veloped a theory that his fame was, for all of its annoyances, at least a welcome sign of the priority that society placed on people like himself:

> The cult of individual personalities is always, in my view, unjustified . . . It strikes me as unfair, and even in bad taste, to select a few for boundless admiration, attributing superhuman powers of mind and character to them. This has been my fate, and the contrast between the popular estimate of my achievements and the reality is simply grotesque. This extraordinary state of affairs would be unbearable but for one great consoling thought: it is a welcome symptom in an age, which is commonly denounced as materialistic, that it makes heroes of men whose ambitions lie wholly in the intellectual and moral sphere.[28]

One problem with fame is that it can engender resentment. Especially in academic and scientific circles, self-promotion was regarded as a sin. There was a distaste for those who garnered personal publicity, a sentiment that may have been exacerbated by the fact that Einstein was a Jew.

In the piece explaining relativity that he had written for *The Times* of London, Einstein humorously hinted at the issues that could arise. "By an application of the theory of relativity, today in Germany I am called a German man of science, and in England I am represented as a Swiss Jew," he wrote. "If I come to be regarded as a bête noire, the descriptions will be reversed, and I shall become a Swiss Jew for the Germans and a German man of science for the English!"[29]

It was not entirely facetious. Just months after he became world famous, the latter phenomenon occurred. He was told that he was to be given the prestigious gold medal of Britain's Royal Astronomical Society at the beginning of 1920, but a rebellion by a chauvinistic group of English purists forced the honor to be withheld.[30] Far more ominously, a small but growing group in his native country soon began vocally portraying him as a Jew rather than as a German.

"Lone Traveler"

Einstein liked to cast himself as a loner. Although he had an infectious laugh, like the barking of a seal, it could sometimes be wounding

rather than warm. He loved being in a group playing music, discussing ideas, drinking strong coffee, and smoking pungent cigars. Yet there was a faintly visible wall that separated him from even family and close friends.[31] Starting with the Olympia Academy, he frequented many parlors of the mind. But he shied away from the inner chambers of the heart.

He did not like to be constricted, and he could be cold to members of his family. Yet he loved the collegiality of intellectual companions, and he had friendships that lasted throughout his life. He was sweet toward people of all ages and classes who floated into his ken, got along well with staffers and colleagues, and tended to be genial toward humanity in general. As long as someone put no strong demands or emotional burdens on him, Einstein could readily forge friendships and even affections.

This mix of coldness and warmth produced in Einstein a wry detachment as he floated through the human aspects of his world. "My passionate sense of social justice and social responsibility has always contrasted oddly with my pronounced lack of need for direct contact with other human beings and communities," he reflected. "I am truly a 'lone traveler' and have never belonged to my country, my home, my friends, or even my immediate family, with my whole heart; in the face of all these ties, I have never lost a sense of distance and a need for solitude."[32]

Even his scientific colleagues marveled at the disconnect between the genial smiles he bestowed on humanity in general and the detachment he displayed to the people close to him. "I do not know anyone as lonely and detached as Einstein," said his collaborator Leopold Infeld. "His heart never bleeds, and he moves through life with mild enjoyment and emotional indifference. His extreme kindness and decency are thoroughly impersonal and seem to come from another planet."[33]

Max Born, another personal and professional friend, noted the same trait, and it seemed to explain Einstein's ability to remain somewhat oblivious to the tribulations afflicting Europe during World War I. "For all his kindness, sociability and love of humanity, he was nevertheless totally detached from his environment and the human beings in it."[34]

Einstein's personal detachment and scientific creativity seemed to be subtly linked. According to his colleague Abraham Pais, this detachment sprang from Einstein's salient trait of "apartness," which led him to reject scientific conventional wisdom as well as emotional intimacies. It is easier to be a nonconformist and rebel, both in science and in a militaristic culture like Germany's, when you can detach yourself easily from others. "The detachment enabled him to walk through life immersed in thought," Pais said. It also allowed him—or compelled him—to pursue his theories in both a "single-minded and single-handed" manner.[35]

Einstein understood the conflicting forces in his own soul, and he seemed to think it was true for all people. "Man is, at one and the same time, a solitary being and a social being," he said.[36] His own desire for detachment conflicted with his desire for companionship, mirroring the struggle between his attraction and his aversion to fame. Using the jargon of psychoanalysis, the pioneering therapist Erik Erikson once pronounced of Einstein, "A certain alternation of isolation and outgoingness seems to have retained the character of a dynamic polarization."[37]

Einstein's desire for detachment was reflected in his extramarital relationships. As long as women did not make any claims on him and he felt free to approach them or not according to his own moods, he was able to sustain a romance. But the fear that he might have to surrender some of his independence led him to erect a shield.[38]

This was even more evident in his relationship with his family. He was not always merely cold, for there were times, especially when it came to Mileva Marić, that the forces of both attraction and repulsion raged inside him with a fiery heat. His problem, especially with his family, was that he was resistant to such strong feelings in others. "He had no gift for empathy," writes historian Thomas Levenson, "no ability to imagine himself into the emotional life of anyone else."[39] When confronted with the emotional needs of others, Einstein tended to retreat into the objectivity of his science.

The collapse of the German currency had caused him to urge Marić to move there, since it had become hard for him to afford her cost of living in Switzerland using depreciated German marks. But once the

eclipse observations made him famous and more financially secure, he was willing to let his family stay in Zurich.

To support them, he had the fees from his European lecture trips sent directly to Ehrenfest in Holland, so that the money would not be converted into Germany's sinking currency. Einstein wrote Ehrenfest cryptic letters referring to his hard currency reserves as "results which you and I obtained here on Au ions" (i.e., gold).[40] The money was then disbursed by Ehrenfest to Marić and the children.

Shortly after his remarriage, Einstein visited Zurich to see his sons. Hans Albert, then 15, announced that he had decided to become an engineer.

"I think it's a disgusting idea," said Einstein, whose father and uncle had been engineers.

"I'm still going to become an engineer," replied the boy.

Einstein stormed away angry, and once again their relationship deteriorated, especially after he received a nasty letter from Hans Albert. "He wrote me as no decent person has ever written their father," he explained in a pained letter to his other son, Eduard. "It's doubtful I'll ever be able to take up a relationship with him again."[41]

But Marić by then was intent on improving rather than undermining his relationship with his sons. So she emphasized to the boys that Einstein was "a strange man in many ways," but he was still their father and wanted their love. He could be cold, she said, but also "good and kind." According to an account provided by Hans Albert, "Mileva knew that for all his bluff, Albert could be hurt in personal matters—and hurt deeply."[42]

By later that year, Einstein and his older son were again corresponding regularly about everything from politics to science. He also expressed his appreciation to Marić, joking that she should be happier now that she did not have to put up with him. "I plan on coming to Zurich soon, and we should put all the bad things behind us. You should enjoy what life has given you—like the wonderful children, the house, and that you are not married to me anymore."[43]

Hans Albert went on to enroll at his parents' alma mater, the Zurich Polytechnic, and became an engineer. He took a job at a steel company and then as a research assistant at the Polytechnic, studying

hydraulics and rivers. Especially after he scored first in his exams, his father not only became reconciled, but proud. "My Albert has become a sound, strong chap," Einstein wrote Besso in 1924. "He is a total picture of a man, a first-rate sailor, unpretentious and dependable."

Einstein eventually said the same to Hans Albert, adding that he may have been right to become an engineer. "Science is a difficult profession," he wrote. "Sometimes I am glad that you have chosen a practical field, where one does not have to look for a four-leaf clover."[44]

One person who elicited strong and sustained personal emotions in Einstein was his mother. Dying from stomach cancer, she had moved in with him and Elsa at the end of 1919, and watching her suffer overwhelmed whatever human detachment he usually felt or feigned. When she died in February 1920, Einstein was exhausted by the emotions. "One feels right into one's bones what ties of blood mean," he wrote Zangger. Käthe Freundlich had heard him boast to her husband, the astronomer, that no death would affect him, and she was relieved that his mother's death proved that untrue. "Einstein wept like other men," she said, "and I knew that he could really care for someone."[45]

The Ripples from Relativity

For nearly three centuries, the mechanical universe of Isaac Newton, based on absolute certainties and laws, had formed the psychological foundation of the Enlightenment and the social order, with a belief in causes and effects, order, even *duty.* Now came a view of the universe, known as relativity, in which space and time were dependent on frames of reference. This apparent dismissal of certainties, an abandonment of faith in the absolute, seemed vaguely heretical to some people, perhaps even godless. "It formed a knife," historian Paul Johnson wrote in his sweeping history of the twentieth century, *Modern Times,* "to help cut society adrift from its traditional moorings."[46]

The horrors of the great war, the breakdown of social hierarchies, the advent of relativity and its apparent undermining of classical physics all seemed to combine to produce uncertainty. "For some years past, the entire world has been in a state of unrest, mental as well as physical," a Columbia University astronomer, Charles Poor, told the

New York Times the week after the confirmation of Einstein's theory was announced. "It may well be that the physical aspects of the unrest, the war, the strikes, the Bolshevist uprisings, are in reality the visible objects of some underlying deeper disturbance, worldwide in character. This same spirit of unrest has invaded science."[47]

Indirectly, driven by popular misunderstandings rather than a fealty to Einstein's thinking, *relativity* became associated with a new *relativism* in morality and art and politics. There was less faith in absolutes, not only of time and space, but also of truth and morality. In a December 1919 editorial about Einstein's relativity theory, titled "Assaulting the Absolute," the *New York Times* fretted that "the foundations of all human thought have been undermined."[48]

Einstein would have been, and later was, appalled at the conflation of relativity with relativism. As noted, he had considered calling his theory "invariance," because the physical laws of combined spacetime, according to his theory, were indeed invariant rather than relative.

Moreover, he was not a relativist in his own morality or even in his taste. "The word relativity has been widely misinterpreted as relativism, the denial of, or doubt about, the objectivity of truth or moral values," the philosopher Isaiah Berlin later lamented. "This was the opposite of what Einstein believed. He was a man of simple and absolute moral convictions, which were expressed in all he was and did."[49]

In both his science and his moral philosophy, Einstein was driven by a quest for certainty and deterministic laws. If his theory of relativity produced ripples that unsettled the realms of morality and culture, this was caused not by what Einstein believed but by how he was popularly interpreted.

One of those popular interpreters, for example, was the British statesman Lord Haldane, who fancied himself a philosopher and scientific scholar. In 1921, he published a book called *The Reign of Relativity,* which enlisted Einstein's theory to support his own political views on the need to avoid dogmatism in order to have a dynamic society. "Einstein's principle of the relativity of our measurements of space and time cannot be taken in isolation," he wrote. "When its import is considered it may well be found to have its counterpart in other domains of nature and of knowledge generally."[50]

Relativity theory would have profound consequences for theology, Haldane warned the archbishop of Canterbury, who immediately tried to comprehend the theory with only modest success. "The Archbishop," one minister reported to the dean of English science, J. J. Thomson, "can make neither head nor tail of Einstein, and protests that the more he listens to Haldane, and the more newspaper articles he reads on the subject, the less he understands."

Haldane persuaded Einstein to come to England in 1921. He and Elsa stayed at Haldane's grand London townhouse, where they found themselves completely intimidated by their assigned footman and butler. The dinner that Haldane hosted in Einstein's honor convened a pride of English intellectuals leonine enough to awe an Oxford senior common room. Among those present were George Bernard Shaw, Arthur Eddington, J. J. Thomson, Harold Laski, and of course the baffled archbishop of Canterbury, who got a personal briefing from Thomson in preparation.

Haldane seated the archbishop next to Einstein, so he got to pose his burning question directly to the source. What ramifications, His Grace inquired, did the theory of relativity have for religion?

The answer probably disappointed both the archbishop and their host. "None," Einstein said. "Relativity is a purely scientific matter and has nothing to do with religion."[51]

That was no doubt true. However, there was a more complex relationship between Einstein's theories and the whole witch's brew of ideas and emotions in the early twentieth century that bubbled up from the highly charged cauldron of modernism. In his novel *Balthazar,* Lawrence Durrell had his character declare, "The Relativity proposition was directly responsible for abstract painting, atonal music, and formless literature."

The relativity proposition, of course, was *not* directly responsible for any of this. Instead, its relationship with modernism was more mysteriously interactive. There are historical moments when an alignment of forces causes a shift in human outlook. It happened to art and philosophy and science at the beginning of the Renaissance, and again at the beginning of the Enlightenment. Now, in the early twentieth century, modernism was born by the breaking of the old strictures and

verities. A spontaneous combustion occurred that included the works of Einstein, Picasso, Matisse, Stravinsky, Schoenberg, Joyce, Eliot, Proust, Diaghilev, Freud, Wittgenstein, and dozens of other path-breakers who seemed to break the bonds of classical thinking.[52]

In his book *Einstein, Picasso: Space, Time, and the Beauty That Causes Havoc,* the historian of science and philosophy Arthur I. Miller explored the common wellsprings that produced, for example, the 1905 special theory of relativity and Picasso's 1907 modernist masterpiece *Les Demoiselles d'Avignon.* Miller noted that both were men of great charm "yet who preferred emotional detachment." Each in his own way felt that something was amiss in the strictures that defined his field, and they were both intrigued by discussions of simultaneity, space, time, and specifically the writings of Poincaré.[53]

Einstein served as a source of inspiration for many of the modernist artists and thinkers, even when they did not understand him. This was especially true when artists celebrated such concepts as being "free from the order of time," as Proust put it in the closing of *Remembrance of Things Past.* "How I would love to speak to you about Einstein," Proust wrote to a physicist friend in 1921. "I do not understand a single word of his theories, not knowing algebra. [Nevertheless] it seems we have analogous ways of deforming Time."[54]

A pinnacle of the modernist revolution came in 1922, the year Einstein's Nobel Prize was announced. James Joyce's *Ulysses* was published that year, as was T. S. Eliot's *The Waste Land.* There was a midnight dinner party in May at the Majestic Hotel in Paris for the opening of *Renard,* composed by Stravinsky and performed by Diaghilev's *Ballets Russes.* Stravinsky and Diaghilev were both there, as was Picasso. So, too, were both Joyce and Proust, who "were destroying 19th century literary certainties as surely as Einstein was revolutionizing physics." The mechanical order and Newtonian laws that had defined classical physics, music, and art no longer ruled.[55]

Whatever the causes of the new relativism and modernism, the untethering of the world from its classical moorings would soon produce some unnerving reverberations and reactions. And nowhere was that mood more troubling than in Germany in the 1920s.