

Moral Opposition

Moral doubts of single participants:

- Joseph Rotblat (1908-2005)
- Leo Szilard (1898-1964)
- Albert Einstein (1879-1955)
- J. Robert Oppenheimer (1904-1967)





Joseph Rotblat

- Polish emigrant to Great Britain,
- Close collaborator of Chadwick
- Initiator and participant at the British (tube alloy) bomb project .
- He moved to Los Alamos to join the Manhattan Project

Rotblat resigned after defeat of Germany in objection to project continuation

US Government accused him to be a spy,

US press later called him an “unknown” physicist of no importance

Rotblat moved back to the United Kingdom



'I didn't know anything until I heard the BBC announcement on August 6. It came as a terrible shock. My idea had been to make the bomb to prevent it being used, and here it had been used immediately after it was made, and against civilian populations.'

Organization of Protest

Rotblat became one of the most prominent critics of the nuclear arms race, signing the **Russell Einstein Manifesto** in 1955, and with Bertrand Russell he founded the **Pugwash Conference** in 1957. Despite the Iron Curtain and the Cold War, he advocated establishing links between scientists from the West and East. Just as the Hippocratic Oath provides a code of conduct for physicians, he thought that scientists should have their own code of moral conduct. He was knighted in 1998 and died in 2005.

The moral conflict of science

"We scientists, whose tragic destiny it has been to help to make the methods of annihilation ever more gruesome and more effective, must consider it our solemn and transcendent duty to do all in our power in preventing these weapons from being used...."

"What task could possibly be more important to us?"



The Case of J.R. Oppenheimer



We knew the world would not be the same. A few people laughed, a few people cried, most people were silent. I remembered the line from the Hindu scripture, the Bhagavad-Gita. Vishnu is trying to persuade the Prince that he should do his duty and to impress him takes on his multi-armed form and says,

"Now, I am become Death, the destroyer of worlds."

I suppose we all thought that one way or another.

- J. Robert Oppenheimer

A wave of remorse seems to have hit Oppenheimer shortly after Nagasaki was destroyed by the second atomic bomb, a blow criticized by many of the bomb builders as gratuitous and unnecessary. Within weeks his strut was gone. Abruptly, he resigned his position, packed up, and departed Los Alamos. In a somber farewell speech in October he said that pride in building the bomb must be tempered with a profound concern. *"If atomic bombs are to be added as new weapons to the arsenals of a warring world ...then the time will come when mankind will curse the names of Los Alamos and Hiroshima"*. Nine days later Oppenheimer was brought to see President Truman by Secretary of War Robert Patterson. "Mr. President," he said, *"I feel I have blood on my hands."* Truman was disgusted, described Oppenheimer later as a "cry-baby scientist," and told Dean Acheson, "I don't want to see that son-of-a-bitch in this office ever again." That was the last time Oppenheimer spoke so baldly of guilt, but he did not shed it. Three years later, in February 1948, *Time* magazine quoted him as saying, *"In some sort of crude sense which no vulgarity, no humor, no overstatement can quite extinguish, the physicists have known sin; and this is a knowledge which they cannot lose."*



1947-1966, Princeton,
Institute of Advanced Studies

Acheson-Lilienthal Report

Dean Acheson was charged to design a plan of international control on nuclear weapon development. Acheson was well aware of his limited understanding of the scientific aspects of atomic energy. To assist the committee, he appointed a board of consultants that would work out the details of the proposal. Its chairman was David Lilienthal, an energetic, optimistic man who had successfully headed one of the most admired achievements of the New Deal, the Tennessee Valley Authority. By far the most influential consultant was J. Robert Oppenheimer, the nuclear physicist who had been the director of the Los Alamos laboratory during the war and was now at the University of California at Berkeley. On March 17, 1946, the Acheson-Lilienthal report was ready. The key was an **Atomic Development Authority that would control the whole field of atomic energy, from mining through manufacturing**. Rather than rely on international inspection teams -- what might be called atomic cops -- **the consultants proposed to control potential cheating at the source, the uranium and thorium mines**. This solution, developed by Oppenheimer, Acheson termed "brilliant and profound." The Acheson-Lilienthal report recognized that with the fundamentals of atomic energy widely known, it was impossible to outlaw atomic weapons. It concluded that "so long as intrinsically dangerous activities may be carried out by nations, rivalries are inevitable" and that, therefore, a single international authority should become the only legal participant in activities associated with atomic arms.

The Baruch Plan

Bernard Baruch a conservative Wall Street Banker was charged by Truman to present the plan to the newly founded United Nations. Baruch made it clear he was not about to accept the report as written and present it to the United Nations; as he put it, he would not be "a messenger boy." Moreover, he would not include any scientists among his advisers. Baruch assured Lilienthal that he could "smell his way through." Baruch was worried about putting profitable US mining business under international control.

Baruch made two key changes in the Acheson-Lilienthal report that proved fatal. **He insisted that swift and sure penalties greet violations and that punishment not be subject to a Security Council veto.** Such conditions, Acheson believed, were a prescription for failure.



Failure of the Baruch Plan

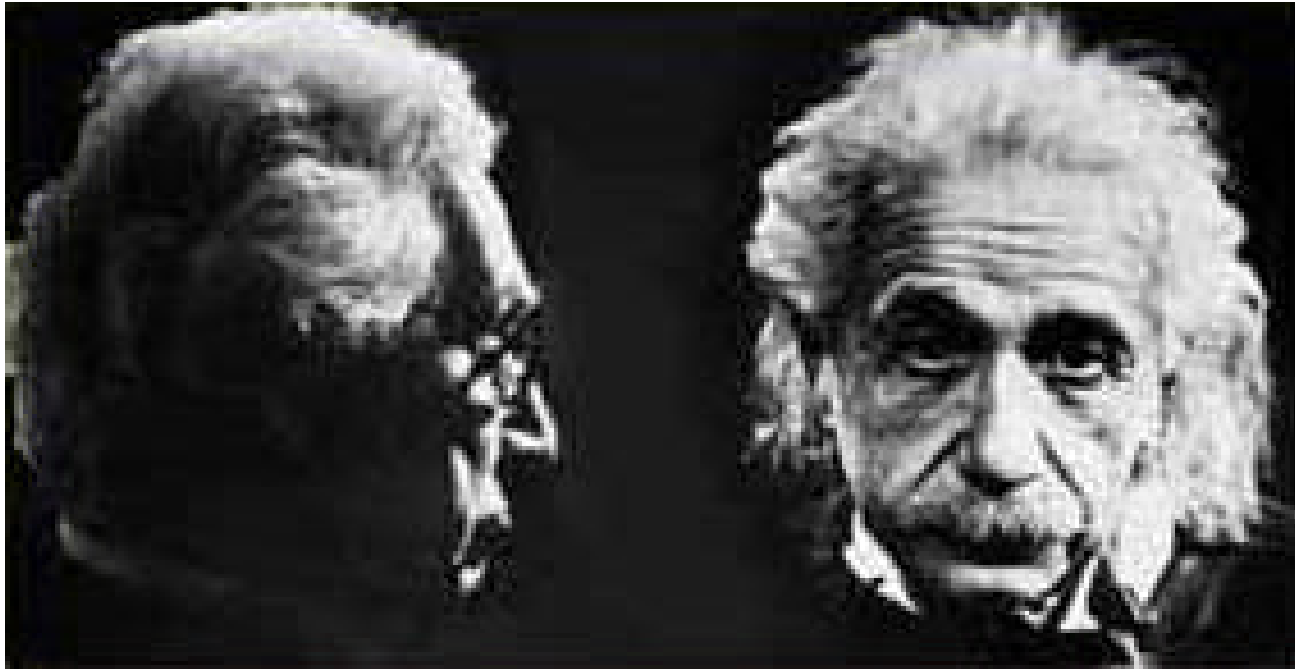


The Soviet Union, a non-nuclear power, insisted upon retaining its United Nations veto and argued that the abolition of atomic weapons should precede the establishment of an international authority. Negotiations could not proceed fairly, the Russians maintained, **as long as the United States could use its atomic monopoly to coerce other nations into accepting its plan.**

Andrei Gromyko, the Soviet delegate, proposed an international convention prohibiting the possession, production, and use of nuclear weapons. Only after the convention was implemented, should measures be considered to ensure “the strict observance of the terms and obligations.”

The Russell Einstein Manifesto

London July 9 1955



Bertrand Russell and Albert Einstein were two of the leading intellectual figures of the 20th century. Russell was a philosopher, mathematician and Nobel Laureate in Literature. Einstein was a theoretical physicist, considered the greatest scientist of his time, and a Nobel Laureate in Physics.

IN the tragic situation which confronts humanity, we feel that scientists should assemble in conference to appraise the perils that have arisen as a result of the development of weapons of mass destruction, and to discuss a resolution in the spirit of the appended draft.

Russell Einstein Manifesto

"In view of the fact that in any future world war nuclear weapons will certainly be employed, and that such weapons threaten the continued existence of mankind, we urge the governments of the world to realize, and to acknowledge publicly, that their purpose cannot be furthered by a world war, and we urge them, consequently, to find peaceful means for the settlement of all matters of dispute between them."



11 Signatures

Max Born (1954)
Percy W. Bridgman (1946)
Albert Einstein (1921)
Leopold Infeld
Frederic Joliot-Curie (1935)
Herman J. Muller (1946)
Linus Pauling (1954, 1962)
Cecil F. Powell (1950)
Joseph Rotblat (1995)
Bertrand Russell (1950)
Hideki Yukawa (1949)

The Russell-Einstein Manifesto makes the following points:

- ❑ Scientists have special responsibilities to awaken the public to the technological threats, particularly nuclear threats, confronting humanity.
- ❑ Those scientists with the greatest knowledge of the situation appear to be the most concerned.
- ❑ Nuclear weapons endanger our largest cities and threaten the future of humanity.
- ❑ In the circumstance of prevailing nuclear threat, humankind must put aside its differences and confront this overriding problem.
- ❑ The prohibition of modern weapons is not a sufficient solution to the threat; war as an institution must be abolished.
- ❑ Nonetheless, as a first step the nuclear weapons states should renounce these weapons.
- ❑ The choice before humanity is to find peaceful means of settling conflicts or to face "universal death."

The Pugwash Conference

Russell and Rotblat proposed an annual international conference on nuclear disarmament. The first conference was planned by Nehru for India, but this was postponed due to the outbreak of the Suez crisis. An offer by Aristotle Onassis to finance a meeting at Monaco was rejected. Cyrus Eaton, an industrialist in America, intervened. Eaton had been a trustee of the University of Chicago and had known Russell (a visiting professor there) in 1938. He provided financial support for the conference of scientists to meet in his hometown of Pugwash, Nova Scotia. The first Pugwash Conference on Science and World Affairs was held in 1957.



The Nobel Peace Prize 1995 for Joseph Rotblat and Pugwash Movement
"for their efforts to diminish the part played by nuclear arms in international politics and, in the longer run, to eliminate such arms"

<http://www.pugwash.org/>

Protest Movements



Annual Easter March
in Western Europe against US and Soviet armament



Anti Nuclear Rallies from ~1958 -1989

