

# Albert Einstein: Person of the Century

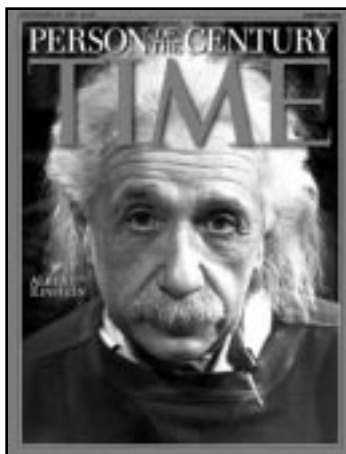
He was the pre-eminent scientist in a century dominated by science. The touchstones of the era—the atomic bomb, the Big Bang theory, quantum physics and electronics—all bear his unmistakable imprint

By FREDERIC GOLDEN

**H**E WAS THE EMBODIMENT of pure intellect, the bumbling professor with the German accent, a comic cliché in a thousand films. Instantly recognizable, like Charlie Chaplin's Little Tramp, Albert Einstein's shaggy-haired visage was as familiar to ordinary people as to the matrons who fluttered about him in salons from Berlin to Hollywood. Yet he was unfathomably profound—the genius among geniuses who discovered, merely by thinking about it, that the universe was not as it seemed.

Even now scientists marvel at the daring of general relativity (“I still can't see how he thought of it,” said the late Richard Feynman, no slouch himself). But the great physicist was also engagingly simple, trading ties and socks for mothy sweaters and sweatshirts. He tossed off pithy aphorisms (“Science is a wonderful thing if one does not have to earn one's living at it”) and playful doggerel as easily as equations. Viewing the hoopla over him with humorous detachment, he variously referred to himself as the Jewish saint or artist's model. He was a cartoonist's dream come true.

Much to his surprise, his ideas, like Darwin's, reverberated beyond science, influencing modern culture from painting to poetry. At first even many scientists didn't really grasp relativity, prompting Arthur Eddington's celebrated wisecrack (asked if it was true that only three people understood relativity, the witty British astrophysicist paused, then said, “I am trying to think who the



**Einstein was  
relativity's rebel:  
he combined rare  
genius with a deep  
moral sense and a  
total indifference to  
convention**

third person is”). To the world at large, relativity seemed to pull the rug out from under perceived reality. And for many advanced thinkers of the 1920s, from Dadaists to Cubists to Freudians, that was a fitting credo, reflecting what science historian David Cassidy calls “the incomprehensiveness of the contemporary scene—the fall of monarchies, the upheaval of the social order, indeed, all the turbulence of the 20th century.”

Einstein's galvanizing effect on the popular imagination continued throughout his life, and after it. Fearful his grave would become a magnet for curiosity seekers, Einstein's executors secretly scattered his ashes. But they were defeated at least in part by a pathologist who carried off his brain in hopes of learning the secrets of his genius.

Only recently, Canadian researchers, probing those pickled remains, found that he had an unusually large inferior parietal lobe—a center of mathematical thought and spatial imagery—and shorter connections between the frontal and temporal lobes. More definitive insights, though, are emerging from old Einstein letters and papers. These are finally coming to light after years of resistance by executors eager to shield the great relativist's image.

Unlike the avuncular caricature of his later years who left his hair unshorn, helped little girls with their math homework and was a soft touch for almost any worthy cause, Einstein is emerging from these documents as a man whose unsettled private life contrasts sharply with his serene contemplation of the universe. He could be alternately warm-

hearted and cold; a doting father, yet aloof; an understanding, if difficult, mate, but also an egregious flirt. “Deeply and passionately [concerned] with the fate of every stranger,” wrote his friend and biographer Philipp Frank, he “immediately withdrew into his shell” when relations became intimate.

He had a deep moral sense. At the height of World War I, he risked the Kaiser’s wrath by signing an antiwar petition, one of only four scientists in Germany to do so. Yet, paradoxically, he helped develop a gyrocompass for U-boats. During the troubled 1920s, when Jews were being singled out by Hitler’s rising Nazi Party as the cause of Germany’s defeat and economic woes, Einstein and his “Jewish physics” were a favorite target. Nazis, however, weren’t his only foes. For Stalinists, relativity represented rampant capitalist individualism; for some churchmen, it meant ungodly atheism, even though Einstein, who had an impersonal Spinozan view of God, often spoke about trying to understand how the Lord (*der Alte*, or the Old Man) shaped the universe.

In response to Germany’s growing anti-Semitism, he became a passionate Zionist, yet he also expressed concern about the rights of Arabs in any Jewish state. Forced to quit Germany when the Nazis came to power, Einstein accepted an appointment at the new Institute for Advanced Study in Princeton, N.J., a scholarly retreat largely created around him. (Asked what he thought he should be paid, Einstein, a financial innocent, suggested \$3,000 a year. His hardheaded wife Elsa got that upped to \$16,000.) Though occupied with his lonely struggle to unify gravity and electromagnetism in a single mathematical framework, he watched Germany’s saber rattling with alarm. Despite his earlier pacifism, he spoke in favor of military action against Hitler. Without fanfare, he helped scores of Jewish refugees get into an unwelcoming U.S., including a young photographer named Philippe

## KEY DATES IN EINSTEIN’S LIFE

**BORN March 14, 1879**, in Ulm, Germany

**1902** Begins work at Swiss patent office

**1905** Publishes three seminal papers on theoretical physics, including the special theory of relativity

**1916** Proposes general theory of relativity; is proved correct three years later

**1922** Wins Nobel Prize in Physics

**1933** Emigrates to Princeton, N.J.

**1939** Urges F.D.R. to develop atom bomb

**1955** Dies in his sleep on April 18

Halsman, who would take the most famous picture of him (reproduced on the cover of TIME’s Person of the Century issue).

Alerted by the emigré Hungarian scientist Leo Szilard to the possibility that the Germans might build an atom bomb, he wrote F.D.R. of the danger, even though he knew little about recent developments in nuclear

physics. When Szilard told Einstein about chain reactions, he was astonished: “I never thought about that at all,” he said. Later, when he learned of the destruction of Hiroshima and Nagasaki, he uttered a pained sigh.

Following World War II, Einstein became even more outspoken. Besides campaigning for a ban on nuclear weaponry, he denounced McCarthyism and pleaded for an end to bigotry and racism. Coming as they did at the height of the cold war, the haloed professor’s pronouncements seemed well meaning if naive; *Life* magazine listed Einstein as one of this country’s 50 prominent “dupes and fellow travelers.” Says science historian David Cassidy: “He had a straight moral sense that others could not always see, even other moral people.” Harvard physicist and historian Gerald Holton adds, “If Einstein’s ideas are really naive, the world is really in pretty bad shape.” Rather it seems to him that Einstein’s humane and democratic instincts are “an ideal political model for the 21st century,” embodying the very best of this century as well as our highest hopes for the next. What more could we ask of a man to personify the past 100 years? ■

### Questions

1. Why did TIME’s editors select Einstein as the Person of the Century? What is your reaction to this choice?
2. In what ways have Einstein’s ideas “reverberated beyond science”? What evidence does the writer provide to show that Einstein had a deep sense of morality?

# Franklin Delano Roosevelt: Runner-Up

The President of the United States weighs F.D.R.'s legacy and finds timeless fortitude, persistence and respect for the common man

By BILL CLINTON

**W**HEN OUR CHILDREN'S children read the story of the 20th century, they will see that above all, it is the story of freedom's triumph: the victory of democracy over fascism and totalitarianism; of free enterprise over command economies; of tolerance over bigotry. And they will see that the embodiment of that triumph, the driving force behind it, was President Franklin Delano Roosevelt.

In the century's struggle for freedom, Roosevelt won two decisive victories: first over economic depression and then over fascism. Though he was surrounded by turmoil, he envisioned a world of lasting peace, and he devoted his life to building a new era of progress. Roosevelt's leadership steered not only America but also the world through the roughest seas of the century. And he did it with a combination of skilled statesmanship, innovative spirit and, as Oliver Wendell Holmes Jr. put it, "a first-class temperament."

Even though Franklin Roosevelt was the architect of grand designs, he touched tens of millions of Americans in a very personal way. When I first worked on political campaigns in the 1960s, I could not help noticing the pictures of F.D.R. that graced the walls and mantels of so many of the homes I visited. To ordinary Americans, Roosevelt was always more than a great

*Clinton is the first Democratic President since F.D.R. to be elected to a second term.*



**"The Presidency  
is not merely an  
administrative office.  
That's the least of it....  
It is pre-eminently  
a place of moral  
leadership."**

Franklin Delano Roosevelt,  
September 1932

President, he was part of the family.

My own grandfather felt the same way. He came from a little town of about 50 people, had only a fourth-grade education and owned a small store. Still, he believed this President was a friend, a man who cared about him and his family's future. My grandfather was right about that. So were the millions of Americans who met President Roosevelt only through his radio fireside chats. Roosevelt earned his place in the homes and hearts of a whole generation, and we should all be proud that his picture now hangs in the people's house, the White House.

As a state legislator, Governor and President, Roosevelt pioneered the politics of inclusion. He built a broad, lasting, national coalition uniting different regions, different classes and different races. He identified with the aspirations of immigrants, farmers and factory

workers—"the forgotten Americans," as he called them. He considered them citizens of America just as fully as he was.

Roosevelt knew in the marrow of his bones, from his own struggle with polio and his innate grasp of the American temper, that restoring optimism was the beginning of progress. "The only thing we have to fear is fear itself" was both the way he led his life and the way he led our nation.

No matter what the challenge, he believed that the facts were only one part of reality; the other part was how you react to them and change them for the better. In the depths of the Great Depression, the gravest economic threat the country ever faced, he lifted the nation to its feet and into action.

From his vision emerged the great American middle class that has been the engine of more than five decades of progress and prosperity. From his new ideas flowed the seemingly endless array of programs and agencies of the New Deal: bank reform, a massive public-works effort to get America working again, rural electrification, the G.I. Bill. And, of course, his most

enduring domestic creation, Social Security, a bond between generations that every President since has honored. Roosevelt proved that for markets to flourish, government must be devoted to opportunity for all. He understood that the initiative of individuals and the responsibilities of community must be woven together.

To defeat the merciless aggression of fascism, President Roosevelt created an international alliance to defend the world's freedom, and he committed the United States to lead. He proved that our liberty is linked to the destiny of the world, that our security requires us to support democracy beyond our shores, that human rights must be America's cause. In the 20th century's greatest crisis, President Roosevelt decisively, irrevocably committed our country to freedom's fight.

Early in World War II, he defined the Four Freedoms that he said must be realized everywhere in the world: freedom of speech, freedom of worship, freedom from want, freedom from fear. These were, in his own words, "essential human freedoms." His expression of American ideals helped make them the world's ideals. Because of that commitment and its embrace by every American President since, today we can say, for the first time in history, a majority of the world's people live under governments of their own choosing.

Roosevelt's leadership in war and his commitment to peace established the institutions of collective security that have prevented another world

## KEY DATES IN FDR'S LIFE

**BORN** Jan. 30, 1882 in Hyde Park, N.Y.

**1913** Named Assistant Secretary of the Navy

**1921** Contracts polio

**1928-32** Serves as Governor of New York

**1932-36** Elected President; begins enacting New Deal legislation

**1936-40** Re-elected to office; continues New Deal

**1940-44** Elected to an unprecedented third term; U.S. enters World War II

**1945** Attends Yalta Conference; dies two months later on April 12

conflagration. The whole system of international cooperation stems from his commitment. It was President Roosevelt, after all, who conceived and named the United Nations, and he was one of the visionaries behind the establishment of the World Bank and the International Monetary Fund. In one of his last messages to Congress, he said their creation "spelled

the difference between a world caught again in the maelstrom of panic and economic warfare, or a world in which nations strive for a better life through mutual trust, cooperation and assistance."

Much of my own political philosophy and approach to governance is rooted in Roosevelt's principles of progress. Rather than cling to old abstractions or be driven by the iron laws of ideology, Roosevelt crafted innovations to the circumstances in which he found himself. He sought, above all, practical solutions that worked for people.

Winston Churchill remarked that Franklin Roosevelt's life was one of the commanding events in human history. The triumph of freedom in the face of depression and totalitarianism was not foretold or inevitable. It required political courage and leadership. We now know what Roosevelt and his generation made of their "rendezvous with destiny." Their legacy is our world of freedom. If the example of Franklin Roosevelt and the American Century has taught us anything, it is that we will either work together as One America to shape events or we will be shaped by them. We cannot isolate ourselves from the world; we cannot lead in fits and starts. Now, to this generation entering the new millennium, as Roosevelt said, "much has been given" and "much is expected." ■

### Questions

1. What were the two decisive victories that Roosevelt won in the century's struggle for freedom?
2. In what ways is F.D.R.'s vision alive today, both in the U.S. and internationally?

# Mohandas Gandhi: Runner-Up

The liberator of South Africa reflects on the seminal and ground-breaking work of the liberator of India

By NELSON MANDELA

**I**NDIA IS GANDHI'S COUNTRY OF birth; South Africa his country of adoption. He was both an Indian and a South African citizen. Both countries contributed to his intellectual and moral genius, and he shaped the liberatory movements in both colonial theaters.

He is the embodiment of the revolution against colonialism. His strategy of noncooperation, his assertion that we can be dominated only if we cooperate with our dominators, and his nonviolent resistance inspired anticolonial and antiracist movements internationally in our century.

Both Gandhi and I suffered colonial oppression, and both of us mobilized our respective peoples against governments that violated our freedoms.

The Gandhian influence dominated freedom struggles on the African continent right up to the 1960s because of the power it generated and the unity it forged among the apparently powerless. Nonviolence was the official stance of all major African coalitions, and the South African A.N.C. remained implacably opposed to violence for most of its existence.

Gandhi remained committed to nonviolence; I followed the Gandhian strategy for as long as I could, but then there came a point in our struggle when the brute force of the oppressor could no longer be countered through passive resistance alone. We founded *Umkhonto we Sizwe* and added

*Mandela served as South Africa's first democratically elected President from 1994 to 1999.*



**"Generations to come...will scarce believe such a one as this ever walked upon this earth."**

—Albert Einstein

a military dimension to our struggle. Even then, we chose sabotage because it did not involve the loss of life, and it offered the best hope for future race relations. Militant action became part of the African agenda officially supported by the Organization of African Unity (O.A.U.) following my address to the Pan-African Freedom Movement of East and Central Africa (PAFMECA) in 1962, in which I stated, "Force is the only language the imperialists can hear, and no country became free without some sort of violence."

Gandhi himself never ruled out violence absolutely and unreservedly. He conceded the necessity of arms in certain situations. He said, "Where choice is set between cowardice and violence, I would advise violence... I prefer to use arms in defense of honor rather than remain the vile witness of dishonor..."

Violence and nonviolence are not mutually exclusive; it is the predominance of the one or the other that labels a struggle.

Gandhi arrived in South Africa in 1893 at the age of 23. Within a week he collided head on with racism. His immediate response was to flee the country that so degraded people of color, but then his inner resilience overpowered him with a sense of mission, and he stayed to redeem the dignity of the racially exploited, to pave the way for the liberation of the colonized the world over and to develop a blueprint for a new social order.

He left 21 years later, a near *maha atma* (great soul). There is no doubt in my mind that by the time he was violently removed from our world, he had transited into that state.

He was no ordinary leader. There are those

who believe he was divinely inspired, and it is difficult not to believe with them. He dared to exhort nonviolence in a time when the violence of Hiroshima and Nagasaki had exploded on us; he exhorted morality when science, technology and the capitalist order had made it redundant; he replaced self-interest with group interest without minimizing the im-

portance of self. In fact, the interdependence of the social and the personal is at the heart of his philosophy. He seeks the simultaneous and interactive development of the moral person and the moral society.

His philosophy of Satyagraha is both a personal and a social struggle to realize the Truth, which he identifies as God, the Absolute Morality. He seeks this Truth, not in isolation, self-centeredly, but with the people. He said, "I want to find God, and because I want to find God, I have to find God along with other people. I don't believe I can find God alone. If I did, I would be running to the Himalayas to find God in some cave there. But since I believe that nobody can find God alone, I have to work with people. I have to take them with me. Alone I can't come to Him."

His awakening came on the hilly terrain of the so-called Bambata Rebellion, where as a passionate British patriot, he led his Indian stretcher-bearer corps to serve the Empire, but British brutality against the Zulus roused his soul against violence as nothing had done before. He determined, on that battlefield, to wrest himself of all material attachments and devote himself completely and totally to eliminating violence and serving humanity. The sight of wounded and whipped Zulus, mercilessly abandoned by their British persecutors, so appalled him that he turned full circle from his admiration for all things British to celebrating the indigenous and ethnic. He resuscitated the culture of the colonized and the fullness of Indian resistance against the British; he revived Indian handicrafts and made these into an

## KEY DATES IN GANDHI'S LIFE

**BORN** Oct. 2, 1869, in Porbandar, India

**1893** Goes to South Africa and battles for the rights of Indians

**1915-20** Begins his struggle for India's independence

**1930** Leads hundreds on a long Salt March to Dandi to protest a tax on salt

**1947** Negotiates an end to 190 years of British colonial rule in India

**1948** Killed by a fanatic opposed to Gandhi's tolerance of other religions

economic weapon against the colonizer in his call for *swadeshi*—the use of one's own and the boycott of the oppressor's products, which deprive the people of their skills and their capital.

A great measure of world poverty today and African poverty in particular is due to the continuing dependence on foreign markets for manufactured goods, which under-

mines domestic production and dams up domestic skills, apart from piling up unmanageable foreign debts. Gandhi's insistence on self-sufficiency is a basic economic principle that, if followed today, could contribute significantly to alleviating Third World poverty and stimulating development.

He stepped down from his comfortable life to join the masses on their level to seek equality with them. "I can't hope to bring about economic equality... I have to reduce myself to the level of the poorest of the poor."

Gandhi remains today the only complete critique of advanced industrial society. Others have criticized its totalitarianism but not its productive apparatus. He is not against science and technology, but he places priority on the right to work and opposes mechanization to the extent that it usurps this right. Large-scale machinery, he holds, concentrates wealth in the hands of one man who tyrannizes the rest. He favors the small machine; he seeks to keep the individual in control of his tools, to maintain an interdependent love relation between the two, as a cricketer with his bat or Krishna with his flute. Above all, he seeks to liberate the individual from his alienation to the machine and restore morality to the productive process. ■

### Questions

1. Compare Mandela's approach to ending apartheid in South Africa to Gandhi's campaign for Indian independence. How were the two leaders' strategies alike and different?
2. What caused Gandhi to denounce the British?





# Voices of the Century

Through their actions, the leaders, thinkers and inventors of the 20th century had a profound impact on the course of history. But these figures have left another important legacy: their words. On this page are collected quotations from 15 of the century's

most significant figures. Some of these statements will probably be familiar to you; others will be new. Working with a group of classmates, do some research, pool your knowledge and match each quotation to its source. Make educated guesses where necessary—and don't forget to use the process of elimination!

- A. Rachel Carson**
- B. Winston Churchill**
- C. W.E.B. Du Bois**
- D. Albert Einstein**
- E. Henry Ford**
- F. Anne Frank**
- G. Sigmund Freud**
- H. Mohandas Gandhi**
- I. Adolf Hitler**
- J. Helen Keller**
- K. John F. Kennedy**
- L. Martin Luther King Jr.**
- M. Charles Lindbergh**
- N. Eleanor Roosevelt**
- O. Franklin D. Roosevelt**

\_\_\_\_\_ 1. "This great nation will endure as it has endured, will revive and will prosper. So, first of all, let me assert my firm belief that the only thing we have to fear is fear itself—nameless, unreasoning, unjustified terror which paralyzes needed efforts to convert retreat into advance."

\_\_\_\_\_ 2. "An eye for an eye will make the whole world go blind."

\_\_\_\_\_ 3. "The great masses of the people...will more easily fall victims to a big lie than to a small one."

\_\_\_\_\_ 4. "When we let freedom ring, when we let it ring from every village and every hamlet, from every state and every city, we will be able to speed up that day when all of God's children, black men and white men, Jews and Gentiles, Protestants and Catholics, will be able to join hands and sing, in the words of the old Negro spiritual, 'Free at last, Free at last, Thank God Almighty, We are free at last.'"

\_\_\_\_\_ 5. "Man is a part of nature, and his war against nature is inevitably a war against himself."

\_\_\_\_\_ 6. "Science, freedom, beauty, adventure; what more could you ask of life? Aviation combined all the elements I loved."

\_\_\_\_\_ 7. "And so, my fellow Americans, ask not what your country can do for you—ask what you can do for your country. My fellow citizens of the world, ask not what America will do for you, but what together we can do for the freedom of man."

\_\_\_\_\_ 8. "I fall, I stand still...I trudge on, I gain a little...I get more eager and climb higher and begin to see the widening horizon. Every struggle is a victory."

\_\_\_\_\_ 9. "Cannot the nation that has absorbed 10 million foreigners absorb 10 million Negro Americans?"

\_\_\_\_\_ 10. "We shall go on to the end, we shall fight in France, we shall fight on the seas and oceans, we shall fight with growing confidence and growing strength in the air, we shall defend our island, whatever the cost may be, we shall fight on the beaches, we shall fight on the landing grounds, we shall fight in the fields and in the streets, we shall fight in the hills; we shall never surrender."

\_\_\_\_\_ 11. "The poets and philosophers before me discovered the unconscious; what I discovered was the scientific method by which the unconscious can be studied."

\_\_\_\_\_ 12. "I can feel the sufferings of millions; and yet, if I look up into the heavens, I think that it will all come right, that this cruelty will end, and that peace and tranquillity will return again."

\_\_\_\_\_ 13. "The unleashed power of the atom has changed everything save our modes of thinking, and we thus drift toward unparalleled catastrophes."

\_\_\_\_\_ 14. "I will build a car for the great multitude...so low in price that no man will be unable to own one."

\_\_\_\_\_ 15. "No one can make you feel inferior without your consent."