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Transcript

Are Nuclear Weapons Still Fit for Purpose?

Carrington Series Discussion

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Robin Niblett:

Ladies and gentlemen, welcome to this meeting. I'm glad to see there's still so many people in London as we get towards the end of July, and also at nine o'clock this morning. I do appreciate you coming to join us today, especially as this is the first in what we hope will be a series of Carrington seminars and Carrington meetings on deterrence, named after Lord Peter Carrington, former member of council at Chatham House – a series of meetings that we will run on the issue of deterrence. Really it's an opportunity to have conversations and debates about the issue of how thinking about deterrence is changing, has changed and will change in this post-Cold War context, focusing principally on the issue of nuclear weapons – and certainly today's discussion will be on that. What has been the historical impact of nuclear weapons? What is their deterrent capability going forward? Who are they deterring? What is their role in grand strategy? The title of today's talk, which probably captures all of those issues: 'Are Nuclear Weapons Fit for Purpose?'

It is going to be kicked off by two, I would say, of the most eminent thinkers here in London on the issue of deterrence. Sir Lawrence Freedman is, I think, known to all of you here. He has been a longstanding professor at the Department of War Studies at King's College London. He is also now vice principal at King's College, was a fellow of the British Academy at Nuffield, at IISS and, most importantly, a research fellow at Chatham House. Published, as you all know, widely, not only on nuclear issues but also on nuclear issues, with his books *The Evolution of Nuclear Strategy* and *Deterrence*.

Also we have Ward Wilson, who is director of the Rethinking Nuclear Weapons project at the British American Security Information Council (BASIC). His most recent book is *Five Myths About Nuclear Weapons*, published this year, but he has been very widely published on the issue of nuclear weapons and non-proliferation, both in academic journals and also in the press and more popular journals as well.

Moderating the discussion is Bridget Kendall. Bridget has been diplomatic correspondent at the BBC since 1998. James Cameron Award for distinguished journalism. Most important from our point of view, somebody who moderates wonderfully Chatham House events, and we're extremely grateful, Bridget, you could join us today. Also, I think, from a political standpoint, having served as foreign correspondent in Washington and in Moscow, I think you can also bring that political dimension to this discussion.

So in any case, I'm going to turn it over to you, Bridget, to kick off this conversation. We look forward to it and again, thank you all very much for joining us this morning.

Bridget Kendall:

Thank you very much, Robin. Thank all of you for coming here this morning. It occurs to me that on a subject like this, it's probably a good thing to have it at nine in the morning, when our minds are clear and not yet befogged by the sultry weather we're enjoying here at the moment.

There's never a bad time to review 'what's the use of nuclear weapons?' Although in recent times, probably for quite a lot of people, the fear of a nuclear war may have receded, with more attention drawn to more conventional wars, which might be far away but the reports these days come straight into your living room or onto your smartphone. Or we've been preoccupied with asymmetrical attacks from non-state actors, terrorists that effectively can penetrate our own worlds. But this is probably a good time to think about these things again, in the context of what is the purpose now of nuclear weapons and what's the purpose of deterrence and disarmament. It's a subject of considerable debate, as we know, here in the UK, both for its own deterrent but also a renewed focus on how to deal with Iran now that there's a new president there. Is this a moment to engage which wasn't there before?

The clock is ticking not just there, of course. There are worries about nuclear weapons in the hands of unstable regimes in North Korea but also Pakistan, and non-regimes, of course – what happens if they get their hands on them? And then there's the Syria conflict and the spectre that has raised of a new divide, not this time between the US and the Soviet Union, as in the Cold War, but what if we are watching the emergence of a new divide between Shia and Sunni, between a nuclear-armed Iran and a nuclear-armed Saudi Arabia or other Gulf states? How do we tackle that future challenge?

This is a debate, so we're going to run it like a debate. Lawrence Freedman is going to start with 10 minutes of opening remarks and then Ward Wilson with his 10 minutes of opening remarks. A chance for Lawrie to answer and for Ward to answer him. Then we'll open it up to all of you. We have until 11 o'clock so hopefully there's some time to get into some depth as well as some breadth. I'd like to ask Lawrie to begin.

Lawrence Freedman:

I was thinking, back in this room, of when I did work at Chatham House. This was a time of probably the last great nuclear debate, the late 1970s and particularly the early 1980s. I'm finding myself then in a very odd position because I had considered myself, through my working on nuclear issues for my PhD and when I came here, that I was really a dove on these matters, because the people that I'd been challenging – even then called neocons – were those who believed that the Soviet Union had a plan to win a nuclear war and that it really made an enormous difference about whether or not you had ballistic missile defences, how many weapons you had. First strikes had a reality and a credibility that I always thought was a bit overstated. And then all of a sudden, along came the European Nuclear Disarmament movement with EP Thompson, and in one of his polemics I was described as a 'compliant cowboy' – a term which rankles still – for being an apparent proponent of deterrence, which I suppose I was, in not accepting the logic of disarmament.

It was quite hard actually to engage in debate because going along to CND gatherings was basically, 'So you're here to defend burning babies and Armageddon.' Actually that wasn't what I was about. I want to start again as I used to say then: I'm not pro-nuclear; I'm not even particularly pro-deterrence. Nuclear weapons exist in my lifetime certainly and in the lifetimes of others and probably most people, and they're probably still going to exist, however successful we are with disarmament. So really the challenge for the nuclear age is how to make the best of a bad job. That's my starting point.

There are people who can make a convincing case that nuclear weapons have been a net-plus for the international community up to now, and I think you can make that case quite convincingly – up to now. But in everybody's mind, unless they're absolutely stupid, there's that backdrop of thought that maybe at some point it will go horribly wrong and we'll face a horrible disaster.

So I'm not complacent about nuclear weapons. I think even when I was engaging in those debates at that time, notably as I recall with Mary Kaldor, part of the argument was in the short term I wasn't too worried but in the long term it was hard to see how you could go on like this indefinitely. So my starting point is not that I'm happy with this situation, or content, but in some basic sense we're stuck with it.

So the question of are nuclear weapons fit for purpose – well, it's blatantly obvious that they are. They can destroy a large amount of people and

property. That's what they do. The question is: how do we cope with it? To me, the challenge of a nuclear policy is how to make sure they're not used. That's the basic test against which nuclear policies have got to be judged.

One of the best ways to ensure they're not used is to avoid the sort of conflicts that might prompt their use. I remember there was an enormous and incredibly expensive research project at Harvard in the 1980s, the Avoiding Nuclear War project, which on the sort of insight-per-dollar ratio against which these things should be judged came out with the bleedingly obvious conclusion that the best way to avoid a nuclear war is to avoid war. Yeah, that's true. And that's where deterrence comes in, because what nuclear weapons can do is make people incredibly cautious if they're about to get into a situation in which it may be that they may be used.

One of the reasons why some people are quite positive about the impact of nuclear weapons is we've really done quite well in coping with the nuclear age. If you go back to the early 1960s and the various prognostications made then – quoting CP Snow about the sort of statistical inevitability of a nuclear war before the end of that decade, or the assumption in the Kennedy administration that there would soon be 15 or 16 nuclear powers and so on – the idea that we'd reach to 2013 without one of these things being used in anger again would have been considered remarkable and probably very complacent and sanguine. So we haven't done badly.

If you look at the distribution of nuclear strength, you can see that basically there are two types of nuclear powers, with a bit of overlap. One is the old great powers, the five permanent members of the Security Council essentially – it's worked out that way. The second are the chronically insecure. The traditional question about nuclear deterrence was the first category. People talked about a third world war – the third of a series that began with the First and Second World War – and the assumption that it would follow the trend set in the First and Second World War, which after all ended with the only two examples of hostile nuclear use that we've got. It assumed that that would carry on as a destructive power, and something happened that gave political leaders pause.

Now, there's a big debate, which we'll no doubt get into, about whether deterrence made a difference in this. I think we have to be careful in what we're talking about here. There's one sense of deterrence in terms of the deliberate threat posed by NATO countries to the Soviet Union – if you do this, we will respond in that way – which over time became increasingly incredible and it was hard to come up with good reasons why you would

necessarily do that sort of thing. The second sort of deterrence, much more general and diffuse, later became called 'existential', which is basically: if we move in this direction, it could be awful. Things will happen which we can't control. Escalation was the word that was developed to describe this process. In which case, like all wars, you start off believing you can keep it contained and limited and short but things will happen that will get you into a position where it's absolutely awful, and we will have lost control.

This goes back to sort of classic debates of nuclear strategy that took place in the late 1950s and early 1960s. Tom Schelling, still one of the great theorists of nuclear strategy, talked about 'the threat that leaves something to chance', recognizing that there was this question of loss of control, that uncertainty was a powerful deterrent. You had Herman Kahn, who had the famous 44 ladders of escalation, where you started using nuclear weapons after point 15, just trying to work out how many different ways you can use nuclear weapons. That made Kahn's work so appalling and staggering at the same time, ending in what he called, claiming not to appreciate the implications, a 'wargasm' right at the end. But even Kahn recognized at some point this control would be lost, but he believed you could keep control for much longer.

I don't think people have that confidence. Nobody has tried, there's no case law, there's nothing that we can go to that tells us what a nuclear war would be like. All that we know is that when a series of political leaders have been faced with the possibility, they've tried to find a way out of it. You can see it in the correspondence between Khrushchev and Kennedy in the Berlin and Cuban missile crises. In a way you can see it within Indian policymakers, when Western embassies started to withdraw their people just over a decade ago when there was a big crisis. They said, no, people are actually taking this possibility quite seriously.

So I think deterrence works in that way. Not 100 per cent, there's not an iron law of deterrence here. But you just have to take that into account.

The third point I want to make about forms of deterrence is a lot of the discussion of deterrence goes on away from the possibility of nuclear war – in fact, all or most of the discussion we've had. A lot of it is about alliances and reassurances and security guarantees and so on. Whether any of this means very much is very hard to tell, because nuclear guarantees, when it came to reading the small print, might not look quite so firm and resolute as they might be when they're issued – like most guarantees. But it is an important part of the debate.

So my final point is really related to the policies that we adopt now. My view for some time has been that there's enormous surplus capacity and there's plenty of room for disarmament and arms control. That's all to the good. But you have to be very careful what you're doing. I'm not so much worried about the problem of maintaining a balance and deterrence at small numbers. I think it's much more about alliance. The essence of deterrence for most countries is alliance, because they don't have nuclear weapons of their own.

Therefore the challenge, it seems to me, in the future is how do you convince countries that don't have their own nuclear weapons that they don't need their own nuclear weapons because they have a great power benefactor that will look after them. I think a lot of policies have to be judged on that, and that has to be judged because actually now the major problem that we face of nuclear use is not at the moment the great powers but the chronically insecure. It's the Pakistanis, the Israelis, the North Koreans, maybe eventually the Iranians. These are the ones that are most likely to get into situations where they might be used, and the sort of logic and analysis that we use to consider the policies of the great powers are very different from those that might affect these powers. The era of the greatest uncertainty, given that these other powers exist – that is what creates the problem of extended deterrence. It raises questions for the great powers as to what role they should play in providing deterrence on behalf of those who may be threatened by the chronically insecure. That seems to me to be the big challenge for the future. I don't think it's particularly an issue for disarmament. Thank you.

Bridget Kendall:

Thank you, Lawrie. Ward, your chance. Ten minutes.

Ward Wilson:

Thank you. I have to say, I have distinctly mixed feelings about being here this morning. On the one hand, it's an enormous pleasure to be at Chatham House and an honour to be debating a historian as careful and judicious and eminent as Sir Lawrence Freedman. I'm thrilled to be here. On the other hand, it's 2:30 in the morning where my body is, so if I should suddenly sit up and look startled it's because I'm wondering what all of you are doing in my bedroom in the middle of the night.

I began work on nuclear weapon issues 30 years ago, conducting a sort of unconventional review of the facts, and have worked really on what I hope is

a careful and pragmatic re-evaluation of the entire field. My goal is, I think, similar to yours. I want security for my country and the other countries that I like and care about. In general, I think the world is better off when there's peace.

But what concerns me is that we seem to have a sense that nuclear weapons are reliable because of the absence of nuclear war. Nuclear deterrence is reliable because of the absence of nuclear war over the last 68 years. It seems to me that if you're going to risk the lives of millions of people, or at least hundreds of thousands of people, that it makes sense to be absolutely sure, that you need a relatively high standard of proof – and that proof by absence doesn't meet that criteria. I remind you that two years ago I could have sat here and said that the possibility that there would ever be a major storm in the United States that brought floodwaters onto Long Island and New York and New Jersey and destroyed thousands of homes was impossible, because it had never happened for 200 years. The fact is that just because something bad hasn't happened recently doesn't mean it can't happen.

So my review has essentially reached two conclusions. One is that our one field test of nuclear weapons has been misunderstood. I think it's important to recall that one of the real problems with nuclear weapons is that it is a field with very little factual information. We've done a lot of testing – but think about medieval thinking about the solar system. Essentially seven pieces of data: the stars in the sky and the sun, moon, earth and five visible planets – wait, that's eight. It's a relatively small set of facts out of which to build a theory of how the universe is put together.

We in the nuclear weapons field have a worse time because we have really one solid piece of evidence, which is the bombing of Hiroshima and Nagasaki, and potentially, although it's very slippery and difficult to judge, a series of facts based on historical crises involving nuclear weapons. Even so, it's a relatively small factual basis. If you consider that, for instance, machine guns were developed and it took really years before British, German and French military officials understood how machine guns were going to impact the battlefield and how best to accommodate their existence on the battlefield – 1914, 1915 and 1916 were examples of how difficult it is to incorporate new technology into our thinking. So that's a troubling fact.

The truly disturbing thing about this paucity of information is that it's relatively clear that we've got Hiroshima wrong. The Japanese said they surrendered because of the bombings of Hiroshima and Nagasaki. They were actually covering up the fact that they lost a war and they needed a good excuse for

having lost that war. Recent historical research in the last 10 years demonstrates relatively clearly that it was the Soviet declaration of war and invasion of Manchuria, Sakhalin Island and various other territories that led the Japanese to surrender. That is what touched off the real crisis. So that's sobering, if your one major field test that you've been relying on pretty heavily for 60 years, it turns out you've been interpreting it exactly backwards. Nuclear weapons didn't have a major impact. In fact, the Japanese leadership seems to have largely ignored the nuclear weapon bombings.

So what does that say about the ability, the kind of magical ability of nuclear weapons to coerce and deter? Stimson talked about them being psychological weapons. Well, if they didn't psychologically impact Japan's leadership, how do we evaluate that?

So, then, nuclear deterrence. Clearly there's a danger of nuclear war with nuclear deterrence. The question is not does nuclear deterrence work – clearly it must work sometimes. Nuclear war is terrifying, so it must be that nuclear deterrence does reliably restrain us sometimes. The problem is, how often? Where? How reliably? Does nuclear deterrence work in 30 per cent of the cases? That's a relatively low number. If 70 per cent of the time there's a possibility that the crisis is going to spiral out of control, then that's a cause for concern. Does it work 90 per cent of the time, 95 per cent of the time? If you owned a handgun that you really liked and thought was very valuable but that had a tendency to explode in your hand some percentage of the time, you have to ask yourself, how large is the percentage that you're willing to put up with? Is it a two per cent chance of blowing up in your hand, or a four per cent chance?

So it seems to me the key question is not: does nuclear deterrence work? The question is: how reliable is it? The problem is that I think our historical studies have not fairly addressed the facts. For instance, I was talking to Stephen Walt of Harvard, and I made some of these arguments, and he said to me, 'Walt, what about the Cuban missile crisis? That is clear proof that nuclear deterrence works. The Soviets put missiles in and there was a risk of nuclear war, then they took them out. So it obviously works.'

But I think the problem with that argument is that we never talk about Kennedy's decision. Kennedy knew that if he blockaded Cuba, there was a risk of nuclear war. In the week of deliberations where they were deciding on the policy, they mentioned the possibility of nuclear war 60 times. But they went ahead with that action – that risky, that aggressive action – anyway. So the question is: why didn't nuclear deterrence restrain Kennedy, apparently? I

think if you go back and look at the various crises – the Middle East war of 1973, Sadat and Assad – why weren't they restrained by nuclear deterrence? The question isn't: did putting nuclear weapons on alert dissuade the Russians from sending a paratrooper brigade to Egypt? The question is: what were Sadat and Assad thinking? How was it that they could believe that they knew enough about Israeli intentions that they could safely make war on the occupied territories and the Israeli forces there without risking nuclear war. Why didn't deterrence work?

I think that over time what happens is that we have looked back at the facts and selectively pulled out the successes of nuclear deterrence and said: this is terrific, nuclear deterrence works. It's reliable therefore it must be safe, and so we can continue to rely on it.

So I am a nuclear deterrence pessimist. I think that it's less reliable than we had thought. I'll stop there.

Bridget Kendall:

Thank you very much, both of you. I'm struck by some of the ways in which you agree: that we don't have very much information; we don't know what a nuclear war would be like. Would be interesting to hear more from both of you about the relationship between nuclear war and conventional war: does the lack of nuclear war make conventional war more likely or less likely, and under what circumstances? The 1973 war you brought up, Ward.

Then interestingly, another point of agreement it seems is about the way the world has changed – that we're no longer talking about stable nuclear powers, we're talking about two groups: stable nuclear powers and unstable nuclear powers. That relates directly to your question, Ward, of how often does deterrence restrain.

So let's go to round two. Back to Lawrie for another five minutes.

Lawrence Freedman:

Hiroshima. Historians have argued about this for a long time. The weight of historical evidence is that nuclear weapons made a difference to the Japanese decision to end the war. Otherwise, why did Hirohito mention it in his surrender broadcast? Manchuria, the Russian invasion – obviously important. Also, Japan would have surrendered at some point anyway, probably. But nuclear weapons had an effect at the time.

I think it's absolutely irrelevant. I don't think it strengthens the case for deterrence if I'm right on that and you're wrong, because these cases are *sui generis*. What we know from Hiroshima is what nuclear weapons can do. It left a lasting imprint on people's minds. It wasn't a speculative possibility, as we would find still if we were trying to talk about biological warfare on a massive scale. We know what nuclear weapons can do because we've seen the pictures and we've heard the survivors. I've been to the museum at Hiroshima.

So that's what it did. Somebody once talked about the crystal ball effect, which was if you knew in 1914 how you were likely to end up in 1918, you might have been a little bit more careful on the diplomacy. You might have thought: let's pause a moment here and see where this may be taking us, folks. If you're moving into a situation where nuclear war is a possibility, you've got an image in your mind about where it can lead to, and that's very important.

It was there with Kennedy. Who was reckless or not in the origins of the missile crisis? Which of course was a crisis of the nuclear age – if we didn't have nuclear weapons there wouldn't have been a crisis in the first place. But there's no doubt that Kennedy's behaviour in the last days of the crisis was animated at all points by a determination to avoid nuclear war, which is why he had the back channel going, why the Turkey offer was made and so on. Kennedy did not want a nuclear war. He wasn't reckless in this regard.

So that's the only information we've got, it's true. We have to work out, if we're looking ahead, how people – often in cultures different from our own, that we don't understand very well – may respond.

I would never say deterrence is going to work well in all circumstances. I think history doesn't prove anything in this. There's no proofs in history, because there are so many different variables in play each time. All we know is that politicians faced with the prospect of nuclear war have become quite cautious, and that's a good thing.

Let me just raise two issues that I think are areas where it may be worth taking the discussion further. The first is this question of the relationship between nuclear war and conventional war, which I think is important. Because when Ward was saying that deterrence hasn't worked, what he's said in a couple of cases is the existence of nuclear weapons has not stopped conventional war, which is undoubtedly the case. I've had the Falklands cited to me at times, as an example of a failure of nuclear deterrence. It wasn't a failure of nuclear deterrence because nobody in their right minds ever thought

that nuclear weapons were likely to be used in a situation such as that, although there was a nuclear dimension to the conflict.

So there's really an issue which goes to the heart of the question of the role of uncertainty and a fear of escalation: what confidence will there be in the future, if you embark on a war which you believe will be conventional, of it staying that way? That's relevant to the Russians; it's relevant to the Indians and Pakistanis. In a way it's become less relevant to us, which is why the enthusiasm for disarmament has grown in the West. Our belief and reliance on nuclear deterrence has declined because we really don't need it so much, because conventionally we should be strong enough to deal with all comers – if I'm including the United States in this. Whereas the Russians have become more dependent upon nuclear deterrence. So I think there is an important issue here that's worth addressing, about the relationship between the two.

Second, I do think we need to get into this question of alliance. If the United States nuclear arsenal had a deterrent effect on European security, it was because the United States was allied to Western Europe. If it hadn't been, it might not have done. I think these alliance relationships may well be becoming more tenuous. That's as much of a challenge to the credibility of deterrence as whether or not one thinks a politician in their right mind would use it.

Just a point to leave you with, this question of 'who would have thought'. If you're going to choose an airline, here's one that's got an immaculate safety record for 68 years – never had a crash. Do you go for that one because it's never had a crash, it's got this immaculate safety record, or on the laws of probability do you think it's due for one soon? You choose.

Ward Wilson:

First, I think about Hiroshima being irrelevant – I like facts. I don't want to speculate, I don't want to imagine, I don't want to theorize. I want facts. I want to know what people did in the past and try to use that as a guide for the future. The fact is we know what nuclear weapons can physically do, but the essential thing we thought we learned from Hiroshima – what Stimson said in his article in *Harper's* in February 1947 is that we understood the psychological impact that they had on leaders' minds. The fact is that's exactly what we don't know. We don't know what impact the fear of nuclear weapons or even the use of nuclear weapons has on leaders' political and military decisions. So I'm not convinced that because we've done a lot of

testing in deserts that we're fully aware of how people will or will not respond to nuclear weapons.

On the issue of Hirohito, why didn't he mention the Russians if that was the reason why they were surrendering – several reasons. One is leaders and politicians, I'm sure you'll be shocked to know, don't always explain their innermost reasons for the things that they do, particularly in public statements. In fact Hirohito issued two calls for surrender: one to the general public – which obviously cared about bombing, and in that call on the 15th he talked about bombing – and also one to the military on the 17th, in which he didn't mention the bomb at all but only mentioned Russia as a reason for surrendering. The military men, he felt, would understand strategy better – or I'm assuming he felt would understand strategy better – and therefore he used the argument with them that he thought would be most likely to persuade them.

So it has certainly been true that throughout the first 40 years of discussion about Hiroshima, people assumed that the bombs won the war. The fact is that over the last 10 years there have been significant openings up of archives in Russia and Japan. The newest research seems to be quite persuasive that whereas Hiroshima just didn't touch off a crisis at all, the Russian invasion did. Consider that the Supreme Council didn't meet after Hiroshima. In fact there's a diary entry by Kawabe Toroshiro, who was the deputy chief of staff of the army, and he says – this is on the 8th, two days after the bombing of Hiroshima: 'I heard they bombed Hiroshima with a nuclear bomb, and it's a problem, but we must be tenacious and fight on.'

So this is on the evening of the 8th he's writing in his diary, reflecting back. The next morning he rushes down to a meeting with the military and says, 'We have to depose the emperor and set up a military government, that way we'll be able to keep fighting.' Well, what happened? The Soviets invaded at midnight during the night. No emergency meeting was held after Hiroshima was bombed. No one suggested that the emperor be overthrown on the morning after Hiroshima was bombed. The Supreme Council doesn't meet on the morning that Hiroshima was bombed, the Supreme Council meets the morning that the Russians invade.

So there's a lot of evidence, particularly timing and diary entries from that period of time. After the war is over they all rally around and say: oh yes, it was Hiroshima. But if you look at the contemporaneous documents, the case is much stronger.

My sense about the Cuban missile crisis is that the important lesson to draw from it is not that deterrence worked but that we were lucky. The role that luck plays in avoiding war sometimes. The height of the crisis, a U2 strays over Russia 300 miles. Russia scrambles MiGs to shoot it down, the US scrambles F-104s to find it, safeguard it and bring it back. Except it's the height of the Cuban missile crisis so they've taken all the conventional air-to-air missiles off the F-104s and they've replaced them with Falcon nuclear missiles. So the only missiles that those fighters – the only armaments that they have – are nuclear. Those two sets of fighters run into each other, there would have been a nuclear explosion over Russia and likely a nuclear war. Well, that didn't happen, but it didn't happen because deterrence works like magic. It happened because we were lucky.

That's my five minutes. I had something else to say about the Falklands War but we'll come back to it.

Bridget Kendall:

I wanted to move the discussion on a little bit, to not just look at the historical reasons. To pick up on a couple things that have come out in discussion – first thing, I just wanted to ask you, Ward, about something that Lawrie said right at the beginning: nuclear weapons will exist, we're stuck with them. Do you agree with that? The idea and aspiration of a nuclear-free world is just not possible?

Ward Wilson:

Often people do the more colourful version of this, which is to say you can't stuff the nuclear genie back in the bottle. Those of you who read Chatham House's *The World Today* will know that I have a view about this. This is a powerful argument: you can't disinvent [sic] nuclear weapons, it's absolutely true. Also happens to be absolutely irrelevant, because no technology is ever disinvented. That's not how technology goes away. In the majority of cases, technology goes away because a better technology comes along. But in some cases technology goes away because it was stupid technology and people set it aside. I think the classic example of this is the Hiller VZ-1. It was a small platform about this big, a small helicopter blade underneath, and a single soldier could stand on it and be lifted 15 or maybe even 20 feet up in the air. It was really remarkable, gee-whiz technology, developed by the US Army in 1953. But it never went into production particularly, because some

people called it the 'here I am, totally exposed, completely vulnerable death platform'. Just wasn't good technology.

The question is not whether nuclear weapons can or can't be disinvented. That's a red herring. The question is whether they're smart military technology. It seems to me that the fact that no one has found an occasion when their use was really called for in the last 70 years may be an indication that they're terrifying and deterrence works perfectly, but it may also be an indication that they're just not very good weapons. Too blundering, too big, too clumsy for any real useful purpose.

Bridget Kendall:

So the fact that Russia – feeling perhaps that it doesn't have allies in the way that countries in Western Europe do, that it has to rely on itself and it's got big borders and a small population – thinks it needs to upgrade its nuclear weaponry, and the fact that we're seeing proliferation in other places, this is because these countries just want the posture – they're too blundering and big to use – not because they think they would want to use them?

Ward Wilson:

I think the answer to this question is this [holds up money]. We strive to get this. We value it, we work long hours, don't spend enough time with our families. People die in dark alleys because they won't give up this. Yet this is a piece of paper with some ink and numbers on it. The fact that we value it so highly, I think, is a testament to the remarkable capability of human beings to invest otherwise worthless objects with value. We agree together that this will be the thing we value in life.

It seems to me that what happened with nuclear weapons after World War II is that they became the currency of power. The United States did this by and large, with some help from others. But we were the ones who said: these are the best weapons ever, they won the war for us, they are miracle weapons – the winning weapon, they were called. So in some ways nuclear weapons make a perfect currency, because they never get used and so you can't actually field test their practical value. You can never find out whether this currency is overvalued or not. But I would say to the Russians what I would say to people who bought a lot of real estate in the US in 2006–07: the price of this currency is wildly overvalued. There's a bubble. We happen to have had quite a long bubble on the nuclear weapons front but it seems to me that

it is not sensible to spend a great deal of money on an asset whose value it is difficult to fix.

Lawrence Freedman:

Nuclear weapons have not really been smart military technology as such, which is why there have been so few what used to be called tactical nuclear weapons – which was always an odd concept – and/or short-range nuclear weapons around anymore. My favourite, if we're going to give odd weapons, was the Davy Crockett, which was a mortar which had a lethal radius greater than its range. So I think the idea that nuclear weapons could be used as a more efficient form of firepower is now pretty well discredited, and that has implications for the future in terms of this question of how you would move from a conventional to a nuclear war, because that was – in the theory – one of the ways.

Schelling, whom I mentioned before, made a sort of powerful distinction between weapons that could seize territory and take things by force, and what he called 'the power to hurt'. What nuclear weapons have is the power to hurt. That poses enormous ethical questions. It also poses an interesting strategic question, to show that I'm not particularly arguing one way or the other as to where we should go on this. In our thinking about conventional war, in a way that we weren't in 1945, we stress more and more the importance of protecting non-combatants, civilians, the innocent, etc., and expect our weapons to be more and more precise, and get offended by collateral damage. That's a really important change, because actually while we're maintaining nuclear weapons we're maintaining something that at a certain point could be a far greater shift of gear than was the case in 1945.

It's so tempting to get into historical – there are multiple explanations of most events. This will be true in the future. You think you're controlling the thing that will really make the difference and actually it's something else, or there's something else to get. Most events have more than one cause. There's no simple cause-and-effect relationships.

But one of the reasons that was an issue in 1945 was, what difference did it make to have a single nuclear weapon as against a couple of hundred American bombers firebombing? More people were killed in the firebombing of Tokyo than were killed in Hiroshima. It was the shock effect of a single weapon, and the casualties were the result of people not realizing this was an air raid, so they were out in the open when they might have been in shelters and the numbers that would have been killed would have been fewer. Still

horrific but fewer. It was because of the link between conventional air raids and this new weapon that could do it oh so more efficiently and then, we later discovered, with the horrible radiological effects coming on beside.

It seems to me that that link, in Western thinking, has been broken. It could be put together again. And in Russian thinking, I don't think it has been broken. Look at Grozny.

These seem to me to be the areas to think about for the future, in terms of whether or not what has worked as deterrence will work in the same way in the future. There are shifts in attitudes, both about alliance and about our understanding of what we expect to do with weapons of war, that I do think potentially challenge the role of nuclear weapons. In some ways they may make nuclear use more likely, but not I think by the UK and the US – I think by countries that might feel emboldened possibly by the evident difficulties we, for very good reasons, may have in thinking in these terms.

Bridget Kendall:

It's interesting though, because it's sort of a slippery question, collateral damage, isn't it? If you think about the debate over uses of drones – they save American pilots' lives maybe but then what about the collateral damage on the ground, especially if it isn't reported – and if it's not reported you don't care about it so much. It goes to the whole question of robotic warfare. Whose lives is it saving?

Lawrence Freedman:

It does, but if you think about how these sorts of campaigns would have been handled in the past, this is of a completely different order. Just a completely different order. Just think about the air raids the US Air Force conducted over Korea and Vietnam. This is a completely different order. There's no doubt – Fallujah, whatever – you can find cases where there's been a lack of restraint. But it comes with a degree of moral unease that was not necessarily there in the past. I think that's right, but it has consequences. It adds to the sense that nuclear weapons are in this very special and distinct category all of their own.

Bridget Kendall:

Just one final question before I open it up, on this question of value. How do you create a system which means that people decide that nuclear weapons

have less value to be used, because you feel that you have more security? I'm thinking about the shift that we've all acknowledged and accepted, that whereas once there were great powers who had nuclear weapons and no one else did, now we have two or possibly more than two groups: unstable states but also unstable non-states. Therefore the state of the NPT as a vehicle for deterrence: is there a new diplomatic architecture which could work more effectively? Should everybody admit that it's not working, because at least if you admit that the stated aims are unrealistic and that different things are happening in reality, at least that would be better than having a treaty whose aspirations are being undercut by reality? Comments from both of you?

Lawrence Freedman:

The NPT has been an amazing success in many respects. It had an incredibly important effect. Again, research has shown, to the extent that research can show these things, that a number of countries that might have been tempted, that were in that long list that existed in the 1960s, decided against going for nuclear weapons – in part because a number of them were content with alliance; in part because there was détente and so on and they didn't feel as pressured; but also because going for a nuclear programme was stigmatized, would create problems for them. So you don't throw out the Nuclear Non-Proliferation Treaty if you can possibly avoid it. Nuclear proliferation is important. The relationship of proliferators with the treaty, whether it's Iran or North Korea, is important. It's a way of evaluating what they're doing, the seriousness of what they're doing. Of course, India and Israel never joined the treaty so in a sense that gave them a freer pass than those who'd claimed to have signed up to what was involved.

We've been dealing with remarkably few proliferators so far. They're all extremely awkward, and they're extremely awkward because of the security situations of which they're a part. I think you've got to just then contextualize proliferation rather than see it as some sort of epidemic and contagious. You've got real issues in the Far East because if North Korea becomes really reckless, you're going to challenge the meaning of alliance for the United States, for South Korea and Japan, in ways that it has not been tested up to now – and in the process, deterrence. And who knows? If that challenge fails, then that could have repercussions elsewhere. India and Pakistan raise completely different issues. So I think you have to contextualize and look at it as a series of political-military problems rather than just a question of fixes to getting better proliferation policy and so on. The NPT regime is important and

worth keeping, in isolating those countries that are prepared to be stigmatized.

Ward Wilson:

I guess the thing that I am always struck by, before assigning a great deal of success to the NPT, is that there were, it seems to me, countries that didn't build nuclear weapons not because of the NPT but simply because they – look at South Africa. South Africa built a bomb, kept it, looked at it, thought about it. I had dinner with a brigadier general in their defence forces who said part of the process of becoming a brigadier is they make you do a series of exercises, they put you through extra training. One of the exercises was: there are three African countries attacking South Africa, you have these forces and six nuclear weapons – which is what they had – what do you do? And he said: I looked at it for a week and thought about it and decided that I would use the forces at hand and keep the nuclear weapons in the warehouse, because there wasn't really any way that you could reasonably use them. So perhaps it's not surprising that South Africa eventually gave up their nuclear weapons, not because of treaty pressure or anything else.

You look at Kazakhstan, which from a realist perspective should certainly have built nuclear weapons. Here they are perched between two nuclear powers, one of whom may eventually want them back. They couldn't have taken the SS-18s, because they probably couldn't get the codes, but they had some bombers and they had a fully working plutonium reactor and a certain amount of indigenous knowledge. So they could have been a nuclear power within a year, maybe two. Why is it they didn't become a nuclear power, when from a realist perspective it's obviously in their interest to do so, because nuclear weapons magically keep you safe?

So the NPT appears to have been successful but I'm not sure really what conclusions we should draw from that.

The other thing that worries me about the discussion about Iran and Korea is that there's a tendency for people to say that they're crazy but we're sane. Which is nice and comforting and makes me feel better when people say that, because I want to be sane. But I think history shows that crazy is not geographically limited. Crazy is relatively distributed evenly throughout all countries. So the main concern from my perspective is not the country that has five nuclear weapons, because civilization could survive five nuclear weapons. Genghis Khan came out of the steppe in 1219 and destroyed most of the Khwarezmian Empire, including at least six major cities, but civilization

went on. It seems to me that what we should worry about are the countries that have large nuclear arsenals. I'm far more frightened by the memory of Richard Nixon wandering drunken through the halls of the White House talking to the portraits of dead presidents on the walls, and the notion of Boris Yeltsin – I mean, obviously I'm concerned about North Korea and Iran but I think it's important to remember that there are other dangers besides the notion that crazy people over there will launch a nuclear war.