreement with the Soviet Union.

69. Alan Carr, “How It All Began: The Atomic Bomb and the British Mission,” in *U.S.-U.K. Nuclear Cooperation after 50 Years*, ed. Jenifer Mackby and Paul Cornish (Washington, DC: Center for Strategic and International Studies, 2008), 24–25. It would not be accurate to say that this collaboration was easy, among equal partners, and deprived of any component of rivalry. Mid-1942 can be identified as the moment when the American team overtook its British counterpart in nuclear research. However, the special relationship started in 1939 and was going beyond the nuclear aspect. See John Baylis, *Anglo-American Defence Relations, 1939–84: The Special Relationship* (London: Palgrave, 1984).


71. The original title of the agreement is: “articles of agreement governing collaboration between the authorities of the United States and the United Kingdom in the matter of Tube Alloys.” See Graham Farmelo, *Churchill’s Bomb: A Hidden History of Science, War and Politics* (London: Faber and Faber, 2013), 240–44.


76. At this time, a former communist, John Strachey, was appointed minister of war in the United Kingdom and, in February 1950, Klaus Fuchs, the person in charge

77. These bases were not only in the mainland but also in the islands of the British Empire, notably Okinawa in the South Pacific; the area from Cairo to Suez; and, until 1948, the region between Lahore and Karachi. Danchev, “In the Back Room,” 225.

78. One has to recognize that the acceptance of those bombers was not without controversy. Lorna Arnold with Katherine Pyne, *Britain and the H-Bomb* (London: Palgrave, 2001), 36.


83. As soon as March 1957, President Eisenhower met with newly elected Prime Minister MacMillan in Bermuda to make sure that the Suez crisis did not damage the Alliance and to conclude an agreement on the transfer of Thor missiles to the United Kingdom. Simpson and Mackby, “The Special Nuclear Relationship,” 9.

84. Wheeler, “The Attlee Government’s Nuclear Strategy, 1945–1951,” 130, argues that the guarantee has been in place since the deployment of the bombers in 1948.

85. See Peter Hennessy, *Cabinets and the Bomb* (Oxford: Oxford University Press, 2007), 55–59; Baylis and Stoddart, “The British Nuclear Experience,” 333, 335–336. It is worth noting that when the Center for Nuclear Research was created in Harwell in September 1945, a discussion started about the number of reactors that needed to be built. At that time, the chiefs of staff had not yet submitted their report on the requirements of nuclear weapons. Attlee argued that the relevant number would be decided depending on the number of bombs the government would consider as needed. Wheeler, “The Attlee Government’s Nuclear Strategy, 1945–1951,” 132, 134. Andrew Brown argues that the United Kingdom acquired nuclear weapons because of the Soviet threat and distrust of the United States, and to keep its great power status. Brown, “Historic Barriers to Anglo-American Nuclear Cooperation,” 46.


88. This is derived from Margaret Gowing. She wrote about “something fundamentalist and almost instinctive—a feeling that Britain must possess so climacteric a weapon in order to deter an atomically armed enemy, a feeling that Britain as a Great Power must acquire all the major new weapons, a feeling that atomic weapons were a manifestation of the scientific and technological superiority on which Britain’s strength, so deficient if measured in sheer numbers of men, must depend.” Margaret Gowing, *Independence and Deterrence: Britain and Atomic Energy 1945–1952, Volume I: Policy Making* (Basingstoke: St. Martin’s Press, 1974), 84. Of course, one would need to recognize, following Richard Maguire’s analysis, that there are multiple “nuclear cultures” in the United Kingdom. For the purpose of this analysis, I remain focused on the politico-military elites. Richard Maguire, “‘Never a Credible Weapon’: Nuclear Cultures in British Government during the Era of the H-Bomb,” *British Journal of History of Science* 45, no. 4 (December 2012): 519–33. For an argument about how an independent nuclear weapons system was expected to fortify the alliance with the United States, see Nicholas J. Wheeler, “British Nuclear Weapons and Anglo-American Relations 1945–1954,” *International Affairs* 62, no. 1 (Winter 1985–1986): 72.


91. “There are also big administrative and industrial targets behind the Iron Curtain, and any effective deterrent policy must have the power to paralyse them all at the outset, or shortly after. There are also the Soviet submarine bases and other naval targets which will need early attention. Unless we make a contribution of our own—that is the point which I am pressing—we cannot be sure that in an emergency the resources of other Powers would be planned exactly as we would wish, or that the targets which would threaten us most would be given what we consider the necessary priority, or the deserved priority, in the first few hours. These targets might be of such cardinal importance that it would really be a matter of life and death for us.” March 1, 1955, http://hansard.millbanksystems.com/commons/1955/mar/01/defence#S5CV0537P_19550301_HOC_281. See also Clark and Wheeler, *The British Origins of Nuclear Strategy, 1945–1955*, 231.

93. Stoddart, “British Nuclear Strategy during the Cold War.”

94. There was opposition to an “independent deterrent,” particularly within the Labour Party, which came close to the nuclear straitjacket when it proposed that Britain would renounce its nuclear weapons if all others, excluding the two superpowers, did the same. But this never became British policy, not even when Harold Wilson, one of the critiques of the so-called independent deterrent became prime minister in 1964. David J. Gill, Britain and the Bomb. (Stanford, CA: Stanford University Press, 2014), 11, 41, 45, 48; and Peter Hennessy, Cabinet (London: Blackwell, 1986), 126.


102. It is significant that key members of the government he composed in June 1954 were strong proponents of the development of French nuclear weapons: General (Marie)-Pierre Koenig, Minister of National Defense; Diomède Catroux, Secretary of State in charge of the air; and Jacques Chaban-Delmas, Minister of Public Works, Transport and Tourism. It is significant that Chaban-Delmas told Aline Coutrot he had explicitly conditioned his joining the government on pro–nuclear weapons measures. Aline Coutrot, “La politique atomique sous le gouvernement de Mendès France,” in Pierre Mendès France et le Mendésisme, l’expérience gouvernementale, ed. François Bédarida and Jean-Pierre Rioux, (Paris: Fayard, 1985), 310. In 1952, Antoine Pinay and Félix Gaillard had proposed the energy plan, which would guarantee the production of enough plutonium to consider military applications. Dominique Mongin, La bombe atomique française. 1945–1958 (Brussels: Bruylant, 1997)167, 295; Soutou, “Les accords de 1957 et 1958,” writes about military ulterior motives for this energy plan already.


120. See Ledwige, De Gaulle et les Américains.


122. Duval, “Les décisions concernant l’armement nucléaire,” 297, 304. I imply here that this lack of interest in the discussions around nuclear deterrence suggests a distance vis-à-vis the nuclear straitjacket.

123. Mongin, La bombe atomique française, 442.


127. However, Jacques Chaban-Delmas seems to have used the nuclear straitjacket to convince Guy Mollet to support the project. Had the US positive security guarantee been durably credible, we would not have had to develop an independent nuclear force. Patrick and Philippe Chastenet, Chaban (Paris: Seuil, 1991), 214.


130. For more on the proliferation paradigm, see Benoît Pelopidas, “The Oracles of Proliferation,” *Nonproliferation Review* 18, no. 1 (Spring 2011). Another rationale supporting extended nuclear deterrence as a nonproliferation policy is that “the number of states seeking or obtaining the protection offered by the extended deterrent may increase as the size of nuclear forces providing that extended deterrent diminishes.” David J. Trachtenberg, “U.S. Extended Deterrence: How Much Strategic Force Is Too Little?” *Strategic Studies Quarterly* 6, no. 2 (Summer 2012): 88.