

# Opinion Disarmament



Official White House Photo: Pete Souza  
US President Barack Obama is greeted by a large crowd after speaking about nuclear disarmament on April 5, 2009, in Prague, Czech Republic.



Ronald Reagan Presidential Library Photo  
US President Ronald Reagan and Soviet leader Mikhail Gorbachev during the Reykjavik Summit in Iceland on Oct. 12, 1986.

been persuaded by the physicist Edward Teller that missile defence would ensure the safety of the US. Teller was wrong. A superb defence might be 50 per cent effective, but that would leave the defended nation intolerably vulnerable. Missile defence fosters illusions of invulnerability on one side, and of impotence on the other; it is made to be a deal-breaker in disarmament.

I was involved in the debate on missile defence in several venues, including on the public stage in Ottawa with Edward Teller. In part I owed my involvement to the fact that the first layer of defence in Reagan's Star Wars was, I learned, to be a chemical laser that had originated in my basement lab at the University of Toronto. But in greater part I was involved because of my education at the hands of an international group of scientists with whom I had debated this topic since the 1960s, from their headquarters in Pugwash, Nova Scotia.

In 1985 Prime Minister Brian Mulroney bravely declined President Reagan's invitation to participate in the Star Wars defensive shield. Teller's advice had been shown to be mistaken, by wider debate in the scientific community. The government of Canada needs to be reminded of the need for such debate. Science is not primarily about facts, but about weighing facts.

How does the debate in regard to nuclear weapons stand today? The need for far-reaching change is opposed by those with an interest in the status quo, and by other promoters of complacency. Meanwhile, the nuclear clock ticks.

The argument for the status quo was made, on March 25, by Congressman Mike Rogers at a hearing on nuclear weapons before the House Strategic Forces Subcommittee: "with the advent of nuclear weapons," the Congressman declared, "the percentage of global fatalities from war dropped to about less than one-tenth of one per cent." This was "hard objective, quantifiable data."

Those who think as he does are right that the horror of nuclear war has stayed many hands. However, the over-riding concern must be with the hand that, through misunderstanding or miscalculation, fails to be stayed.

President Obama brought a more sober message to a crowd gathered in Prague, in 2009. His audience knew the horrors of war. To them he pledged: "as the only nuclear power to have used a nuclear weapon, the United States has a moral responsibility to act...So today, I state clearly and with conviction America's commitment to seek the peace and security of a world without nuclear weapons."

He added a subsequent public exhortation: "You must create the change that you want to see." You should ask yourselves whether you believe change can be achieved. Could the sweeping disarmament that Reagan and Gorbachev sought in 1986 at last be made a reality?

If your answer is 'yes,' let it be known. You will perhaps be accused of attempting to change human nature. But all you are attempting to do is to change human behaviour.

In my father's generation people fought duels (absurdly, he was one who did so). When I was a child in England the newspapers would carry announcements of next week's floggings and hangings, to take place in the local jail. That does not begin to list the far-reaching changes in behaviour in one lifetime.

The issue today is whether we can rethink our practice of keeping the peace by threatening Armageddon. This is a degrading practice, and a perilous one. Our leaders seek to change it. We must see that they do.

*John Polanyi was founding chairman of the Canadian Pugwash Group, and has written extensively on the control of armaments. He is a faculty member and Nobel laureate in the Department of Chemistry at the University of Toronto.*

editor@embassynews.ca

## Living with the bomb

Rethinking our practice of keeping the peace by threatening Armageddon.

The following is the text of a speech Nobel laureate John Polanyi delivered on May 18 at the University of Toronto's TEDx Student Conference.

JOHN  
POLANYI



The message I bring is simple, and so is the question I ask. The message is that we cannot live indefinitely with nuclear weapons. The question is, do you agree?

The message is not new. It dates from 70 years ago when, on Aug. 6, 1945 and then again on Aug. 9, the only two nuclear bombs ever to have been used in war were dropped, one on Hiroshima and one on Nagasaki. These would qualify today as 'smaller' nuclear weapons. They killed 190,000 people indiscriminately. The Japanese Military Command, finding that Hiroshima had fallen silent, sent an officer by air from Tokyo to investigate. After a several-hour flight he saw a cloud of smoke on the horizon where Hiroshima had been.

The same day then-United States president Harry Truman addressed his nation and the world.

"It is an awful responsibility which has come upon us," he said. "We thank God it has come to us and not to our enemies; and we pray that He may guide us to use it in His ways and for His purposes."

Seventy years later we ask ourselves how we should regard 'our enemies?' And how frame our purposes?

As for 'our enemies,' the forces of darkness are now streaked with light. Elements of democracy have emerged in large parts of the world. Modern means of communication have brought this to pass. The greatest threats facing us today are of our own making: in the longer term they are threats to our environment, but in the shorter term threats to our existence from a nuclear arsenal of some 20,000 weapons. Meeting these threats should be 'our purpose for the future.'

### At the edge of the nuclear precipice

We are assured that the arsenal of nuclear weapons is not intended for use, but for deterrence. However, deterrence is only effective to the extent that there is a belief that the weapons are for use, as indeed they are. Therein lies the danger.

Can we live beneath this sword of Damocles? To do so we must seek stability, while concurrently striving to dismantle the threat. The latter we must do by delegitimizing the possession of such weapons. However, we are failing at present to do either of these things.

Instead we balance ourselves at the edge of the nuclear precipice. The US and Russia maintain thousands of nuclear weapons ready for firing in minutes, leaving negligible time for reflection. We have far to go in the search for stability.

What about the second necessity: 'delegitimizing' the weapons? It should not be hard. They are intrinsically illegitimate since their use, according to the International Criminal Court in The Hague, would constitute 'a crime against humanity.' Increasingly we comprehend this: "Any time bombs are used to target innocent civilians," President Obama reflected recently, "it is an act of terror...heinous and cowardly."

Nonetheless, the loftiest international status is accorded to nations possessing nuclear weapons. The five official nuclear powers—the US, Russia, China, the United Kingdom, and France—are accorded permanent seats on the Security Council of the United Nations, making it inevitable that others will seek nuclear weapons. This influenced the more recent inductees into the nuclear weapons club: India, Pakistan, Israel, and North Korea.

Today Iran is preparing to increase the number of nuclear weapons states to 10. In response, Israel and the United States have threatened to use force to teach them restraint. But bombs are poor teachers, especially when wielded by nuclear powers seeking to prevent others from becoming such.

Moreover, sanctioning pre-emptive strikes risks a return to the law of the jungle. The international community had the wisdom to desist when Stalin and Mao, both of whom harboured ambitions of world domination, obtained the bomb. As a result, the healing effects of history had a chance to assert themselves. The same should apply to the case of Iran.

### Delegitimizing nuclear weapons

Central to delegitimizing nuclear weaponry is disarmament. But the United States is planning new nuclear-armed submarines and bombers costing hundreds of billions of dollars. Russia, Britain, and the rest will surely follow.

Yet nuclear disarmament is not a dream. It motivated President Ronald Reagan in October 1986 when he met in Reykjavik with the Soviet leader, Mikhail Gorbachev. They agreed to ban all nuclear weapons over a 10-year period, with the single proviso that the US not commit to a protective missile shield. That proviso was the deal-breaker.

I use it to stress the responsibility of scientists. At the time, President Reagan had