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Transcript

**NUCLEAR USE: LAW, MORALITY,  
AND HUMANITARIAN  
CONSEQUENCES**

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## **JAMES ACTON**

Ladies and gentlemen, good afternoon. Firstly, I cannot tell you how happy I was to see a line of people at the app helpdesk which really warmed my heart. It's a huge pleasure to welcome you to the session on Nuclear Use: Law, Morality and Humanitarian Consequences.

I want to start by reading you sentences from the summary that came out of the Vienna Conference that really highlight the issues that I want this panel to get at. First, the new evidence that has emerged in the last two years about the humanitarian impact of nuclear weapons casts further doubt on whether these weapons could ever be used in conformity with international humanitarian law. Second, the catastrophic consequences of a nuclear detonation event and the risks associated with the mere existence of these weapons raise profound ethical and moral questions on a level transcending legal discussions and interpretations.

I actually think it's important to have this discussion about legal discussions and interpretations and to have the discussion about the moral implications of nuclear weapons, to analyse both the potential risks of nuclear weapons in terms of the consequences that they can have and the potential benefits of nuclear weapons as well.

To do this, I couldn't have asked for a stronger panel. Sitting immediately to my right is Doctor Justin Anderson; he's a Senior Policy Analyst at Science Applications International Corporation, and from 2009-10, served as Editor of the US Department of Defense Law of War Manual. He also started his career as junior fellow at the Carnegie Endowment. Sitting next to him is Gaukhar Mukhatzhanova. She's Director of the International Organizations & Nonproliferation Program at the James Martin Center for Nonproliferation Studies at the Middlebury Institute for International Studies at Monterey. She's an astute observer of the Non-Aligned Movement who served Kazakhstan's delegation to the 2010 NPT Review Conference. I'm particularly grateful to Gaukhar for participating in this panel at short notice.

Those of you who are astute observers of the Carnegie Agenda will notice that at least two other officials from non-aligned nation countries had been slated to speak in Gaukhar's spot. Unfortunately, both of those had to pull out and we are tremendously grateful to Gaukhar for filling in at very short notice.

Next to her is Admiral John Gower who has recently retired from the UK Ministry of Defence as Assistant Chief of Staff Defence Nuclear. He joined the Royal Navy in 1978 and has served as a sub mariner, including five years at the command of two submarines. To his right is Bishop Richard Pates who has been the Bishop of Des Moines since 2008. Ordained in 1968, he is the immediate past chairman of the US Conference of Catholic Bishops Committee on International Justice and Peace, and is still a member of that committee.

Gaukhar, I'd like to start with you. As I've alluded already, there's been this series of conferences on the humanitarian implications of nuclear weapons. In four or five minutes, if possible, could you tell me why those conferences have happened, why states are interested in going, what's emerged from those conferences in terms of the findings and what kind of effects you think conferences have had on the discourse about nuclear weapons?

## **GAUKHAR MUKHATZHANOVA**

Thank you, James. Good afternoon, everybody, and first of all, thank you for having me on this panel. Even though I am replacing some Non-Aligned Movement officials, I'm obviously not speaking on behalf of the Non-Aligned Movement; very much in my own capacity. To address the very short range of questions that you, James, have posed, I believe humanitarian initiative – and I believe many will agree with me – has been the most significant development in the nuclear field and the nuclear diplomacy since the 2010 NPT Conference.

The momentum behind this initiative is a large part born of the very widespread frustration over the lack of nuclear disarmament and the complete paralysis of the international institutions that are tasked with undertaking disarmament negotiations. Departing from the traditional NPT debate that focuses on possessors, on incremental steps, on strategies, the humanitarian initiative has focuses rather on the nature of nuclear weapons themselves and on their terrible effects. It hasn't been about responsible or irresponsible possessors, it hasn't been about right hands or wrong hands; it was rather about what those weapons do and whether that, in and of itself, is compatible of who we are as human beings.

The three conferences that James mentioned in Norway, in Mexico and Austria, they have focused on exactly that: the physical impacts of nuclear weapons, both immediate and longer term, and both direct and indirect. They have heard testimonies of absolutely unspeakable suffering of the survivors of atomic bombings and testing, they have highlighted the devastating immediate impacts as well as longer term consequences of nuclear weapons use, and concluded that nuclear weapons effects won't be contained by national borders. In that sense, they very effectively drove the message home for many non-nuclear weapon states that the risks and potential costs of nuclear weapons use are shared by all countries, whether they're nuclear or not, whether they're directly involved in the conflicts or not.

Conference presentations also discussed impacts, as I mentioned, for example, on climate and, as a consequence, on agriculture and food markets, and that's the underscored vulnerability of the poor in developing countries in that they would be affected, most likely, disproportionately even though they are, or might be, very far removed from the conflict itself.

Another set of discussions highlighted the lack of adequate response capacity among both nation states and among international organizations. It was very remarkable how humanitarian organization after humanitarian organization stepped up and made it very clear that they are not prepared to respond to a use of nuclear weapons, and they are not likely to acquire such preparedness in any effective terms.

An important message regarding the risk of nuclear weapons that James mentioned is that those risks are much higher than previously understood, the end of the Cold War, notwithstanding the risk that we haven't actually focussed on adequately in the NPT context, or otherwise. Those are the risks, for example, safety accidents and those that are described in Command and Control by Eric Schlosser, and there are also risks coming from misunderstandings and misinterpretations to cases when occluded deterrence essentially fails. There is a very good Chatham House report about that that you could consult.

Finally, the International Law Discussion – there hasn't been very much of it in the conferences, but in the last one there was a panel examining the legal context in the applicable international law, and that discussion very clearly identified the already obvious legal gap.

Among weapons of mass destruction, nuclear weapons are not yet banned even though they're more destructive than chemical and biological weapons, and they cause more superfluous suffering than chemical or biological weapons. As a result of that particular discussion, the Austrian Government came out with their pledge: to pursue efforts, together with other actors, to close that gap, essentially to seek the prohibition of nuclear weapons.

The humanitarian initiative has been very significant because it has both broadened the debate, bringing in actors who were not traditionally participants, and it also reenergized the debate on nuclear weapons and disarmament. Our civil society, especially young people, they have mobilized around humanitarian initiative in ways we haven't seen in decades; a lot of this movement has been driven through involvement of civil society.

This is also a very interesting manifestation of the non-nuclear weapons states reclaiming their place in the conversation, insisting that they have a stake in this, and they have the right to express on how fast disarmament should go and why disarmament should be. This is the moment important part perhaps, that the initiative is about the humanitarian imperative; it's not simply about the law and it's not just about morality. It's about the humanitarian imperative of disarmament, the Why: why are we in this business to begin with; why nuclear weapons are unacceptable; why nuclear weapons ought to be outlawed and eliminated?

This has been a very refreshing development, and it's brought back the urgency to the debate that has otherwise gone very stale and has really been bogged down in the details of how, rather than keeping a clear sight of the goal and the why, so that's something [?]. I thank you.

### **JAMES ACTON**

Thank you, Gaukhar. It was a tough essay question I set you, but you did a tremendous job of addressing all the separate questions there. You've raised the issue of the consequences of nuclear use, and there hasn't been much discussion of international law, although it did come into the Vienna Conference a bit. Let me now turn to international law and the US Department of Defense in its unclassified statement on the Nuclear Employment Strategy of the United States, which came out on the same day as the Berlin Speech in 2013.

Set the requirement that all plans for nuclear employment be, quote, consistent with the fundamental principles of the Law of Armed Conflict, end quote. Now, Justin is not here as a representative of the US Department of Defense but, nonetheless, from a legal background, do you believe that it's possible for nuclear employment plans to be consistent with the fundamental principles of the Law of Armed Conflict?

### **JUSTIN ANDERSON**

Thank you, James, for the opportunity to speak today. The caveat you've already supplied, but I'll add again: my views are my own, don't represent that of SAIC or the US Government.

My comments today on law and the use and potential employment of the US nuclear force are in two parts. I'll first briefly address how treaty law affects the physical force; I'll then shift to a discussion of how, should extraordinary circumstances ever prompt the United States to contemplate nuclear employment, the methods and means of this employment would adhere to the laws of war.

For the United States, international law, treaty law and the Law of War fundamentally shape the size, structure and operational planning of its nuclear force. As a starting point, the numbers and types of deployed nuclear forces fielded by the United States reflect legally binding limits and prohibitions found in arms control treaties. The INF treaty eliminated, and continues to prohibit, all intermediate range missiles and launchers, the New START Treaty places numerical limits on the numbers of deployed and non-deployed strategic delivery systems and, with some treaty math involved, also limits deployed weapons.

In support of NPT Article VI, and for the purpose of strategic stability the United States, through its ongoing implementation and compliance of nuclear arms control treaties, thus accepts forced prohibitions, numerical limits, and through treaty notifications and onsite inspections, a significant degree of operational transparency with regard to its nuclear deterrent. Treaty law thus directly shapes the nuclear arsenal. Should this arsenal ever be employed, this employment would be in accordance with the fundamental principles of the laws of war to include the principles of military necessity, discrimination, proportionality and the prohibition against unnecessary suffering.

Before discussing the core principles, however, there are two important points that frame this discussion of law and war and possible nuclear employment. First, as articulated by the 2010 Nuclear Posture Review, through negative security assurances and emphasis that the United States would only consider nuclear employment for narrow range of contingencies characterized by extreme circumstances, the scope of actors in situations where employment might be contemplated is now limited and bounded in an important way by other actors' compliance with the NPT.

Second, in terms of military operations and the use of force against valid military targets. the Law of War often conditions and calibrates, rather than expressly prohibits the range of permissible options. Commanders and operators are required to weigh various factors when considering the potential use of lethal force against a valid military target to include: what are the risks of unintended consequences to include collateral damage? How critical is suppressing this particular threat or destroying this particular target to the success of the operation in the overall military campaign? These considerations and the calibration of force and response are critical to understand the application of Law of War to any use of force and, particularly, nuclear employment.

If the United States were to employ nuclear forces, this employment would be proportional. The principle and proportionality balances military necessity against the potential cost of an action to include the potential risks it poses to civilians. Should the US or an ally, for example, face an imminent nuclear attack, the US military might advise the President that preventing the attack would require a rapid strike launched at a distance and using munitions that would completely disable or destroy, rather than merely degrade the belligerent forces preparing the attack. These requirements might rule out conventional options. In this scenario, a US nuclear strike would be a legitimate response due to the military necessity of completely knocking out the target in order to prevent a catastrophic mass casualty attack against the United States or an ally.

Importantly, however, the principle of proportionality would require calibrating the nuclear forces and weapons used in this hypothetical US strike. In an *Air Force Law Review* article titled "Taming Shiva," Air Force Major General Charles Dunlap who – at the time of the writing was a Colonel who – was the principle legal advisor to the Commander of STRATCOM – discusses a number of ways in which to adjust the effects of a nuclear strike to include, quote, reducing weapon yield, improving accuracy through weapons system selection, employing multiple small weapons as opposed to a single large device, and adjusting the height of burst. Now, through utilizing some or all of these objectives, collateral damage can be minimized consistent with military objectives, end quote.

Any US employment of nuclear force would also be discriminate. As a matter of law and policy, the United States does not target civilians or civilian objects; in addition, US delivery systems are highly accurate. US ballistic missiles, for example, have a very small circular error probability, are very effective at directly hitting their military target endpoints. Furthermore, the principle of discrimination also places obligations on a defender who has an obligation to separate all forces and facilities that are legitimate military targets from civilian populations.

For example, transporter erector launchers capable of carrying nuclear armed ballistic missiles should be kept away from civilian areas during a potential crisis or conflict.

With regard to the prohibition against unnecessary suffering, I'll turn to the US opinion in the 1996 International Court of Justice Case on the Legality of Nuclear Weapons, where the court found that nuclear weapons are not prohibited by international law. The US opinion notes that the prohibition on unnecessary suffering, quote, does not prohibit weapons that may cause great injury or suffering if the use of that weapon is necessary to accomplish the military mission, end quote. Now, again context is critical. If the threat was great enough to warrant the employment of nuclear force, those enemy military forces engaged in posing this threat are not shielded by the Law of War.

Let me close by stating that the US military, which, in addition to the nuclear deterrence mission, has significant consequence management responsibilities in the event that the United States should ever suffer a nuclear attack, is deeply aware of the effects of nuclear employment and the significant death or destruction that would be associated with a nuclear conflict. It is committed to the need to field a robust nuclear force, however, because in the current nuclear threat environment, the United States and its allies cannot accept the risk of potential failure of conventional deterrence. Thank you.

## **JAMES ACTON**

Justin, thank you very much. You've highlighted the issue of war planning and the operational implications of nuclear weapons. The other area that nuclear weapons come into is the question of deterrence, and this is where I'd like to bring Bishop Pates in.

For most of the Cold War – in fact, I think for all of the Cold War – the Catholic Church took the opinion that deterrence was a necessary expedient that could be justified temporarily on the way to Zero. At the recent conference in Vienna the representative from the Catholic Church issued a statement from Pope Francis which said that nuclear deterrence and the threat of mutually assured destruction cannot be the basis for an ethics of fraternity and peaceful coexistence among peoples and states.

Can you tell me a bit about why the Catholic Church has changed its doctrine on deterrence, why it's chosen to argue that deterrence can't even be acceptable as an interim measure?

## **RICHARD PATES**

Thank you, James, and very delighted to be here. My perspective is one of a technocrat or a scientist to really of a pastor, and so very grateful for the Carnegie Endowment for International Peace, as really, I think what the Pope is talking about, and all of us are talking about, is authentic human peace as it really touches the human person first and foremost. We're moving away from all the technology and some of the science that's involved, but I'm not so sure Change is the right word to characterize the development in the church's teaching on nuclear disarmament.

As far back as 1963 Saint John XXIII called for a global and verifiable ban on nuclear weapons. It is a remarkable landmark Encyclical *Pacem in Terris*. Yet, in 1965, the Second Vatican Council expressed deep reservations about deterrence and the arms race, declaring: it is not a safe way to preserve a steady peace. Nor is the so-called balance resulting from this race assure an authentic peace.

In 2002 at the NPT PrepCom the Holy See expressed profound concern about what is called the posture of nuclear deterrence that is evolving into the possibility of use in the new strategies,

and reiterated, quote, the strategy of deterrence can be envisaged only as a stage in the process aimed at disarmament.

At the 2005 NPT Review Conference the Holy See was even clearer, stating: when the church, and I quote: expressed its limited acceptance of nuclear deterrence during the Cold War, it was with the clearly stated condition that deterrence was only a step on the way towards progressive disarmament. The Holy See has never countenanced nuclear deterrence as a permanent measure, nor does it today when it is evident that nuclear deterrence drives the development of ever newer nuclear arms, thus preventing genuine nuclear disarmament.

In 2013 at the UN General Assembly Meeting on Nuclear Disarmament the Holy See argued as follows: the chief obstacle to the elimination of nuclear arms is continued adherence to the doctrine of nuclear deterrence. With the end of the Cold War, the time for the acceptance of this doctrine is long past. The Holy See does not countenance the continuation of nuclear deterrence since it is evident it is driving the development of ever newer nuclear arms, thus preventing genuine nuclear disarmament, which is the ultimate goal, which is really what we want to try to achieve.

It's little surprise that in Vienna in this 2014 Pope Francis declared the following: nuclear deterrence and the threat of mutually assured destruction cannot be the basis for an ethics of fraternity and peaceful coexistence among peoples and states. The youth of today and tomorrow deserve far more. They deserve a peaceful world order based on the unity of the human family grounded rather than respect, cooperation, solidarity and compassion. Now is the time to counter the logic of fear with the ethic of responsibility, and so foster a climate of trust and sincere dialogue.

In a sense, Pope Francis was returning to the teaching of the Second Vatican Council, that deterrence only brings peace of a sort, and not authentic peace. Real peace is built on relationships and encounter the kind of peace the United States built with Germany and Japan in the aftermath of World War II. Thus, as the Church continues its evolution, so to speak, of moving from deterrence, which is only accepted as a temporary measure, to an actual disarmament, that we have to also be aware of the messenger who's delivering this particular topic.

Pope Francis is much more immediately involved; he seems to really engage with the population at large, both within the Catholic construct and just humanitarian, generally. I think you will continue to move in that direction saying that we need to eliminate the possibility of nuclear war completely, and that we have to achieve disarmament on the basis of the humanitarian good at stake for all people. In other words, trying to really respect human dignity and the full flowering of peace in every human person's life. Thank you, and I conclude with that for the present.

## **JAMES ACTON**

Thank you very much. Both Bishop and Gaukhar have expressed concern about nuclear deterrence, and that's always been at the very center of the weapons state [?] justification for their position of nuclear weapons, is that the threat of potentially catastrophic damage can be morally justified in spite of those consequences because it has the potential to avert large-scale war.

Assuming, Admiral Gower, that you would sign up to that statement, and I'd be pretty surprised at this point in the panel if you weren't willing to sign up to that statement, but could you talk about, from your perspective as somebody who has been both operationally involved with

nuclear weapons but, much more importantly, involved with them from a policy perspective, how you look at this moral calculus of deterrence?

## **JOHN GOWER**

Thank you, and thank you for the invitation. It's been a most fascinating conference. I was concerned some time yesterday I'd stumbled into an audition for the part of General Buck Turgidson for a remake of Dr Strangelove, however. I must make the standard disclaimer that I have stopped working for the Military Defense, I don't represent Her Majesty's Government, nor any think tank, and I will never represent any arm of defense industry. I'm talking about my own opinions here, but they are, of course, colored by the last 15 years of work, specifically in the US.

James has, in a roundabout way, asked me to make the moral case for the use of nuclear weapons – a challenging task – so I'll ask you to bear with me. I've got four minutes, and that's like trying to do the New Testament in a haiku, so I will be as quickly as I can. This is a conditional issue; as we sit here today, there is no moral case to employ nuclear weapons, before. Before I cover when I believe they would be, I think it's important for a few moments of context.

Justin has validly, in my mind, argued the legal cases, although some of the language he used sounded a lot like nuclear war fighting, but is not language that the language has used for a long time; we do not use that. I'm very careful with my language. Like Justin, I use Employ, and I mean from that launch and detonate a nuclear weapon. By Use, I mean deter through credible possession and operation of nuclear weapons. I believe that the UK has used, and is using, its nuclear weapons every day for over 60 years in that deterrence, and I have to think and operate in the real world that we inhabit today. I've been in operation in this business, and I do admire and I'm slightly jealous of those who can make the constant emotional leap to the world they would rather inhabit, but this is a risk area where wishing is not really quite enough, and I'll cover that risk balance very shortly.

What I'm going to do in the mountaintops in the next two-and-a-half minutes is look at deterrence, the reasons for the need for a nuclear weapon employment, because it is upon that that I rest my case for the time when moral judgment states that it is permissible to use nuclear weapons. I won't cover the UK's position or what has been our position in the humanitarian conferences, but for those who seek as a solution to this a ban on nuclear weapons, you raise Gaukhar the bans on other weapons of mass destruction. They only work if there is sufficient reason for someone who owns those weapons not to use them.

Now, Assad used chemical weapons, and continues to use chemical weapons on his population because there wasn't sufficient deterrent - there wasn't sufficient cost, there isn't sufficient cost; he's still the President of Syria – for him not to do so. Despite there being a ban on the use of chemical weapons, they are being used.

It is precisely because of the more significant humanitarian consequences of the use of nuclear weapons that we have to be absolutely certain that the conditions exist outside of nuclear deterrence before we abandon it, because there is no doubt that nuclear deterrence has been successful for 70 years. There've been no angry detonations of nuclear weapons, and they have been part of the suppression of interstate war that has allowed a growing global economy and an increased focus on the human rights of the individual, rather than the individuals as servant to the state. Deterrence rests therefore on a surety of a response to an extreme circumstance – a phrase that Justin used earlier.

It's not about the targets used, it's about deterring the awful effect. You have to convince a potential aggressor, as the world failed to convince Assad, that he will lose that which matters most to him completely and invulnerably. Yes - and there was a discussion yesterday - you can destroy most targets with conventional munitions given sufficient time, just as you can tunnel through a rock with a stream.

Indeed, in March 1945 100,000 Japanese citizens were killed with a firebombing raid in Tokyo, more than were killed by the attack on Nagasaki, but Nuclear weapon, as Nagasaki is remembered far more often than the firebombing raid in Tokyo, gives us scale, immediacy and impact, and what deters from the use of such a mass of violence by the aggressor. It is quite clear that such a response would only be after extreme circumstances, and when investigating both the legal and the moral aspects about when you would consider advising the leadership of your country, whether they would employ nuclear weapons, you have to step through the looking glass. You have to look at what the world would look like when deterrence has failed.

Why would you then use nuclear weapons? There are two reasons. The main reason is, you would wish to restore that deterrence after that failure, because whatever the scale of that use, the scale could get bigger. In my view, it would be immoral not to consider the use of nuclear weapons, because at that stage the only response that is likely to recalibrate a potential aggressor's calculus is a significant and impactful and immediate loss; and there is no such thing in my view as a tactical nuclear weapon but, particularly, in the relatively small use of a nuclear weapon, restoration of deterrence would be the highest priority, the greatest good.

I'm going to make two final points before I finish. The first one is that in order to instill in the potential aggressor the absolute certainty that that response will occur, we, in the UK, I, as part of my policy work, have considered that a degree of ambiguity is absolutely essential in confusing the calculus to a certain degree where an aggressor does not believe that they can calculate exactly when that response would be. Unlike General Kidwai yesterday, I don't think ambiguity on capability and scale aids stability. Clarity and transparency builds confidence.

Finally, harking back to yesterday's panel, and perhaps Yukka's reference to the role of the non nuclear weapon states, and it is relevant to this issue of deterrence, which is upon which the mal-use after it has failed is based. We talked yesterday about the earlier discussions for the Middle East Weapons WMD Free Zone. The Middle East, in this regard, is essentially, in my view, a microcosm of the totality of Article 6 of the NPT. What do I mean by that?

Until a security situation exists, where the removal of WMD in the region will be seen by all relevant owners and states as positive to their national and regional security, then nothing will happen, and, frankly, the same applies globally. Article 6: as well as placing clear demands on the nuclear weapon states, places a often less remembered worldwide demand on wider disarmament in order to improve the security paradigm. For me, a concrete output of NPT 15 will be an agreed statement from, including the non nuclear weapon states, and what a world might look like across the security and stability horizon.

For, believe me - and this is my last sentence - I see neither of these weapons as world saviors, nor weapons of peace, phrases we heard yesterday. They are terrible weapons with overwhelming destructive power, but their deployment in anger has been deterred for 70 years. I believe we owe it not only to the ghosts of '45 and the survivors but, equally, to all those lives in the intervening generations have not been scarred or ended by major interstate wars and our children and grandchildren, we owe it to them to manage the interlocking risks of continued prepossession and precipitate removal. Thank you.

**JAMES ACTON**

Thank you. I don't have much hope of getting the panelists to agree before the session is done, but what I would like to try to do is understand why they disagree with one another. It seems to me the disagreement here is centered around two separate issues: firstly, on nuclear deterrence – how reliable is it, how necessary is it and are there alternatives? And, secondly, on the issue of, should deterrence fail, are there ways of actually employing nuclear weapons that could be legally and morally acceptable? Of course, those two sets are linked, in a sense, because if you think there's no credible way of employing nuclear weapons, then it seems hard to argue that deterrence might work.

Now, Admiral Gower based a lot of his remarks on the question of nuclear deterrence preventing war and, if I wrote this down correctly, he said there is no doubt that nuclear deterrence has been successful for 70 years. Let me turn to Gaukhar next. What role do you see nuclear deterrence as having played in the world security architecture since nuclear weapons have been invented? Would you agree that they've been instrumental in keeping the peace, that they've had some role, or that they've had very little role in preventing major large-scale warfare?

### **GAUKHAR MUKHATZHANOVA**

I suppose I'll start with the familiar: correlation doesn't equal causation. We don't have a definitive proof that it was indeed the threat of mutual issue of destruction that has kept the peace between the Super Powers. We don't have historic proof based on current research, and such, that the Soviet Union was indeed entertaining intentions and plans to invade, say, Western Europe, and was only constrained by the possession of nuclear weapons by the United States and vice versa.

That said, we don't have the definitive proof of otherwise, but there are a number of factors, a number of developments that took place since the end of World War II that somehow don't get credited with keeping the peace, even though they developed at the same time as nuclear weapons strategies. Think about economic integration and globalization and what role that has played in the relationship between the states and how states have come to view the desirability of conflict of potential costs.

I don't see nuclear deterrence as this instrument of peace that has prevented major war, and it clearly has failed to prevent all kinds of proxy conflicts. I think it's disingenuous to say we've prevented war since World War II, because there have been conflicts and there's been tremendous loss of life, and there are many instances where nuclear weapons possessors have suffered attacks, evidently showing that not everybody's deterred by nuclear weapons. As we move into this more complex world, more weapons possessors, more different threats, this is becoming less and less stable. This is becoming more riskier, and I think we're risking too much by placing all our faith in nuclear deterrence, and the cost of mistake in that is very, very high considering the devastating impact of any view of nuclear weapons.

### **JAMES ACTON**

Admiral Gower, let me ask you to respond to that point directly, that we don't have clear proof that nuclear deterrence have worked and there are other potential explanations to explain the absence of large-scale warfare.

### **JOHN GOWER**

I think that's absolutely correct – we don't have clear proof and, as I think I said, nuclear weapons were a significant contributor to that. I didn't say nuclear weapons deter all conflict – of course, that would be a ridiculous thing to say. What nuclear weapons have done, what

nuclear deterrence has done is to deter nuclear conflict, which there's been several occasions in the last 70 years a very real and present danger.

What I will say, though, is that as part of a multiplicity of factors which has led to a significantly long period of time without major interstate war, the percentage of the world's population that has been killed in conflict is significantly in the last 70 years than in the previous 150 years before that, and is going down as a proportion of world population.

Other factors are present, and Gaukhar quite rightly mentioned the increasing economic stability; I mentioned it myself. My belief – and it's my belief, I have no empirical proof – is that in the earlier days of this timeline that we're looking at, nuclear deterrence was the fundamental and dominant reason for this. Over time, it is almost certain that they continue to contribute, but less so, because the systems that have arisen as a result of peace are themselves now contributing. I think it will be a worthy study to look at in the future at what point the self-sustaining nature of global peace and harmony, which pastor to my right, seeks that the human peace has established itself sufficiently for you to then make judgements on this.

As I said in my last remark, I would not wish to be the person who took a gamble on that until I was much more certain about the broader security situation before I did that. I would not want an Assad with a nuclear weapon to make a decision that he can now get away with it, as Assad did with his chemical weapons.

#### **JAMES ACTON**

I wanted to bring Bishop Pates in here. I just saw Gaukhar raise two fingers to indicate an exceptionally brief intervention lasting no more than 30 seconds.

#### **GAUKHAR MUKHATZHANOVA**

To the question of gamble, we're not prepared to get rid of nuclear weapons because it's a gamble about the larger war and, at the same time, we're taking the gamble every day with the existence of nuclear weapons that there might be a use of nuclear weapons, and that use would be catastrophic. A weapons system that exists to prevent its own use, pardon me, strikes me as a little absurd.

#### **JAMES ACTON**

Bishop Pates, let me bring you in here, and let me ask you a question that's going to be pretty broad as well, to give you a chance to eject what you want to do. First, could you explain to me a bit more the Catholic Church's position on deterrence, and, specifically, is the position that you think deterrence is inherently unreliable, and hence, it's unjustifiable? Or is the position that, even if deterrence worked, the consequences of nuclear use are so appalling that deterrence cannot be justified regardless of whether it works, or not?

#### **RICHARD PATES**

Basically, regards deterrence as a traditional phase to disarmament, that what it seeks to achieve is an authentic peace that's based on reliability and trust. Now, you would say that you to verify the peace, you would have to have monitoring, all that sort of thing, so that there would be a level of trust that would eventuate because of objective criteria on that level.

I think, in response to the other question that's resuming, that disarmament wouldn't work in terms of the peace of the last 70 years. I think we say that the nuclear has been responsible for it, but are we denying that disarmament might not work? Are we also saying that we have a

responsibility for the resources for human development and all the expense that has been involved, especially in the United States with 1.5% of its annual budget, is going to [unclear] toward a relationship with nuclear development or nuclear maintenance. Could that money be used to address real human need and a situation that would really engender prosperity and also enable people to achieve the dignity that would not be necessary for them to utilize weapons of mass destruction, that sort of thing?

Can we move from that to say, we have a responsibility, we have a moral calling to utilize the resources for the best sense of human development, that perhaps we might say that nuclear arms exists only because we don't want to ever use them, and that they really do not suffice realization of the investment of our resources to the best advantage of peace, to the best advantage of those people who are living in abject poverty, all those who would benefit from health education, development of insular structures and also, I think, education that would be extraordinarily important for them?

I think, on the other hand, we can't deny that disarmament might work even better to keep the peace, and, secondly, what is our responsibility for the utilization for the resources today for human betterment?

### **JAMES ACTON**

Thank you. I do want to employment strategy and start with Justin on that one, but let me ask you, Justin, to weigh in on the deterrence issue extremely briefly. There's two different disagreements you've heard on the panel: one is about what weight of evidence we require to assess that deterrence does or doesn't work – I think there's a genuine disagreement there; a second disagreement is about alternatives to nuclear deterrence in security. I think, actually, Bishop Pates has a very important point here. The United States and all of the other weapons states, I think it's fair to say, have never seriously tried to do disarmament.

How would you, Justin, assess the risks associated with disarmament, given that actually asking the question, what would it be like if we go down that route, is kind of the same as asking hypotheticals about deterrence?

### **JUSTIN ANDERSON**

I'm glad you asked me that question, James, because as you mentioned four years ago I was the Editor of the DoD Law of War manual; my current work is in support of the Air Force on arms control treaties and agreements.

I'll disagree with you slightly because the business of arms control for the United States is 24/7. In addition to the 11 treaties and agreements that directly impact the nuclear force, as Secretary James mentioned yesterday, there is a lot of work and a lot of effort, and it's sometimes missed at the policymaker level what goes into the actual implementation and compliance of arms control. I don't see it as necessarily a binary where to pursue arms control, to pursue talks on disarmament is somehow separate from deterrence; I think that they've gone together, in fact, in the way we've approached issues of arms control in the past.

I'll just also add that the perspective of deterrence being an interim phase by which one gets towards disarmament is one that I think the United States has shared across many administrations. The problem is that that interim period appears to be defined differently by various states. We're prepared to sit down and talk to additional arms control agreements and the verifiable dismantlement of nuclear weapons and nuclear weapons systems, but the political will unfortunately is not always there.

I would just say that I don't see it as a binary: deterrence/disarmament. We've pursued both together to say that we can maintain a robust deterrent, while also pursuing arms control, while also pursuing efforts to achieve disarmament, and they've been, I believe, compatible in the past.

### **JAMES ACTON**

Let's turn to the question about what happens should deterrence fail. Justin, you made various points about proportionality, unnecessary suffering, discrimination, and also the obligation of states to separate legitimate military targets from civilian targets. You gave the example of something that can be moved: mobile missiles. It strikes me there's also legitimate military targets that can't be moved. I never looked at US targeting plans, but I would rather that the Russian Ministry of Defense is considered a legitimate military target.

I don't really care about the Russian Military of Defense, but because I live about 15 minutes' drive from the Pentagon, so let me ask you this: if, in a nuclear war, an adversary to the United States targeted the Pentagon and killed a very large number of civilians, even though that wasn't their goal, would that be a legitimate military target in the US mind?

### **JUSTIN ANDERSON**

You're asking a hard question, James, just like all the questions you asked me to address for this panel. I think in a major nuclear conflict, I would just state that the military headquarters of any state engaged in that conflict would almost certainly be considered a legitimate military target. I say that some trepidation since my client is at the Pentagon and I don't live very far away from the Pentagon either.

### **JAMES ACTON**

Let me bring Bishop Pates in here, then, on the question of collateral damage, which is the fairly euphemistic term for killing civilians in the process of attacking legitimate military targets. My understanding, and correct me if I'm wrong here, but the Just War theory which, in a large part, we owe to the Catholic Church, has been that you don't have to cause zero civilian casualties. It's that civilian casualties have to be in proportion to the goals that you are seeking, and if we're in a scenario in which, say, the existence of a state is at stake, then potentially very large numbers of civilian casualties could be justified.

Within that interpretation, within that reading of Just War theory, one could argue that killing large numbers of civilians with nuclear weapons could be justified if the stakes were high enough. I presume you wouldn't subscribe to that position and, if so, why not?

### **RICHARD PATES**

I think you're accurate; we would not subscribe, certainly. I think that just the nature of nuclear weapons is such that it's so destructive that it can countenance the utilization of it, and that in any case it would be disproportionate and indiscriminate use of weapons, and therefore not fall within the context of Just War, so could not countenance nor the portrait [?] for those reasons.

### **JAMES ACTON**

Gaukhar, you had two fingers there, so do you want to come in on this exact issue as well?

### **GAUKHAR MUKHATZHANOVA**

Yes; but also an observation about telling it is just how quickly this conversation moved into a deep blunk [?] area away from the actual effects. We say, collateral damage, we don't say, burned to death 1 million people, or made 20 million more suffer. It's just a good illustration of how the debate evolved in the NPT realm as well and the conference on disarmament. We quickly forgot what exactly those weapons do; it's easier to talk about strategies and employment, and how employment doesn't equal use, and completely divorce the idea of a nuclear weapon system form in actual use on a global system, and even in the language that we use.

On the idea of the Just War and the justification that sometimes it's okay to use nuclear weapons because the cause is right, I want to highlight, even though the initiative hasn't been primarily by law, but international humanitarian law doesn't actually deal with the cause of war. It deals with the conduct of conflict, and there nuclear weapons would be found to be too inhumane to be used, regardless of the cause.

They are going to cause superfluous suffering, and it doesn't matter whether it's to civilians or to combatants; just the effect of these weapons is too horrible for them to be used for any cause whatsoever. I think that is the perspective that the humanitarian law would take on the use of nuclear weapons.

#### **JAMES ACTON**

I saw two fingers there from Admiral Gower.

#### **JOHN GOWER**

Just to be accurate, that, Gaukhar, is an opinion. The only time that the international legal judgment has been made, the World Court did not outlaw in 1995 the employment of nuclear weapons in extreme circumstances, which we've already alluded to. At the moment as we sit today, there is no legal position internationally that says what you've just said; it is an opinion held by many.

#### **GAUKHAR MUKHATZHANOVA**

Can I respond on the ICJ, just quickly a clarification? The ICJ ruled on several things, and it was inconclusive. It could not agree, one way or another, whether the use of nuclear weapons is going to be illegal in extreme circumstances of self defense. That said, the Court also agreed that they could not picture a scenario where the use of nuclear weapons will be compatible with international humanitarian law.

#### **JAMES ACTON**

I suspect that this issue is going to rage through our question time, which I'm going to start in about one minute, so have a think about what questions you want to ask. What I want to do now is a lighting round in which I'm going to give each panelist about 15, 20 seconds to respond without much explanation to an issue. Justin raised the issue that if you had lower yield nuclear weapons, more accurate nuclear weapons, they could be used more discriminatingly, which is a position that disarmers have traditionally shied away from. Very briefly, 15, 20 seconds each, starting from Bishop Pates, coming to Justin: are lower yield more accurate nuclear weapons more morally acceptable than higher yield less accurate weapons?

#### **RICHARD PATES**

Simply, again to repeat the nature of the indiscriminate issues and the disproportion also applied to low yield use of nuclear weapons, so I would say, from a moral context, no, they're not allowable.

**JAMES ACTON**

That was a fantastically concise answer. Admiral Gower?

**JOHN GOWER**

As the UK has publicly said it, it has a variety of yields. It would use, it would employ both. The issue, however, is specifically one of deterrence. There is absolutely no point that I would agree – it would be doubly dangerous if all you had below you are two [00:49:19] nuclear weapons, and that which you sought to destroy as part of your deterrence, needed something bigger to do it because it would not have been a credible deterrent. The issue about the morality of it sits on the nature of whether you believe deterrence is what you need to do, and if you do, you need to have what you need to do to deter.

**JAMES ACTON**

Gaukhar?

**GAUKHAR MUKHATZHANOVA**

I don't know much about the actual yields and such, but it doesn't seem like it's going to make it more moral, but it would make it more pointless to use lower yield nuclear weapons.

**JAMES ACTON**

Justin?

**JUSTIN ANDERSON**

The Law of War asks you to consider the effects and, in that respect, lower yield nuclear weapon would be considered perhaps more possible under the law; not necessarily the right course of action, but more likely the one that your judge advocate is all right under the Law of War than a large yield nuclear weapon – but context with everything.

**JAMES ACTON**

Let's take the first couple of questions then from the audience. Ramesh?

**RAMESH THAKUR**

Ramesh Thakur, Australian National University. Justin, the predicate of the Humanitarian Consequences Movement is the argument that no country individually, nor the international system collectively, has the capacity to respond to the humanitarian consequences. As a matter of empirical assessment, is that true of the United States?

Admiral Gower, how do you solve the following paradox: the more compelling your argument is, the more it is an argument for proliferation; why should you not, in your terms, not just tolerate, but have a moral duty to facilitate Japan and South Korea and Tehran, perhaps even Iran, from getting nuclear weapons?

**JAMES ACTON**

That was two questions, and I'm going to take a third one in this batch, so Ward on that side. Let's keep the questions brief, please?

**WARD WILSON**

Ward Wilson, BASIC. I'm confused by the debate on deterrence. As a historian, I'm aware that human beings are fallible; I think there's a certain amount of evidence throughout history. If human beings are involved in deterrence, and if human beings are fallible, then deterrence is fallible, which means that it will fail catastrophically. It's not a question of If, but When, and I wonder if maybe we could have a brief description of why there's so much confidence that deterrence will work on into perpetuity?

**JAMES ACTON**

Justin, let me turn to you first to ask: does the US have the capabilities to respond to a nuclear attack on US soil, and to deal with Ward's question about human fallibility and its implications for deterrence; and then Admiral Gower.

**JUSTIN ANDERSON**

I'm not exactly the right person to answer that question, James, and I would have to say it depends. It's something we have thought about, and we're well aware that it'd be very difficult to respond to. The Armed Services working together with local authorities would do their best, but it would be very difficult. Just spinning a response to the questioner that you discuss an empirical assessment, and I'm trying to convey is that the Law of War does consider assessments like that, amongst others, in making a statement about whether or not a particular course of action can be considered as legal under the Law of War.

**JAMES ACTON**

Let me turn to Admiral Gower, and then I'll give Bishop Pates and Gaukhar a chance to jump in on anything they want to on these questions. Admiral Gower, could you respond to the question about, if nuclear weapons are so useful deterrence, how can you not legitimate proliferation, and the question about human fallibility?

**JOHN GOWER**

I think I said in my statement I live in the real world; I came into this world with nuclear weapons; they existed when I came into this world when my country had nuclear weapons. The UK has, in parallel to sustaining nuclear deterrence, been a very strong reducer and disarmer of its own weapons – 95% of our explosive [unclear 00:53:40] is now gone, reduced to a single system, de-alerted, de-targeted, several days notice to fire. We work very hard in the NPT.

The UK does not believe, and I don't believe, that any further proliferation is positive to deterrence, but we have what we have, and, therefore, the nuclear weapons exist there. The UK will not relinquish its nuclear weapons until the conditions exist in the world, and we believe the NPT is the place through that to make those conditions exist in the world where it is safe for us to join in multilateral disarmament with other nuclear weapon states.

**JAMES ACTON**

Do you want to briefly address the question of human fallibility, because I actually think this is a critical question that I think we all deserve an answer to?

**RICHARD PATES**

I think it's a very good question. Human fallibility exists whether nuclear weapons are here or not; human fallibility drove the First and Second World Wars, massive loss of life. It would be ridiculous for me to say that there will be no human failures at any stage in nuclear weapons, but our experience to day, and what we have done in most recent years with our systems is that we are a safer place now with that - it's a use of the word that I know others will disagree with, than we were 50- years ago. I don't think that is the reason to precipitate into a global security situation which would be very different from where it is now without nuclear weapons, based on the fact that the only people who would do that would be countries represented on this platform, and not those who are not.

**JAMES ACTON**

Both Gaukhar and Bishop Pates caught my eye. Gaukhar got there first, so I'm going to go to her first, and then over to Bishop Pates. Gaukhar?

**GAUKHAR MUKHATZHANOVA**

Thank you. On the question of US repose, actually I wanted to highlight. There was a presentation at the Vienna conference from the National Academies of Science from the United States on the study about response to a ten kiloton device explosion in Downtown DC. If you are interested you can look at that, and the conclusions are not very hopeful. It's a tremendous loss of life, a tremendous number of injuries, and the Washington DC area is just not prepared to deal with that number of burn victims with the evacuation needs, and it doesn't seem like the DC would be able to prepare in any immediate future.

**RICHARD PATES**

The question of fallibility – from the life experience of four very prominent Americans, namely, Secretary Schultz, Secretary Perry, Secretary Kissinger and also Senator Nunn, that they are dedicating the remainder of their lives to the priority of the elimination of nuclear arms and disarmament from nuclear arms. Secretary Perry, in a conversation that he had with us, indicated that there were probably four or five close calls when he served as Secretary of Defense during that time when nuclear arms were a real possibility.

I think that the fallibility issue is a serious one, and one that we should really listen to in terms of those who have had this life experience and really are working towards their elimination.

**JAMES ACTON**

Before we move on to the next questions, it's time for some polling, because it's one of my panels, so if we could stick the polling question up on the screen, please, which will just be up in a second? The question is, appropriately: could the use of nuclear weapons ever be justifiable? There are instructions on the screen to navigate your way there; I'm not going to read through them, but if you wouldn't mind just leaving them up for about two or three minutes? I want to ensure there's some balance in the questions, and I can see the next two questions on that side, I'm guessing, are going to be pretty different from one another. Firstly, Daryl.

**DARYL KIMBALL**

Very good discussion. Daryl Kimball, Arms Control Association. I hope this discussion of the possible use of nuclear weapons and the Laws of War and IHC is continued in the context NPT Review Conference, but that's another issue. Justin, I have a question about your analysis, about the compatibility of the US, and if there are some employment plans in the laws of war.

It seems as though the predicate for your analysis is that in particular situations the United States might be justified in using nuclear weapons on particular targets, but it seems as though that does not recognize the real world that we live in, which is that, once the United States or Russia begins to follow through on highly choreographed nuclear war plans and there is escalation, other targets are going to come under threat; cites. Once Russia is attacked with highly targeted, highly precise nuclear warheads on the Russian Ministry of Defense and they launch their first strike, the second strike is not going to be so discriminate.

I was wondering if the speakers could address that issue, which is the real world fact that a nuclear war really cannot be contained very well or planned very well?

### **JAMES ACTON**

I'm genuinely grateful to you, Daryl, for bringing up the escalation issue, because I didn't have a chance to get there. Christine, and then next round of questions I'm going to come to the middle.

### **CHRISTINE LEAH**

Hi, Christine Leah, Yale University. I agree with Mr. Gower about the importance of conventional arms control in deterrence and disarmament circle [?]. I am genuinely interested in what you all think about the prospects for deterrence by conventional ballistic and cruise missiles, and just to say that in history we've had land power, sea power and air power, but we haven't had a missile power age. The warhead, long-range missiles and nuclear warheads emerged at roughly the same time in history, so the ballistic missile power question – what are the prospects for deterrence by missiles, and all the other stuff as well?

### **JAMES ACTON**

If anyone's interested in developments in conventional ballistic missiles, you might like to read Silver Bullet? Asking the Right Questions about Conventional Prompt Global Strike by James Acton! Let's deal with two great questions, and I'm just going to go straight down the line. Let's start with Bishop Pates and come in this direction. Firstly, risks of escalation and the implications that they have for the morality of nuclear weapons. And, secondly, can we start to get rid of nuclear weapons by focusing more on conventional high precision munitions?

### **RICHARD PATES**

First of all, again, to refer to the disproportion and the argument of indiscriminate in terms of the escalation of war, that that's really the problematic involved in the first use is immoral, because it would probably escalate to that and have horrific damage and become totally disproportionate and indiscriminate, so we'd say no to the utilization even at the regional level.

Secondly, I think that the use of conventional weapons, we don't really see... we're really trying to achieve peace – is that conventional weapons, can we really begin to move forward in a way that has a verifiable disarmament of all countries – I think that's really the goal, that we have an ideal. I think what Pope Francis is really trying to emphasize is now to make that a reality, and to say that it is within the construct of the human desires and humanity to move forward in that direction. I wouldn't want to say one over the other, that our goal is really, in terms of human

peace, to achieve a verifiable peace that is monitored, but also so that it's not one or the other, but moving in a direction of total peace, if possible.

**JAMES ACTON**

Thank you. Admiral Gower?

**JOHN GOWER**

Escalation control – one the reasons the UK does not talk about nuclear war fighting is that there really is no such beast in the same sense as you would talk about conventional war fighting in terms of that control, which is why it is ultimately important that you get the deterrent right, because it is that first use and then what follows.

On deterrence by conventional ballistic and cruise missiles – they don't deter nuclear weapon use, so you would have to move on one significant jump from one to the other. On the jump from one to the other I would suggest I agree with the good Bishop that you're merely replacing one problem with another problem.

In an intervening period, if you chose to adjust your policy so that you had a mixture of conventional nuclear weapons, that is possibly about the worst case with ballistic missiles, because you fire your conventional ballistic missile, but there's no telling what's on the top of it, so you have potentially just precipitated a nuclear response because of that. I think, for that reason, conventional ballistic missiles are not a safe part of this discussion.

**JAMES ACTON**

Gaukhar?

**GAUKHAR MUKHATZHANOVA**

On the question of escalation, I think it goes back to the previous question on human fallibility and the potential for miscalculation. You might think that you'd limit yourself to one use, one whatever it is, but you can't predict. You can't always be sure about how the response is going to work and how quickly that would escalate. When the Ukraine crisis started I think some of that got highlighted, that we have a conflict ongoing and we have sides that do have nuclear weapons. On the one hand, people were arguing, this is how disarmament is perhaps not desirable because Ukraine got [unclear] nuclear weapons. But the other side said, this is a very, very volatile situation where escalation could actually lead out to nuclear weapons use.

On the conventional deterrence or conventional ballistic missiles, as I'm sure you've written in your book, Russia is awfully worried about the US developments in this regard. It seems like Russia is worried because it might constrain its actions, more so than the nuclear deterrent because conventional at the end of the day is more usable, and, therefore, more credible as a threat, and I think there is reason for Russia to worry about that. Thanks.

**JAMES ACTON**

Justin, address, when you're doing those, about whether there's a difference in UK and US perceptions about escalation and the control ability thereof.

**JUSTIN ANDERSON**

I don't know, perhaps the Admiral and I can discuss that over a drink at the reception this evening! To get to Daryl's question - Daryl, in my presentation, to summarize, and I think together with your question is, if you can imagine that the decision space is three-dimensional. When you talk about the Law of War and application to use in force, and I think especially nuclear force, and take that, there's a very narrow range of contingencies first in where the Law of War, so you could even consider it.

Then, on top of that, you would have the extreme circumstances, and then this is correct language in the 2010 NPR, so you've already framed this space quite tightly, a very small space. Even within that space of potential employment where you were considering it, whether conventional or nuclear, it would still matter. The Law of War would still give you guidance on what type of force - the Where, the When and the How - would be used. You're talking about a very discreet, very small space, and within that space within those calculations, I don't know that the Law of War is quite the right place to talk about escalation, because now you're beginning to project what the other side is going to do in response. I would say that, absolutely, I would expect in that deliberation one would take into account escalation in regard to whatever your action was.

Again, I want to emphasize, there's a discreet framing of the space where that decision could even take place, and even then, the Where, When, How are all important questions under the Law of War.

I think, to the question of conventional deterrence - it's been touched by this panel - I'd say two things: one is that we have ample historical record of the failure of conventional deterrence. It happens all the time, and you can't just consider the effects of a nuclear strike; you have to consider the effects of nuclear coercion and threats to use against you if you have no means by which to deter that. Nuclear coercion and threats are real, they exist right now; you only have to look at the headlines to see this.

In terms of conventional escalation, the last thing I'll say is that we already know that other countries are concerned about this, so to try to talk about a trade space between nuclear and conventional gets very difficult; it makes other countries feel their strategic stability is at risk.

## **JAMES ACTON**

I'm going to go to two last questions. I apologize, we're not going to have a chance to do everything. Before we do those, let's show the results of the poll. As you can see, it was 43% Yes and 57% No. Those of you who didn't vote, if it was because you don't have an iPhone, you know what to do about it! Let's have two very brief questions from Heather and from David. Please keep your questions to 20 seconds each, and then a lightning round on the panel. Heather?

## **HEATHER WILLIAMS**

My question's for Bishop Pates. I'm Heather Williams from King's College London. My question is: if you were providing counsel and support to a US missileer or bomber pilot or submarine commander who had been tasked with the deployment or launching of US nuclear weapons authorised by their commanding officer and by the US President in one of these extreme scenarios that Justin and John have described, what guidance or advice would you give to that individual, to whoever?

## **JAMES ACTON**

Fantastic question. David?

**DAVID CULP**

David Culp with the Quakers. Let's assume for a minute that the conditions of 1945 were present today, or the nuclear bombing of Hiroshima and Nagasaki be legal or moral, and it's really a yes or no answer.

**JAMES ACTON**

Let's start from this end of the panel; we've got two-and-a-half minutes, so we have time for slightly more than yes and no, but not much more than yes and no, and then it's one question. Everyone can deal with that most recent question, and then Bishop Pates also has a question about how he would counsel a nuclear weaponer tasked with the use of nuclear weapons.

**JUSTIN ANDERSON**

Yes; because one considers not just the cost of that strike, but the totality – and I'm speaking not just to '45 here, but you say if the situation applies again – of all the civilian and military casualties on the side of the belligerent – in this case, the Japanese side – and all the military casualties on the side of the US, I think that's what President Truman and his advisors took into account, they made that decision, a very, very hard decision, I would say, David, yes, with regret, yes.

**JAMES ACTON**

Gaukhar?

**GAUKHAR MUKHATZHANOVA**

No; because the suffering remains superfluous and inhumane whether it was in 1945 or it is today. I think it's going to be even more acceptable today, if it's all possible, because of the greater impact it will have going beyond Japan because of the changed circumstances, because of the interdependence, because of the effect it will have on global economy, on food markets, going well beyond the immediate impact; so an absolute no.

**JAMES ACTON**

Admiral Gower?

**JOHN GOWER**

I think deterrence, as I made clear, is enhanced by a degree of ambiguity, and I also personally believe that applying 21<sup>st</sup> century morals to problems in preceding centuries do not help, so I'm not going to answer the question.

**JAMES ACTION**

Two questions for you, Bishop Pates?

**RICHARD PATES**

In one word, no, so I can respond in that way. Secondly, with regard to the obligation of the military personnel to respond to orders, that's inherent in their identity. I would suggest that, first of all, we would do some counselling beforehand so that the individuals who would be doing the target shooting or whatever, are following the orders, would have a full understanding

of what they were actually involved in, so that they could have the opportunity of conscientious objection before they even got there. I think that would be extraordinarily important, and I think they are entitled to that by virtue of the Government to point out what's at stake. I think even before they get into the cockpit, or whatever, to shoot the bomber, submarine, whatever, that they understand and recognize what it's about and so that they have made their decision even before they got to that point.

## **JAMES ACTON**

Thank you. Having stressed to all of the other moderators that they have to finish on time, it would be not really acceptable if I was to do anything different. I apologize to those whose questions we didn't get round to. This is an issue that I know we at the Carnegie Endowment are deeply interested in; it's an issue we intend to remain engaged in; this will not be the last session on this subject that we run.

I don't know whether anyone's mind has been changed today. I, personally, however, understand in a lot more detail about why people in this debate disagree, and if you feel a similar way, then I think that this panel has done its job.

All I would like to do to end is just to thank all four panelists for what was an absolute honor for me to moderate, and I think a truly fascinating discussion. Thank you all very much.