

Forum

The Case for No First Use: An Exchange

Editor's note

In the June–July 2009 issue of *Survival*, Scott D. Sagan argued the current case for the United States to adopt a declaratory policy of no nuclear first use. *Survival* invited four experts from Europe, Asia and North America to comment on Sagan's argument. The author concludes the debate with his own final thoughts.

Promises and Priorities

Morton H. Halperin

Scott Sagan makes a persuasive case for no first use, arguing that such a declaration would contribute to the American objectives of preventing the use of nuclear weapons by states or terrorist groups and preventing further proliferation. He also makes the case that such a declaration would not reduce the credibility of the American deterrent but rather might increase the credibility of a non-nuclear response.

As Sagan notes, these arguments are not new. In fact I presented a similar proposal and many, if not all, of the same arguments in a paper I published almost 50 years ago.¹ It is useful to ask why no previous president acted on this sensible recommendation and whether President Obama should now make this commitment. Sagan discusses some of the

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objections to an explicit commitment not to use nuclear weapons first, but he fails to convey the depth of the opposition and the fundamental nature of the objection.

Opponents of no first use make the basic argument that we should not make any 'promise' to a potential adversary that might make it easier for an opponent to plan an effective military action. During the Cold War it was precisely the policy of the United States and its NATO allies to threaten first use in the belief that the Soviet Union had conventional superiority in Europe and would attack if it could be sure that the West would not respond with nuclear weapons. Even now, despite the vast global American conventional superiority, there are places – the Russian border with Georgia, the Taiwan Strait, deep inside Iran where its nuclear facilities are located – where the United States might find it hard to prevail with conventional forces and where the threat to use nuclear weapons first might, it is argued, still be credible and necessary.

Sagan and I agree that there is a clear response to this argument: the threat to use nuclear weapons in these situations is not credible and the implication that nuclear weapons are necessary reduces the credibility of the conventional deterrent. This response, however, does not deal with the very serious domestic political storm a president would confront, even today, were he to make such a promise.

Such a storm would result from a very different view of nuclear weapons held by many who are deeply sceptical that stigmatising nuclear weapons will prevent their further proliferation. Opponents of no first use, including many associated with Democratic presidents, believe that such a no-first-use promise will increase the political cost of using nuclear weapons only for the United States, undermining the credibility of the US deterrent, and especially the extended deterrent. There is no doubt that some allies would be nervous if the United States made a no-first-use pledge even after extended consultations. Such discussions, as Sagan notes, would be necessary especially with NATO allies and Japan. Critics are not likely to feel that influencing Indian nuclear doctrine, as Sagan discusses, is sufficiently important to overcome their objections, particularly given the importance that they attach to extended deterrence.

Obama has stated that he believes it is in the American interest to reduce reliance on nuclear weapons. Indeed, his commitment to seek a world free of nuclear weapons carries the clear implication that we can meet all of our security challenges, short of nuclear threats, without reliance on nuclear weapons. However, there are other proposals to pursue this objective which would be as effective as a declaratory no-first-use policy and which might produce less controversy.

In his Prague speech, in addition to announcing support for the long-term objective of a world free of nuclear weapons, Obama committed himself in the short run to four other measures which have long been debated and which advance the same objectives as the no-first-use proposal. These are: reducing the role of nuclear weapons in US national security strategy, negotiating a new Strategic Arms Reduction Treaty (START) with Russia, immediately and aggressively pursuing US ratification of the Comprehensive Test-Ban Treaty (CTBT), and starting negotiations on a verifiable end to the production of fissionable material for weapons purposes. This ambitious agenda will require all the attention and political capital the president can reasonably devote to this issue. Under the circumstances, no first use can and should be put off for another day.

Seeking three treaties on nuclear arms control in his first term will not be easy. The Senate looks ready to ratify the new START and the proposal for a ban on fissile-material production for weapons purposes has not engendered much opposition as of yet. The CTBT, however, is another story. Republican orthodoxy on nuclear weapons emphasises unequivocal support for ballistic-missile defence and virulent opposition to no first use and the test ban. The opposition to both stems from the same source. Opponents of the treaty seek new nuclear weapons with new capabilities for a variety of pre-emptive and preventive purposes. They worry about the Russian development of new nuclear weapons and argue that the Kremlin has a different view of what is prohibited under the treaty and will, in any case, cheat. They doubt that US ratification of the CTBT will help prevent proliferation.

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Winning the CTBT debate and ultimately gaining the 67 votes in the Senate necessary to permit US ratification of the treaty is far from assured, but it is possible. The president is committed to the CTBT and not yet to no first use. In any case, I would argue that ratification of the CTBT and a vigorous effort to secure the other ratifications necessary to bring the treaty into force is the more important, and promising, effort to stigmatise nuclear weapons.

This does not mean that the question of why the United States maintains and might use nuclear weapons can or should be ignored in the on-going Nuclear Posture Review. Rather, much of the good that would come from a no-first-use pledge can be achieved with a less controversial approach. The actions and statements of previous administrations, as summarised by Sagan, leave a disturbing legacy that needs to be corrected. One option is for the president to make a public statement about why the United States maintains nuclear weapons and to streamline US commitments to those states that are members in good standing of the Non-Proliferation Treaty.² The president should state that the United States maintains nuclear weapons for the purposes of deterring nuclear attacks: ‘The United States maintains nuclear weapons to deter and, if necessary, respond to nuclear attacks against ourselves, our forces, or our friends and allies’. The president and his advisers should decline to elaborate on the statement’s meaning beyond characterising it as a statement of fact about why the United States maintains nuclear weapons. They should refuse to engage in discussions about hypothetical scenarios involving possible use of nuclear weapons.

Such an approach would have three broad advantages:

- Such a declaration is a logical and indeed necessary corollary of the commitment made by the president to seek a world without nuclear weapons. Implicit in the statement that the United States seeks such a world is that the United States is prepared to deal with any plausible non-nuclear threats without resorting to nuclear weapons.
- The declaration would underscore that any plans for modernising US nuclear weapons, infrastructure and delivery systems are solely for reasons of safety, security and reliability, and thus would

make clear that the United States was not seeking to develop new weapons for new military purposes such as destroying deep underground facilities. It would help to deal with concerns from the left that the commitment that the president is likely to make to 'modernise' the nuclear arsenal, as both a sensible security measure and a necessary step in gaining support for the CTBT, does not violate the commitment to reduce reliance on nuclear weapons.

- By not explicitly forswearing the use of nuclear weapons against unexpected threats, such a declaration preserves 'existential deterrence' that is the inescapable consequence of having any nuclear weapons and avoids much, if not all, of the political fallout that would result from a no-first-use pledge.

At the same time the United States should update and simplify the so-called negative security assurance (NSA) that Secretary of State Cyrus Vance issued in 1978 (and was slightly modified in 1995). The NSA still contains the 'Warsaw Pact exclusion clause' almost two decades after the collapse of the Warsaw Pact. The clause could be replaced with a simplified version of the 1995 statement that makes clear that a state must be in compliance with the Non-Proliferation Treaty to enjoy the benefit of the assurance. As a result, the revised NSA would read: 'The United States reaffirms that it will not use nuclear weapons against non-nuclear-weapon state-parties to the Treaty on the Nonproliferation of Nuclear Weapons that are in compliance with their nuclear nonproliferation obligations'. This would preserve the president's right to threaten or use nuclear weapons first against any state with nuclear weapons or seeking to acquire them. Since this group includes all of the states that concern opponents of a no-first-use pledge, it ought to avoid the worst political fallout of a categorical no-first-use pledge. It also would highlight the importance the United States attaches to the Non-Proliferation Treaty and could enhance US diplomatic leverage in advance of the 2010 review conference. Finally, it arguably strengthens the incentive, albeit modestly, for states to remain or become treaty members in good standing.

We should recognise that those states which view the United States as a potential enemy may seek nuclear weapons not merely to ward off

American nuclear threats but also to offset US conventional superiority. The Bush administration decision to attack Iraq but not North Korea sent a clear message to Iran and other countries: only nuclear weapons deter the United States. China and Russia increasingly fear that advanced US conventional capabilities threaten even their nuclear deterrents. Any long-term effort to prevent nuclear proliferation and persuade other states to reduce, if not eliminate, their reliance on nuclear weapons will require addressing these security concerns. This will not be easy, but will be critical to achieving the goal that motivates proponents of no first use.

In seeking to prevent an Iranian nuclear-weapons programme and to roll back the North Korean capability, the United States will need to deal directly with the concerns of both nations about a possible American conventional military capability. Regional security arrangements and political measures will be required. In dealing with China, the United States needs to state unequivocally that it does not seek to negate China's deterrent. Mutual vulnerability, as a recent Council on Foreign Relations Task Force argued, is not a choice, but rather a fact that needs to be managed with a focus on strategic stability. Negotiations with Russia must start with a cooperative approach to ballistic-missile defence that persuades the Kremlin the United States seeks defences only against North Korean and Iranian threats. As lower limits on nuclear weapons and delivery systems are negotiated Washington needs to take account of the Russian concern about advanced US conventional capabilities, such as conventionally armed ballistic missiles.

Somewhere in this process it will be possible and even necessary to go all the way to a universal no-first-use pledge, but I reluctantly have come to the conclusion that this is a good idea whose time has not yet come.

Notes

- ¹ See Morton H. Halperin, 'A Proposal for a Ban on the Use of Nuclear Weapons', 6 October 1961, at http://www.armscontrolwonk.com/file_download/190/Halperin.pdf.
- ² I draw for this section on an unpublished paper written jointly with

Arnold Kanter and Jeffrey Lewis. I am grateful to both of them for many insights and for comments on an earlier draft, but neither is responsible for the formulations in this paper.

The Trouble with No First Use

Bruno Tertrais

At first glance, it sounds like a great and simple idea. Any nuclear-weapon use would be a catastrophe: it would break the 'nuclear taboo' and have, in many scenarios, terrible material, human and even environmental consequences. But if all nuclear-capable countries committed themselves to a 'no-first-use' posture, then the risk of such an event would be drastically reduced. Scott Sagan's plea in favour of no first use is very well argued, and his article reopens an important and timely debate. However, I believe that the potential costs of no first use exceed its potential benefits. My conclusions are thus exactly the opposite of those reached by Sagan.

My first argument is that the benefits of no-first-use postures are over-rated. Can one believe that Tehran or Pyongyang would feel reassured by Western no-first-use statements? During the Cold War, we did not take Soviet no-first-use statements seriously. I doubt that governments that see the United States and its allies as adversaries would believe our own. And does the nuclear-proliferation risk today stem mostly from Western nuclear policies? There are good reasons to think that *conventional* superiority matters more.

More importantly for the purpose of non-proliferation, why would Non-Aligned Movement countries consider that nuclear-weapon states would feel bound by no-first-use commitments if and when push came to shove? Some would, but others would not, and given the amount of misperception and sometimes paranoia regarding Western military policies in general, they would be many. The non-proliferation value of a no-first-use commitment would be limited.

Sagan argues that first-use options encourage other countries to follow suit, citing the example of India. But nuclear doctrines are hardly a matter of fashion. They are driven by security interests and technical capabilities, political imperative and moral choices. More often than not, the same causes

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produce the same effects. Other countries' doctrines are used essentially as legitimising factors. New Delhi abandoned its no-first-use policy in 2003 for fear that Pakistan or China could use chemical or biological weapons in the course of a conflict against India despite their ratification of the relevant conventions.

Sagan claims that the first-use option opens a 'commitment trap': the United States might have to use nuclear weapons to maintain its reputation as a guarantor. But why would there be such a trap as long as there is no promise of a guaranteed *nuclear* response? That is precisely the point of 'calculated ambiguity' (a declaratory policy choice also made by the United Kingdom and France, albeit in different forms). I cannot believe, moreover, that an American president would see 'reputation' as a reason to take the most dramatic military decision a Western leader has had to take since 1945.

My second argument is that the costs of no first use are significant. Given Western conventional superiority, it is tempting to say that the United States and perhaps even its nuclear allies, the United Kingdom and France, could afford to reserve nuclear deterrence for the prevention of nuclear attacks, thereby making no first use a theoretical possibility. But this would signal those adversaries who would take such a commitment seriously that they could do *anything* to the United States or its allies without *ever* facing the risk of a nuclear response, using chemical weapons against our forces on a battlefield, raining down conventional ballistic missiles on our homelands, or launching biological munitions against our populations.

The counterargument is that the United States does not need nuclear weapons to deter non-nuclear mass destruction. But nuclear weapons are special: they can obliterate a country's vital installations in a few minutes. Because of this ability and of some of their effects (radiation), they scare leaders and populations in a way that classical weapons do not. As Margaret Thatcher once said, there is a monument to the failure of conventional deterrence in every French village.

It is sometimes said that an adversary would not believe that a Western leader could use nuclear weapons for less than absolutely vital contingen-

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cies. But the US reaction to 11 September should give pause to anyone thinking that democracies are weak and do not get angry. More importantly, the argument can be reversed: an adversary could believe that public opinion would not have the stomach for a sustained, costly conventional bombing campaign aimed at eradicating a state's ability to function. The first-use option induces a fundamental uncertainty in the adversary's mind: you cannot calculate in advance the maximum cost of an armed aggression against the core interests of a nuclear-capable country.

There is, in particular, evidence of the value of nuclear weapons to deter the use of chemical or biological weapons. No country has ever used such means against a nuclear-armed adversary. Egypt used chemical weapons against Yemeni opponents in the early 1960s, but refrained from using them against Israel in 1967 and 1973. Iraq used chemical weapons against Iran (and against its own Kurdish population) in the 1980s, but did not do so against coalition forces or Israeli territory in 1991.

Perhaps the United States does not need nuclear weapons to effectively 'punish' a chemical- or biological-weapons aggressor, although a nuclear response may be the best way to restore deterrence if such use has caused massive casualties. But my argument here is mostly about deterring the next use of weapons of mass destruction, not about deterring those that may come after that.

A no-first-use policy might also have security costs beyond deterrence. As an action policy (as opposed to merely a declaratory one¹), it would prevent a government which has adopted such a principle from striking pre-emptively at an adversary who has unmistakably demonstrated its intention to imminently launch a nuclear attack. Granted, such an extreme 'damage limitation' strike could only be executed in absolutely extraordinary circumstances. But it is only a slight exaggeration to say that a leader ready to forfeit it through a no-first-use policy is giving up the possibility of saving hundreds of thousands of his citizens.

Sagan understates the non-proliferation costs of a no-first-use posture. 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. Sagan is right to mention

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the fact that there is, for instance, a German constituency in favour of no first use. But ask the Japanese how they would interpret an American move to such a posture. It remains to be demonstrated that ‘appropriate consultation with allies’ would be enough to reassure them.

Finally, a no-first-use commitment would be a severe impingement on what leaders cherish most in time of war: freedom of action to defend their country. I personally have little doubt, for instance, that the Chinese leadership would not feel constrained by its no-first-use doctrine if it believed that the first use of nuclear weapons could save them from defeat or destruction.

Sagan claims that when a US president says ‘all options are on the table’, countries like Iran are encouraged to develop nuclear weapons to protect themselves. There is no evidence that George W. Bush ever envisioned the possibility of a preventive nuclear strike on Iran or, for that matter, on any other country.² (In fact, nothing in official US nuclear-policy statements of the past 20 years suggests that this could ever have been the case.³) Again, if Bush had added something along the lines of ‘however, we have no plan, no intention and no reason to use nuclear weapons preventively’, would Iranian hardliners have believed him? I am not convinced. But Sagan nevertheless raises a valuable point here. He is absolutely right to say that nuclear-weapons states need to be careful of how such statements can be interpreted, not only by potential adversaries, but also by the international community at large. So there would be some benefits in altering US declaratory policy to make it clearer that nuclear weapons are for deterrence and could not be used except in extreme circumstances of self-defence, when vital interests are at stake. Such an alteration would have few costs, if any, because it would not change the doctrine itself.

Notes

¹ The nuance is important. Declaratory policies (what states claim they would do) and action policies (what states actually plan to do) may not always be identical. However, planning for first use would be legally

forbidden if a US president declared a no-first-use policy.

² Again, vocabulary matters. Pre-emptive use (in case of incontrovertible evidence of an imminent nuclear attack) would be an act of self-

defence. Preventive use (a bolt-out-of-the-blue nuclear strike) would be a different matter legally, strategically and politically. To the best of my knowledge, no Western country has included it in its nuclear doctrine; contrary to what sources quoted by Sagan claim, there is no evidence that the 2001 Nuclear Posture Review included this option.

- ³ I do not count as ‘evidence’ badly sourced rumours to the effect that some in the Pentagon may have presented nuclear options to deal with the Iranian problem (see the Seymour Hersh article quoted by Sagan). This is not impossible (it is the job of the military to present all possible op-

tions) but nothing indicates that there was ever any political approval of such options. The US Draft Doctrine for Joint Nuclear Operations (2005) included ambiguous language regarding the circumstances that could warrant the use of nuclear weapons, but that text was never approved by any military or political authority. Likewise, careless statements by low-level officials such as the one made in 1996 by Assistant Secretary of Defense Harold Smith regarding the possible need for a nuclear option to destroy a suspected Libyan chemical-weapons plant cannot count as evidence of a US intention or plan to use nuclear weapons preventively.

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Strategic Hubris

Keith B. Payne

During the Cold War, the arguments for and against a no-first-use declaratory policy were aired periodically and became familiar stuff. In ‘The Case for No First Use’, Scott Sagan provides a post-Cold War re-examination of the subject and demonstrates how the traditional arguments have shifted somewhat. Ultimately, he provides as strong a case as can be made for adopting a no-first-use declaratory policy.

A few observations on Sagan’s scene-setting introduction are in order. Firstly, he states that ‘to reduce the role of nuclear weapons in national secu-

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rity strategy' the 2009 Nuclear Posture Review 'must abandon' the threat of nuclear first use. This claim warrants review because it sets up Sagan's position in favour of a no-first-use policy as being *essential* to the goal of reducing the role of nuclear weapons. It is not.

There are numerous potential avenues for reducing the role of nuclear weapons. That goal may be advanced by moving where possible to non-nuclear offensive capabilities and active defences for roles traditionally assigned to nuclear forces. For example, in the 1980s the United States moved away from nuclear-armed interceptors for ballistic-missile defence. In addition, strengthening US and allied non-nuclear capabilities for more effective forward defence in key regions could help to reduce the salience of nuclear weapons in US national security strategy. Adjusting US declaratory policy as recommended by Sagan might help to reduce the role of nuclear weapons, but it certainly is not necessary for that purpose.

This overstatement could be a trifle, but it is the basis for Sagan's subsequent critique of the 2001 Nuclear Posture Review. He claims that the 2001 review contradicted its own reported ambition of reducing reliance on nuclear weapons because it retained the deterrence threat of nuclear first use. If moving away from the first-use threat actually were necessary to reduce reliance on nuclear weapons, this critique could make sense. But it is not necessary, and thus this critique does not hold. In fact, the new directions initiated by the 2001 review to reduce reliance on nuclear weapons were substantial.¹

In his opening discussion, Sagan rightly poses the question that must be at the centre of any assessment of nuclear first-use threats: are they necessary to deter non-nuclear attack, including chemical- and biological-weapon attack? Addressing this query is necessary for an assessment of this declaratory policy because its intended value is in its deterrent effect. Sagan is correct in pointing out that deterrence is not the sole issue of importance. However, if nuclear first-use threats are critical for the deterrence of chemical or biological attack, then the 'plus' side of the ledger in their favour is substantial indeed; if they are unnecessary, then a primary argument in their favour is missing and the largely speculative 'minuses' Sagan describes at length may dominate a net assessment.

Sagan subsequently reaches conclusions as if he has answered this key question in a manner demonstrating the net benefit of a no-first-use policy. In fact, after posing the question, Sagan offers no answer beyond his hunch that 'US conventional military superiority' and the residual possibility of US nuclear escalation even following a no-first-use pledge would be adequate to deter non-nuclear (for example chemical or biological) attacks. The heart of Sagan's argument is this claim that US and allied deterrence goals can be met with a nuclear no-first-use declaratory policy and that there are various non-proliferation benefits to be gained by adopting such a policy.

Yet he offers no evidence to demonstrate the veracity of his all-important proposition about deterrence – no basis for elevating it beyond an apparent hunch. This is a problem because promises about what will or will not deter, in fact, cannot be more than hunches unless strengthened by serious analytic effort to demonstrate the past validity of the claim and why it should hold for the future. To risk understatement, Sagan provides no such demonstration.

Neither Sagan nor anyone else can predict credibly from 'strategic logic' whether a presumed US 'conventional superiority' and the residual fear of nuclear escalation will provide the deterrent effect necessary to prevent future conventional, chemical or biological attacks. Sagan is trapped, as are we all, by the inconvenient truth that on some plausible occasions, US non-nuclear capabilities may well deter non-nuclear attacks; on other equally plausible occasions, however, nuclear deterrence may be key. Available historical evidence provides no more certain an answer.

Instead of attempting to demonstrate his key proposition about what will deter, he presents his hunch and on that basis derives via 'strategic logic' his policy recommendation in favour of no-first-use. Using this same assertion-based approach, it is relatively easy to offer an alternative hunch about deterrence that is at least as credible as Sagan's, but facilitates a completely different conclusion about nuclear first-use threats. To wit, US declared nuclear threats will be necessary to deter non-nuclear attacks on occasion, including chemical or biological attack. Because the consequences of deterrence failure on those occasions could be extraordinarily grave, the

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risks of adopting a nuclear no-first-use declaratory policy may be judged to overshadow the speculative benefits.

We now have two different generic assertions about how deterrence will function that can lead via ‘strategic logic’ to very different conclusions about a no-first-use declaratory policy. Which assertion about the functioning of deterrence will actually be correct on any given occasion will be determined by the many different factors that can shape an opponent’s response to deterrence threats, some obvious, others unknown, some that may be influenced, others not.

Sagan’s line of argument fits a decades-long Western tradition: speculation that deterrence will function in a particular fashion is presented as a self-evident truth and on that basis follow policy recommendations. The problem with this approach is that conclusions drawn from hunches are as dubious as the hunches from which they are drawn. In this case, the uncertainties inherent in Sagan’s underlying claim about what will deter must also beset his derived conclusion about no first use; it is no more credible than his underlying hunch about deterrence.

A key challenge in an assessment of alternative declaratory policies is to understand the potential risks and trade-offs likely involved when the functioning of deterrence is not predictable in detail. Sagan’s assessment sidesteps this challenge by presuming that the United States can deter non-nuclear attacks adequately within a no-first-use declaratory policy. In doing so, he discounts by assertion the potential downside that a no-first-use policy would undermine deterrence and sets up a near-inevitable conclusion in favour of such a policy. His conclusion follows from presumption, not from analysis.

In contrast to Sagan’s expressed hunch about deterrence, many others retain confidence in the importance of nuclear deterrence threats to prevent non-nuclear attacks, particularly including chemical and biological attacks. France, for example, holds strongly to the view that abandoning the deterrence threat of nuclear escalation would ‘give a green light’ to chemical, biological and conventional provocations.² In 2003, India too decided that for deterrence purposes it must reserve the option of nuclear first use in response to chemical or biological attack.³ And, the rigorously bipartisan US Congressional Strategic Posture Commission (the Perry–Schlesinger

Commission) rejected a no-first-use policy because it would ‘undermine the potential contributions of nuclear weapons to the deterrence of attack by biological weapons’ and ‘be unsettling to some U.S. allies’.⁴ Indeed, during the 1996 US Senate hearing on the Chemical Weapons Convention, Secretary of Defense William Perry stated explicitly that the United States would retain the option of nuclear response in the event of a chemical attack. So, too, senior Defense Department officials now in the Obama administration reportedly agree that ‘the nation should continue to view nuclear deterrence as broadly capable of preventing both conventional and unconventional conflict’.⁵

The fact that many in and outside the United States continue to see considerable merit in nuclear deterrence for the prevention of non-nuclear attacks suggests the problem with Sagan’s easy assertion that US adoption of a no-first-use policy would not encourage allies ‘to develop their own nuclear weapons’. He may be correct, but he offers nothing to demonstrate the point. Instead he compounds his initial hunch about deterrence with this additional assertion that US allies would find adequate assurance in a US no-first-use policy. Again, he side-steps the need to address a possibly significant problem of adopting a no-first-use declaratory policy by simply asserting that allies would retain necessary confidence in US extended deterrence. Perhaps so, but this is a serious issue that cannot be dismissed via his preferred ‘strategic logic’.

Sagan has provided the case favouring a no-first-use declaratory policy. That case, however, is built on a key hunch about deterrence and a related assertion about allied views, neither of which is self-evidently valid. He does nothing to demonstrate the veracity of his presumptions and yet claims that ‘strategic logic and evidence’ yield his conclusions. In fact, the choice of different starting points which are at least as credible as those preferred by Sagan lead near-inexorably to conclusions favourable to existing declaratory policy.

Notes

¹ See Keith B. Payne, ‘The Nuclear Posture Review: Setting the Record Straight’, *Washington Quarterly*, vol. 28, no. 3, Summer 2005, pp. 135–51.

² As stated in the excellent presentation by General Paul Fouilland, commander of French Strategic Air Forces at United States Strategic Command,

Deterrence Symposium, Omaha, Nebraska, 30 July 2009.

³ Ashok K. Mehta, 'Nuclear India: Clear & Credible', *The Pioneer*, 15 January 2008, available at <http://meaindia.nic.in/>.

⁴ William J. Perry, James R. Schlesinger et al., *America's Strategic Posture: The*

Final Report of the Congressional Commission on the Strategic Posture of the United States (Washington DC: United States Institute of Peace, 2009), p. 36.

⁵ Elaine Grossman, 'U.S. Defense Official Skeptical of Revising Nuclear Deterrence Strategy', *Global Security Newswire*, 28 July 2009.

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No First Use: An Indian View

K. Subrahmanyam

The policy of 'no first use' embodies the doctrine of deterrence in full measure. It is meant to deter a nuclear adversary from initiating a nuclear strike through the maintenance of a credible and survivable nuclear retaliatory force which can inflict unacceptable damage on the aggressor. If the world ever is to become free of nuclear weapons the first essential step nuclear-armed nations must take is to adopt the no-first-use policy. No weapon considered legitimate is ever likely to be eliminated. The goal of a nuclear-weapons-free world calls for delegitimation of nuclear weapons before they can be eliminated, a process that must start with diminishing their military role. The perception that nuclear weapons are needed to deter an enemy with superior conventional forces or to prevent rogue states considering war as an option is no longer tenable for the United States at a time Washington claims unrivalled superiority in conventional forces. The more the role of nuclear weapons is emphasised in the policy documents of the United States the greater the incentive for proliferation aspirants to develop their own nuclear arsenals. The United States led the world in evolving the current nuclear strategic received wisdom and in the development of the most powerful and sophisticated nuclear arsenal. Most of the strategic

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thinking in other nuclear-weapon states or nuclear-aspirant states tends to follow US thought and adapt it to their own situation. So long as the United States emphasises the role of nuclear weapons in its operational strategies there is unlikely to be any meaningful advance towards nuclear-weapon-free world.

The non-proliferation approach may help stabilise a non-proliferation regime but cannot lead to a world without nuclear weapons. The term 'non-proliferation' implies acceptance of existing nuclear weapons. The unconditional and indefinite extension of the Nuclear Non-Proliferation Treaty has made the weapon legitimate and assured its indefinite continuance. It is therefore no surprise that President Barack Obama cannot envisage a world without nuclear weapons in his lifetime and the 'four wise men', George Schultz, Henry Kissinger, William Perry and Sam Nunn, pursuing disarmament through the arms-control and non-proliferation route, cannot see the top of the mountain – the nuclear-weapon-free world.

Nuclear weapons have never been used against an adversary who also possessed such weapons. In 1985, US President Ronald Reagan and Soviet General Secretary Mikhail Gorbachev declared in a joint statement that a nuclear war could not be won. Former US Defense Secretary Robert McNamara wrote in 2005 that launching a nuclear weapon against a nuclear adversary would be suicidal.¹ He added he had never come across any US or NATO war plan that concluded that initiating use of nuclear weapons would yield the United States or NATO any benefit. He further asserted that his statements to this effect had never been refuted by NATO defence ministers or senior military leaders, yet it was impossible for any of them, including US presidents, to make such statements publicly because they were totally contradictory to established NATO policy.

The world has seen any number of commissions on arms control and non-proliferation. But we are yet to see a commission of former strategic-forces commanders discussing whether nuclear weapons could produce meaningful military results in wars where both sides have such weapons. Compare the use by both sides of chemical weapons in the First World War. While they produced 100,000 fatalities and a larger number of injured they had no decisive military influence on the war. The same result was obtained

when the Iraqis used chemical weapons during the Iraq–Iran War in the 1980s and the Iranians responded in kind. Because of this experience in the First World War, in 1925 five states possessing chemical weapons signed the Geneva Protocol banning their first use. This norm was breached only in cases where the aggressor had such weapons and the victim did not, and the international community chose to look away from such use during the Italian aggression in Ethiopia in the 1930s or the initial period of Saddam Hussein’s invasion of Iran in the 1980s. The norm’s value was proved during the Second World War. Though more sophisticated and deadlier chemical weapons had been developed and were available to both combatant sides in enormous quantities they refrained from using them, because of a sense of mutual deterrence and also the experience in the First World War that these were not war-winning weapons. After 68 years of growing accustomed to this no-first-use convention, the international community finally signed a treaty outlawing the use of chemical weapons in 1993.

Today’s world is globalised. No major power considers any other major power as an enemy. As then US Secretary of State Condoleezza Rice wrote in 2005, ‘for the first time since the Peace of Westphalia in 1648 the prospect of violent conflict between great powers is becoming ever more unthinkable. Major states are increasingly competing in peace, not preparing for war.’² The present international threats are the failing globalised economy, terrorism, religious extremism, pandemics, narcotics and organised crime. The world recently saw a collective international response to the failing economy and to a pandemic-like swine flu. There is significant international solidarity in dealing with the threat of transnational terrorism. There are globalised efforts to meet the challenge of climate change. In the present and foreseeable international situation it is difficult to formulate a justifiable rationale for the first use of nuclear weapons. Continued insistence on sustaining the policy of first use appears to be a case of an orthodox belief system triumphing over strategic logic and reason.

There are arguments that the present globalised international system with a global balance of power is not very different from Europe at the end of the nineteenth century, and yet the First World War broke out in 1914. It is now recognised that those who initiated the First and Second World Wars

did not foresee the nature and duration of those wars or the toll of casualties they would exact. Today there is no justification for ignorance on the consequences of initiating a war, its human costs and its environmental consequences. As Afghanistan and Iraq demonstrate, defeat of armies does not mean peaceful and gainful occupation of territories as was most often the case up to the Second World War. While there are civil wars in failing states, insurgencies, terrorist attacks and an occasional war of choice between a major power and a medium or small power the probability of a war involving two nuclear-weapon powers is exceedingly small. Those committed to promoting a nuclear-weapon-free world should therefore devote more effort to pressing for the adoption of no-first-use policies by nuclear-weapon states as well as steps to reinforce the non-proliferation regime. No first use is also the logical first step in any effort in nuclear threat reduction

India adopted its no-first-use policy as a compromise between its long-time advocacy of nuclear disarmament and the security imperative dictated by having two nuclear neighbours with which it has long-running disputes and has fought relatively recent wars, and which between them have an ongoing nuclear-proliferation relationship. Initially, in 1999, India's National Security Advisory Board recommended an uncaveated no-first-use policy. However, as Sagan points out, the Indian government appears to have been influenced by US policies and in its statement of 4 January 2003 diluted the policy with the caveat that in the event of a major attack against India or Indian forces anywhere by biological or chemical weapons India retains the option of retaliating with nuclear weapons. The Indian government does, however, remain committed to the goal of a nuclear-weapon-free world.

India has suggested in the Conference on Disarmament a seven-step plan to reach a nuclear-weapon-free world following the no-first-use path on the model of elimination of chemical weapons. The first step would be the reaffirmation by all nuclear-weapon states of their unequivocal commitment to the goal of complete elimination of all nuclear weapons. The second step would be to reduce the salience of nuclear weapons in the security doctrines of the nuclear-weapon powers, particularly through efforts

*India adopted
no first use as
a compromise*

to incorporate no first use into their national policies. This would be followed by nuclear-weapon powers taking steps to reduce nuclear risks. Simultaneously, there should be negotiations among the nuclear-armed states for a global agreement on no first use. Parallel negotiations should be launched among nuclear-weapon states for a global agreement on non-use of nuclear weapons against non-nuclear states.

Notes

- ¹ Robert McNamara, 'Apocalypse Soon', *Foreign Policy*, no. 148, May–June 2005, pp. 28–35.
- ² Condoleezza Rice, 'The Promise of Democratic Peace: Why Promoting Freedom Is the Only Realistic Path to Security', *Washington Post*, 11 December 2005.

Reply: Evidence, Logic and Nuclear Doctrine

Scott D. Sagan

The central purpose of my article in *Survival* was to spark a serious international debate about how best to reduce the role of nuclear weapons in US national-security strategy and that of other nations. Adoption of a nuclear no-first-use doctrine by the Obama administration would, I argued, be more consistent with the long-term goal of global nuclear disarmament than was the Bush administration's nuclear doctrine, would better contribute to US nuclear non-proliferation objectives, and would promote a more tailored and credible form of extended nuclear deterrence to key US friends and allies. I am pleased that *Survival* has initiated this exchange with a group of four eminent strategic experts from the United States, India and France. I hope that this exchange inspires additional debate among experts from other nuclear-weapon states and alliance partners.

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Halperin's hopes

Morton Halperin is one of the intellectual godfathers of nuclear strategy and arms control and, as he reminds us, wrote an important paper in 1961 – ‘A Proposal for a Ban on the Use of Nuclear Weapons’ – arguing that the United States should adopt a no-first-use policy.¹ Halperin’s Cold War-era paper argued for ‘a formal treaty’ on no first use with the Soviet Union and contained (for perfectly understandable reasons, given when it was written) no discussion of nuclear terrorism, the influence of US doctrine on the doctrines of new nuclear powers, or the contribution of a no-first-use policy to the goal of nuclear disarmament. (The early arms-control writers, we should recall, explicitly conceived of arms control as a different, and more practical, enterprise than disarmament.) Halperin’s early article on no first use did contain two key insights that remain deeply relevant to today’s debate. Firstly, the piece contributed to deterrence theory by noting that threats that are more likely to be implemented can be more effective deterrents than more potent, but less credible, threats that might appear as bluffs: ‘It seems likely’, Halperin wrote, ‘that the threat to use nuclear weapons may decrease the deterrent threat, and a threat to intervene conventionally (since, as was argued, it can be made more credible) is more likely to deter overt Communist aggression.’² Secondly, Halperin argued that ‘the real worth of an agreement to ban the use of nuclear weapons would depend to a very great extent on the nature of arms control measures and unilateral steps taken concurrently with it’. He presented a pioneering argument, anticipating Article I of the Non-Proliferation Treaty, for a Soviet–American ‘agreement not to share fissionable material or nuclear know-how with other countries’, and, anticipating NATO’s flexible-response doctrine, advocated the ‘strengthening of American and allied conventional forces’.

Halperin personally witnessed the depth of opposition to the idea of no first use during his stints in the Pentagon, the State Department, the National Security Council staff, and recently as a commissioner on the Congressional Commission on the Strategic Posture of the United States. I am pleased he believes that I have made a ‘persuasive case for no first use’ and note that our only major disagreements are about the timing of efforts to change US

nuclear doctrine. Although I agree that getting a follow-on START agreement and ratification of the Comprehensive Test-Ban Treaty should be the Obama administration's top arms-control priorities, I believe that the time to consult with our allies and propose movement toward a US no-first-use doctrine should come sooner than he thinks, and need not wait until those priority arms-control achievements are reached.

Halperin's preferred doctrinal statement ('The United States maintains nuclear weapons to deter and, if necessary, respond to nuclear attacks against ourselves, our forces, or our friends and allies') is virtually identical to the nuclear-posture declaration I proposed in my article: 'the role of US nuclear weapons is to deter nuclear-weapons use by other nuclear-weapons states against the United States, our allies, and our armed forces, and to be able respond, with an appropriate range of second-strike nuclear-retaliation options, if necessary, in the event that deterrence fails'. I fully agree with Halperin's admonition that, when making such a declaratory policy statement, administration officials should refrain from discussing detailed military scenarios and avoid identifying individual countries of concern. Yet I also believe that the president could usefully supplement any new declaration about the reduced role for US nuclear weapons with the following simple and direct statement enhancing conventional deterrence of chemical or biological attacks: 'The United States does not need to use its nuclear arsenal to punish any enemy who uses chemical or biological weapons against us or our allies. Our conventional weapons response would be certain, swift, and effective.'

The problems with Payne

Keith Payne vigorously disagrees with this policy recommendation. Payne was a key author of the Bush administration's 2001 Nuclear Posture Review and it is not surprising that he presents a strong defence of the Bush nuclear doctrine, which I criticised for leading to an expansion of the roles and missions of US nuclear weapons. His critique of my argument, however, contains more vigour than rigour. He repeatedly claims that my arguments are mere 'hunches' and states that it is relatively easy to offer equally credible alternatives. However, both the logic and historical evidence Payne has

used to support his advocacy of using US nuclear threats to deter chemical and biological attacks are deeply flawed.

Firstly, Payne has repeatedly defended his position by maintaining that Saddam Hussein was deterred from using chemical and biological weapons during the Gulf War in 1991. The war 'appears to offer evidence that *nuclear* deterrence, on occasion, can be uniquely effective', he writes. 'These threats appear to be a plausible explanation for Iraqi restraint with regard to chemical and biological weapons ... According to accounts by Tariq Aziz, General Hussein Kamal, and General Wafic Al Samari, the Iraqi leadership *believed* that the United States would have retaliated with nuclear weapons – and the expectations appear to have deterred.'³

The currently available evidence, however, suggests that Payne's crucial Gulf War test-case for the success of the US 'calculated ambiguity' nuclear doctrine is more myth than reality. Consider the actual deterrent threat that President George H.W. Bush issued in his 25 January 1991 letter to Saddam Hussein:

Should war come it will be a far greater tragedy for you and your country. Let me state, too, that the United States will not tolerate the use of chemical or biological weapons or the destruction of Kuwait's oil fields and installations. Further, you will be held directly responsible for terrorist actions against any member of the coalition. The American people would demand the strongest possible response. You and your country will pay a terrible price if you order unconscionable acts of this sort.⁴

In the January 1991 meeting at which Secretary of State James Baker gave Bush's letter to Iraqi Foreign Minister Aziz, Baker, according to his memoirs, 'purposely left the impression that the use of chemical or biological agents by Iraq could invite tactical nuclear retaliation', but he also warned Aziz that that if Iraq used weapons of mass destruction, 'our objective won't just be the liberation of Kuwait, but the elimination of the current Iraqi regime'.⁵ Two of the three actions (supporting terrorist attacks and burning the Kuwaiti oil fields) Bush said the United States would 'not tolerate' were taken by Iraq during the last days of the Gulf War. So by what logic does the Iraqi non-use

of chemical weapons in 1991 prove that the G.H.W. Bush administration's ambiguous nuclear threats deterred Saddam Hussein?

Payne cites claims of one senior Iraqi diplomat and two generals about the importance of US nuclear threats. But we now have Saddam Hussein's own crucial testimony from his 2004 interrogations by US forces, which strongly suggests that he decided not to use his chemical arsenal in 1991 not because of any vague nuclear threats issued by President G.H.W. Bush or Secretary of State James Baker, but rather because the United States did not march to Baghdad to overthrow Saddam's regime. According to the 11 March 2004 interrogation records, Saddam stated, when asked directly about Baker's ambiguous 1991 threats: 'The use of chemical weapons did not "cross our mind."' He asked how Iraq would have been described if it

had used chemical weapons: 'We would have been called stupid'.⁶ In a 13 May 2004 interrogation, Saddam added that 'WMD was for the defense of Iraq's sovereignty. Iraq demonstrated this with the use of WMD during the Iraq and Iran War, as Iran had threatened the sovereignty of Iraq. Yet, Iraq did not use WMD during the 1991 Gulf War as its sovereignty was not threatened.'⁷ Additional evidence suggests that Saddam may have also reserved his small arsenal of chemical weapons in 1991 for retaliation and retribution in the event that the United States

or Israel used nuclear weapons first.⁸ In short, it appears highly unlikely that US leaders' hints about possible nuclear retaliation were what stopped Saddam Hussein from using his chemical and biological weapons in 1991. Why did some Iraqi government officials later claim otherwise? The most likely explanation was given by an Arab diplomat in 1995: 'The regime had to explain to its military commanders why it was pulling back from the brink, so it looked a lot better to say that it was sparing the Iraqi people from nuclear holocaust than to admit that the leaders were worried about their own skins'.⁹

Payne's advocacy of continued US nuclear threats to deter chemical and biological attacks also fails to take into account the fact that Brent Scowcroft, G.H.W. Bush's national security adviser, has acknowledged that the presi-

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dent had already decided not to use nuclear weapons in retaliation for an Iraqi chemical or biological attack in 1991. Reflecting on the crucial 31 January meeting at the White House, Scowcroft later wrote:

What if Iraq used chemical weapons? ... If Iraq resorted to them, we would say our reaction would depend on circumstances and that we would hold Iraqi divisional commanders responsible and bring them to justice for war crimes. No one advanced the notion of using nuclear weapons, and the President rejected it even in retaliation for chemical or biological attacks. We deliberately avoided spoken or unspoken threats to use them on the grounds that it is bad practice to threaten something you have no intention of carrying out. Publicly, we left the matter ambiguous. There was no point in undermining the deterrence it might be offering.¹⁰

This admission is of more than historical interest, for it could further reduce the credibility and potential deterrent effectiveness of future 'calculated ambiguity' nuclear threats.

The only other evidence Payne cites to support his claims about the 'occasional necessity' of US nuclear threats to deter chemical and biological attacks is that the French government, the Indian government and the 2009 US Congressional Strategic Posture Commission (on which he served) all remain confident that nuclear threats remain important to deter non-nuclear attacks. Here he is arguing through borrowed authority, not the strength of logic or evidence. Moreover, as I mentioned in my article (and K. Subrahmanyam confirms in his contribution to this exchange) the Hindu nationalist BJP government in India in 2003 was influenced by US nuclear policy to change India's nuclear doctrine and weaken its traditional strict no-first-use doctrine. For Payne to cite New Delhi's 2003 policy shift as evidence of the need to continue US nuclear-first-use threats is a form of circular logic and copycat behaviour: Indian hawks in 2003 cited the George W. Bush administration's nuclear doctrine as justification for their preferred nuclear doctrine; now a leading American hawk is citing the BJP's nuclear doctrine as evidence of the need to maintain US nuclear-first-use options.

The trouble with Tertrais

Bruno Tertrais agrees that nuclear-weapons states need to be careful about how statements of nuclear doctrine are interpreted, and says that there would be benefit in a US declaration that nuclear weapons are for deterrence and would only be used in extreme circumstances, when vital interests were at stake. But I am perplexed by four of Tertrais's arguments.

Firstly, he maintains that the costs of adopting his preferred declaratory policy are minimal because the United States already has a nuclear doctrine that reflects such a limited deterrence mission for potential use only 'when vital interests are at stake'. Here I think Tertrais is simply wrong. There is considerable evidence, from declassified US Strategic Command documents, that the 2001 Nuclear Posture Review and subsequent White House guidance – National Security Presidential Directive (NSPD)-14 signed by President G.W. Bush on 28 June 2002 – led to the creation of new nuclear strike options against states such as North Korea, Libya, Iran, Iraq and Syria which had chemical-weapons programmes and were suspected of harbouring nuclear-weapons ambitions.¹¹ I certainly hope that top-level US civilian leaders had no 'intention' (to use Tertrais's term) to use nuclear weapons to destroy suspected chemical-weapons plants in Libya in the 1990s, or against suspected Iranian nuclear-weapons facilities when G.W. Bush administration officials repeatedly proclaimed that 'all options are on the table'. But Tertrais is overstating the case when he suggests that the United States already has a limited 'deterrence only' doctrine and questions whether it has *plans* to use nuclear weapons preventively.

Secondly, Tertrais believes I underestimate the non-proliferation costs of a no-first-use posture among US allies. Although he acknowledges that there is a German constituency in favour of the posture, he questions rhetorically how the Japanese would react. Actually, there is a considerable Japanese constituency in favour of the US adopting a no-first-use policy and limiting the role of US nuclear forces to deterrence of nuclear threats to Japan. Indeed, after Tertrais wrote his critique, the Japanese elections brought to power the opposition Democratic Party of Japan (DPJ), which had declared during the election campaign that it was open to discussing with Washington a move toward a no-first-use doctrine as 'a means of aiming for a world free

of the threat or use of nuclear weapons'.¹² DPJ Secretary-General Katsuya Okada, a senior foreign-policy leader in the party, declared that 'even if the US makes a "no first use" declaration, it does not mean that Japan will be placed outside the scope of the nuclear umbrella'.¹³

Thirdly, Tertrais echoes, and then compounds, Payne's faulty historical analysis of the value of nuclear weapons to deter chemical- or biological-weapons use. He too cites Saddam Hussein's failure to use them against the US-led coalition in 1991, and adds that Egypt used chemical weapons against Yemen in the 1960s but not against Israel in 1967 or 1973. But Egyptian leaders in 1967 had no knowledge that Israel had enough nuclear material and know-how to construct a primitive atomic bomb; indeed, instead of being deterred by Israel, Egypt targeted the Dimona reactor in an effort to prevent Israel from eventually getting nuclear weapons.¹⁴ So 1967 hardly counts as a case of nuclear-deterrence success. In 1973, Anwar Sadat did assume that Israel had nuclear weapons, but the fact that Egypt attacked anyway, albeit without using its small chemical arsenal, should temper Tertrais's confidence in and enthusiasm for nuclear deterrence in the Middle East.

Finally, Tertrais claims – in a thoroughly realist manner – that I exaggerate the extent to which US nuclear doctrine influences the doctrines of other nuclear-weapons states, arguing that nuclear doctrines are driven by security interests and capabilities. But this is an assertion, not a fact. My reading of the evolution of many countries' nuclear doctrines suggests, on the contrary, that their civilian leaders and military organisations often mimic the doctrines of other states they believe to be more modern and effective, regardless of whether the specific weaponry or doctrine in question is actually necessary in their nation's strategic situation.¹⁵

Support from Subrahmanyam

K. Subrahmanyam's essay is an excellent counter to Tertrais's position on the sources of nuclear doctrine. Subrahmanyam is the dean of Indian nuclear strategy and was appointed chairman of the National Security Advisory

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1967 hardly counts as a case of nuclear-deterrence success

Board soon after the Indian nuclear tests in 1974. American officials should therefore pay special attention when he writes that new nuclear-weapons or nuclear-aspirant states tend to follow and adapt US thought in their own strategic thinking.

I do not agree with all Subrahmanyam's arguments about nuclear strategy, arms control and disarmament. His criticism that the Non-Proliferation Treaty has made nuclear weapons legitimate and ensures their indefinite continuance, for example, does not adequately take into account the positive side of the ledger, including the Article VI commitments to work in good faith for eventual nuclear disarmament. And I fail to see why it is necessary to start negotiations among all nuclear-weapons states on a formal agreement on the non-use of nuclear weapons against non-nuclear-weapons states. The United States, Russia, France, the UK and China have already, at past NPT Review Conferences, pledged not to use nuclear weapons against non-nuclear weapons states (though, as Halperin notes, Washington could strengthen that pledge by eliminating the so-called Warsaw Pact exception which it insisted on having during the Cold War). Rather than starting multilateral negotiations, India could simply join others in issuing new and clear negative security assurances to all non-nuclear states around the world.

* * *

I ended my earlier essay by arguing that 'a more thorough and broader analysis within the US government of no-first-use policy is well overdue'. I would amend that now to include other governments, in nuclear-weapons states and in non-nuclear-weapons states. I thank the IISS for jump-starting the debate with these four international commentaries on no first use, and hope this is the start of a more serious and widespread global discussion about how best to reduce the role of nuclear weapons as a major step forward on the pathway towards the long-term goal of nuclear disarmament.

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Notes

- 1 Morton H. Halperin, 'A Proposal for a Ban on the Use of Nuclear Weapons', 6 October 1961, http://www.armscontrolwonk.com/file_download/190/Halperin.pdf.
- 2 *Ibid.*, p. 10.
- 3 Keith B. Payne, *The Great American Gamble: Deterrence Theory and Practice from the Cold War to the Twenty-First Century* (Fairfax, VA: National Institute Press, 2008), pp. 414-16 (emphasis original). See also Keith B. Payne, *Deterrence in the Second Nuclear Age* (Lexington, KY: University of Kentucky Press, 1996), pp. 81-7. For additional analyses of the 1991 case see William M. Arkin, 'Calculated Ambiguity: Nuclear Weapons in the Gulf War', *Washington Quarterly*, vol. 19, no. 4, Autumn 1996, pp. 3-18, and Scott D. Sagan, 'The Commitment Trap', *International Security*, vol. 24, no. 4, Spring 2000, pp. 85-115.
- 4 George H.W. Bush, *All the Best, George Bush: My Life in Letters and Other Writings* (New York: Simon and Schuster, 2000), p. 500.
- 5 James A. Baker, *The Politics of Diplomacy* (New York: Putnam, 1995), p. 359.
- 6 'Saddam Hussein Talks to the FBI: Twenty Interviews and Five Conversations with "High Value Detainee # 1" in 2004', Interview Session 13, 11 March 2004, National Security Archive, George Washington University, <http://www.gwu.edu/~nsarchiv/NSAEBB/NSAEBB279/index.htm>.
- 7 'Saddam Hussein Talks to the FBI: Twenty Interviews and Five Conversations with "High Value Detainee # 1" in 2004', Casual Conversation, 13 May 2004, National Security Archives, George Washington University, <http://www.gwu.edu/~nsarchiv/NSAEBB/NSAEBB279/index.htm>.
- 8 See the discussion of Iraqi threats to use their chemical and biological weapons in response to a US or Israeli nuclear strike in Timothy V. McCarthy and Jonathan B. Tucker, 'Saddam's Toxic Arsenal', in Peter R. Lavoy, Scott D. Sagan and James J. Wirtz (eds), *Planning the Unthinkable: How New Powers will Use Nuclear, Biological, and Chemical Weapons* (Ithaca, NY: Cornell University Press, 2000), pp. 47-78.
- 9 Unnamed Arab diplomat quoted in Joseph Fitchett, 'Threat of Annihilation Deterred Iraq, They Say', *New York Times*, 12 September 1995.
- 10 George W. Bush and Brent Scowcroft, *A World Transformed* (New York: Knopf, 1998), p. 463.
- 11 See Hans M. Kristensen, 'White House Guidance Led to New Nuclear Strike Plans Against Proliferators, Document Shows', Strategic Security Blog, Federation of American Scientists, 5 November 2007, http://www.fas.org/blog/ssp/2007/11/white_house_guidance_led_to_ne.php.
- 12 See Shingo Fukuyama and Hiromichi Umabayashi, 'Japan Ready for "No Nukes"', *Japan Times*, 25 August 2009, <http://search.japantimes.co.jp/cgi-bin/eo20090825a1.html>; and 'Policy Questionnaire Concerning the Nuclear Umbrella' at http://icnndngo.japan.files.wordpress.com/2009/09/nukeumbrella_questionnaire4aug09e.pdf.

- ¹³ Interview with Katsuya Okada, 'Japan Must Formulate Security Policy in Context of Relations with Asia', *Sekai*, July 2009.
- ¹⁴ Avner Cohen, *Israel and the Bomb* (New York: Columbia University Press, 1998), pp. 259–76.
- ¹⁵ For more discussion and evidence see Scott D. Sagan, 'The Evolution of Pakistani and Indian Nuclear Doctrine', in Scott D. Sagan (ed.), *Inside Nuclear South Asia* (Stanford, CA: Stanford University Press, 2009), pp. 219–63.