

## Albert Einstein- Humane Scientist

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“Reason, of course, is weak, when measured against its never-ending task. Weak, indeed, compared with the follies and passions of mankind, which, we must admit, almost entirely control our human destinies, in great things and small. Yet the works of the understanding outlast the noisy bustling generations and spread light and warmth across the centuries.”

—Albert Einstein, 1942

### ABIDING MORAL VALUES

Einstein was instinctively otherworldly. Anyone who studies his great life in depth must appreciate his humane personality apart from his intellectual brilliance, though the two aspects were harmonious in him. He was always humane in his dealings with others, even when he was misunderstood.

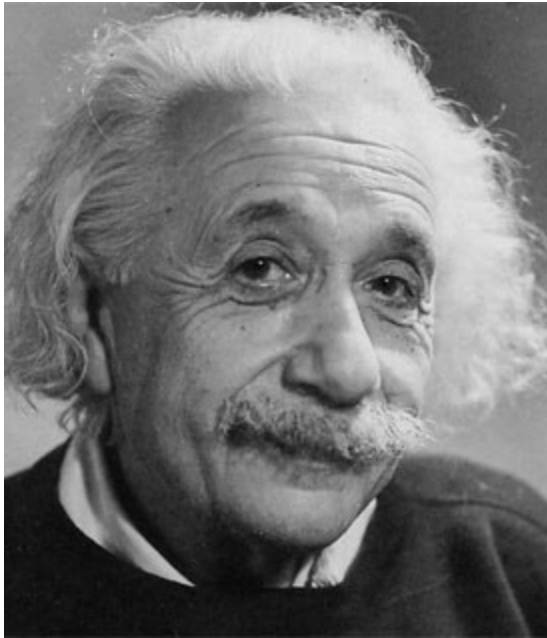
### SPIRITUAL IMPRESSION OF THE GREAT MAHATMA

Einstein was greatly inspired by Mahatma Gandhi’s moral stature. He once called Gandhi the “greatest man of our age” describing him as:

*A leader of his people, unsupported by any outward authority: a politician whose success rests not upon craft nor the mastery of technical devices, but simply on the convincing power of his personality; a victorious fighter who has always scorned the use of force; a man of wisdom and humility, armed with resolve and inflexible consistency, who has devoted all his strength to the uplifting of his people and the betterment of their lot; a man who has confronted the brutality of Europe with the dignity of the simple human being, and thus at all times risen superior.*

*Generations to come, it may well be, will scarce believe that such a one as this ever in flesh and blood walked upon this earth.*

Einstein's dedication to truthfulness was very similar to Gandhi's. The occasional pang of conscience regarding a moral issue remained with him for a long time. Like Gandhiji, Einstein dedicated himself to the work of his chosen path. It is well known that science



was Einstein's refuge in times of difficulty and sorrow and that from youth he was proficient in his study and work habits. In his early days at the Patent Office, he performed his patent investigations so efficiently that he was left with a few hours of free time. Rather than socialize or fritter away these precious hours, he spent them writing down his calculations and research on scraps of paper. He quickly hid this work in a nearby drawer whenever he heard someone approaching. This action bothered his conscience even after he became famous and he continued to feel remorseful about it.

During the years of Senator Joseph McCarthy's Communist witch hunts in the United States (1950-1954), Einstein, along with many other influential individuals, was suspected of communist leanings. Outraged by President Truman's announcement in 1950 that the U. S. had built a hydrogen bomb, Einstein made a brief statement about the arms race that aired on the premier of the Sunday night television show, Today with Mrs. Roosevelt. He said:

*Each step appears as the inevitable consequence of the one that went before. And at the end, looming ever clearer, lies general annihilation. . . . The loyalty of citizens, particularly civil servants, is carefully supervised by a police force growing more powerful every day. People of independent thought are harassed.*

His words had a terrific impact. The New York Post ran a headline the next day, "Einstein Warns World: Outlaw H-Bomb or Perish." FBI director J. Edgar Hoover ordered a special investigation of Einstein's loyalty to America and his possible connections to Communism. During this period, Einstein wrote to a Brooklyn schoolteacher embroiled in the McCarthy hearings on the influence of Communism in American high schools. In his letter, written from his sickbed on May 16, 1953, Einstein demonstrated his shared view with Gandhi that the pure and powerful approach of non-cooperation is best:

*Frankly, I can only see the revolutionary way of non-cooperation in the sense of Gandhi's. Every intellectual who is called before one of the committees ought to refuse to testify, i.e. he must be prepared for jail and economic ruin, in short, for the sacrifice of his personal welfare in the interest of the cultural welfare of his country. . . . this refusal to testify must [be based] on the assertion that it is shameful for a blameless citizen to*

*submit to such an inquisition and that this kind of inquisition violates the spirit of the Constitution.*

*If enough people are ready to take this grave step they will be successful. If not, then the intellectuals of this country deserve nothing better than the slavery that is intended for them.*

This attitude was consistent with Einstein's fundamental belief in the moral principle of freedom of thought. He gave the teacher permission to make his comments public if he wished, and the New York Times and Time published them that June.

Ease and happiness were not his goals in life nor was he a materialist in the popular sense. "A life directed chiefly toward the fulfillment of personal desires will sooner or later always lead to bitter disappointment," he said. "The banal goals of human strivings—possessions, superficial success, luxury—have always seemed contemptible to me." He fully understood that instinct is stronger than intellect—that our impulsive nature, rooted in a sense-bound life, forms shackles of material bondage which do not allow us to develop a cosmic outlook free from egotism. In his credo, "What I Believe," he wrote:

*I am absolutely convinced that no amount of wealth in the world can help humanity forward, even in the hands of the most dedicated worker in this cause. The example of great and pure personalities can lead us to noble deeds and views. Money only appeals to selfishness, and, without fail, it tempts its owner to abuse it. Can anyone imagine Moses, Jesus, or Gandhi with the moneybags of Carnegie?*

## IDEALISM

If an opportunity arose, Einstein spoke of his cardinal principles. When speaking about himself, his words reveal an idealistic temperament, coupled with humility, simplicity and total lack of vanity:

*I am happy because I want nothing from anyone. I don't care for money. Decorations, titles or distinctions mean nothing to me. I don't crave praise. The only thing that gives me pleasure, apart from my work, my violin and my sailing boat, is the appreciation of my fellow-workers. I claim credit for nothing. I have no special gifts—I am only passionately curious.*

Indeed, He lived that life all through. He wrote:

*The most important human endeavor is the striving for morality in our actions. Our inner balance and even our very existence depend on it. Only morality in our actions can give beauty and dignity to life.*

*To make this a living force and bring it to clear consciousness is perhaps the foremost task of education.*

*The foundation of morality should not be made dependent on myth nor tied to any authority lest doubt about the myth or about the legitimacy of the authority imperil the foundation of sound judgment and action.*

In the second-story office of his home at 112 Mercer Street, Princeton, three portraits had always been kept within view—those of Michael Faraday, James Clerk Maxwell and Newton. Now a fourth graced his wall, that of Mahatma Gandhi. Einstein felt that this universally respected individual was “the only statesman who represented that higher conception of human relation in the political sphere to which we must aspire with all our powers.” Earlier, Einstein had also hung Gandhi’s portrait in his office at the Kaiser Wilhelm Institute in Berlin.

### **MAGNANIMITY AND CONCERN FOR OTHERS**

Einstein was magnanimous almost to a fault. He gave generously to his colleagues and students of his time, money and efforts. “Solicitude for man and his future must always be the main interest of all technical efforts; never forget this in the midst of your diagrams and equations,” he once remarked. He often summed up his own efforts with, “Only a life lived for others is worthwhile.” He said this hundreds of times. His concern was always compassionately directed to the needy.

Einstein’s remarks in the introductory quotation to this chapter were more than mere idealistic sentiments to him. He lived up to his ideals and did his best to pass them on to others. On July 14, 1953, a poor, thirty-two-year-old bachelor in India had come to realize that his sole interest in life was scientific research in mathematics and physics. From early youth, his impoverished family life had deprived him of following his dream through education. He had no solid foundation in either of those subjects and was “terribly weak” in them. In spite of having to work to support his family, he was absolutely dedicated to his ideal. When he lost his job, he wrote to Einstein hoping to get financial aid from him, in order to dedicate his life to research.

Einstein was deeply touched by the letter and the young man’s courage in writing and seeking his help. His lengthy reply written in English two years before his death reflects his abiding humility. In his sober words, we see his humanity and level-headedness graciously enveloped in a sense of reality and a noble work ethic. Whatever our field of interest, his higher values and practical advice encourage us:

*I received your letter and was impressed by your ardent wish to study physics. I must confess, however, that I can in no way agree with your attitude. We are all nourished and housed by the work of our fellow-men and we have to pay honestly for it not only by work chosen for the sake of our inner satisfaction but by work which, according to general opinion, serves them. Otherwise one becomes a parasite however modest our wants might be. This is the more so in your country where the work of educated persons is doubly needed in this time of struggle for economic improvement.*

*This is one side of the matter. But there is another side to it which would have to be considered also in the case that you would have ample means to choose freely what to do. In striving to do scientific work the chance—even for very gifted persons—to achieve something of real value is very little, so that it would always be a great probability that you would feel frustrated when the age of optimal working capacity has passed.*

*There is only one way out: Give most of your time to some practical work as a teacher or in another field which agrees with your nature, and spend the rest of it for study. So you will be able, in any case, to lead a normal and harmonious life even without the special blessings of the Muses.*

He had a reputation for generosity, giving to all and sundry of his precious time and modest income. He quietly encouraged and assisted others in his field, especially refugees who depended on his pledge of support for obtaining a visa when the United States had made it even harder for them to emigrate. He gave out professional affidavits so frequently that “refugee scientists arriving at Oxford in 1933 and proudly showing a written testimonial from Einstein were often advised to keep quiet about it.” This advice did not matter to them—they understood the sincerity of his motives and treasured his encouragement and helpfulness. On October 3, 1933, Einstein spoke at London’s Royal Albert Hall to raise funds on behalf of displaced German scholars.

“Personal matters,” Bertrand Russell once observed of Einstein, “never occupied more than odd nooks and crannies in his thoughts.” A personal matter, however, was often associated with a noble cause. He spokeboldly in public as a representative of a committee concerned about the menace of Germany’s rearmament. His public appeals and private discussions with Winston Churchill and other key individuals in support of aiding refugee scholars from Nazi Germany illustrate his personal commitment to broad, vital issues.

### **“MANIFESTO TO THE CIVILIZED WORLD”**

During World War I, Germany’s war policies violated Belgium’s neutrality with devastating aftereffects. To justify their actions, the Germans drafted the “Manifesto to the Civilized World,” (also called as “Appeal to the Cultured World”). In this manifesto, they denied allegations of German military attacks on civilians in Belgium and excused their aggression in that country on the grounds of Germany’s blameless defense of German national culture—a culture blatantly militaristic. The words in the manifesto hinted at the violent undercurrent and paranoia of German nationalism at that time:

*Were it not for German militarism, German culture would have been wiped off the face of the earth. We shall wage this fight to the very end as a cultured nation, a nation that holds the legacy of Goethe, Beethoven, and Kant no less sacred than hearth and home.*

Published in October 1914, this proclamation became known as “The Manifesto of the 93” because it was signed by ninety-three prominent German intellectuals, including Max

Planck, Walther Nernst and Fritz Haber. In a concerted effort to raise money for Germany's military needs, the most popular of these intellectuals circulated the manifesto widely, strengthening its effect.

Fortunately, because he was a citizen of Switzerland, a neutral country, Einstein was never asked to sign the manifesto. He never would have signed it anyway—his deeply rooted pacifism forbade him from participating in such an action. A letter to his cherished friend Paul Ehrenfest in Holland reflects his level-headedness:

*Europe in her insanity has started something unbelievable. In such times, one realizes to what a sad species of animal one belongs. I quietly pursue my peaceful studies and contemplations and feel only pity and disgust.*

### **EINSTEIN'S WORTHY REPLY**

Einstein did more than write to his friend Ehrenfest. According to Professor Georg Nicolai, he at once rallied to Nicolai's side and helped him draft a pacifist response to the ugly implications of the German manifesto. Nicolai called it "Manifesto to the Europeans." It was an appeal to the scholars of all the warring nations to unify themselves under the banner of a League of Europeans. This organization, if formed, would serve to protect the world from the German menace. Only Einstein, Nicolai and two other supporters dared to sign this counter-manifesto, which pointed out that, "[t]hey [the authors of "The Manifesto to the Civilized World"] have spoken in a hostile spirit. Nationalist passions cannot excuse this attitude, which is unworthy of what the world has heretofore called culture."

Einstein's pacifism had assumed a voice. From Berlin, he vehemently attacked German nationalism and patriotism. "I would rather be hacked into pieces," he said, "than take part in such an abominable business." In his days of youthful idealism nearly two decades before, Einstein had turned his back on his Judaic traditions. Now, he realized that if he were to help the Jews whose violent persecution had escalated dramatically, he needed to embrace Judaism. In October 1915 he wrote "My Opinion on the War," a three-page essay in which he equated patriotism with the worst aggressive animal instincts. Berlin's Goethe League published it that same month. "The psychological roots of war," he wrote in his essay, "lie in a biologically based, aggressive peculiarity of the human being."

With the end of the First World War, Einstein's pacifist spirit was revived by his observation of the horrible wake of suffering that swept over humanity. During the 1920s, before Hitler and the Nazis rose to power, his pacifism grew in conviction and strength. He had long resisted war with every fiber in his body; now he was convinced of the need for total—not partial or limited—disarmament. In 1925, he joined H. G. Wells, Mahatma Gandhi and Rabindranath Tagore in signing a manifesto against forced military conscription.

## FORGING AN IMPORTANT FRIENDSHIP

A great benefit came to Einstein in 1930 when he was in Belgium, which was also the location of the Solvay Congresses (Brussels). Partly due to his involvement in these congresses, in 1930, Einstein was presented to Queen Elisabeth of Belgium who was married to King Albert I. He and the queen became good friends and developed a bond of mutual understanding. Their friendship was remarkable. They loved music and played Mozart together. He enjoyed having tea and explaining relativity to her. In a letter to Elsa, he wrote, "These two simple people are of a purity and goodness that is seldom to be found." A year later, he was invited again to the royal palace and dined alone with the king and queen. Einstein recalled it with evident pleasure: "No servants, vegetarian, spinach with fried egg and potatoes. I liked it enormously, and I am sure that the feeling is mutual." From the time of his arrival in Belgium, he began writing to the Queen, sharing with her some of his inmost thoughts that he did not disclose to others. When her husband and daughter-in-law died years later, the queen was overcome with sorrow. Einstein wrote to console her, urging her to think of the coming springtime and grasp the beauty of the new life it promised of "something eternal that lies beyond the reach of the hand of fate and of all human delusions."

## A CHANGE TO MILITANT PACIFISM

While the motives that inspired Einstein's pacifism were noble, he sometimes had to defend or explain them to others. From his youth, he had pondered the elusive treasure of world peace. His thoughts on pacifism, as well as on any other subject he focused upon, united with a wisdom gleaned from his realistic view of circumstances as they evolved. He understood that "[to] prevent the greater evil, it is necessary that the lesser evil—the hated military—be accepted for the time being." He said, "I am not only a pacifist but a militant pacifist. . . . Every war merely enlarges the chain of vicious circles which impedes the process of mankind. . . . We must begin to inoculate our children against militarism by educating them in the spirit of pacifism." On February 16, 1931, he addressed several hundred students at the California Institute of Technology, remarking:

*I agree with the great American Benjamin Franklin, who said that there never was a good war or a bad peace. . . . I am not only a pacifist but a militant pacifist. I am willing to fight for peace. Nothing will end war unless the peoples themselves refuse to go to war.*

When the Nazis seized power in Germany in 1933, Einstein was suspected of being a Communist. In spite of his earlier refusal to endorse the 1932 World Antiwar Congress in Amsterdam and a strong statement he made against Russian Communism, the Nazis raided his summer retreat in Caputh in an effort to find Communist weaponry in his possession. The Nazis found nothing they could use against him in his cottage—exasperated, they removed a small kitchen knife as evidence of his so-called possession of Communist weapons.

The world was about to learn that his thoughts on absolute pacifism had evolved. Observing the growing force of Germany's militarism, Einstein adjusted his own view on pacifism. Previously, in 1930, Einstein had been one of many prominent world figures to sign a manifesto "against Conscription and Military Training of Youth" issued by the "Joint Peace Council," a coalition of international peace organizations. Now, it seemed to him that only force could stop the Nazis:

*This "human nature" which makes wars is like a river. It is impossible in geological time to change the nature of a river. But when it continually overflows its banks and destroys our lives and homes, do we sit down and say, "It is too bad. We can't change the river. We can do nothing about it." . . . Just as we use reason to build a dam to hold a river in check, we must now build institutions to restrain the fears and suspicions and greeds which move peoples and their rulers.*

His new position became:

*Men should continue to fight but they should fight for things worthwhile, not for imaginary geographical lines, racial prejudices and private greed draped in the colors of patriotism. Their arms should be weapons of the spirit, not shrapnel and tanks.*

In 1933, the moral view Einstein had expressed in the 1930 "Manifesto of the Joint Peace Council" was put to the test in a neutral country. An important experience would make him a militant pacifist. During a visit to Antwerp that July, Einstein was a guest of his friends King Albert I and Queen Elisabeth at the Belgian Royal Palace. While with his hosts, an urgent matter arose; the king summoned him to his private quarters. Two conscientious objectors had been imprisoned for refusing to serve in the Belgian army. The king had learned that international pacifists were clamoring for Einstein to defend their principles. Specifically, they were requesting Einstein to speak on the two prisoners' behalf.

Morally, Einstein had to respectfully consider their request, as well as the fact that he was a guest of the royals who were his friends, too. He also had to be true to his own convictions that were changing to meet the challenges of current events. Therefore, he politely avoided getting involved in the case, which pleased the royal couple. Later, Einstein issued to the public an official letter he had written that November to the king. It clarified his position and revealed the development of a more active pacifist view:

*In the present threatening situation, created by the events in Germany, Belgium's armed forces can be regarded only as a means of defense, not an instrument of aggression. And now, of all times, such defense forces are urgently needed.*

*Men who, by their religious and moral convictions, are constrained to refuse military service should not be treated as criminals. They should be offered the alternative of accepting more onerous and hazardous work than military service.*



Romain Rolland, a dedicated, absolute pacifist and famed biographer of composers whose works Einstein loved, was deeply disappointed with this new Einstein. Rolland wrote in his diary, “Einstein, a genius in his scientific field, is weak, indecisive and inconsistent outside it.” Another pacifist, Professor C. C. Heringa of the University of Amsterdam, did not believe the published reports about Einstein’s changed view about military service. On September 11, 1933, explaining his new stance, Einstein wrote to the professor:

*I assure you that my present attitude toward military service was arrived at with the greatest reluctance and after a difficult inner struggle. The root of all evil lies in the fact that there is no powerful international police force, nor is there a really effective international court of arbitration whose judgments could be enforced.*

By 1935, other pacifists, including Bertrand Russell, forsook their absolute pacifism. Years later, Einstein gave this reply to another pacifist who was confused about his position:

*I am indeed a pacifist, but not a pacifist at any price. My views are virtually identical with those of Gandhi. But I would, individually and collectively resist violently any attempt to kill me or to take away from me, or my people, the basic means of subsistence. I was, therefore, of the conviction that it was justified and necessary to fight Hitler. For his was such an extreme attempt to destroy people. Furthermore, I am of the conviction that realization of the goal of pacifism is possible only through supranational organization. To stand unconditionally for this cause is, in my opinion, the criterion of true pacifism.*

## CRUCIAL DEPARTURES

When Hitler came to power as Chancellor of Germany on January 30, 1933, Einstein was already in the United States, living in Pasadena, California. He had fled the Nazis, as had other professors in Germany including Max Born, who had escaped with his wife. Other scientists—who were capable of influencing the outcome of the next world conflict by developing an atomic bomb—also fled Germany and other Fascist-ruled countries. Fourteen Nobel laureates alone fled Germany. In addition to Einstein, twenty-six out of the sixty theoretical physics professors then living in Germany also escaped, including Edward Teller, Victor Weisskopf, Hans Bethe, Lise Meitner, Niels Bohr, Enrico Fermi, Otto Stern, Eugene Wigner, and Leó Szilárd. Their departure from these countries ensured that the Allies were the first to develop the atom bomb; they continued their ongoing work for the benefit of the Allies. For Germany, their crucial departure was a tragic loss of intellectual power for Germany.

Influenced by Germany’s rising anti-Semitism and hatred of Einstein as a Jew, many members of the Prussian Academy spoke against him or rejected him altogether. But Max Planck (who did not leave Germany), Max von Laue and Walther Nernst never expressed such views. On March 28, 1933, as a protest of Nazism in Germany, Einstein resigned

from his eminent position at the Prussian Academy. Planck was inwardly relieved that Einstein had found an honorable way out and hoped that their friendship would continue. He wrote to him, “This idea of yours seems to be the only way that would ensure for you an honorable severance of your relations with the Academy . . . despite the deep gulf that divides our political opinions, our personal amicable relations will never undergo any change.”

At grave personal risk, two months after Einstein’s resignation, Planck courageously spoke on Einstein’s behalf at a plenary session of the Prussian Academy:

*I believe that I speak for my Academy colleagues in physics, and also for the overwhelming majority of all German physicists when I say: Mr. Einstein is not just one among many outstanding physicists; on the contrary, Mr. Einstein is the physicist through whose works published by our Academy, physics has experienced a deepening whose significance can be matched only by that of the achievements of Johannes Kepler and Isaac Newton . . . .”*

Planck’s honest and forthright statement displeased Hitler. Earlier, when Planck approached him to speak on behalf of Einstein whose life he hoped would be spared, Hitler had become infuriated. On another occasion, when Planck personally appealed to Hitler to reduce his harsh anti-Jewish policies, Hitler became enraged and shouted back, “Our national policies will not be revoked or modified, even for scientists. If the dismissal of Jewish scientists means the annihilation of contemporary German science, then we shall do without science for a few years!” Hitler once told Planck that had Planck been younger, he would have sent him to a concentration camp. Planck was so intimidated by the remark that he lived the remainder of his life in isolation. His home and vast library collection were destroyed in the Allied bombings. His son Erwin, having assisted in the plot to assassinate Hitler in July 1944, was executed after the plot was discovered. Despite these tragic events, Planck lived to the ripe age of eighty-eight and died in Göttingen in 1947. All those years had not changed Planck’s nationalistic view and love for Germany.

Einstein and Planck had enjoyed meeting together weekly or more often with the most brilliant scientific minds of their time. The two men had an intellectual relationship and friendship that helped their scientific collaboration. Their friendship, which had developed “at regular intervals at the Berlin Academy” and “went far beyond the exchange of scientific ideas,” was described by Max Born:

*Yet it is difficult to imagine two men of more different attitudes to life: Einstein a citizen of the whole world, little attached to the people around him, independent of the emotional background of the society in which he lived—Planck deeply rooted in the traditions of his family and nation, an ardent patriot, proud of the greatness of German history and consciously Prussian in his attitude to the state. Yet what did all these differences matter in view of what they had in common—the fascinating interest in the secrets of nature, similar philosophical convictions, and a deep love of music.*

Einstein became a U. S. citizen in 1940. He retained his cherished Swiss citizenship but never visited Europe again. Democracy was the governing system closest to his ideals; even in the United States, he spoke out against dogmatic nationalism.

### **WHEN SPEECH IS IMPERATIVE: AN IMPORTANT COLLABORATION:**

Einstein was once asked to render a formula for success in life. He replied, "If A is success in life, I would say the formula is  $A=X+Y+Z$ , X being work and Y being play." He was immediately asked, "And what is Z?" "That," he answered, "is keeping your mouth shut." However, if circumstances aroused his moral conscience, Einstein clearly understood that it was urgent to speak about them both privately and openly.

Bertrand Russell followed Einstein's work on quantum mechanics with great interest. After World War II, he shared his deep concern about the international arms race with Einstein, by writing to him and asking for his help in writing a proposal to alert the world about the dangers of another war: "I think that eminent men of science ought to do something dramatic to bring home to the governments the disasters that may occur." He hoped and expected that the leading intellectuals of the day would sign this document.

Einstein thoroughly approved of Russell's project and immediately gave it his support. Feeling certain of Bohr's agreement with the document's principles, Einstein described the project to Bohr in a letter. He asked him to set aside their old differences about physics and to join in the effort.

### **THE "RUSSELL-EINSTEIN MANIFESTO"**

In 1955, Einstein and Russell completed their "Russell-Einstein Manifesto." Signed by a total of eleven prominent scientists and mathematicians, it called for an end to the development of nuclear weapons:

*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.*

Unfortunately, like many other scientists, Niels Bohr considered the Manifesto to be a futile gesture. Einstein had first met him in 1920, when Bohr went to Berlin as a guest lecturer. They had both been enthused by the challenges confronting the scientists of their day and liked each other from the start. Einstein had written to him after he left Berlin, "Rarely in my life has a man given me such joy by his mere presence as you have." Bohr had written back, "It was for me one of the greatest experiences I have ever had to meet

you and to speak with you. You do not know how great a stimulation it was for me to hear your views.” In spite of the great mutual understanding between the two men, Bohr remained silent—his signature missing from the Russell-Einstein Manifesto—while Einstein signed it on April 11, 1955, one week before his death, demonstrating again his lifelong dedication to matters he considered important. With this signature he fulfilled his last public act. Subsequently, thousands of other conscientious objectors added their signatures.

When the document was issued to the public on July 9, 1955, Russell gave the title “Manifesto by Scientists for Abolition of War” to their collaborative work. It proved to have some influence. Russell concluded the manifesto with the following entreaty:

*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 a peaceful means for the settlement of all matters of dispute between them.*

One year before this manifesto appeared, Russell had delivered his famous BBC broadcast, “Nazi Peril,” warning of the dangers of the “Bikini H-Bomb” tests—named after the Bikini Atoll in the Marshall Islands. In 1954, when a second hydrogen bomb was exploded there, three surrounding islands had been entirely destroyed. In 1961, Russell was imprisoned for a week over his protest of nuclear weapons development. He died nine years later at age 98.

## **THE PUGWASH CONFERENCES**

In 1957, partly as a result of this manifesto, international scientists, scholars and public figures concerned about the dangers of armed world conflict began meeting annually. Jawaharlal Nehru (1947-1964) suggested that the conferences be held in New Delhi, India, but due to the outbreak of the Suez crisis, this could not be done. The conferences were financed by a wealthy Canadian living in Pugwash, Nova Scotia, and were held there. The purpose of the Pugwash Conferences on Science and World Affairs was to discuss the dangers of nuclear war and to draw up a resolution for international disarmament of nuclear weapons. Twenty-two scientists participated in the first conference, including Leó Szilárd. Unfortunately, their discussions during hundreds of sessions of Pugwash Conferences proved inadequate. The escalation of the nuclear arms race, which was to produce a proliferation of atomic arsenals, was impossible to control. Still, the Pugwash movement and its organizer, scientist Joseph Rotblat, were awarded the Nobel Peace Prize in 1995 “for their efforts to diminish the part played by nuclear arms in international politics and, in the longer run, to eliminate such arms.”

## **A COMPASSIONATE ZIONIST**

Einstein was compassionately supportive of the Zionist movement and helped to raise \$750,000 for Jewish settlements in Palestine and for the construction of a Hebrew University in Jerusalem. In 1929, he wrote to Chaim Weizmann, president of the World Zionist Organization: "Should we be unable to find a way to honest cooperation and honest pacts with the Arabs then we have learned absolutely nothing during our 2,000 years of suffering. . . . The two great Semitic peoples have a great common future." He believed that unless the Jews worked towards harmony with the Arab culture, the goals of the Zionist movement would remain unfulfilled for decades. He was sympathetic to Arabs who were being displaced by the Jews who were moving into Palestine in the hope of establishing the future Jewish state of Israel. On January 5, 1955, three months before his death, he sent a letter expressing his view on the matter to his friend Zvi Lurie. He wrote, "The most important aspect of our [Israel's] policy must be our ever-present, manifest desire to institute complete equality for the Arab citizens living in our midst. . . . The attitude we adopt toward the Arab minority will provide the real test of our moral standards as a people."

Chaim Weizmann became the first president of the new state of Israel. When he died in November 1952, Israel's Prime Minister David Ben-Gurion requested that Einstein become its next president through a formal letter to Einstein sent by Abba Eban, Israel's ambassador in Washington, D. C. Over the phone to Abba Eban, Einstein declined this proposal, saying, "I am not the person for that and I cannot possibly do it." Eban then asked Einstein to send him his response in a written form. Einstein wrote back that he had been "deeply moved" by the offer and would not accept it. "All my life I have dealt with objective matters, hence I lack both the natural aptitude and the experience to deal properly with people and to exercise official function." Privately, he remarked, "I know a little about nature and hardly anything about men."

### A "LONE TRAVELER"

Despite his moral support and active participation with many causes, Einstein was a loner. This did not mean that he felt isolated from others: "Although I am a typical loner in my daily life, my awareness of belonging to the invisible community of those who strive for truth, beauty, and justice has prevented me from feelings of isolation," he wrote. Solitude gave him strength and developed his moral virtues. In childhood he avoided contact with his playful cousins and other neighborhood children engaged in noisy activities, preferring to be "occupied with other quieter things." Throughout his life, he would read and do his research alone, except for occasional collaboration with one or two friends whom he considered his colleagues. He enjoyed playing the violin in solitude. He experienced much joy from the deep wellspring of music while he played. Music also helped him to think. "Whenever he felt that he had come to the end of the road or faced a difficult challenge in his work," his son Hans said, "he would take refuge in music and that would solve all his difficulties."

His solitude was a rich, dynamic and sublime experience from which he drew inspiration for his science and strength for his other activities. When he spoke at London's Royal

Albert Hall in 1933, he said, “The monotony of a quiet life stimulates the creative mind.” He loved sailing for this reason. He once said that he would like the life of a lighthouse keeper since he would be alone for many hours at a time to pursue his interest in the sciences. On another occasion he said, “If I were a young man again and had to decide how to make a living, I would not try to become a scientist or scholar or teacher. I would rather choose to be a plumber or a peddler, in the hope of finding that modest degree of independence still available.”

He agreed with Schopenhauer that serious persons feel suffocated by the travails of daily life. When he attended an official celebration in honor of Max Planck’s sixtieth birthday, he said, “I believe with Schopenhauer that one of the strangest motives that leads men to art and science is escape from everyday life with its painful crudity and hopeless dreariness, from the fetters of one’s own ever-shifting desires. A finely tempered nature longs to escape from personal life into the world of objective perception and thought.”

His integrity of character was remarkable. He firmly believed that each person is under a moral obligation to work against falsehood, injustice and oppression. “Whoever is careless with the truth in small matters cannot be trusted in important affairs.” Throughout his private and public life, Einstein took the role of servant to his fellow men and adhered to truth. He stood firm in his belief that, “In matters concerning truth and justice there can be no distinction between big problems and small.”

### **“THE CONSCIENCE OF THE WORLD”**

Simply put, “He was indeed the conscience of the world.” It is very important for us in this age that has succumbed to moral degeneration and rampant violence to follow in the footsteps of a saintly scientist like Einstein. In his youth, Einstein said, “I feel myself so much a part of everything living that I am not the least concerned with the beginning or ending of the concrete existence of any one person in this eternal flow.” He floated like a bubble above this stream of life while remaining a part of it. For this reason, the greatest scientist of the twentieth century and one of the most brilliant intellectuals of all time is known to us both as a humane scientist and a lover of humanity. According to Bertrand Russell, Einstein “remained sane in a mad world.” His marked compassion and sympathy for others inspired many to regard him as a prophet of peace. Like the ancient prophets, he spoke simply and fearlessly on the significant public issues of his time. A Princeton colleague remarked, “He was, in his last years, a very venerable figure and looked more like a typical sage.” Though he had human frailties, he was driven by his concern for others. His simplicity and imagination even in commonplace matters made him great in the eyes of people throughout the world.

### ***ENDNOTES***

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 Einstein's letter to Niels Bohr, March 2, 1955. *His Life and Universe*, p. 639, n. 17.  
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