

Albert Einstein, pacifist

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Abstract Albert Einstein, one of the greatest physicists in history, was a pacifist. During the World War I he wrote the “Manifesto to the Europeans” to ask for peace in Europe by means of the political union of all the states of the continent. He then became an icon of international pacifist movement. However, when Hitler came to power, Einstein recognised that against a force like Nazism the tools of pacifism are not effective. In 1939 Einstein wrote a letter to Franklin D. Roosevelt to warn him about the possibility that a nuclear bomb could be built. After Hiroshima and Nagasaki, Einstein was committed to the movement for nuclear disarmament. In 1955 Einstein and Bertrand Russell wrote a plea that became the “manifesto” of the international pacifist movement.

Keywords Albert Einstein · Pacifism · Disarmament · Manhattan Project · Atomic bomb

Dear Professor Freud:

The proposal of the League of Nations and its International Institute of Intellectual Cooperation at Paris that I should invite a person, to be chosen by myself, to a frank exchange of views on any problem that I might select affords me a very welcome opportunity of conferring with you upon a question which, as things now are, seems the most insistent of all the problems civilization has to face. This is the problem: Is there any way of delivering mankind from the

menace of war? It is common knowledge that, with the advance of modern science, this issue has come to mean a matter of life and death for Civilization as we know it; nevertheless, for all the zeal displayed, every attempt at its solution has ended in a lamentable breakdown.

This letter to Sigmund Freud, the “father” of psychoanalysis, is dated 30 July 1932. The writer was a man who devoted his entire life to “delivering mankind from the menace of war”: Albert Einstein.

Einstein was and is a person very well known to and appreciated by his colleagues, the physicists. When the scientific journal *Physics World*, for its first issue of year 2000, asked 200 physicists from all over the world who was the greatest physicist of all time, the answer of an overwhelming majority was: Albert Einstein. The German scientist came in decidedly ahead of such “colleagues” as Newton, Galileo, Archimedes and Maxwell.

Einstein is a figure known and appreciated outside of the physics community too. When the general interest magazine *Time*, again at the turn of 2000, asked an international group of intellectuals with diverse cultural backgrounds who they thought was the most representative person of the twentieth century, again the answer was clear: Albert Einstein, who far outranked figures such as Franklin D. Roosevelt, Josef Stalin, Adolf Hitler, Mao Tse-tung, Pablo Picasso, Thomas Mann, and Bertrand Russell.

Hence, there is no doubt. Einstein is one of the best-known men of all time, and there is an immense body of literature about him. However, few people know that the “father” of relativity, also one of the three “founding fathers” of quantum physics (the other two being Max Planck and Niels Bohr), the most representative figure of the twentieth century and perhaps of the whole second

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Einstein aveva ragione

Mezzo secolo di impegno per la pace

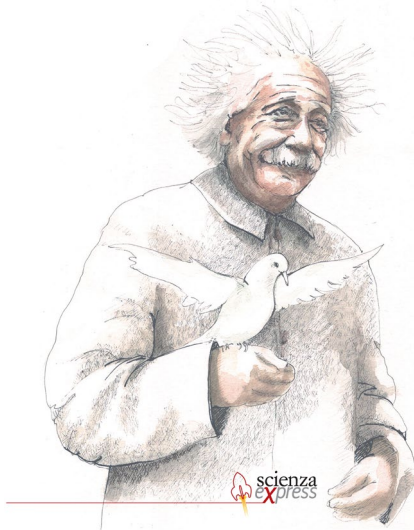


Fig. 1 The cover of the essay by Pietro Greco about Einstein's commitment for peace

millennium, the evergreen mythical character who has become a veritable icon of science, was a pacifist (Fig. 1).

This does not mean that he was a detached and naive pacifist, a physicist with his head in the clouds of abstraction who never had his feet on the ground, as some have described him. Einstein was a militant pacifist, who did not just spend at least half his life to try to “deliver mankind from the menace of war”, but also showed a clear and lay political capacity for reading the present and fighting to build a desirable future.

It is worthwhile to reflect on “Einstein the pacifist”, for at least two reasons: the strong topicality of his proposal; the extraordinary influence of his thought and his action on the political history of the twentieth century.

Einstein was politically active and often took radical stances, but always very clear ones (the two dimensions not being at all in contradiction). He was a militant pacifist, but always able to adjust his choices on the basis of a precise analysis of the context or, as physicists would say, of the boundary conditions.

In short, Einstein's pacifism was never rigid or absolute, but always modelled on the concrete historical reality.

It suffices to go over his personal history to realise this. Many of Einstein's biographers, starting with his friend Abraham Pais, attribute the German physicist's pacifism

to the impatience, shown since his childhood and adolescence, towards any form of authoritarianism and militarism. This is why his pacifism has been defined as “instinctive”. Einstein himself endorsed this definition, recalling how he showed this tendency since a child.

However, the first public foray of Einstein the pacifist, in autumn 1914, is anything but instinctive, at least in its contents, a few months after his arrival in Berlin, in the heart of Prussia, and a few weeks after the outbreak of the First World War. The young man, then 35 years old, still unknown to the public but inducted into the hall of fame of Prussian physics on Max Planck's suggestion and welcomed to the German capital with great ceremony by Kaiser Wilhelm himself, did not hesitate to propose and sign a public manifesto—his first manifesto—against Prussian militarism, challenging the police. That gesture was not just brave, but far-seeing too. In the document, written together with the biologist Georg Nicolai, Einstein sensed a new character in modern warfare: the destruction of the cultural fabric and a regression of civilisation:

While technology and traffic clearly drive us toward a factual recognition of international relations, and thus toward a common world civilization, it is also true that no war has ever so intensively interrupted the cultural communalism of cooperative work as this present war does [1, vol. 6, p. 69].

Modern warfare, with its new technologies made possible by the new scientific knowledge, was unacceptable not just due to the huge number of casualties it caused, but also because it destroyed the underlying structure that bound together European culture (including scientific culture) and thus broke up modern civilisation. A proof of this lies in the “Manifesto of the ninety-three” signed by many of the greatest German intellectuals, including Planck, supporting the German army, which had broken every rule and invaded small, neutral countries such as Belgium and Luxembourg to achieve its strategic goals, an operation condemned by all the intellectuals of the rest of Europe, dividing for the first time in such a blatant way the scientific community, which in its aspirations and (until then) its practice had been a transnational community.

This is why Einstein and Nicolai suggested a definitive way out of the savagery of modern warfare that was inflaming the Old Continent:

We want merely to emphasize very fundamentally that we are firmly convinced that the time has come where *Europe must act as one in order to protect her soil, her inhabitants, and her culture.*

To this end, it seems first of all to be a necessity that all those who have a place in their hearts for European culture and civilization, in other words, those

who can be called in *Goethe's* prescient words “good Europeans”, come together ... it is necessary that the Europeans first come together, and if—as we hope—enough *Europeans in Europe* can be found, that it is to say, people to whom Europe is not merely a geographical concept, but rather, a dear affair of the heart, then we shall try to call together such a union of Europeans. Thereupon, such a union shall speak and decide.

To this end we only want to urge and appeal; and if you feel as we do, if you are likemindedly determined to *provide the European will the farthest-reaching possible resonance*, then we ask you to please send your supporting signature to us.

Thus, in the middle of the war, and 30 years in advance of such supporters of Europeanism as Altiero Spinelli, Ernesto Rossi and Eugenio Colorni, two scientists largely unknown and without any particular political experience, Albert Einstein and Georg Nicolai, addressed all the inhabitants of the Old Continent asking them to overcome the barriers of nationalism and commit themselves to the unity of Europe, to a federation of united countries of Europe, as an antidote against war and to begin a virtuous path towards universal, widespread civilisation.

Their words sound especially relevant today, now that the idea of a united Europe is under strain not just economically, but also, and perhaps especially, culturally.

The *Manifesto to the Europeans* was not very successful, but this did not deter Einstein from his political commitment, which was in fact intensified by this. During the great war (even during his fullest creative effort to complete general relativity), he was an active supporter of a pacifist party that soon had to go underground.

Then, after 1919, the year when general relativity was empirically proved, and he became known all over the world, and arrived to a position to reach not just the minds, but also the hearts of multitudes, from Paris to Tokyo, Einstein, suddenly famous, unhesitatingly put all his renown in the service of the pacifist cause. “Do not forget to say that I am a convinced pacifist, who believes that the world has had enough of wars”, he asked an American journalist who had just interviewed him, in 1921.

Einstein's commitment in favour of peace those years was unwavering, radical and absolute. He nourished himself on good reads (Immanuel Kant, Bertrand Russell) and good acquaintances (Romain Rolland, the American president Woodrow Wilson, the philosopher Henri Bergson, Sigmund Freud). He was well within the pacifist stream of European rationalism and followed two main courses: (a) internationalism, repeatedly asking for a democratic world government; (b) antimilitarism, repeatedly asking for unilateral disarmament.

In this phase Einstein took part, with a critical and pugnacious spirit, to the project of the League of Nations, championed by Wilson and considered as a precursor of the world government whose foundation would be the only possibility to reach what Kant called “perpetual peace”. At the same time, Einstein was an active supporter of a campaign asking young men to refuse, each in his country, to serve in the army.

This is the phase of Einstein's so-called radical pacifism. Begun in 1914, it came to an end between summer 1932 and winter 1933, when Einstein realised that in Germany a force—National Socialism—was rising to power, against which the instruments of pacifism could do nothing.

The letter to Freud was one of the very last actions by Einstein as a radical pacifist. It was written, as we have mentioned, on 30 July 1932. The next day, 31 July, in Germany the general elections took place. The winning party was Adolf Hitler's NSDAP, which, with 13.7 million votes (37% of the total) and 230 members of parliament, became the largest party in Germany.

Thus, the context of the letter to Freud is that of the acme of the crisis that hit Germany and, more in general, Europe. World War I had demonstrated all the destructive force of modern warfare: the dead in Europe alone numbered 26 million, 50% of them civilians. But the war, devastating as it was, had left the problems of European countries unsolved, and now the day of reckoning had dramatically come. The notion that a new war was forthcoming was ubiquitous among European intellectuals, especially since there were in Europe movements—foremost among them, the Nazi party in Germany—that were strongly aggressive and calling for a conflict.

It is not strange that in this context Einstein comes back to the question that already racked his brain during World War I, when he had asked it in the same form to his friend Heinrich Zangger: “What drives people to kill and maim each other so savagely?” [1, vol. 10, p. 26].

The answer Einstein gave himself was of a biological nature: the males of the human species have developed a natural urge to aggression. Now, however, he wanted an authoritative confirmation to this reply and, most of all, someone to share his search for a road to follow to prevent that new, apparently unstoppable, war. This is why he posed the question again in his letter to Sigmund Freud.

The psychoanalyst answered with a long letter, finished in September 1932. The correspondence was not published, because events overwhelmed it, but now we can ascertain that Freud's position agreed in at least three points with Einstein's.

The first was that wars originate from a natural “aggressive instinct” in man, an impulse both destructive and universal that, Freud said, forms human nature together with the “erotic instinct”, which induces to union and love. Both

Einstein and Freud were convinced that this aggressive instinct could be mitigated and controlled, but not completely defeated, by reason.

The second shared position was that violence and right are not antipodal; in fact, right has evolved from violence. Right, in Freud's opinion, is the "might of a community". The monopoly on legitimate use of force of the state may mitigate, not without contradictions, individual violence, but it does not manage to expel it from society.

The third position was a political one. They were both convinced that war, seen as an armed conflict between countries, could only be eliminated within the frame of international law. And they both pointed to a kind of world government to which each state surrenders a substantial part of its sovereignty. Neither cherished vain hopes: the road to peace as an inherent condition of humankind was still long.

A few weeks after this correspondence, Adolf Hitler definitely rose to power in Germany. 6 years later, the most destructive war in the history of mankind began.

But, even before Adolf Hitler was appointed chancellor, Einstein left Germany. And, while they were exiting their home in Caputh, on the outskirts of Berlin, he told his wife Elsa: "Look back, since you won't ever see it again".

Whether or not this apocryphal statement was actually uttered (in fact, after 1933 Einstein never came back to Europe), it is true that he understood earlier and better than other people the nature of National Socialism, with its unprecedented violence which threatened not just Jews and adversaries in Germany, but the whole of Europe and, indeed, the whole of European civilisation.

To such an organised force, Einstein thought, one can only oppose another organised force. So, at the end of July 1933, he wrote to Alfred Nahon, a Belgian pacifist:

What I shall tell you will greatly surprise you. ... Imagine Belgium occupied by present-day Germany! Things would be far worse than in 1914 and they were bad enough even then. Hence I must tell you candidly: were I a Belgian, I should not, in the present circumstances, refuse military service; rather, I should enter such service cheerfully in the belief that I would thereby be helping to save European civilization.

This does not mean that I am surrendering the principle for which I have stood heretofore. I have no greater hope than that the time may not be far off when refusal of military service will once again be an effective method of serving the cause of human progress.¹

Thus the second phase of Einstein's pacifism began, the phase we might define as "self-suspended pacifism". Einstein was now a symbol for the world pacifist movement, which was shocked by the new position assumed by its symbol. In the meantime, Einstein demonstrated his political acumen: to oppose Hitler, he said, a close alliance among United States, Great Britain, France and Soviet Union was necessary, something that would transpire, but only a decade later.

To realise before the rest that a power so violent that it could not be opposed with the normal instruments of civilisation was arising, and to prefigure a political alliance that would actually occur a decade later, was not something either a naive politician or a candid pacifist would do. Einstein's thought always was rational and based on a careful analysis of the context.

It was the analysis of the context that led him, in August 1939, to accept the invitation from three Hungarians—Leo Szilard, Eugene Wigner and Edward Teller—to write to the American president Franklin Delano Roosevelt to warn him: (a) that physicists had obtained the fission of the atom and discovered a new source of energy; (b) that this source could be used to build weapons of mass destruction with a devastating power; (c) that in Germany there were scientists able to build such weapons; (d) that Hitler, by invading Czechoslovakia, had come into possession of the raw material: uranium. It was thus necessary for the United States to make an effort to build the atomic weapon, not in order to actually use it, but as a deterrent against the use of a potential German atom bomb.

The role played by Einstein's letter to Roosevelt has perhaps been overestimated. To be sure, it did not have an immediate effect. The Manhattan Project, which led to the actual construction of the bomb, would not start for another 2 years, and Einstein had nothing to do with it, in part because of the veto by the FBI, which considered him to be a dangerous extremist, perhaps a friend of the communists. Thus, it seems baseless to associate Einstein with the actual making of the atom bomb, and even more with the bombing of Hiroshima and Nagasaki.

In fact, in spring 1945, before those two appalling tragedies, Albert Einstein had already returned to his radical pacifism. In Europe, war was about to end, Nazism had been defeated, and so, Einstein thought, the reasons to build atomic weapons no longer existed. The context had changed and he was once again a militant and active pacifist. This is the third phase of Einstein's pacifism: the commitment to nuclear disarmament.

Here he was, writing a new letter to Roosevelt, begging him to listen to his friend Leo Szilard who was going to plead for the suspension of the Manhattan Project to block the production of the weapon of mass destruction.

¹ Einstein archives 51–231; quoted in [2].

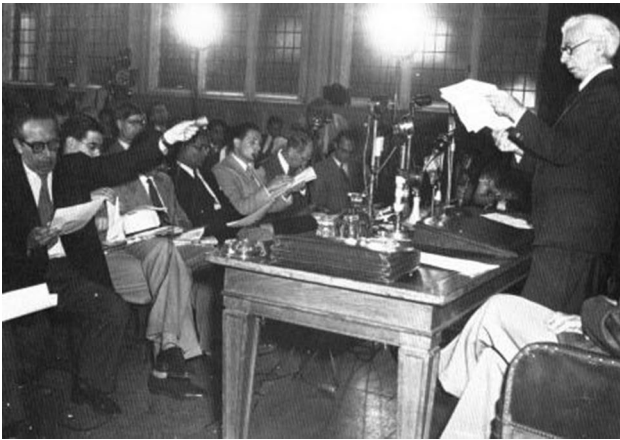


Fig. 2 Bertrand Russell reads the Russell-Einstein manifesto against nuclear proliferation. Source <http://www.pugwash.ru/>

But Roosevelt passed away and nobody paid attention to Szilard.

On 6 August a uranium bomb was dropped on Hiroshima. On 8 August the Soviet Union declared war on Japan. On 9 August a plutonium bomb destroyed Nagasaki. On 15 August the Emperor Hirohito announced the surrender of Japan. Now everything had changed.

In the next months, the pacifist Einstein came publicly into action, together with the Federation of Atomic Scientists, which intended to oppose the “logic of the bomb”. Once again, Einstein’s political clear-headed approach was anything but naive or trivial.

Albert Einstein understood that the new weapon of mass destruction changed the relations between the military and politics. The logic of the bomb had its own autonomous dimension, even higher, with respect to the logic of political and ideological confrontation. And this logic, this time around, jeopardised the survival of the civilisation, and even the whole of mankind. Thus, it was necessary to act, on the one hand, by resuming the idea of a world government, in a first phase led by the powers that had won the war—the United States, Great Britain and the Soviet Union—to which the monopoly of the atom bomb was to be trusted, and on the other hand, by mobilising the masses, in a strong and unheard-of alliance with scientists, to avoid being inured to the bomb and to construct a global movement for nuclear disarmament.

Einstein worked until his last days on this project, culminating with the Russell-Einstein manifesto, signed by the German physicist 1 week before his death on 18 April 1955 (Fig. 2). The manifesto was made public in July. It became the basis for the Pugwash Conferences, the movement of scientists fighting, analytically and actively,

for disarmament; it was also one of the bases for the mass movement for peace that, among ups and downs and profound changes, is alive and active even today.

“Dear Friend, I write to you...” On 22 January 1947 Albert Einstein, just elected president of the Emergency Committee of Atomic Scientists (ECAS), wrote a letter to the general public, anticipating a new front, uniting laymen and scientists, to push together for the governments to put the atomic genie back in the bottle. Einstein was aware that laymen and scientists needed each other, and in asking for such an alliance he defined in very advanced terms the new relationship between science and society.

We have still to ask ourselves: was the activity of pacifist Einstein that of a visionary, without effects on the concrete, actual world?

Clearly, the race to atomic armament was not stopped by this new alliance between scientists and the general public. Clearly, mankind is still sitting on a powder keg able to destroy it. But, as Lawrence S. Wittner, a historian at State University of New York/Albany, demonstrates, if atomic weapons have not been used again after Hiroshima and Nagasaki, if they have become a taboo for everybody, including politicians and soldiers, this is not due so much to the wisdom of governments and general staffs, as to that movement for disarmament that was able to mobilise the masses, prompted especially by Einstein.

On 11–12 October 1986, during a summit in Reykjavík, in Iceland, Mikhail Gorbachev, the last General Secretary of the Communist Party of the Soviet Union and the last President of the USSR, proposed to Ronald Reagan, the President of the United States of America, a ban on all atomic weapons. Reagan was about to accept, but was held back by his military counsellors. The great project vanished, but at least it started a process that led to a drastic reduction of nuclear weapons. When someone later asked Gorbachev what spurred that idea, in his answer he mentioned having read Albert Einstein’s texts and the proposals of the international pacifist movement, another proof that the pacifist thought of the greatest physicist in history had an actual influence on the political and military history of the world.

His goal—to create a nuclear free world—is now more relevant than ever.

Translated from the Italian by Daniele A. Gewurz.

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Albert Einstein, la relatività e la ricerca dell'unità in fisica, Carocci, 2015), about women in science (*Lise Meitner*, L'Asino d'Oro, 2014; *Margherita Hack*, L'Asino d'Oro, 2013), and about science in Europe (*La scienza e l'Europa. Il Rinascimento*, 3 vols., L'Asino d'Oro, 2014–2016).