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REASONS FOR ILLEGALIZATION OF NUCLEAR WEAPONS*

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Mayor of Hiroshima**

The atomic bombs dropped on Hiroshima and Nagasaki shattered all war precedent. The mid-numbing damage these nuclear weapons wrought shook the foundations of human existence. The development of the atomic bomb was the product of cooperation among politicians, military and scientists. The nuclear age began the moment the bombs were dropped on human beings. Their enormous destructive power reduced utterly innocent civilian populations to ashes. Women, the elderly, and newborns were bathed in deadly radiation and slaughtered. The dropping of the nuclear weapons is a problem that must be addressed globally. History is written by the victors. Thus, the heinous massacre that was Hiroshima has been handed down to us as a perfectly justified act of war. As a result, for fifty years we have never directly confronted the full implications of this horrifying act for the future of the human race. Hence, we are still forced to live under the enormous threat of nuclear weapons. Inscribed on the Cenotaph for the A-bomb Victims, located in Hiroshima's Peace Memorial Park, are the following words: "Let All the Souls Here Rest in Peace: For We Shall Not Repeat the Evil." Evil indicates the act of human beings waging war and developing and using atomic weapons to achieve victory.

This is not a debate regarding the responsibility for the dropping of the atomic bombs. Japan also committed shameful acts during World War II. Rather I would like to convey to the people of the world what kind of damage befell Hiroshima and appeal for the abolition of nuclear weapons so that this tragedy is never repeated. Beneath the atomic bomb's monstrous mushroom cloud, human skin was burned raw. Crying for water, human beings died in desperate agony. With thoughts of the victims as the starting point, it is incumbent upon us to think about the nuclear age and the relationship between human beings and nuclear weapons.

Instantaneous, Indiscriminate Slaughter by the Atomic Bombing

At 8:15 a.m. on August 6, 1945, the atomic bomb dropped on Hiroshima exploded 580 meters above the heart of the city. The bomb used a single kilogram of uranium 235 to produce energy equivalent to 15 kilotons of TNT. A B29, the world's largest bomber in 1945, carried a maximum payload of five tons of TNT in conventional weapons. Thus, the atomic bomb was equivalent of subjecting Hiroshima to an instantaneous attack by more than 3,000 B29's. An intense flash of light flooded the city center. With the roar that followed, enormous pillars of flame burst toward the skies. A majority of buildings crumbled and many people died or were injured. The unique characteristic of the atomic bomb was that the enormous destruction was instantaneous and universal. Old, young, male, female, soldier, civilian--the killing was utterly indiscriminate. The entire city was exposed to the compound and devastating effects of thermal rays, shock wave and blast, and radiation.

With regard to the thermal rays, at the epicenter, the Hiroshima bomb generated heat that reached several million degrees centigrade. The fireball was about 280 meters in diameter. The thermal rays emanating from it are thought to have instantly charred any human being outdoors near the hypocenter. In some documented cases, clothing burst into flames at a distance of two kilometers from the hypocenter. Many fires ignited simultaneously throughout the city. The entire city was reduced to char and ashes.

The shock wave and blast also caused great damage. At the epicenter, the fireball generated a state of super-pressure reaching several hundred thousand atmospheres and an enormously powerful shock wave. This shock wave struck directly, but inflicted even great damage when it ricocheted off the ground and buildings. Following the initial shock wave was an extremely powerful blast wind estimated at 440 meters per second (nearly 1,000 mph) at the hypocenter. People were lifted and carried through the air by this blast. All wooden buildings within a radius of about two kilometers collapsed--many well beyond that distance were damaged badly. The blast and thermal rays combined to totally burn or collapse approximately 70 percent of the 76,327 dwellings in Hiroshima at the time. The rest were partially destroyed, half-burnt or damaged. To say that the entire city was instantly devastated is no exaggeration.

There was also radiation damage. Immediately after the explosion the area was bathed in high levels of initial radiation, that is, gamma and neutron rays. Within a radius of about one kilometer of the hypocenter, nearly everyone who suffered full body exposure died. Those who managed to survive initially soon succumbed to the late effects of radiation (also called aftereffects). Even today, thousands of people struggle daily with the course of illness caused by that radiation. Many not directly exposed to the bomb died due to residual radiation.

On that day, there were approximately 35,000 people in Hiroshima. The city government presently estimates that some 14,000 had died by the end of 1945. However, in many cases entire families were wiped out. The local community was in disarray. Records were lost to fire. Nor was any thorough survey done at the time. Thus, even today we have no truly accurate casualty figure. Among the dead were many Koreans, Chinese, students from throughout Asia, and even a few American prisoners of war.

Human Misery Wrought by the Atomic Bomb

Above all, we must focus on the fact that the human misery caused by the atomic bomb is different from that caused by conventional weapons. As stated earlier, human bodies were burned by the thermal rays and high-temperature fires, broken and lacerated by the blast, and insidiously attacked by radiation. These forms of damage compounded and amplified each other, and the name given to the combination was "A-bomb disease." A-bomb disease has been broadly categorized into "acute affects" and "late effects." The chief characteristic of radiation damage is that it has continued to this day. Even fifty years later, the effects of radiation on human bodies is not thoroughly understood. Medically, we do know that radiation destroys cells in the human body, which can lead to many forms of pathology.

The exposure in Hiroshima to high levels of radiation was the first in human history. There was no previous data about the effect on human bodies. Thus, medical treatment immediately after the bombing was a matter of groping in the dark. Hospitals were in ruins, medical staff were dead or injured, and there were no medicines or equipment, so an incredible number of victims died unable to receive sufficient treatment. Despite minor burns and injuries, survivors worked fanatically to help others but in a few days or a few weeks, developing fever, diarrhea, hemorrhaging, and extreme fatigue, many died abruptly. This was the pattern of the acute symptoms of A-bomb disease.

Acute effects referred to those that manifested as disease within four months. In addition to burns and external injuries, initial radiation cause certain characteristic symptoms. Those exposed near the hypocenter suffered widespread destruction of cells, loss of blood-producing tissue, and organ damage. Their immune systems were weakened and such symptoms as hair loss were conspicuous. Their acute effects subsided after about four months, but five to six year after the bombing, a dramatic increase was recorded in leukemia and other late effects. Characteristic late effects were keloids (excessive growth of scar tissue over healed burns), cataracts, leukemia, thyroid cancer, breast cancer, lung cancer, and other cancers. Those exposed in their mothers' womb often were born with microcephalia, a syndrome involving mental retardation and incomplete growth.

A few examples of late effects merit attention: Sadako Sasaki was exposed to the bomb at the age of two. She appeared to grow up strong and healthy, but ten year later in 1955, she was suddenly diagnosed with leukemia and hospitalized. In Japan, cranes are a symbol of longevity. Sadako believed she would be healed if she folded 1,000 paper cranes, so every day, lying in bed and using the paper her medicine came in, she continued to fold the cranes. Despite her wishes, after eight months of fighting her illness, she passed away. This speaks of the intense fear generated by radiation's power to reach across years or decades to continue its killing. The story of Sadako's death and the paper cranes touched the hearts of children. They collected money from all over the world and build a monument in Hiroshima's Peace Memorial Park. The statue, set high on a pedestal, depicts a young girl holding a giant paper crane over her head. People from Japan and throughout the world continually send their offerings of paper cranes to be placed at the foot of that monument. Through the death of a young girl from the late effects of radiation, paper cranes have become a nearly universal symbol of world peace and the abolition of nuclear weapons.

Microcephalia has become a syndrome symbolic of the mental and physical retardation suffered by children exposed to radiation from the atomic bomb as fetuses. For these children, no hope remains of becoming normal individuals. Nothing can be done for them medically. The atomic bomb stamped its indelible mark on the lives of these utterly innocent unborn babies. The parents of these children are now elderly or have already passed away. One of these parents recently commented, "Usually, by the time children are fifty years old they are taking their aged parents to hot spring resorts. My child is almost fifty, but however old I get, I will always have to lead my child by the hand." Her words vividly express the mother-child tragedy produced by the bomb, but the personal misery the atomic bomb's radiation quietly set in motion even in the protective depths of a mother's womb is a dark foreshadowing of what nuclear weapons have in store for the human race. Directly bombed in Hiroshima and Nagasaki or indirectly exposed to

radiation during relief activities, approximately 330,000 people throughout Japan are still suffering fifty years later from late effects.

Research thus far has demonstrated that, when survivors reach the age at which certain cancers appear, they are clearly more susceptible to cancer than is the general population. At present, in addition to leukemia, measurable effects attributable to the atomic bomb have been accepted for breast, thyroid, stomach, and lung cancers. However, we still lack a complete understanding of what radiation, once taken into the body, can do with the passage of time.

The atomic bomb did more than destroy people and property. The economic and social infrastructure of citizens was devastated. Those able to survive had lost their entire community, leaving their lives impoverished and empty. The severing of family relationships produced thousands of "A-bomb orphans" and "A-bomb elderly," people unable to live independently. And continually, those who did escape with their lives were haunted by anxiety, never knowing when or where A-bomb disease might erupt in their lives. They suffered and continue to suffer psychologically, physically, and socially from the atomic bomb's aftereffects.

The Appeal from the Survivors

I was away when Hiroshima was bombed, so I was spared the atomic bombing itself. But my most beloved relatives and many acquaintances were killed. A cousin, a first-year student at a girl's school at the time, was 800 meter from the hypocenter. She died that night. It was hard to hear my weeping aunt lamenting, "If only there wasn't a war...If only the atomic bomb hadn't been dropped....."

My wife, who was also a first-year student at a girls school, happened to be sick that day and didn't go to school, so she was saved. Nearly all her classmates were killed. Even today the fact that her life was spared remains a heavy burden of grief deep in her heart. Those who survived will never escape the psychological and physical effects of the bombing.

Many records such as diaries, picture, photos, and movies depict the damage done to Hiroshima. But those who were there universally emphasize that no depiction comes close to the actual experience and that their experience was not like anything in this world. "It wasn't at all like the situation that is commonly conveyed today," they say, "It was far, far worse and can never be expressed." This phenomenon tells us that the bomb reduced Hiroshima to an inhuman state utterly beyond human ability to express or imagine.

I worked for a time for a newspaper in Hiroshima and I will never forget the badly scarred face and hands of one of the women who worked there with me. She had lost her husband to the bomb and, though she was quite embarrassed about her appearance, she was forced to go out and work to feed her children. She died 16 years ago. She was 33 years old at the time of the bombing and was 1,700 meters from the hypocenter. Five years later, in 1950, she described her experience in detail:

"Somewhere a voice shouted, 'Hey, there's a parachute. A parachute is coming down!' Without thinking I looked in the direction indicated by the voice. At that instant, flash. The sky in the direction I was looking was pure light. I don't know how to describe that light like a fire burning in my eyes. It was like the eerie bluish-purple sparks that electric street cars make at night, only trillions of times brighter. But that isn't exactly right either. So fast that later I wondered which came first, the light was followed by a roar that reverberated to the bottom of my belly, and I was instantly slammed against the ground, with something falling in little pieces on my head and shoulders. When I opened my eyes, I saw nothing but darkness. Suddenly I clearly saw the faces of my three children, who had been evacuated to the country. Thinking of them made me begin impulsively, involuntarily thrashing my body around violently. I pushed and pushed with my hands to sweep away the pieces of wood and tile, but more kept sliding in on me, and I couldn't seem to get my body free. 'I can't die. What will the children do? My husband might be dead. I have to get out of here.' In utter desperation, I crawled out. Once out, I noticed a terrible stench in the air. It must have been a white phosphorous fire bomb. Without thinking, I took the towel that was tucked into my belt and firmly wiped my nose and mouth. That was when I realized for the first time that there was something wrong with my face. The skin that I wiped just peeled and slipped right off. I was shocked. 'What? My arm!' The skin on my right hand slipped off from the second joint of my fingers and just dangled sickeningly from the tips of my fingers. The fingers on left hand, from the wrist down, were peeled raw and slimy."

According to her account, she fled in a dream-like state and made it to a relief station in the suburbs. Summer turned to autumn, and still the flesh of her wounds continued to melt away. The wounds were the color of a crushed, ripe tomato, but new skin would form.

The following spring, her bandages finally came off. She described the physical condition as follows: "My left earlobe had shrunk to half its size. On my left cheek, down past my mouth and onto my neck was a keloid the size of a person's palm. On my right hand, a five-centimeter-wide keloid ran from the second joint to my little finger. The five fingers of my left hand had pulled together abnormally where they joined the hand."

Inhumanity of Nuclear Weapons

Today, fifty years after peace was regained, people continue to suffer the late effects of radiation. What could be more cruel? Nuclear weapons are more cruel and inhumane than any weapon banned thus far by international law. Attacks on civilians are banned by international law and the use of weapons of mass destruction, causing unnecessary human suffering, is prohibited by international declarations and binding agreements. These principles serve as the foundation for the concept of human treatment. This concept is the spirit behind the international law that arose in modern Europe.

The 1858 Declaration of St. Petersburg; the Declaration respecting Dum-Dum bullets; Article 23 of the 1907 Regulations respecting the Laws and Customs of War and Land (Attached paper to the Connection respecting the Laws and Customs of War and Land); the 1935 Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or other Gases, and of Bacteriological

Methods of Warfare; the 1972 Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction; and similar laws all rest on the desire to prevent the most irrational deeds of humankind. International law has always sought to play a humanitarian role. Further, at the U.N. General Assembly in 1961, resolution 1653 (XVI) regarding the declaration on the prohibition of the use of nuclear and thermo-nuclear weapons was adopted. The resolution states that "The use of nuclear and thermo-nuclear weapons would exceed even the scope of war and cause indiscriminate suffering and destruction to mankind and civilization and, as such, is contrary to the rules of international law and to the laws of humanity." It is clear that the use of nuclear weapons, which causes indiscriminate mass murder that leaves survivors to suffer for decades, is in violation of international law. In addition, the development, possession and testing of nuclear weapons, which gives a great threat to non-nuclear-weapon countries, is also a violation of international law.

The stockpiles of nuclear weapons on Earth today are wrought to annihilate the entire human race several times over. These weapons are possessed on the assumption that they can be used, but the existence of nuclear weapons cannot maintain peace. In this age in which national security must be considered from a global standpoint, no country can guarantee its own security with nuclear weapons. As long as nuclear weapons exist, the human race faces a real and present danger of self-extermination. The idea based on nuclear deterrence that nuclear war can be controlled and won exhibits a failure of human intelligence to comprehend the human tragedy and global environmental destruction brought about by nuclear war.

Based on the experience of Hiroshima and Nagasaki, and the more we hear of the suffering of indigenous peoples exposed to radiation by nuclear tests conducted by the nuclear powers, we have come to believe that only through a treaty that clearly stipulates the abolition of nuclear weapons can the world step toward the future with new hope and a genuine sense of confidence. The issue of nuclear weapons should not be a matter of political relationships among nations. We must approach this problem in terms of what nuclear weapons mean for the future of the human race. In February 1981, when Pope John Paul II visited Hiroshima he said, "To remember the past is to commit oneself to future. To remember Hiroshima is to abhor nuclear war." The fate of the human race is in your hands.

* This article is an edited version of the statement delivered at the International Court of Justice, November 7, 1995.