The *Gita* of J. Robert Oppenheimer

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The essential idea in the reply which Krishna offered to Arjuna was that through the discharge of the duties of one's station without thought of fruit one was on the way to salvation.

—John McKenzie, Hindu Ethics (1922)¹

NE OF THE MOST-CITED and least-interpreted quotations from the history of the atomic age is what J. Robert Oppenheimer claimed to have thought when he witnessed the world's first nuclear explosion: "I am become death, the destroyer of worlds." Shortly after Oppenheimer, director of the laboratory that developed the atomic bomb, saw the fireball glowing over the New Mexico desert at the Trinity test site on 16 July 1945, those words derived from the Hindu scripture the *Bhagavad-Gita* came to his mind.

The quotation appears throughout the literature on nuclear weapons, often in a slightly different form: "I am become Death, the shatterer of worlds." Destroyer or shatterer, the fatal image has appeared in such widely read recent books as Roger Shattuck's *Forbidden Knowl*-

¹McKenzie, *Hindu Ethics: A Historical and Critical Essay* (Oxford: Oxford University, 1922), 125.

²The television documentary *The Decision to Drop the Bomb*, prod. Fred Freed, broadcast as an NBC White Paper in 1965, recorded Oppenheimer speaking these words. In this interview almost twenty years after the Trinity test, Oppenheimer mistakenly attributes the quotation to Vishnu, of whom Krishna is the eighth avatar. An offshoot from this documentary is Len Giovannitti and Fred Freed's book, *The Decision to Drop the Bomb* (New York: Coward McCann, 1965), which on p. 197 contains the fullest version of the quotation in print. The printed version omits the "the" before "destroyer of worlds," though the definite article is definitely audible in the film. Producer Jon Else used the Oppenheimer clip in his later documentary, *Day After Trinity* (Santa Monica, Calif.: Pyramid Films, 1980).

³ William L. Laurence, *Men and Atoms: The Discovery, the Uses and the Future of Atomic Energy* (New York: Simon & Schuster, 1959), 118. Laurence, who may have been the first person to hear any version of the quotation, interviewed Oppenheimer at Los Alamos just a few hours after the atomic test and later claimed that he would never forget the "shattering impact" of Oppenheimer's words. Strangely, however, Laurence did not include the quotation in his book *Dawn Over Zero: The Story of the Atomic Bomb* (New York: Knopf, 1946). Laurence was a reporter for the *New York Times*. In a story published on 27 Sept. 1945 he described Oppenheimer's reaction to the explosion ("terrifying") but made no mention of "I

edge, James T. Patterson's Grand Expectations, David Halberstam's The Fifties, Richard Rhodes's The Making of the Atomic Bomb, and Walter A. McDougall's . . . The Heavens and the Earth,⁴ and it has provided the titles for at least two books, an article, and a documentary video.⁵ As early as 1969 a scholar said that "Oppenheimer's mental association at that blazing instant" had become "legendary." Shattuck reports that nowadays many children learn the quotation in school.⁷ The quotation is useful because it vividly conveys the awesome destructiveness of even the most primitive nuclear weapons.

There is more to it than that, however. As Oppenheimer supervised the invention of the bomb at Los Alamos, New Mexico, he wrestled with misgivings about bestowing upon humanity the possible means for its own annihilation. He dreaded failure, he later told a reporter, but he also dreaded success.⁸ "Lord," he exclaimed to a colleague,

am become Death." If Laurence published the "shatterer" passage before his 1959 book, I have not discovered it. The earliest publication of this variant that I have been able to locate is in *Time*, 8 Nov. 1948, p. 77. The fullest version is in Robert Jungk, *Brighter than a Thousand Suns: A Personal History of the Atomic Scientists*, trans. James Cleugh (New York: Harcourt, Brace, 1958), 201: "A passage from the Bhagavad-Gita, the sacred epic of the Hindus, flashed into his mind:

If the radiance of a thousand suns were to burst into the sky, that would be like the splendor of the Mighty One—

Yet, when the sinister and gigantic cloud rose up in the far distance over Point Zero, he was reminded of another line from the same source:

I am become Death, the shatterer of worlds."

Jungk interviewed Oppenheimer before writing the book, and the quotation may be from this interview. If so, it could be Oppenheimer's later extrapolation on the sentence originally heard by Laurence.

⁴Shattuck, Forbidden Knowledge: From Prometheus to Pornography (New York: St. Martin's, 1996), 174n; Patterson, Grand Expectations: The United States, 1945–1974 (New York: Oxford, 1996), 6; Halberstam, The Fifties (New York: Ballantine, 1993), 34; Rhodes, The Making of the Atomic Bomb (New York: Simon & Schuster, 1986), 676; McDougall, ... The Heavens and the Earth: A Political History of the Space Age (New York: Basic Books, 1985), 456.

⁵ Martin J. Sherwin, A World Destroyed: The Atomic Bomb and the Grand Alliance (New York: Knopf, 1975); Peter Goodchild, J. Robert Oppenheimer: Shatterer of Worlds (New York: Fromm International, 1985); Richard Rhodes, "'I Am Become Death': The Agony of J. Robert Oppenheimer," American Heritage 28.6 (Oct. 1977), 70–83; I am become death/ they made the bomb (New York: First Run/Icarus Films, 1995). In addition, Jungk's title, Brighter than a Thousand Suns, is derived from a preceding part of one variant of Oppenheimer's quotation (cf. n. 3).

⁶ Philip M. Stern, *The Oppenheimer Case: Security on Trial* (New York: Harper & Row, 1969), 81.

⁷Shattuck, *Forbidden Knowledge*, 174n. My interpretation of Oppenheimer is quite different from that of this scholar, who sees him as a "chastened Frankenstein" and a "Hamlet" (174, 175).

⁸ Lincoln Barnett, "J. Robert Oppenheimer," Life magazine, 10 Oct. 1949, 133.

"these affairs are hard on the heart." Looking beyond the impending destruction of enemy cities in the current war, he was dispirited by the prospect of continued development of nuclear weapons after the war. In this time of uncertainty Oppenheimer revisited one of his favorite books, the *Bhagavad-Gita*, and from it drew encouragement that steadied him in his work.

Like any other scripture, the *Gita* is subject to interpretation. Among scholars and practitioners of Hinduism there has always been argument over what the sacred texts mean, and the interpretations have changed over time. Oppenheimer's "Hinduism" was bound to be different from someone else's. Moreover, as someone not raised in the Hindu tradition, Oppenheimer might have misunderstood some of its principles or might at least have understood them in novel ways—the words of a dead man are sometimes transmogrified in the guts of the living.¹¹

Still, Oppenheimer understood the *Gita* and other Sanskrit texts well enough to formulate a code for living that, while the product of his unique mind and experience, nevertheless showed signs of its origins in the sacred literature of India. Although the scientist himself never reduced his homemade Hinduism to a catalogue of principal tenets, a distillation of his words and actions might produce a short list of three: duty, fate, and faith. He believed that he had a job to do; that he should do it only because it was his job and not because he was intent on obtaining any particular result; and that following these principles would bring a saving measure of serenity into his profoundly discontented existence. In Oppenheimer's philosophy these three precepts were not ornamental but structural: without them he would have been a different man.

An analysis of how the modern American put ancient Indian ideas to use illuminates important aspects of his biography. Viewed in context, the "I am become death" quotation reveals how Oppenheimer used philosophy as an anodyne for the pangs of conscience. More generally, a study of the *Gita* reveals one important source of Oppenheimer's belief that scientists should shun the ivory tower and act selflessly but effectively in the world. Finally, such a study helps to explain certain apparent contradictions in Oppenheimer's biography,

⁹ Lansing Lamont, Day of Trinity (New York: Atheneum, 1965), 225.

¹⁰ Barton J. Bernstein, "Four Physicists and the Bomb: The Early Years, 1945–50," *Historical Studies in the Physical and Biological Sciences* 18.2 (1988), 241.

¹¹ For a lively critical history of how the *Gita* has been interpreted outside India, see Eric J. Sharpe, *The Universal Gita: Western Images of the Bhagavad Gita* (La Salle, Ill.: Open Court, 1985), esp. xi, 174–75.

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such as why a man of powerful intellect and personality would sometimes turn deferential and acquiescent, or why a man inclined toward pacifism would build an atomic bomb. Thus this study helps, in a limited but perhaps not negligible way, to answer the question of why Hiroshima and Nagasaki were destroyed. Without the inspiration of the *Gita*, Oppenheimer might not have been able or willing to direct Los Alamos. Without Oppenheimer's skilled, determined direction, Los Alamos might not have produced an atomic bomb in time to be used on Japan.

The Gita was far from the only work of imaginative literature that influenced Oppenheimer. Shakespeare's Hamlet and the poems of John Donne, for example, had their effects. The Gita was different, however, in that it presented many of the essential ideas of a great tradition of philosophy from which Oppenheimer could derive an entire code for the conduct of life. There is no such thing as Shakespearism or Donnism, but there is Hinduism. Oppenheimer made the most of it. He never became a Hindu in a devotional sense: he never joined a temple or prayed to gods. His brother reported that although Oppenheimer "was really taken by the charm and the general wisdom of the Bhagavad-Gita," he never got "religiously involved in it." Hindu ideas did, however, resonate with his own and, to a great extent, become his own. That conjunction reveals much about the man who supervised the building of the world's first nuclear weapon. The Gita all by itself is not the solution to the puzzle of Robert Oppenheimer, but it is an important and hitherto missing part of the puzzle.

Arguments about the scientist's motivations are principally and necessarily derived from circumstantial evidence rather than from direct testimony by the man himself: he never said that the *Gita* (or any other personal factor) caused him to make the crucial decisions in his life. If Oppenheimer engaged in much self-scrutiny, he either did not commit the results to writing or did not preserve the writings. The closest thing to a memoir that he ever wrote was an autobiographical statement to the Atomic Energy Commission board investigating his loyalty in 1954. Except for Alice Kimball Smith and Charles Weiner's invaluable collection of Oppenheimer's letters and recollections from 1922 to 1945, few documents of a revealing, personal nature remain. The

¹² Frank Oppenheimer speaking in Else, prod., Day After Trinity.

¹³ U.S. Atomic Energy Commission, *In the Matter of J. Robert Oppenheimer: Transcript of Hearing before Personnel Security Board* (Washington, D.C.: Government Printing Office, 1954), 7–20. Henceforth U.S.A.E.C., *Transcript*.

¹⁴ Smith and Weiner, eds., Robert Oppenheimer: Letters and Recollections (Cambridge: Harvard University, 1980), ix-x.

Oppenheimer Papers at the Library of Congress, which Oppenheimer once described as a "hideously complete archive," consist of 117.4 linear feet of containers but include few items in which he tries to explain why he thought or did what he did. Many of his associates would speculate on his motives, but they would have to speculate because he rarely actually told them. 16

Still, circumstantial evidence can be strong, as when Oppenheimer's words closely follow those of the *Gita* and his behavior closely follows that prescribed therein. Moreover, he occasionally asserted that the book had impressed and affected him in a general way, so there is some direct evidence of its influence. Perhaps the best evidence, though, is that an awareness of the *Gita*'s teachings renders comprehensible some features of the scientist's life that would otherwise be hard to understand.

J. Robert Oppenheimer was an unlikely "father of the atomic bomb." While studying in England in 1925, he had attended a meeting of pacifists. Toon after Hiroshima and Nagasaki were obliterated, he became a leading critic of nuclear weapons and nuclear war. On occasion he suggested that perhaps the United States should have given the Japanese a less lethal demonstration of the bomb before using it on a city. In 1959 he said that every time the United States "has expressed the view that there was no harm in using the super weapons, provided only that they were used against an antagonist who had done wrong, we have been in error. He said that when the bomb was dropped on Hiroshima, Japan was already "essentially defeated" and that nuclear weapons were instruments "of aggression, of surprise, and of terror"; that making armaments was "the devil's work"; that the bomb "mer-

¹⁵ Carolyn H. Sung et al., J. Robert Oppenheimer: A Register of His Papers in the Library of Congress (Washington, D.C., 1997), 1, 3.

¹⁶ Besides Oppenheimer's general reluctance to discuss personal motives, there was a particular reason why he might not talk about the *Gita*—his associates' ignorance of it. Talking to most Western scientists, journalists, or government officials about Hinduism would be like speaking to them in a foreign language. At best they would be bewildered. At worst they would think he was a kook. Under the circumstances, Oppenheimer probably thought it best to keep his philosophy to himself.

¹⁷ Oppenheimer to Francis Fergusson, 15 Nov. 1925, in Smith and Weiner, *Robert Oppenheimer*, 88.

¹⁸ Oppenheimer, *The Flying Trapeze: Three Crises for Physicists*, ed. E. T. Salmon (London: Oxford, 1964), 60; Oppenheimer interview with *Le Monde*, 29 Apr. 1958, quoted in Jungk, *Brighter than a Thousand Suns*, 209.

¹⁹ Oppenheimer, "In the Keeping of Unreason," *Bulletin of the Atomic Scientists* 16.1 (Jan. 1960), 22. This paper was delivered at a seminar of the Congress for Cultural Freedom, Rheinfelden, Switzerland, 20–27 Sept. 1959.

²⁰ Oppenheimer, "Atomic Weapons and the Crisis in Science," *Saturday Review of Literature*, 24 Nov. 1945, 10.

²¹ Quoted in Barnett, "J. Robert Oppenheimer," 121.

cilessly" dramatized "the inhumanity and evil of modern war" and that the physicists who built the atomic bomb had "known sin";²² that he himself had blood on his hands.²³ He warned against a postwar nuclear arms race,²⁴ advocated the international control of atomic weaponry,²⁵ and, for a time, questioned the development of the hydrogen bomb, partly because such a weapon "carries much further than the atomic bomb itself the policy of exterminating civilian populations."²⁶

"If you looked at his outlook on life, his philosophy," his former colleague Joseph Rotblat said recently, "you wouldn't believe that such a man would advocate the use of the bomb on Hiroshima-on civilians—and yet he did."27 Not only did he build the bomb, but to the end of his life—even after acknowledging that he had blood on his hands—he maintained that he had done the right thing.²⁸ How, then, had this gentle scholar brought himself to preside over the bomb factory at Los Alamos?

There were many ways. Like others working there, Oppenheimer thought that the bomb would save lives by speedily ending World War II.²⁹ He was acutely aware of the fascist atrocities that might be stopped by an American atomic bomb: after the fall of France in 1940 he had said it was necessary to do something to save Western civilization.³⁰ Looking beyond the current conflict, he hoped that the atomic bomb's frightful power would deter future wars and force nations to cooperate instead of fight.³¹ The project piqued his curiosity ("If you are a scientist," he said, "you believe that it is good to find out how the

²² Oppenheimer, "Physics in the Contemporary World," Bulletin of the Atomic Scientists 4.3 (Mar. 1948), 66.

²³ Truman to Dean Acheson, 7 May 1946, President's Secretary's File, Truman Library, cited in Bernstein, "Four Physicists and the Bomb," 245.

²⁴ Speech upon leaving directorship of Los Alamos, 16 Oct. 1945, in Smith and Weiner, Robert Oppenheimer, 310. The following day he gave similar testimony to a committee of the U.S. Senate (New York Times, 18 Oct. 1945, p. 5).

²⁵ Oppenheimer, "The New Weapon: The Turn of the Screw," in One World or None, ed. Dexter Masters and Katharine Way (New York: McGraw-Hill, 1946), 25.

²⁶Report to the General Advisory Committee, 30 Oct. 1949, quoted in Thomas Powers, Heisenberg's War: The Secret History of the German Bomb (New York: Knopf, 1993), 467.

²⁷ Quoted in Jonathan Schell, "The Gift of Time," The Nation, 2/9 Feb. 1998, p. 28. Rotblat says that the pressures of war overcame Oppenheimer's humane philosophy and led him to take brutal actions. I attribute his actions, brutal or otherwise, to his philosophy itself.

New York Times Magazine, 1 Aug. 1965, p. 8.
 Barnett, "J. Robert Oppenheimer," 134; Giovannitti and Freed, Decision to Drop the Bomb, 122.

³⁰ Smith and Weiner, Robert Oppenheimer, 173.

³¹Oppenheimer to Herbert Smith, 26 Aug. 1945, in Smith and Weiner, Robert Oppenheimer, 297; Oppenheimer, "The Atomic Age," in Serving Through Science (n.p.: United States Rubber Co., 1948), 117.

world works") and his sense of adventure.³² He got great satisfaction from solving a problem, especially one as vast and intricate as the atomic bomb. "When you see something that is technically sweet," he testified later, "you go ahead and do it and you argue about what to do about it only after you have had your technical success. That is the way it was with the atomic bomb."³³ Still, all these reasons may not have been enough to overcome his qualms about creating a weapon that would soon kill thousands of people and threaten in the future to kill millions more. To reinforce his determination to build the bomb, Oppenheimer used the *Gita*.

In his resort to a philosophy from ancient India, Oppenheimer was revolting against his upbringing. The child of Jews affiliated with no temple but instead with Felix Adler's Society for Ethical Culture (Oppenheimer's father, Julius, was on the society's board of directors), he had studied for ten years at the Ethical Culture School in New York.³⁴ Adler had abandoned the transcendental and supernatural aspects of religion, focusing instead on human welfare, which he saw as the basis for a universal faith superseding both Judaism and Christianity. Although the school he founded provided excellent training in science and the classics, its distinctive characteristic was its dedication to moral instruction.³⁵ I. I. Rabi, who met Oppenheimer as a young man and later worked with him on the Manhattan Project, the building of the atomic bomb, said that Oppenheimer was "not affectionate" toward his old school. "Too great a dose of ethical culture," Rabi surmised, "can often sour the budding intellectual who would prefer a more profound approach to human relations and man's place in the universe."36 When Oppenheimer was seventeen, he wrote a jingle for his father's birthday, teasing that Julius had "swallowed Dr. Adler like morality compressed."³⁷ After Oppenheimer left the Ethical Culture School and went to Harvard (1922–25), he began seeking a "more profound approach" in the Hindu classics, albeit in English translation.³⁸

³² Speech to Association of Los Alamos Scientists, 2 Nov. 1945, in Smith and Weiner, Robert Oppenheimer, 317.

³³ U.S.A.E.C., *Transcript*, 81.

³⁴ Smith and Weiner, Robert Oppenheimer, 2-3.

³⁵ Benny Kraut, From Reform Judaism to Ethical Culture: The Religious Evolution of Felix Adler (Cincinnati: Hebrew Union College Press, 1979), 13, 110.

³⁶ Rabi et al., Oppenheimer (New York: Scribner's, 1969), 4.

³⁷ Frank Oppenheimer, interview by Alice Kimball Smith, 14 April 1976, quoted in Smith and Weiner, *Robert Oppenheimer*, 3.

³⁸ Jeffries Wyman, interview by Charles Weiner, 28 May 1975, 9, in J. Robert Oppenheimer Oral History Collection (Transcripts), MC 85, Institute Archives and Special Collections, Massachusetts Institute of Technology Libraries, Cambridge, Mass. (henceforth Oppenheimer Oral History Collection, MIT).

When Rabi met him in 1929, he seemed to Rabi to be more interested in those literary works than in physics.³⁹

Oppenheimer acquired a deeper knowledge of the Bhagavad-Gita in 1933 when, as a young professor of physics with interests ranging far beyond his academic specialty, he studied Sanskrit with Professor Arthur W. Ryder at Berkeley. The Gita, Oppenheimer excitedly wrote to his brother, was "very easy and quite marvelous." 40 This is the earliest direct evidence of the impression the book made on Oppenheimer, and a lasting impression it was. Later he called the Gita "the most beautiful philosophical song existing in any known tongue." He kept a well-worn copy of it conveniently on hand on the bookshelf closest to his desk and often gave the book (in translation) to friends as a present.⁴¹ He continued to browse in it while directing the bomb laboratory. After President Franklin Roosevelt's death in April 1945, Oppenheimer spoke at a memorial service at Los Alamos and quoted a passage from the Gita.⁴² Clearly this ancient book was on his mind as the atomic bomb neared completion, even before he saw the dazzling fireball from the Trinity test. In later years, too, he would look back on the Gita as one of the most important influences in his life. In 1963, Christian Century magazine asked him to list the ten books that "did most to shape your vocational attitude and your philosophy of life." Along with Shakespeare's Hamlet and Eliot's Waste Land, Oppenheimer listed the Gita.43

The *Bhagavad-Gita*, whose title can be translated as the "Song of the Lord,"⁴⁴ is a masterpiece and monument of Hinduism. One expert calls it "the most important single text for 'Hindu' religion,"⁴⁵ and a

³⁹ Rabi et al., Oppenheimer, 5.

⁴⁰ Oppenheimer to Frank Oppenheimer, 7 Oct. 1933, in Smith and Weiner, Robert Oppenheimer, 165.

⁴¹ Denise Royal, *The Story of J. Robert Oppenheimer* (New York: St. Martin's, 1969), 64. ⁴² "Man is a creature whose substance is faith. What his faith is, he is" (Chapter 17: Verse 3). Quoted in Smith and Weiner, *Robert Oppenheimer*, 288.

⁴³ Christian Century, 15 May 1963, p. 647. Oppenheimer's list also included Baudelaire's Les Fleurs du Mal, Bhartrihari's The Three Centuries (Satakatrayam), Dante's The Divine Comedy, Michael Faraday's Notebooks, Flaubert's L'Éducation sentimentale, Plato's Theaetetus, and the collected works of the German mathematician G. F. Bernhard Riemann. It is significant that two of the ten works that Oppenheimer claimed as most influential were Indian and a third, The Waste Land, alluded to the Hindu scriptures the Upanishads and concluded with a Sanskrit incantation: "Shantih shantih shantih." Cf. Eliot, Collected Poems 1909–1962 (New York: Harcourt, Brace & World, 1970), 69, 76.

⁴⁴ E.g., Annie Besant, *The Bhagavad-Gita or The Lord's Song* (Chicago: Theosophical Press, 1923); Swami Prabhavananda and Christopher Isherwood, *Bhagavad-Gita: The Song of God* (London: Phoenix House, 1947).

⁴⁵ J. A. B. van Buitenen, ed., *The Mahabharata* 1 (Chicago: University of Chicago, 1973), xxviii.

recent survey of that religion says that during the last thousand years the *Gita*'s "popularity and authority" have been "unrivalled." ⁴⁶ Even Eric Sharpe, who argues that in India the *Gita* attained its exalted status only after the 1880s, acknowledges that the book now is the "best loved and most widely read of Hindu scriptures." ⁴⁷ Indeed, G. M. Bailey complains that the *Gita* has become so revered that many people mistakenly consider it a summation of all Hinduism. ⁴⁸ By the time Oppenheimer began translating the *Gita* in the 1930s, it had become the preeminent work of Hindu literature. But what did it say, and what could an American scientist of the twentieth century learn from it?

The *Gita* is an exposition of philosophy interpolated into a vast narrative called the *Mahabharata*; the *Gita* explains Hindu ideas by placing them in the context of a story. Arthur Ryder summarizes that story this way: "The great epic relates the events of a mighty struggle between two families of princely cousins, reared and educated together. In manhood they quarrel over the royal inheritance, and their difference is sternly solved by war."⁴⁹

As the *Gita* begins, Prince Arjuna, whose courage and whose skill at archery have won renown in previous campaigns, rides his chariot onto the field of impending battle and sees in the enemy ranks his own relatives, friends, and teachers. Confused and depressed by the prospect of killing people close to him, he refuses to fight. He also, however, takes counsel from his charioteer, Krishna. Krishna is no ordinary teamster. Not only is he a friend and ally of Arjuna, but he also is a god, an avatar of Vishnu, who has assumed the appearance of a man. When Krishna talks, Arjuna listens.

Over the course of eighteen chapters, Krishna instructs Arjuna on why he should take part in the war. Though offered with many different nuances and ramifications, Krishna's arguments include three basic ones that Oppenheimer would take to heart: (1) Arjuna is a soldier, so it is his duty to fight; (2) Krishna, not Arjuna, will determine who lives and who dies, and Arjuna should neither mourn nor rejoice over what fate has in store but should be sublimely unattached to such results; (3) ultimately, the most important thing is devotion to Krishna—faith will

⁴⁶ Klaus K. Klostermaier, A Survey of Hinduism, 2nd ed. (Albany: State University of New York Press, 1994), 99.

⁴⁷ Sharpe, *Universal Gita*, ix, 63, 69.

⁴⁸ Bailey, "An Essay on the Bhagavadgita as an Impediment to the Understanding of Hinduism," in *Religions and Comparative Thought*, ed. Purusottama Bilimoria and Peter Fenner (Delhi: Sri Satguru Publications, 1988), 113, 116, 119, 120.

⁴⁹ Ryder, The Bhagavad-Gita (Chicago: University of Chicago, 1929), viii.

save Arjuna's soul.⁵⁰ As Arjuna begins to see the light, he asks to view Krishna in his godlike form. Krishna obliges by granting him "celestial sight" (Chapter 11: Verse 8). As Ryder translates the passage,

A thousand simultaneous suns
Arising in the sky
Might equal that great radiance,
With that great glory vie. (11:12)

As for Arjuna,

Amazement entered him; his hair Rose up; he bowed his head; He humbly lifted folded hands, And worshipped God. . . . (11:14)

Krishna tells Arjuna why he is there:

Death⁵¹ am I, and my present task Destruction. (11:32)

After further instruction Arjuna fully realizes his error, ends his hesitation, and decides to join the battle.

⁵⁰ There is also a fourth basic argument in the *Gita*: death is an illusion because even though the body perishes, the soul is eternal. Oppenheimer does not seem to have paid much attention to this one, however: he never maintained that the death of people in Hiroshima and Nagasaki was unreal. His apparent disbelief in a soul whose immortality made the death of the body seem unimportant, however, made his version of Hinduism a little less psychologically tenable, less practicable, than that of the *Gita*. It was comparatively easy for Arjuna to be indifferent to the consequences of his bow and arrows, because he believed that the souls of his opponents lived on, no matter what happened to their bodies. It was harder for Oppenheimer to shrug off the consequences of his atomic bomb, however, because he had no such confidence that the destruction of Japanese was an illusion. He would handle this problem by concentrating his attention on his duty to act and, insofar as possible, not on the results of his action.

⁵¹Ryder's translation here is a little peculiar but defensible. Ever since the first rendering of the Sanskrit text into English in 1785, most experts have translated this word not as Death but as Time. Cf. Charles Wilkens, The Bhagvat-Geeta (London: C. Nourse, 1785; Gainesville, Fla.: Scholars' Facsimiles & Reprints, 1959), 93; Besant, Bhagavad-Gita, 116; Prabhavananda and Isherwood, Bhagavad-Gita, 123; S. Radhakrishnan, The Bhagavadgita (New York: Harper & Brothers, 1948), 279; Eknath Easwaran, The Bhagavad Gita (Petaluma, Calif.: Nilgiri Press, 1985), 154; Barbara Stoler Miller, The Bhagavad-Gita (New York: Columbia University, 1986), 103; Dominic Goodall, Hindu Scriptures (Berkeley: University of California, 1996), 260. There are, however, exceptions. Franklin Edgerton, The Bhagavad Gita (Cambridge: Harvard University, 1944), 58, renders the word as "Time (Death)." Miller, Bhagavad-Gita, 103, translates the word in question and a following phrase as "time grown old"; Radhakrishnan, Bhagavadgita, 279, as "time . . . grown mature." The passage of a vast expanse of time implies death, thus making "Death" a legitimate translation. In his rendering of the passage, Oppenheimer followed his teacher, Ryder. This variant was especially appropriate for describing a nuclear explosion, which could bring a great deal of Death in very little Time.

For an uncertain soldier like Oppenheimer, nervously fashioning his own atomic "arrow," Arjuna sets a good example. Arjuna is fighting to install his eldest brother, Yudhishthira, as ruler of the kingdom and emperor of the known world, and to thwart the pretensions of their cousin Duryodhana. Yudhishthira is a better man and ruler than Duryodhana, who is motivated by ferocious envy and has resorted to fraud and attempted murder of his cousins to gain the throne. Krishna's message to Arjuna is clear: you must fight. To Oppenheimer the message would have seemed equally clear. If it was proper for Arjuna to kill his own friends and relatives in a squabble over the inheritance of a kingdom, then how could it be wrong for Oppenheimer to build a weapon to kill Germans and Japanese whose governments were trying to conquer the world?

1. Duty

Krishna's principal lesson for Arjuna is that he, as a man from the class of warriors and kings, has a job to do:

to tremble at the view
Of duty is not right,
Since warriors have no duty more
Ennobling than fair fight. (2:31)

The Sanskrit word that Ryder and other scholars have rendered as "duty" is *dharma*, a common but elusive term in Hindu thought.⁵³ Also often translated as "law," it comprises (in the words of Pandurang Vaman Kane) "the privileges, duties and obligations of a man, his standard of conduct as a member of the Aryan community, as a member of one of the castes, as a person in a particular stage of life." One's dharma is prescribed by various factors such as scriptural teachings, traditions established by men who understand scripture, the example set by righteous people, and conscience. However, as Klaus Klostermaier points out, dharma is "group-centered and group-oriented." The individual conscience has a role, but it is circumscribed within the consensus

⁵² Van Buitenen, *Mahabharata*, 1:7, 15; 2 (Chicago: University of Chicago Press, 1975), 110–22.

⁵³ Cf. Miller, *Bhagavad-Gita*, 2; Arnold Kunst, "Use and Misuse of Dharma," in *The Concept of Duty in South Asia*, ed. Wendy Doniger O'Flaherty and J. Duncan M. Derrett (n.p.: South Asia Books, 1978), 3. Having many meanings, dharma is easier to translate than to define. The first chapter of Austin B. Creel's *Dharma in Hindu Ethics* (Calcutta: S. P. Ghosh, 1977) is a veritable annotated bibliography of the history of the word. Cf. esp. pp. 1–8.

⁵⁴Kane, *History of Dharmasastra*, rev. ed., I (Poona, India: Bhandarkar Oriental Research Institute, 1968), 3.

formed by good and learned people through the ages. Condemned are "those who place their own reasoning above the authority of tradition." Henry David Thoreau quoted the *Gita*'s injunction "Perform the settled functions" and concluded that Hinduism possessed "the wisest conservatism." ⁵⁶

Another way in which the *Gita* seems conservative to modern Americans like Thoreau is in its refusal to assign the same dharma to every human being. Instead, everyone in the hierarchically ordered Hindu society has a particular role that is determined by one's class, family, age, and training. Ancient Indian thought legitimized "divergency of duty," says W. Norman Brown, "on what might seem to others to be a scale of astounding amplitude." Dominic Goodall says that Krishna teaches Arjuna "that sanctioned behaviour is not defined by absolute moral laws nor general principles modified to suit differing situations, but that it is particular to each person, their status and their position." The *Gita* says it is the duty of brahmans to be peaceful and wise; of soldiers, to fight; of the middle classes, to care for farming and trade; and of serfs, to perform menial services (18:41–44). The book repeatedly insists that one do one's own duty but no one else's:

For better botch your job than gain Perfection in your neighbor's; Die if you must, but do not run The risk of alien labors. (3:15)⁵⁹

Therefore, it is right for Arjuna, a member of the class of warriors, to fight; but it would be wrong if he were a brahman, farmer, or serf. A warrior has got to do what a warrior has got to do.

In the ancient Indian ethical system, one's obligations as a member of a family or class take priority over one's obligations as a member of the human race. Barbara A. Holdrege asserts that when "the particular duties of one's caste and stage in life" conflict with "the universal duties obligatory for all human beings," the particular duties prevail. 60 One

⁵⁵ Klostermaier, Survey of Hinduism, 50, 53.

⁵⁶Thoreau, *A Week on the Concord and Merrimack Rivers* (New York: Holt, Rinehart & Winston, 1963), 109. Thoreau described Christianity as "radical" because of its "pure morality" in contrast to Hinduism's "pure intellectuality" (110–11).

⁵⁷ Brown, *Man in the Universe: Some Continuities in Indian Thought* (Berkeley: University of California Press, 1966), 13.

⁵⁸ Goodall, *Hindu Scriptures*, xxviii. Cf also Miller, *Bhagavad-Gita*, 2; R. C. Zaehner, *The Bhagavad-Gita* (Oxford: Oxford University Press, 1969), 20; Creel, *Dharma in Hindu Ethics*, 7.

⁵⁹ Cf. also 18:47.

⁶⁰ Holdrege, "Hindu Ethics," in *A Bibliographic Guide to the Comparative Study of Ethics*, ed. John Carman and Mark Juergensmeyer (New York: Cambridge University Press, 1991), 15–16. Cf. also Creel, *Dharma in Hindu Ethics*, 6–7.

of those universal duties that are sometimes trumped by particular duties is *ahimsa*, noninjury to living beings.⁶¹

In the *Mahabharata* Yudhishthira says that "war is evil in any form" and that killing relatives, friends, and teachers is "a most evil thing." Yet he says he must do exactly that, for war "is the evil Law of the barons, and we have been born in the baronage. It is our Law, be it Lawless; any other way is forbidden us." The servant survives through obedience, the merchant lives by trade, the brahman begs for his food. As for members of Yudhishthira's class, "we live off killing." Everyone must follow his own particular dharma, even if it requires him to do evil.⁶²

In the Gita Krishna teaches the same lesson to Arjuna:

Let none reject his native work,

Though little to admire;
For blemish clouds adventures, as

The smoke beclouds the fire. (18:48)

Waging war is a "blemish," but one ineluctable for members of the princely class. Surama Dasgupta summarizes the meaning of this verse:

⁶¹Here, as elsewhere, there is more than one way to read the Gita. John McKenzie says that Hinduism's prohibition on injuring living creatures "does not apply to the taking of the lives of enemies in battle" (Hindu Ethics, 61). Similarly, Wendy Doniger asserts that one who reads the Gita "has been persuaded that since war is unreal, it is not evil; the warrior with ethical misgivings has been persuaded to kill, just as God kills" (The Implied Spider: Politics and Theology in Myth [New York: Columbia University, 1998], 15). In 1897 an Indian nationalist justified the assassination of imperialists by citing the Gita, and in 1934 a German dedicated his book about the Gita "to those who do battle" (Sharpe, Universal Gita, 70, 129). Some twentieth-century commentators, however, have maintained that the Gita offers no such support for any violation of the principle of ahimsa. While acknowledging that Hinduism from ancient times to the present had usually not condemned war, Mohandas K. Gandhi said that modern readers like himself were entitled to "put a new but natural and logical interpretation" upon the Gita and Hinduism. The Gita seeks only to persuade people to do their duty, he said, not to kill. The book is not "historical" but figurative, describing "the duel that perpetually went on in the hearts of mankind, and the physical warfare was brought in merely to make the description of the internal duel more alluring" (Hindu Dharma [Ahmedabad, India: Navajivan Publishing, 1950], 140, 156-57). Eknath Easwaran identifies within Hinduism two different and irreconcilable interpretive traditions. The "orthodox" view claims that the Gita condones certain acts of violence by the warrior class: "it is the dharma, the moral duty, of soldiers to fight in a good cause." On the other hand, the "mystic" view asserts that the battle Arjuna fights with his bow and arrows is allegorical, not literal—a metaphor for the real war, the struggle "between the forces of light and the forces of darkness in every human heart"—and thus offers no justification for bloodshed (Easwaran, Bhagavad Gita, 7-8, 50; cf. also Radhakrishnan, Bhagavadgita, 68-69, and Miller, Bhagavad-Gita, 157). Using Easwaran's terminology, one might say that Gandhi the pacifist was "mystical," but Oppenheimer the bomb-builder was "orthodox."

⁶² Van Buitenen, *Mahabharata* 3 (Chicago: University of Chicago, 1978), 345. Since Oppenheimer knew the *Gita* thoroughly and had studied other Sanskrit texts before getting to it, he probably knew quite a bit about the *Mahabharata*. Not to know the context in which the *Gita* appeared would be like knowing, say, the Gospel of Matthew but being unaware of Genesis and Revelation. It is possible but not likely.

"Caste duties may in themselves be associated with defects, but they are still to be performed, for there are no actions which are free from defects. It is for this reason that though noninjury is regarded as a great virtue, Arjuna is asked to fight."

In traditional Hindu society, duty is not determined only by social class but also by age and family relationships. Throughout the *Mahabharata* people are enjoined to obey their elders. For example, Yudhishthira remains silent during a rigged dice game, even though he is losing all his possessions to his cousin Duryodhana. He refuses to protest because he respects the authority of his uncle Dhritarashtra (Duryodhana's indulgent father) and other elders who refuse to halt the proceedings. When Bhima (Yudhishthira's younger brother) berates him for tolerating such injustice, Arjuna (the third brother) castigates Bhima for getting out of line, out of order, out of his dharma. Dhritarashtra orders Duryodhana to return all he has won from Yudhishthira; but then, after a change of heart, the uncle asks Yudhishthira to return for another game. The nephew knows he will lose, but he goes anyway. "How indeed," he says, "could a king like me, who guards his own Law, fail to return when summoned?" 64

Yudhishthira rolls the dice again, loses his kingdom to Duryodhana, and with his wife and brothers is banished to the forest for thirteen years. Even then, however, his dharma does not go away. Later, when Duryodhana is defeated in battle and captured by someone who turns out to be a friend of Yudhishthira, the latter persuades his friend to free Duryodhana. That is only what one owes to one's kinsman and king.⁶⁵ Small wonder that Yudhishthira has been called "the human embodiment of dharma."⁶⁶

Like Yudhishthira, Robert Oppenheimer believed that his duty was defined by his place in society. As a modern American, however, he did not see social class and family relationships as the principal determinants of his dharma. For him the crucial factor was his profession, training, expertise.⁶⁷ He was not a statesman or a soldier but a scien-

⁶³ Dasgupta, *Development of Moral Philosophy in India* (New York: Frederick Ungar, 1965), 103.

⁶⁴ Van Buitenen, *Mahabharata*, 2:140-44, 155, 158-59.

⁶⁵ Ibid., 159, 680-86.

⁶⁶ O'Flaherty and Derrett, Concept of Duty, xiv.

⁶⁷I. C. Sharma argues that ancient India lacked a rigid caste system and that, therefore, in the *Gita* a man's dharma is determined not by his birth but by his "psychological inclination and the profession voluntarily adopted by him" (*Ethical Philosophies of India*, ed. and rev. by Stanley M. Daugert [Lincoln, Neb.: Johnsen (*sic*) Publishing Co., 1965], 270–71). Similarly, W. Norman Brown maintains that the system of differentiated duties originated when India's four great classes were still relatively permeable and had not yet hardened into castes (*Man in the Universe*, 11–12). If Sharma and Brown are right, Oppenheimer and Arjuna got their dharmas from the same source, their chosen professions.

tist. Being a physicist, specifically a nuclear physicist, would determine what he must do and what he must not. When a former student of his who had misgivings about creating a weapon as terrible as the atomic bomb considered joining the army as a common soldier instead of serving on the Manhattan Project, Oppenheimer gave him "a good talking to" for "throwing right away" all his talent and training. But if he could make up his mind "to use himself as a scientist and nothing else," his former professor urged him, he should do so. The man joined the project.⁶⁸

Oppenheimer knew that the Manhattan Project would release the dangerous genie of nuclear weaponry, yet he believed that scientists, as scientists, had an obligation to serve on the project. "If you are a scientist," he told his fellow workers at Los Alamos in November 1945, "you cannot stop such a thing. . . . If you are a scientist you believe . . . that it is good to turn over to mankind at large the greatest possible power to control the world and to deal with it according to its lights and values." ⁶⁹ In a popular magazine article published at about the same time, he asked whether it is good to give the world increased power, then concluded, "Because we are scientists, we must say an unalterable *yes*." ⁷⁰ "If you are a scientist," "Because we are scientists"—clearly Oppenheimer believed that scientists had a dharma all their own.

It was the duty of the scientist to build the bomb, but it was the duty of the statesman to decide whether or how to use it. Oppenheimer clearly and repeatedly acknowledged these very different dharmas. When appointed chairman of the General Advisory Committee of the Atomic Energy Commission in 1946, he later testified, he knew from the start that the committee's purview was only over scientific and technical matters, and he "recognized with relief" that "the job of decision-making . . . rested elsewhere." The G.A.C. advised the A.E.C. "not how many bombs they should make, because that was not our job—that was the job of the Military Establishment—but what were the real limits on how many they could make. How much material could be made available?"

On those occasions when he was asked to go outside his technical expertise and give advice on policy, he sometimes declined to do so but sometimes was "seduced" into answering. Even then, however, he tried

⁶⁸ U.S.A.E.C., *Transcript*, 206, 275–76. Ironically, the former student, G. Rossi Lomanitz, was later branded a security risk because of his leftist affiliations, removed from the project, and drafted into the army.

⁶⁹ Speech to Association of Los Alamos Scientists, in Smith and Weiner, Robert Oppenheimer, 317.

⁷⁰ Oppenheimer, "Atomic Weapons and the Crisis in Science," 10.

⁷¹ U.S.A.E.C., *Transcript*, 66, 72–73.

to stay in his proper role as a scientist. For example, in 1948 the General Board of the Navy asked him whether United States war plans should call for the use of weapons of mass destruction—a question of policy. Oppenheimer offered some opinions but prefaced them by protesting "my almost total lack of qualification" because of his inexperience. He concluded by warning that little weight should be given to his "personal views" but that he would be glad to be of use "in matters which fall more closely within my field of competence."

Just as Arjuna and Yudhishthira honored their elders by submitting to their decisions, even when those decisions were wrong, so did Oppenheimer yield to those he recognized as his political and military superiors. He was a scientist, so it was his duty to make judgments on scientific matters, like how to build the bomb. But when it came to politics and war, he refused to oppose decisions made by people seemingly more qualified than himself. He would not venture outside his dharma.

This was Oppenheimer's attitude and practice at Los Alamos. When Edward Teller was asked to circulate a petition by his fellow Manhattan Project scientist Leo Szilard, cautioning President Truman against dropping the atomic bomb on a Japanese city, Oppenheimer advised Teller not to do so. "Our fate," Teller later recollected Oppenheimer explaining, "was in the hands of the best, the most conscientious men of our nation. And they had information which we did not possess."⁷³ The director forbade the circulation of the petition at Los Alamos.⁷⁴ When Oppenheimer himself recalled the deliberations of the Scientific Panel advising the government on the use of the bomb, he said that they thought they lacked "the kind of information or the kind of insight or the kind of experience that really allowed us to cope with the decision."⁷⁵ Scientists were "technical people" with no special qualifications to decide how the bomb should be used. They "didn't know beans" about whether the bomb was needed to force a Japanese surrender and therefore they had to rely on the judgment of experienced policymakers. ⁷⁶ In 1946, when a graduate student wrote a proposal for a scientists' strike to stop the development of a nuclear arms race, Oppenheimer vehemently advised him to burn it.⁷⁷ For a time in the late 1940s Oppenheimer argued against an attempt to develop the

⁷² Ibid., 48, 67–68.

⁷³ Edward Teller with Allen Brown, *The Legacy of Hiroshima* (Garden City, N.Y.: Doubleday, 1962), 13–14.

⁷⁴ Alice Kimball Smith, *A Peril and a Hope: The Scientists' Movement in America: 1945–47* (Chicago: University of Chicago, 1965), 155.

⁷⁵ Giovannitti and Freed, *Decision to Drop the Bomb*, 122.

⁷⁶ U.S.A.E.C., Transcript, 34.

⁷⁷ John McPhee, *The Curve of Binding Energy* (New York: Farrar, Strauss & Giroux, 1974), 58.

hydrogen bomb. Even while doing so, however, he guided the preliminary research for the "Super" along the lines most likely to produce a bomb;⁷⁸ and as soon as President Truman declared in 1950 that the United States would go ahead with it, Oppenheimer ceased objecting and instead devoted himself to implementing the decision.⁷⁹

Murray Kempton has pointed out Oppenheimer's deferential attitude toward political authorities. When Oppenheimer was fellow-traveling with Communists, he criticized the Hitler-Stalin Pact of 1939 in only the most tentative fashion. "Stalin was, after all, a scientific socialist," observes Kempton mordantly, "and might know something he didn't." Oppenheimer continued to hope that the Communists would realize their mistake, and he may have donated money to Communist causes as late as 1942.81

The scientist was no less tolerant of mistakes by the United States government. Even when the Atomic Energy Commission sought to remove his security clearance in 1954, ostensibly because of his earlier leftist involvements, he did not resist as strenuously as he could have. Historians Alice Kimball Smith and Charles Weiner have noted that in the Personnel Security Board hearing, Oppenheimer seemed to have lost his usual command of language. Be His friend Haakon Chevalier noted that in the hearing transcript, "There is no trace of the strong personality, the commanding intellect, the assertive will. He has become limp and docile." When asked why he had lied to an intelligence officer at Los Alamos, for example, Oppenheimer gave a stunningly self-deprecating answer: "Because I was an idiot."

Kempton explains the passivity this way: "As there could be no disrupting a government decision to immolate Hiroshima, there could be no real disputing its decision to immolate him." Thus Oppenheimer achieved a kind of moral weightlessness as he drifted on the currents of other men's decisions.

"Government," Kempton asserts, "not Krishna, not even science, had turned out to be God for him," 86 but Kempton has it backward.

⁷⁸ Nuel Pharr Davis, *Lawrence and Oppenheimer* (New York: Simon and Schuster, 1968), 317.

⁷⁹ U.S.A.E.C., *Transcript*, 19, 81.

⁸⁰ Kempton, "Ambivalence of J. Robert Oppenheimer," Esquire, Dec. 1983, p. 241.

⁸¹ U.S.A.E.C., Transcript, 114, 186.

⁸² Smith and Weiner, Robert Oppenheimer, 330.

⁸³ Chevalier, Oppenheimer: The Story of a Friendship (New York: George Braziller, 1965), 106.

⁸⁴ U.S.A.E.C., *Transcript*, 137.

⁸⁵ Kempton, "Ambivalence of J. Robert Oppenheimer," 246.

⁸⁶ Ibid.

Oppenheimer went along with government decisions not because they were government decisions but because he thought political decision-making was the duty of government leaders, not scientists. If the Atomic Energy Commission decided, however unjustly, to strip away Oppenheimer's security clearance, that was their prerogative; just as it had been the prerogative of Yudhishthira's elders to allow a fraudulent dice game to strip away all his possessions. And like Yudhishthira, Oppenheimer was dutifully speechless.

Oppenheimer's inarticulateness during the Personnel Security Board hearing surprised people because usually he was self-confident, often even arrogant—as many colleagues could attest.⁸⁷ Peter Goodchild, one of his biographers, reports that Oppenheimer was deferential only to one or two exalted scholars like Albert Einstein, but not to such luminaries as James Franck and Hideki Yukawa, both of whom won Nobel Prizes in physics.⁸⁸ Oppenheimer's lack of humility, however, occurred in the realm of science, in which Oppenheimer's dharma made him a prince. When it came to politics, he deferred to authorities. That was just his duty.

When questioned in later years about his judgment in working on the Manhattan Project, Oppenheimer would defend himself this way: "I did my job which was the job I was supposed to do. I was not in a policymaking position at Los Alamos. I would have done anything that I was asked to do, including making the bombs in a different shape, if I had thought it was technically feasible." Be Later Murray Kempton would criticize this blank commitment to duty: "There was in those words a cold tone stripped of every ideal except the rules of function." Yet this functionalism that Kempton called a "pinnacle of spiritual dispossession" was in fact the spiritual payload Oppenheimer had extracted from the *Gita*. Once awed and tutored by Krishna, Arjuna did the job he was supposed to do.

Oppenheimer revealed his sense of duty in 1943 when an army intelligence officer named Boris Pash prodded him to name security risks at Los Alamos.

⁸⁷ E.g., Frederick Bernheim, interview by Charles Weiner, 27 Oct. 1975, pp. 29, 33; Harold Cherniss, interview by Alice K. Smith, 21 April 1976, p. 25, both in Oppenheimer Oral History Collection, MIT.

⁸⁸ Goodchild, J. Robert Oppenheimer, 27-29.

⁸⁹ U.S.A.E.C., Transcript, 236.

⁹⁰ Kempton, "Ambivalence of J. Robert Oppenheimer," 241.

⁹¹ In Hinduism, says W. Norman Brown, "each caste has a specific function in the universe which it is duty bound to perform. Each individual member of a caste has as his personal duty that of fulfilling the function of his caste" (*Man in the in Universe*, 12).

- P: You . . . picture me as a bloodhound on the trail, and that I am trying to get out of you everything I possibly can.
- O: That's your duty to a certain extent.... It is also my duty not to implicate these people, who are acquaintances, or colleagues and so on of whose position I am absolutely certain... and my duty is to protect them....
- P: I am not persistent (ha ha) but—
- O: You are persistent and it is your duty. . . . I'm pretty sure that none of the guys here, with the possible exception of the Russian, who is doing probably his duty to his country—but the other guys, really were just feeling they didn't do anything. . . . 92

It was Pash's duty to search persistently for spies, Oppenheimer's to protect colleagues he knew were innocent, and perhaps a Russian's to spy for his country—Oppenheimer could accept all this with equanimity because everybody was doing what he was supposed to, following his own particular dharma.⁹³

A few weeks later Oppenheimer was interrogated by a very different army officer. John Lansdale, an attorney serving in military intelligence, explained that because of his position, he was more focused on rooting out potential spies than the laboratory's director was: "Of course my job operatively is to try to prevent the escape of information, and of course since that is my job . . . it probably looms larger in my daily problems of course than it does in yours." Of course, of course—a redundant statement of the obvious: different people have different jobs. But Oppenheimer knew that already. A few minutes later, when Lansdale complained that "I wish I could get out of the army and back to practicing law, where I don't have these troubles," Oppenheimer replied sympathetically, "You've got a very mean job." The director of Los Alamos might have said the same thing about himself. Building an atomic bomb was a very mean job; but it was his job, and he would do it.

Twenty years after Trinity, reporters would ask Oppenheimer about his role in the project, and he would answer that he had done his duty. "I never regretted, and do not regret now, having done my part of the job," he told the *New York Times Magazine*. 95 "At Los Alamos,"

⁹² Transcript of conversation, 26 Aug. 1943, in U.S.A.E.C., *Transcript*, 848-56.

⁹³ There is an ancient tale of a sage who repeatedly pulled a drowning scorpion out of the Ganges and who was repeatedly stung for his efforts. Asked why he kept rescuing the venomous creature, the sage replied that it was the dharma of a scorpion to sting but the dharma of a human being to save. Cf. Easwaran, *Bhagavad Gita*, 15.

⁹⁴ Transcript of interview, 12 Sept. 1943, in U.S.A.E.C., Transcript, 881, 885.

⁹⁵ New York Times Magazine, 1 Aug. 1965, p. 8.

he told *Newsweek*, "there was uncertainty of achievement but not of duty." With this mention of "uncertainty of achievement" he connected one key principle of the *Gita*, duty, with a second one, fate.

2. FATE

The Hindu conception of fate is entirely compatible with human free will. Every person has the power to choose between doing rightly and doing wrongly. Where fate comes into play is in the worldly results. As Krishna says in the *Mahabharata*, "A human action, however well counseled and conducted and however correctly carried out, may be opposed by fate." One can govern oneself but not events (etymologically, "out-comes"). Eknath Easwaran says this: "Each of us has the obligation to act rightly, but no power to dictate what is to come of what we do." This sounds like a restatement of Oppenheimer's "there was uncertainty of achievement but not of duty," but Easwaran is summarizing the philosophy of the *Gita*.

The notion that people cannot control the results of their own behavior is, of course, not uniquely Hindu. That is, for example, a theme in *Hamlet*, another of Oppenheimer's favorite works of literature: "Our thoughts are ours, their ends none of our own" (Act 3, Scene 2); "There's a divinity that shapes our ends" (5, 2), and, most pertinent to the scientific director of the Manhattan Project,

So shall you hear of carnal, bloody, and unnatural acts, Of accidental judgments, casual slaughters, . . . purposes mistook
Fall'n on th'inventors' heads (5, 2).

Hamlet's delay and demise illustrate the danger of "thinking too precisely on th'event" (4, 4).

Unlike *Hamlet*, however, the *Gita* does not merely illustrate this theme but instead goes on to stipulate an entire code of behavior based on the insight. It was a code that Oppenheimer would learn to follow, and he would learn it in part from the example of Arjuna.

Arjuna's mistake when he initially refuses to fight is to think

⁹⁶ Newsweek, 19 July 1965, p. 51.

⁹⁷ "The Gita," says S. Radhakrishnan, "is inclined to the Pelagian doctrine" (Bhagavadgita, 64).

⁹⁸ Van Buitenen, *Mahabharata* 3:352. This does not mean that people are entirely helpless. As Krishna also says, "the affairs of the world are contingent on both fate and human effort." For a crop to grow, a field needs not only fortuitous rain but also cultivation by a farmer (354).

⁹⁹ Easwaran, Bhagavad Gita, 35.

that the hand letting loose the arrow is the one that kills. Krishna informs him, however, that actually it is the Lord's doing, that it is all predetermined.

View in me
The active slayer of these men;
For though you fail and flee,
These captains of the hostile hosts
Shall die, shall cease to be.

Arise, on fame, on victory,
On kingly joys intent!
They are already slain by me;
Be you the instrument. (11: 32–33)

Thus, the soldier is not ultimately responsible for his enemies' demise but is a mere instrument like an arrow—or a bomb. The actual killing is the work of some other power. 100

In the years after the bombing of Hiroshima, Oppenheimer looked back on it as something bound to happen, regardless of what he had done. When he explained why the bomb was built and dropped, he repeatedly said that it was inevitable. Speaking to Los Alamos personnel in November 1945, he asserted that the main reason they had developed the bomb was that it was "an organic necessity. If you are a scientist you cannot stop such a thing." ¹⁰¹ In 1964 he told interviewers this about the atomic bombing of Japan: "The decision was implicit in the project. I don't know whether it could have been stopped." ¹⁰²

Some people tried. James Franck, a Nobel laureate and one of Oppenheimer's former teachers, chaired a committee whose report in June 1945 argued against the atomic bombing of a city and suggested instead a demonstration on an uninhabited area to frighten the Japanese into surrender. Confronted with this challenge, government leaders asked their scientific panel whether the bomb should be dropped on a city. As Oppenheimer recollected it in 1954, the advisers replied that being scientists did not qualify them to answer that question. They reported that some scientists were for the bombing and some against, and Oppenheimer offered the rationales on both sides of the question. The Scientific Panel judged that the two "overriding considerations" for the United States were saving lives during the war and

 $^{^{100}}$ Cf. also 11:26-27, in which Arjuna sees that his enemies are *already* being mangled in the jaws of Krishna. Whether Arjuna fights or not, they are doomed.

¹⁰¹ Speech to Association of Los Alamos Scientists, 2 Nov. 1945, in Smith and Weiner, Robert Oppenheimer, 317.

¹⁰² Giovannitti and Freed, Decision to Drop the Bomb, 6.

¹⁰³ Smith, Peril and a Hope, 41-51.

contributing to the stability of the postwar world. Though the panel did not say so, these objectives were so vast and complex that they could be claimed by either side in the argument. All this was in keeping with Oppenheimer's belief that scientists' advice should be only technical, not political. Indeed, he characterized the Scientific Panel's task of commenting on whether to use the bomb on a populated area as a "quite slight" assignment.¹⁰⁴

However, as Oppenheimer recalled, "in back of our minds" was the notion that a bloody invasion of Japan would be necessary if the bomb were not dropped on a Japanese city, "because we had been told that." Coupled with the idea that saving lives was a paramount objective, this notion tended to support "direct military use" on a city. Moreover, Oppenheimer gave the statesmen the "technical" advice that exploding a bomb on an uninhabited area would not produce an impressive spectacle: a "firecracker over the desert," as he explained in 1954, would not have intimidated the Japanese. 105 In the 16 July Trinity test, however, the explosion over the New Mexico desert looked more like a thousand suns than a firecracker. Leo Szilard and sixtyeight other scientists signed a petition to President Truman urging that the government make greater efforts to avoid having to drop the bomb on the Japanese populace, but Oppenheimer still refused to advocate any target other than a city. 106 In 1957 he explained that no alternative target was possible because by the time the bomb had been tested, "it was too late . . . the whole mechanism for use had been set in motion,"107

Oppenheimer was not the kind of person who would stand in the way of a mechanism in motion. Doubting that he or any of his colleagues could control events, the director discouraged them from discussing the consequences of the atomic bomb, saying that such discussions would distract them from their duty of creating it. ¹⁰⁸ A few years later he warned scientists that it was futile to try to guide the uses to which their discoveries would be put. It must be clear to all of them, he said, "how very modest such assumption of responsibility can be, how very ineffective it has been in the past, how necessarily ineffective it will be in the future." ¹⁰⁹ Oppenheimer was not saying that it did not

¹⁰⁴ U.S.A.E.C., Transcript, 34, 236.

¹⁰⁵ Ibid., 34.

¹⁰⁶ Smith, *Peril and a Hope*, 53-55.

¹⁰⁷ Alice Kimball Smith, notes of interview with Oppenheimer, 11 Nov. 1957, cited in Bernstein, "Four Physicists," 239.

¹⁰⁸ Smith and Weiner, Robert Oppenheimer, 290.

¹⁰⁹ Oppenheimer, "Physics in the Contemporary World," 67. In an apparent critique of Szilard and Franck, he went on to say that scientists' claim of responsibility "in the worst

matter whether scientists participated or not; it was important that they do their duty. His point was that the scientists could not guarantee outcomes, not even the results of their own actions.

Oppenheimer made this point by using the vocabulary of the *Gita*. The scientist, he warned, should not attempt to assume responsibility for "the fruits of his work"—a phrase with a very specific meaning in Hindu philosophy. It appears repeatedly in the *Gita* (2:47, 4:20, 5:12, 12:11, 12:12, 18:2, 18:11). Usually translated as "fruit of works" or "fruits of action," it means consequences of what one does. Oppenheimer was saying that scientists could not dictate what would result from their research, and therefore were not responsible for those results. That he used the phrase "fruits of work"—and used it correctly—suggests that he understood this teaching of the *Gita*. 110

While working on the bomb, Oppenheimer believed it might end the war—a belief straining against the grain of his general sense of inevitability. Soon afterward, however, when other people were saying that the bomb had indeed ended the war, Oppenheimer reverted to his more characteristic skepticism. In November 1945 he said that before the bomb was used, Japan was already essentially defeated, implying that Japan would have surrendered soon anyway. In a lecture delivered in 1947 he said that, when considered as a factor determining the outcome of the war, the atomic bomb was less important than other technical developments, such as radar. Remembering the devastating island-hopping invasions, submarine attacks, and fire bombings that preceded Hiroshima, Oppenheimer might have recited to himself these *Gita* lines: Though you fail and flee, These captains of the hostile hosts / Shall die, shall cease to be" (11:32).

Just as Oppenheimer doubted that the atomic bomb was crucial in ending the war, he seems to have doubted that he was crucial in creating the bomb. General Leslie R. Groves, over-all director of the Manhattan Project, telephoned him to issue congratulations on the day Hiroshima was destroyed. Choosing Oppenheimer to head Los Alamos was, said Groves, one of the wisest things he had ever done. "Well,"

instances, is used as a sort of screen to justify the most casual, unscholarly and, in the last analysis, corrupt intrusion of scientists into other realms of which they have neither experience, nor knowledge, nor the patience to obtain it."

¹¹⁰ Ibid. This Hindu phrase has a broader meaning than Abraham Lincoln's phrase "fruit of labor" (First Annual Message to Congress), which refers merely to products of toil. Clearly Oppenheimer's warning to scientists relies on the theological, Indian definition of terms, not the common, American one.

¹¹¹Oppenheimer, "Atomic Weapons and the Crisis in Science," 10.

¹¹² Oppenheimer, "Physics in the Contemporary World," 66.

replied Oppenheimer, "I have my doubts." ¹¹³ While this comment can be interpreted in different ways, it may not have reflected personal humility so much as the philosophical conviction that the individual, any individual, did not make much difference in great events. The *Satakatrayam*, another of the ten books that Oppenheimer said influenced him most, reinforced the *Gita*'s fatalism:

Vanquish enemies at arms. . . . Gain mastery of the sciences
And varied arts. . . .
You may do all this, but karma's force
Alone prevents what is not destined
And compels what is to be. 114

In the epigraph to his memoir of his former friend, Haakon Chevalier used a quotation from Goethe, apparently to suggest that Oppenheimer was, like Hamlet, a helpless plaything of the gods:

It pleases, it flatters us greatly, to see a hero who acts of himself... thrusting aside all hindrances, and accomplishing a great purpose. Historians and poets would fain persuade us that so proud a lot may fall to man. In *Hamlet* we are taught otherwise; the hero has no plan, but the piece is full of plan.¹¹⁵

But if Chevalier meant to use Shakespeare to criticize Oppenheimer, Chevalier was mistaken. Oppenheimer claimed to have been influenced by *Hamlet*;¹¹⁶ if he had been, he had learned what *not* to do. Unlike the prince of Denmark, Oppenheimer was not immobilized by lack of a plan. He understood that he was only an actor, not the author, in a "plan" too vast for him to comprehend; but an actor can still act, quickly and decisively, and carry out a "great purpose," like the bomb. Oppenheimer had a duty, he would perform it, and he would not delay. No, he was not Prince Hamlet. He was Goethe.

Oppenheimer's insistence on human beings' inability to govern events was another example of his repudiation of his training in Ethical Culture. Felix Adler said that the ideal of his school was "to develop

¹¹³ Transcript of telephone call, 6 Aug. 1945, in Record Group 77, "Records of the Office of the Chief of Engineers: Records of the Manhattan Engineer District," National Archives, Modern Military Branch, Washington, D.C., quoted in James W. Kunetka, *City of Fire: Los Alamos and the Atomic Age*, 1943–1945, rev. ed. (Albuquerque: University of New Mexico, 1979), 189.

¹¹⁴ Barbara Stoler Miller, trans., *Bhartrihari: Poems* (New York: Columbia University, 1967), 39.

¹¹⁵Chevalier, Oppenheimer, v. The quotation is from Wilhelm Meister's Apprenticeship, Book 4, Chap. 15.

¹¹⁶ Christian Century, 15 May 1963, p. 647.

persons who will be competent to change their environment . . . persons who believe that their salvation consists in reacting beneficently upon their environment." According to his student and biographer, Horace L. Friess, Adler rejected the idea that social phenomena were the products of "inexorable laws"; instead Ethical Culture stressed "the role of human decision and will in the making of history." Oppenheimer's fatalistic view could hardly be more opposed. It seems likely that his study of the *Gita* was partly responsible for that opposition.

If there is no way for people to dictate the results of their actions, what should be their attitude toward those results? The *Gita* gave a simple answer: detachment.

Resigning interested tasks
The wise call resignation;
Renouncing every fruit of work
They name renunciation. (18:2)

It was one's duty to do the work, but one should renounce the "fruit" of the work. That is, one should not have a fixed, insistent desire for any particular result.¹¹⁸

Of course, one was bound to have objectives, whether they were as ordinary as educating a physics student or as extraordinary as ending a world war. However, one should not have one's heart set on achieving those objectives. Ryder's translation of the *Gita* (2:43) says that only "undiscerning" people "hug desires." Everybody has goals, but a wise person lets them go instead of clinging to them. As I. C. Sharma says, the Hindu ideal "is that one should give up attachment to the motive, in the sense of remaining unperturbed by the success or nonsuccess of the action." This kind of fatalism might be physically expressed by a shrug of the shoulders. One does one's duty and hopes to achieve a favorable result; but if the result is different, even opposite, one shrugs one's shoulders and moves on without grief or regret. That's just the way it goes.

This indifference to "fruits of work" occurs at two levels. First, one should not count on personal benefit: wealth, fame, power, love. Second, and more fundamentally, one should not count on *any* particular results, not even ones that do not benefit oneself. As long as one per-

¹¹⁷ Friess, *Felix Adler and Ethical Culture*, ed. Fannia Weingarten (New York: Columbia University, 1981), 122, 124.

¹¹⁸S. Cromwell Crawford, *The Evolution of Hindu Ethical Ideals*, 2nd ed. (n.p.: University Press of Hawaii, 1982), 77.

¹¹⁹Ryder makes the most of poetic license here, failing to provide a literal translation of the text but nevertheless expressing the essential truth.

¹²⁰ Sharma, Ethical Philosophies of India, 290.

sists in a desire for a particular "fruit of work," one is still behaving selfishly, not taking the philosophical view.

This problem was something Oppenheimer had pondered since he was a young man. In 1931 he told his brother that the world was "a pretty restless and tormented place; I do not think that there will be much of a compromise possible between being of it, and being not of it." In the same letter, however, Oppenheimer announced his discovery of a way that he could remain active in the world without becoming attached to it. "I am learning sanskrit, enjoying it very much, and enjoying again the sweet luxury of being taught." ¹²¹

Neither Oppenheimer nor his associates who noted his study of the Hindu classics at this time ever mentioned precisely *which* classics he was studying. He may have been reading the *Satakatrayam*, two-thirds of which celebrates the affairs of princes and lovers and the last third of which makes a not entirely successful attempt to renounce the world. In a letter of 1932, Oppenheimer told his brother that through discipline one could achieve "freedom from the accidents of incarnation" and achieve also "that detachment which preserves the world it renounces."

Renunciation of the world is the preoccupation of some Hindu texts but not of the *Gita*, which Oppenheimer translated in 1933. While sharing the general Hindu insistence on detachment and selflessness, the *Gita* also emphasizes the importance of a life of action, of engagement in the world. As Arthur Ryder renders it:

The self-deceiver who would curb His active powers, to sit Reflecting on the things of sense, Is dubbed a hypocrite.

While he who can—his senses curbed—With active powers proceed
To work without attachment, may
Be termed a man indeed. (3:6–7)

The objective, then, was not to separate oneself from the world but to free oneself from desire for the things of the world. The *Gita* taught people to participate in the affairs of everyday life without becoming

¹²¹ Oppenheimer to Frank Oppenheimer, 10 Aug. 1931, in Smith and Weiner, Robert Oppenheimer, 143.

¹²² Arthur Ryder had translated eighty-five poems from Bhartrihari and published them in *Women's Eyes: Being Verses Translated from the Sanskrit* (San Francisco: A. M. Robertson, 1910). Oppenheimer may have been studying these lyrics with Ryder in 1931.

¹²³ Oppenheimer to Frank Oppenheimer, 12 March 1932, in Smith and Weiner, *Robert Oppenheimer*, 155–56.

attached, without counting on any particular outcome. This was a lesson that Oppenheimer as a young man desperately needed to learn.

In the 1920s, Oppenheimer had a conspicuous passion for achievement and distinction. John Edsall, a fellow student at Harvard and later at Cambridge University, recalled that Oppenheimer avidly followed the latest developments in quantum theory and "it became very obvious, that he was terribly eager to really get in on this and make a major contribution of his own."124 This ambition seems to have been inflamed by at least one of his professors at Harvard. "You cannot be satisfied with just measuring up with other people," he remembered physicist Percy Williams Bridgman lecturing him. "You can consider yourself a failure unless you stand out in front."125 Edsall thought Oppenheimer felt frustrated, however, because he was a few years too young to have participated in the breakthroughs by Werner Heisenberg and others. One night Oppenheimer and Edsall were talking about people who had achieved great things in literature or science, and Oppenheimer "obviously felt the strong urge to be one who did accomplish things."126

After graduating from Harvard in 1925, Oppenheimer traveled to the Cambridge on the other side of the Atlantic to study at the Cavendish Laboratory under the renowned physicist J. J. Thomson. This sojourn to England, however, proved a disaster. Oppenheimer's experiments turned out poorly, though his later recollections ("I hadn't been good, I hadn't done anybody any good, and I hadn't had any fun whatever")¹²⁷ may have exaggerated his incompetence in the laboratory. Meanwhile, he experienced a misery so profound that it sometimes left him lying on the floor, rolling from side to side. "I was on the point of bumping myself off," he recalled two decades later. "This was chronic." He visited psychiatrists in Paris and Cambridge, and he told his friends that he was on the verge of a breakdown. Strangely, however, he never told them what was causing his unhappiness. (Equally strangely, they never asked. But then, all of them were men.) Jeffries Wyman, another friend from Harvard who also migrated to Cambridge University, sur-

¹²⁴ John Edsall, interview by Charles Weiner, 16 July 1975, p. 14. Oppenheimer Oral History Collection, MIT.

¹²⁵ Time, 8 Nov. 1948, p. 71. Oppenheimer admired Bridgman, calling him a "wonderful teacher." Cf. interview by Thomas S. Kuhn, 18 Nov. 1963, p. 9, in Archive for the History of Quantum Physics, American Philosophical Society, Philadelphia. Kuhn also interviewed Oppenheimer on 20 Nov. Copies of the Archive for the History of Quantum Physics are also deposited at the University of California Berkeley and the Universitets Institut for Teoretisk Fysik, Copenhagen, Denmark.

¹²⁶ Edsall interview, 14, 30.

¹²⁷ Interview by Kuhn, 18 Nov. 1963, p. 21.

mised that Oppenheimer's frustration in the laboratory caused his sorrow. John Edsall guessed it was more complicated: failure in research caused psychological turmoil, but psychological turmoil (from whatever cause) made him fail at research. 128 In any case, it seems likely that Oppenheimer's lack of success at the Cavendish Laboratory was one important factor plunging him close to despair, as his dream of achieving greatness seemed thwarted.

Frustrated ambition seems also to have been one of the causes of what was probably the most bizarre event in Oppenheimer's life (other, that is, than building an atomic bomb). In 1926 he left Cambridge briefly to go on vacation in Corsica with his old Harvard friends Wyman and Edsall. One evening after about a week on the island they talked about greatness-Corsica was the birthplace of Napoleon-and Oppenheimer said that Dostoevsky was far greater than Tolstoy and that among Dostoevsky's books Crime and Punishment was greater than The Brothers Karamazov. It seems that Oppenheimer identified with Raskolnikov, the unhappy hero of *Crime and Punishment*, who was so tormented by guilt that he confessed to an unsolved murder. A day or two after this conversation Oppenheimer suddenly announced that he had to return to England immediately because "I've done a terrible thing." Before leaving Cambridge, he told his startled friends, he had placed a poisoned apple on the desk of Patrick Blackett, an experimental physicist at Cavendish. Oppenheimer and Blackett often had lunch together at each other's quarters, and this would have given the American a chance to leave an apple behind. Now, on Corsica, Oppenheimer declared that "I've got to go back to see what happened." 129

Oppenheimer did go back, Blackett was entirely all right, and Wyman and Edsall were left to speculate on what they had witnessed. They doubted that their friend had actually attempted to poison Blackett, but they thought he believed he had. The underlying reason, they deduced, was envy. Blackett was handsome, suave, brilliant, and highly skilled as an experimenter—everything Oppenheimer wanted to be. Oppenheimer's feeling toward Blackett, reported Edsall, was "tremendous admiration, combined perhaps with an intense jealousy." The desire to be rid of his rival led to the "hallucination" (as Edsall called it) of a poisoned apple, and this led in turn to a sense of guilt that made him confess his crime to his friends and return to Cambridge to face his punishment. 130

¹²⁸ Wyman interview, 18–19, 21; Edsall interview, 17–21; *Time*, 8 Nov. 1948, p. 71.

¹²⁹ Edsall interview, 25-26, 30; Wyman interview, 20-21; Oppenheimer interview by Kuhn, 18 Nov. 1963, p. 16.

¹³⁰ Edsall interview, 26–27; Wyman interview, 22.

Unlike Raskolnikov, however, Oppenheimer had not actually killed anybody—at least not until Hiroshima. By 1945 he was a somewhat different person, far less bothered by ambition, jealousy, or guilt. When Wyman saw him again in the 1930s, Oppenheimer still "seemed troubled and under a good deal of tension" but nevertheless "much more serene." When Edsall saw him in 1941, after more than a decade, he noticed some tension and "lack of inner ease in some respects" but also detected a new sense of confidence and authority:

I felt that he obviously was a stronger person, that these inner crises that he had been through in those earlier years he had obviously worked out and achieved a great deal of inner resolution of them.¹³²

Much had happened to Oppenheimer between 1926 and 1941. He had left the Cavendish Laboratory with its experimental physics and had gone to the University of Göttingen to study theoretical physics instead. Jeffries Wyman and Paul Horgan, another old friend, believed that this discovery of his true calling eliminated what Horgan carefully called "this particular source of anguish." Oppenheimer received his Ph.D. at Göttingen in 1927, got concurrent appointments at the University of California, Berkeley, and the California Institute of Technology in 1929, published numerous and well-regarded scholarly articles, and gained promotion rapidly, making full professor in 1936. 134 In 1940 he married Kathryn "Kitty" Puening, and the next year they had a son. All these satisfactions no doubt contributed to Oppenheimer's emergence from the nadir of misery in 1926.

Another probable factor, however, was the *Bhagavad-Gita*. There is no record whether it was one of the Hindu texts he studied in English translation during the 1920s, but by 1933 he was reading it in the original Sanskrit. He studied under a man who, Oppenheimer later said, gave him a new "feeling for the place of ethics." Arthur Ryder "felt and thought and talked as a Stoic," as one of those people "who have a tragic sense of life, in that they attribute to human actions the completely decisive role in the difference between salvation and damnation." Although Oppenheimer reported the influence of the teacher,

¹³¹ Wyman interview, 27.

¹³² Edsall interview, 40.

¹³³ Wyman interview, 21, 25; Paul Horgan, interview by Alice Kimball Smith, 3 Mar. 1976, p. 18, Oppenheimer Oral History Collection, MIT.

¹³⁴ Smith and Weiner, Robert Oppenheimer, xiv-xv, 196.

¹³⁵ Goodchild, J. Robert Oppenheimer, 39-40.

¹³⁶ Oppenheimer to Frank Oppenheimer, 7 Oct. 1933, in Smith and Weiner, Robert Oppenheimer, 165.

¹³⁷ Time, 8 Nov. 1948, p. 75.

what was more important, more fundamental, was the teaching itself, the force behind the teacher, that is, the *Gita*. From it Oppenheimer derived a new ethic consisting of the single-minded performance of personal duty, replacing the humanitarianism of Ethical Culture. He elevated this new ethic to a new "place" above any other guide to behavior. Execution of duty, he came to believe, would be "completely decisive" in achieving his "salvation," that is, a righteous and therefore happy life, free of the woe that had previously beset him. Instead of striving for distinction, meeting frustration, and feeling guilty, he would concentrate on just doing his job.

In the late 1920s and early 1930s, then, Oppenheimer received a calling in two senses of the word. First, professionally, he discovered that his vocation was as a theoretical physicist, not an experimental one. Second, spiritually, he learned to pursue duty (dharma) rather than greatness (fruit of work). He learned this from Ryder and the Bhagavad-Gita—not exactly a voice in the burning bush, but still the "Song of the Lord," still a calling. Once he left Berkeley for Los Alamos in 1943, Oppenheimer would become more of a scientific administrator than a theoretical physicist. But that second, spiritual kind of calling would last the rest of his life. In 1955, after the Atomic Energy Commission stripped him of his security clearance and in effect banned him from future work for the government, Oppenheimer said that when government decisions affecting one seem "cowardly or vindictive or short-sighted or mean," it makes one want to recite George Herbert's poem "The Collar." 138 In it a disgruntled priest pines for a life as "free as the rode, / Loose as the winde" and vows, "I will abroad." But the poem concludes with a sudden and emphatic reversal:

But as I rav'd and grew more fierce and wilde At every word,
Me thoughts I heard one calling, *Child!*And I reply'd, *My Lord.*¹³⁹

Oppenheimer's wife, Kitty, said that "The Collar" described how her husband had appeared to himself. No matter the temptation or provocation to flee, Oppenheimer would strive to accept his fate and continue to do his duty.

He took a job at Berkeley in 1929 because he thought the univer-

¹³⁸ Interview by Edward R. Murrow, *See It Now* television program, 4 Jan. 1955, p. 6, transcript at University of California Northern Regional Library Facility. In the interview Oppenheimer mistakenly called the poem "I Will Abroad."

¹³⁹ F. E. Hutchinson, ed., *The Works of George Herbert* (New York: Oxford, 1941), 153–

¹⁴⁰ Freeman Dyson, *Disturbing the Universe* (New York: Harper and Row, 1979), 81–82.

sity was a "desert," with no program in theoretical physics, thus giving him a chance to make himself useful by building one. (Los Alamos, in a literal desert, would later offer a similar challenge.) He accepted a concurrent appointment at Cal Tech because it was, in comparison with Berkeley, an oasis of theoretical physics, with distinguished faculty and visiting scholars, thus making it easier for Oppenheimer to keep learning. 141 As a professor at Berkeley and Cal Tech in the 1930s Oppenheimer evinced little desire for what is often considered advancement in the profession. He never sought even the modest power, prestige, and monetary reward of a department chairmanship. When invited to take positions at the Institute for Advanced Study and at Harvard in 1934, he "turned down these seductions," he reported to his brother, "thinking more highly of my present jobs, where it is a little less difficult for me to believe in my usefulness." 142 Many years later he said that in California he had made a bed he was content to lie in. 143 Historian Nuel Pharr Davis observes that Oppenheimer never looked for a better post elsewhere or threatened to leave if not better rewarded, but always said he meant to stay in California permanently. 144

When the unforeseen contingency of World War II arose, he moved from Berkeley to Los Alamos, but he attempted to adhere to the *Gita's* admonition to labor without attachment or "interest." When he learned that the University of California was paying him more while he was directing Los Alamos than he would have made teaching at Berkeley, he requested a pay cut.¹⁴⁵ Since Oppenheimer was independently wealthy, this was no great sacrifice. Still, it demonstrates his commitment to the principle of detachment. Glad to be of use, he tried not to want anything more.

¹⁴¹Oppenheimer interview by Kuhn, 20 Nov. 1963, pp. 18–19.

¹⁴² Oppenheimer to Frank Oppenheimer, 4 June [1934], in Smith and Weiner, Robert Oppenheimer, 180. Peter Michelmore reports that Harvard and "Princeton," where the Institute for Advanced Study is located, offered to double Oppenheimer's salary, but does not cite a source. Cf. Michelmore, The Swift Years: The Robert Oppenheimer Story (New York: Dodd, Mead, 1969), 45. In 1935 Oppenheimer elaborated on why he had turned down the fellowship at the Institute: "Princeton is a madhouse: its solipsistic luminaries shining in separate & helpless desolation. Einstein is completely cuckoo. . . . I could be of absolutely no use at such a place" (Oppenheimer to Frank Oppenheimer, 11 Jan. 1935, in Smith and Weiner, Robert Oppenheimer, 190). Twelve years later, after successfully directing the Los Alamos lab, Oppenheimer had gained confidence in his ability to guide solipsistic luminaries into a coherent program of research, so he accepted not a fellowship but the directorship of the Institute.

¹⁴³ Oppenheimer interview by Kuhn, 20 Nov. 1963, p. 31.

¹⁴⁴ Davis, Lawrence and Oppenheimer, 80.

¹⁴⁵ Oppenheimer to President Robert G. Sproul, 18 Sept. 1943, in Smith and Weiner, *Robert Oppenheimer*, 266. The university's president demurred, saying that Oppenheimer's salary was set by the War Department.

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Nuel Pharr Davis says that Leslie Groves, who chose Oppenheimer to direct Los Alamos, immediately liked him because he answered all questions openly, with no hidden agenda, functioning (as Davis phrases it) "like a marvelous encyclopedia, an idiot savant with no perspective of self-interest to sophisticate his answers." 146 John Manley, a physicist who worked directly under Oppenheimer at Los Alamos, said he found no indication that his boss was out for self-aggrandizement. Many physicists, said Manley, wanted to be "the big cheese," but if Oppenheimer had that desire, he managed to hide it. Manley agreed with his interviewer, Alice Kimball Smith, when she asserted that Oppenheimer's "primary purpose" at Los Alamos was not to make a name for himself but "to get the job done." 147 Oppenheimer interpreted his whole life as a series of "jobs," a succession of duties. After the war he returned briefly to teach in California, but no longer found it so worthwhile. Later he explained that "my job was to get a part of the next generation brought up and that job was done."148 Therefore, he moved on to head the Institute for Advanced Study at Princeton, whose purpose, he said in 1955, was to help scholars "get the job done that it is their destiny to do."149

Oppenheimer, like any other human being, still harbored some selfish desires. For example, the way he exulted, even gloated, when he announced to the workers at Los Alamos the destruction of Hiroshima revealed a spectacular lapse in detachment.¹⁵⁰ Nevertheless, he seems

¹⁴⁶ Davis, Lawrence and Oppenheimer, 144-45.

¹⁴⁷ John Manley, interview by Alice Kimball Smith, 30 Dec. 1975, p. 12. Oppenheimer Oral History Collection, MIT. Offering a very different interpretation of Oppenheimer's motives, intelligence officer Peer da Silva suspected in 1943 that the director was trying to use his position at Los Alamos to achieve "a worldwide reputation" and "a place in history" (U.S.A.E.C., *Transcript*, 275). Taking a slightly different tack, historian Robert Jungk reports scientists' gossip that Oppenheimer was intent on achieving not fame but greatness, the pinnacle of creativity (*Brighter than a Thousand Suns*, 125–26).

All this could be true—the *Gita*'s admonitions against selfish desires probably could not extinguish Oppenheimer's ambition entirely—but none of it is supported by first-hand reports of anything specific that Oppenheimer said or did at Los Alamos. Arthur Danto inadvertently but not coincidentally provides a better description of Oppenheimer's motivation. To illustrate Hinduism's concept of selfless performance of duty, Danto says that a baker prepares a cake properly not because he wants to win a prize but because preparing good cakes is what bakers, as bakers, are supposed to do. Although Danto certainly did not have Oppenheimer in mind, the philosopher's next comment is perfectly apropos: "If one is a cook—or a warrior like Arjuna, or whatever—one has a primary obligation to perform those actions commensurate to one's calling, but winning blue ribbons is not part of baking successfully, any more than winning kingdoms is part of fighting effectively, or gaining Nobel prizes is part of scientific work." Cf. Danto, *Mysticism and Morality: Oriental Thought and Moral Philosophy* (New York: Basic Books, 1972), 91.

¹⁴⁸Interview by Kuhn, 20 Nov. 1963, p. 32.

¹⁴⁹ Oppenheimer, interview by Murrow, 2.

¹⁵⁰Los Alamos physicist Sam Cohen reports that when Oppenheimer announced the

to have moved far from the tormented jealousy and guilt of his youth. In 1948 he learned that his former rival at Cambridge University, Patrick Blackett, the imagined victim of a poisoned apple, had been awarded the Nobel Prize in Physics. Oppenheimer, now director of the Institute for Advanced Study, joined his colleagues there in sending Blackett a telegram of congratulations. Oppenheimer and Blackett maintained a friendly correspondence. In 1960 Blackett visited the Institute, later reporting "very happy memories" of the director's "charming hospitality." No one can say for sure whether Oppenheimer still was jealous of Blackett, but there is no evidence that he was. 151

Oppenheimer's triumph over self-aggrandizement may be another factor helping to explain his feeble self-defense. His failure to speak vigorously and persuasively at his security clearance hearing may have been due not only to his staying within his particular dharma but also to his acceptance of fate, his overcoming of a selfish desire to achieve a favorable result. Krishna teaches Arjuna that he

Who levels honor and disgrace, Whom no attachments hold,

With equal thought for praise or blame, Content with what may be, Devout, firm, silent, and unhoused— That man is dear to me. (12:18–19)¹⁵²

Oppenheimer still had enough egotism to insist on a hearing and speak in his own defense, but his acceptance of fate probably helped prevent him from defending himself forcefully. Science historian Gerald Holton says that Oppenheimer "wearily" explained after the hearing that "I had very little sense of self." ¹⁵³ In actuality, however, the cause of his defenselessness was not weariness. It was philosophy. ¹⁵⁴

bombing, he clasped and pumped his hands over his head like a victorious prizefighter. Cohen paraphrases the director's speech to the cheering crowd: "It was too early to determine what the results of the bombing might have been, but he was sure that the Japanese didn't like it. More cheering. He was proud, and he showed it, of what we had accomplished. Even more cheering. And his only regret was that we hadn't developed the bomb in time to have used it against the Germans. This practically raised the roof." Cf. Cohen, *The Truth About the Neutron Bomb* (New York: William Morrow, 1983), 22.

¹⁵¹ Telegram and other correspondence in P.M.S. Blackett folder, container 20, Papers of J. Robert Oppenheimer, Manuscript Division, Library of Congress, Washington, D.C. ¹⁵² Cf. also 14:23–25.

¹⁵³ Holton, "'Success Sanctifies the Means': Heisenberg, Oppenheimer, and the Transition to Modern Physics," in *Transformation and Tradition in the Sciences*, ed. Everett Mendelsohn (Cambridge: Cambridge University, 1984), 167–68.

154 Oppenheimer's associates disagree on how disheartened he was by the loss of his security clearance. Robert Serber, *Peace & War: Reminiscences of Life on the Frontiers of Science* (New York: Columbia University, 1998), 183–84, says that Oppenheimer had "built

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3. Faith

Another sign of the *Gita*'s replacing Ethical Culture in Oppenheimer's mind was his acceptance (not to say advocacy) of behavior that contravened common morality. Karl H. Potter says that the "ultimate value" in classical Hinduism is not morality but the freedom of the individual. The path of the hero, he says, "is frequently a bloody one, and sometimes marked by activities that we might regard as immoral in someone else, but in him these acts are merely the manifestation of a superior spirit and not to be judged by standards inappropriate to his stature."

155 Klaus Klostermaier says that Krishna teaches Arjuna a "New Philosophy" that leaves behind the "Old Morality."

156 Krishna also seems to have taught Oppenheimer. Whereas Felix Adler had made humanitarian ethics the foundation of religion, Oppenheimer's formulation of Hinduism enabled him to venture beyond the ordinary ethical categories of good and evil.

The *Gita* says repeatedly that as long as one possesses a pure heart, even seemingly wicked actions may be permitted.

Yes, even although you be the chief Of sinners, none the less Shall wisdom's raft convey you safe Through seas of wickedness. (4:36)

Yes, even the most complete of rogues In whom no passions fight With love of me, is deemed a saint Because his heart is right. (9:30)

Forget set duties then. Let me Your total trust receive. I will deliver you from all Sin's blemish. Do not grieve. (18:66)

Killing people is immoral. Killing friends and relatives is worse. But

his life around his advisory positions" and that once these ended, "his spirit was broken." In contrast, John Edsall (interview, 48) says that a few months after the hearings, Oppenheimer's "spirit did not seem to be broken or even particularly depressed." Later he became "very deeply hurt and disturbed"; but the only specific reason Edsall mentions is that the security hearings embarrassed Oppenheimer's children at school. Edsall does not say that his old friend missed the prestige and power of an adviser to the government. Even if Serber is right, however, and Oppenheimer's loss of his advisory role demoralized him, that does not mean that the *Gita* had no important effect on him. It means that it could only moderate, not eliminate, his sense of self.

¹⁵⁵ Potter, *Presuppositions of India's Philosophies* (Englewood Cliffs, N.J.: Prentice-Hall, 1963), 3, 4.

¹⁵⁶ Klostermaier, Survey of Hinduism, 103.

for Arjuna to kill his friends and relatives is permissible because he does it out of love of Krishna, who has persuaded him to do his duty, not because the deed gives him pleasure or profit. As Roy W. Perrett points out, the followers of the *Gita* cease to identify themselves with their actions by no longer performing them for selfish ends. In this way they can disavow "*moral* responsibility" even though they were "*causally* responsible." ¹⁵⁷ Arthur Danto, noting the Hindu insistence that the body is not the self, says that it is possible for one's self to be blameless even if one's body causes harm. "If I detach myself from the consequences of an action through withdrawal of care or concern," summarizes Danto, "then the consequences somehow are not mine." ¹⁵⁸

For a man planning the incineration of cities, this antinomian counsel must have been reassuring. He could describe the atomic bomb as "a most terrible weapon . . . that by all the standards of the world we grew up in is an evil thing" yet, in the same essay, defend the scientific investigation that made the bomb possible. The slaughter of Japanese in 1945 and potential slaughter of others later was the sort of "blemish" attached to his dharma—"little to admire" but inescapable (18:48). Oppenheimer's reading of the *Gita* provided him with a quiet place where he could shut out the clatter of old moral scruples and get on with the work. Adler, who had said that people's salvation consisted in "reacting beneficently upon their environment," had died in 1933. Had he survived to 1945, he probably would have been appalled by the ideas of this Ethical Culture alumnus who had clearly moved beyond "all the standards of the world we grew up in."

Building the bomb and approving its use on cities were not the only ways in which Oppenheimer revealed his overcoming of a sense of guilt over the massive extermination of civilians. Two weeks before the dropping of the Hiroshima bomb, Oppenheimer urged military leaders to make sure to explode the gadget at the right height and in the right weather conditions so as to create the maximum damage from fire and blast. ¹⁶⁰ Nor was guiding Los Alamos the only way in which he was willing to put his scientific expertise into the service of casual slaughter. In 1943 he and Enrico Fermi discussed the possibility of using radioactive by-products to contaminate the food supply of Germany. When further study revealed that radioactive poison was, like the poison gas of World War I, difficult to apply successfully, the idea was aban-

¹⁵⁷ Perrett, Hindu Ethics: A Philosophical Study (Honolulu: University of Hawai'i Press, 1998), 18.

¹⁵⁸ Danto, Mysticism and Morality, 93-94.

¹⁵⁹ Oppenheimer, "Atomic Weapons and the Crisis in Science," 10.

¹⁶⁰ John F. Moynahan, Atomic Diary (Newark, N.J.: Barton Publishing Co., 1946), 15.

doned—it would be easier to build an atomic bomb. Although Oppenheimer showed little enthusiasm for the radioactive poison project and counseled delay, he criticized it solely on practical grounds, not ethical ones. ¹⁶¹ A man who once had felt guilty about his imagined poisoning of a rival physicist now could contemplate the poisoning of a nation.

Despite announcing after Hiroshima that he had blood on his hands and that Manhattan Project scientists had known sin, Oppenheimer did not seem to experience profound remorse. He told a national television audience that "when you play a meaningful part in bringing about the death of over 100,000 people and the injury of a comparable number, you naturally don't think of that as—with ease." ¹⁶² Unease he felt, not anguish. He seemed to follow Krishna's counsel: "Do not grieve."

The rejection of a sense of moral responsibility carried over from the atomic bomb to the hydrogen bomb. At his security clearance hearing in 1954, he was asked whether he, when making recommendations about the "Super," had had "moral revulsion" against producing it. He answered that "revulsion" was too strong a word and that the word "moral" should be left out. All he would admit to feeling was "qualms." Atomic weapons might someday extinguish humanity; but, if so, it would be because of decisions made by other people, not Robert Oppenheimer. He had just done his job.

From a strictly logical standpoint based on his interpretation of the *Gita*, Oppenheimer should have felt entirely exempt from blame. In practice, however, such serenity was hard to achieve. He had supervised the building of the world's first nuclear weapons, and he thought these weapons had needlessly been used to kill a hundred thousand people—it was hard not to draw a connection between those two facts. His old friend Jeffries Wyman recalled that in Oppenheimer's later years he was "terribly upset by his whole connection with the bomb." During a visit in 1958 or 1959 Wyman thought Oppenheimer showed both guilt over the bomb's "terrible results, from a human point of view" and satisfaction in the "great achievement" of building it. How-

¹⁶¹Barton J. Bernstein, "Oppenheimer and the Radioactive-Poison Plan," *Technology Review* 88.4 (May–June 1985), 14–17. Bernstein observes that Oppenheimer may have thought that technical objections would be the most effective ones in blocking a project he opposed on moral grounds, or he "may have lacked, or already overridden, personal doubts about the ethics of mass killings" (15). If the latter explanation is correct, then the use he made of the *Gita* may have helped him "override" his "personal doubts."

¹⁶² Oppenheimer interviewed by Martin Agronsky, CBS Evening News, 5 Aug. 1965, TS in 20th Anniversary—Hiroshima folder, container 285, Oppenheimer Papers, Library of Congress.

¹⁶³ U.S.A.E.C., Transcript, 229.

ever, Oppenheimer never discussed the matter except "in a very general way," and Wyman made no attempt to draw him out in a discussion of particulars. Moreover, when Oppenheimer and Wyman had seen each other about five years earlier and had talked about "all kinds of things, recapturing the past," Oppenheimer had never mentioned the atomic bomb and had given no indication of remorse over it. Even in the later, breast-beating years, Wyman got the impression that his friend "was almost reveling in his feeling of guilt about the bomb." ¹⁶⁴ Oppenheimer's sorrow, such as it was, seems to have been only half-hearted and occasional.

When he thought about the bomb—his duty to build it, other men's duty to decide how to use it, and his detachment from the fruits of his work—he believed that he had done the right thing. It was not that Oppenheimer had no misgivings about what he did at Los Alamos. It was just that his philosophy enabled him to overcome them.

He had another reason not to fret excessively over the casualty counts from Hiroshima and Nagasaki: they were not the final results of the atomic bomb. Indeed, the ultimate consequences of Oppenheimer's work would not be known in his lifetime. He hoped that the atomic bomb would eventually force nations to forswear war and resolve their differences peacefully, but he acknowledged that the bomb might instead lead to a holocaust destroying world civilization. In a letter acknowledging "heavy" misgivings about his work on the bomb, he said that "the future, which has so many elements of high promise, is yet only a stone's throw from despair." 165 Promise or despair—it could go either way. Since there was no way to know the ultimate results of one's actions, and since those results might be catastrophic, should one refrain from acting? Here the *Gita* provided an answer: Don't count on any particular consequences, just do your duty. The Gita's insistence on performance of duty made action possible in a world in which one could not foretell all the results of one's actions. Oppenheimer badly needed such a stimulus to act.

The director of Los Alamos was subject to indecision. "His exceptional intelligence and clearsightedness," says Robert Jungk, "had always shown him simultaneously the opposite of every view and the drawbacks of every undertaking." Murray Kempton's article about him was entitled "The Ambivalence of J. Robert Oppenheimer." This circumspection produced a characteristic quirk in his style of expres-

¹⁶⁴ Wyman interview, 27, 29, 41–42.

¹⁶⁵ Oppenheimer to Herbert Smith, 26 Aug. 1945, in Smith and Weiner, Robert Oppenheimer, 297.

¹⁶⁶ Jungk, Brighter than a Thousand Suns, 142.

sion, in which he often said something and said its opposite in the very same phrase. For example, right after the Trinity test, he told a reporter that the explosion was "not entirely undepressing" ¹⁶⁷ and told an associate that his faith in the human mind had been "somewhat restored." ¹⁶⁸ Dolores Valencia Tanno has discerned a "conflict of narratives" in Oppenheimer's discourse: he advocated both scientific discovery and political conscience but failed to reconcile them when they clashed. ¹⁶⁹ Ed Regis says bluntly that Oppenheimer had a "capacity for speaking out of both sides of his mouth." ¹⁷⁰

A man torn by such systemic ambivalence is in danger of paralysis, something Oppenheimer feared. Historian Benny Kraut says that Felix Adler had subjected himself to "constant self-analysis and self-evaluation by the same high standards and objectives that he set for others," 171 but Oppenheimer found such relentless introspection intolerable. In a lecture delivered in 1962 he said that a person must choose between acting and thinking about the causes of those actions: "I may, as we all have to, make a decision and act or I may think about my motives and my peculiarities and my virtues and my faults and try to decide why I am doing what I am. Each of these has its place in our life, but clearly the one forecloses the other."172 Late in life he would pay more attention to ethical questions, more frequently injecting the word responsibility into the conversation; but even then he would speak mockingly of his own moral reflection. In 1966, looking back on his work on the bomb, he said this: "I was more concerned then with doing what I should than chattering about it." Mere months before his death, moral argument about the consequences of the atomic bombings was just "chattering." The important thing was "doing what I should." 173

While Oppenheimer was soldiering on at Los Alamos, an older

¹⁶⁷ New York Times, 27 Sept. 1945, p. 7.

¹⁶⁸ Ferenc Morton Szasz, *The Day the Sun Rose Twice: The Story of the Trinity Site Nuclear Explosion* (Albuquerque: University of New Mexico, 1984), 89.

¹⁶⁹ Dolores Valencia Tanno, "Toward Savage Peace: A Conflict of Narratives in J. Robert Oppenheimer's Public Discourse, 1945–1967" (Ph. D. diss., University of Southern California, 1990), v–vi.

¹⁷⁰Regis, Who Got Einstein's Office?: Eccentricity and Genius at the Institute for Advanced Study (New York: Addison-Wesley, 1987), 148.

¹⁷¹ Kraut, From Reform Judaism to Ethical Culture, 13.

¹⁷² Oppenheimer, *Flying Trapeze*, 54. In practice his life seems to have had more place for deciding and acting than for thinking about his motives, as his lack of testimony for the latter suggests. In this regard he seems to have learned a lesson from Hamlet, who demonstrated the disasters that ensue when "the native hue of resolution is sicklied o'er with the pale cast of thought" (3.1).

¹⁷³ Thomas B. Morgan, "With Oppenheimer on an Autumn Day," *Look*, 27 Dec. 1966, p. 67

Harvard alumnus was also drawing upon his knowledge of the *Bhagavad-Gita*, but doing so to write a poem. T. S. Eliot's "The Dry Salvages," issued as part of *Four Quartets* in 1943, mentioned "Time the destroyer" (Section 2), then summarized one of Krishna's points:

And do not think of the fruit of action.
Fare forward. . . .
So Krishna, as when he admonished Arjuna
On the field of battle.
Not fare well,
But fare forward, voyagers. (Section 3)

The voyagers should not consider the "fruit of action," should not selfishly desire to "fare well," but should simply do their job as voyagers—"fare forward."¹⁷⁴

Oppenheimer's sentiments exactly. At Los Alamos he wanted to "make a decision and act," and the philosophy of the *Gita* helped him do so. Even though he could not know the long-term consequences of his action, he need not, should not, refrain from acting. All he need do was be sure his heart was right, then go ahead. He would not let conscience make a coward of him.

OPPENHEIMER'S QUEST for encouragement to build the atomic bomb was reflected not only in his resort to the *Gita* but also in the name for the site of the first nuclear test, Trinity. There is some doubt about who chose the name. Most accounts say Oppenheimer did, but one report credits an army colonel.¹⁷⁵ What is not in doubt is that Oppenheimer in later life *thought* he had chosen the name. In 1962 he said that while he was the one who had suggested it, "Why I chose the name is not clear."

The name Trinity seems a strange choice for a Jew, even a nonreligious one like Oppenheimer. In 1960 he said the code name "didn't mean anything. It was just suggested to me by John Donne's sonnets, which I happened to be reading at the time." In 1962 he gave a fuller but more roundabout account. There was a certain Donne poem, he told Leslie Groves, that he knew and loved. Oppenheimer then quoted these lines from "Hymne to God My God, in My Sicknesse":

¹⁷⁴ Eliot, Collected Poems, 195, 197. Oppenheimer later claimed that Eliot's *The Waste Land* (1922) had influenced him but, so far as I have discovered, never mentioned *Four Quartets*. Of course, Oppenheimer could get his *Gita* directly from the source.

¹⁷⁵ Szasz, Day the Sun Rose Twice, 40-41.

¹⁷⁶ Oppenheimer to Leslie Groves, 20 Oct. 1962, in Smith and Weiner, Robert Oppenheimer, 290.

¹⁷⁷ Davis, Lawrence and Oppenheimer, 223-25.

As West and East In all flatt Maps—and I am one—are one, So death doth touch the Resurrection.¹⁷⁸

That poem said nothing about any trinity, Oppenheimer admitted to Groves, but Donne had *another* poem that did, beginning "Batter my heart, three-person'd God."¹⁷⁹ Three years later journalist Lansing Lamont tried to sort this out by reporting that Oppenheimer chose "Trinity" because when test director Kenneth T. Bainbridge telephoned Oppenheimer and asked him to provide a name for the site, Oppenheimer was reading that second Donne poem, Holy Sonnet 14, which begins this way:

Batter my heart, three person'd God; for, you As yet but knocke, breathe, shine, and seeke to mend; That I may rise, and stand, o'erthrow mee, and bend Your force, to breake, blowe, burn and make me new.¹⁸⁰

In 1979 Alice Kimball Smith and Charles Weiner, who were editing a volume of Oppenheimer's letters and recollections, interviewed Bainbridge. At that time he could not recollect the alleged phone call. But regardless of which poem, if any, Oppenheimer was reading, and regardless even of whether he was the one who had actually named Trinity, his mention of the two Donne poems makes it clear that he associated the Trinity test with them.

What they have in common is the notion of crisis conversion, of being made over through the violence of divine inspiration. Holy Sonnet 14 begs the Lord to seize the speaker, blast the doubt out of him, bend him to the divine will; in short, to do to him what Krishna did to Arjuna. Similarly, in lines not quoted by Oppenheimer, "Hymne to God" concludes this way: "that he may raise the Lord throws down." One must die in order to be resurrected; one must be thrown down in order to rise.

As he brooded on these poems, Oppenheimer may have thought of his own experience in the 1920s, when his "Sicknesse" was a melancholia that left him rolling on the floor from side to side and contemplating suicide. Something (the Lord, Krishna, the *Gita*) had overthrown and broken him but then made him new—new enough, anyway, so that he could go on to a successful, productive, tolerably happy life in the

¹⁷⁸ John Donne, Complete Poetry and Selected Prose, ed. John Hayward (London: Nonesuch, 1929), 320.

¹⁷⁹ Oppenheimer to Groves, 20 Oct. 1962.

¹⁸⁰ Lamont, Day of Trinity, 70; Donne, Complete Poetry, 285.

¹⁸¹ Smith and Weiner, Robert Oppenheimer, 348.

¹⁸² Donne, Complete Poetry, 321.

1930s. Now, at Los Alamos, he faced a new trial and wanted further inspiration, a renewed sense of a calling. The *Gita*, with its incitement to the performance of duty, would reinforce his determination to build the atomic bomb.

The two Donne poems may also help explain Oppenheimer's support for "direct military use" of the atomic bomb instead of a bloodless demonstration. An explosion in an empty sky or on a desert would merely "knocke" and "seeke to mend" the Japanese; a blast in a city would "breake, blowe, burn" and make them "new," i.e., end their stiff-necked resistance to surrender. Indeed, Oppenheimer hoped that the bomb would convert not merely Japan but the whole world to international cooperation and a rejection of war. Thus Death, the shatterer of worlds, would save the world. "That he may raise the Lord throws down." 183

Historian Marjorie Bell Chambers offers a complementary reason why Oppenheimer may have liked the name Trinity. It refers, she suggests, not so much to the Christian God-in-Three-Persons as to a Hindu triad. With his love of the *Bhagavad-Gita* and other Hindu texts, Chambers argues, Oppenheimer would have associated "Trinity" with Brahma the Creator, Vishnu the Preserver, and Shiva the Destroyer. 184

This, however, is unlikely. Though there is one tradition of Hinduism that worships Brahma, Vishnu, and Shiva as a group, it is only one of many traditions and a minor one at that. Hinduism has more than three major gods, some of whom (such as Devi the Divine Mother and Ganesha, the elephant-headed, potbellied patron of businesspeople and scholars) are more widely worshiped than Brahma, who by the twentieth century was hardly worshiped at all. Moreover, different Hindu traditions recognize one or another god—usually Vishnu, Shiva, Devi, Ganesha, or, as in the *Gita*, Krishna—as *the* supreme god, with all others regarded as minor beings. Thus, trinitarianism is not much of a theme in Hinduism, and Oppenheimer probably did not use it to connect the *Gita* to the bomb.¹⁸⁵

A more likely link was the notion of mutability. The Hindu gods' proclivity for assuming different forms would have appealed to a nuclear physicist who had written scholarly papers on such subjects as the lithium atom's transmutation to beryllium and who was building

¹⁸³Rhodes, *Making of the Atomic Bomb*, 572, and Darrell Fasching, *The Ethical Challenge of Auschwitz and Hiroshima: Apocalypse or Utopia* (Albany: State University of New York, 1993), 101, both point out Oppenheimer's hope for what Fasching calls "redemption through destruction."

¹⁸⁴ Chambers, "Technically Sweet Los Alamos: The Development of a Federally Sponsored Scientific Community" (Ph.D. diss., University of New Mexico, 1974), 142.

¹⁸⁵ Klostermaier, Survey of Hinduism, 57, 130–49.

an atomic bomb.¹⁸⁶ In one quicksilver moment, matter becomes energy, the charioteer becomes a god flaming like a thousand suns. Since Oppenheimer read "Hymne to God" and Holy Sonnet 14, he may also have read Donne's poem "The Trinity," which begins this way:

Slippery but entangled—thus the name Trinity suggests the premise of Oppenheimer's thought and work: forms change, things are not what they seem, one never knows how they may turn out. And yet one must act.

FORTIFIED BY THE *Gita*, and with a little help from John Donne, Oppenheimer pressed on relentlessly at Los Alamos. According to Hans Bethe, who worked on the bomb, the project could not have proceeded so speedily with anyone but Oppenheimer in charge. The official report on the Manhattan Project singled him out as the one person "to be credited with achieving the implementation of atomic energy for military purposes." Even the government agency that took away his security clearance acknowledged that he had been "virtually indispensable to the atomic bomb program." ¹⁹⁰

So resolute was he in the performance of that duty that he could have spoken Arjuna's last words to Krishna in the *Gita*:

Perplexity is done; True memory rewon; My doubts are overpast; My purpose now stands fast. Your grace, unshaken one, Prevails. Your will be done. (18:73)

And what was it that Krishna had willed Arjuna to do? In what way could Arjuna the archer serve as a model for Oppenheimer the architect of the atomic bomb?

¹⁸⁶ Oppenheimer, "The Disintegration of Lithium by Protons of High Energy," *Physical Review* 43 (1 Mar. 1933), 380; Michel Rouzé, *Robert Oppenheimer: The Man and His Theories*, trans. Patrick Evans (Greenwich, Conn.: Fawcett, 1965), 37; Barnett, "J. Robert Oppenheimer," 126.

¹⁸⁷ Donne, *Complete Poetry*, 294. In this edition, which entered its fifth printing in 1945, this poem is sandwiched between Holy Sonnet 14 (p. 285) and "Hymne to God" (p. 320).

¹⁸⁸ Smith and Weiner, Robert Oppenheimer, 264.

¹⁸⁹Henry DeWolf Smyth, *Atomic Energy for Military Purposes* (Princeton: Princeton University, 1945), 247.

¹⁹⁰ U.S. Atomic Energy Commission, *In the Matter of J. Robert Oppenheimer: Texts of Principal Documents and Letters* (Washington, D.C., 1954), 43.

He then whose inner being shuns
The egotistic way,
Whose thought is uncontaminate,
May slay, and slay, and slay.
He kills a world, and yet kills naught,
Unfettered by a selfish thought. (18:17)

Having learned vicariously the lesson of Arjuna, Oppenheimer did his job without the prince's initial hesitation and despondency. Oppenheimer would tolerate no delays, brushing aside questions and protests about the sanguinary use to which the bomb would be put. Coming from the director of Los Alamos and a member of the Scientific Panel, his advice carried weight in the councils of government. "One wonders," says historian Michel Rouzé, "what would have happened if Oppenheimer had firmly opposed the atomic bombardment of Japanese cities; would it have taken place, or not?" But Oppenheimer refused to oppose the bombings. They were, it seemed to him, inevitable; besides, there was no way to know whether in the long run they would ruin or save humankind. Therefore, he would just do his job. Thus he repudiated the Franck Report and suppressed the Szilard petition, human voices drowned by the Song of the Lord.

An army general who observed the director during the Trinity test left this description: "For the last few seconds he stared dreamily ahead and then when the announcer shouted 'Now!' and there came this tremendous burst of light followed shortly thereafter by the deep growling roar of the explosion, his face relaxed into an expression of tremendous relief." Tremendous relief when viewing death, the destroyer of worlds, is a sign of serenity, a conviction of righteousness. In later years he would sometimes wonder whether mistakes had been made in destroying Hiroshima and Nagasaki, but he would never suggest that *he* had made a mistake. In 1955 he angrily denied "recanting" the construction of the atomic bomb. ¹⁹³ When he visited Japan in 1960, reporters there asked him if he wished he had not built the bomb. "I do not regret," he carefully replied, "that I had something to do with the technical success of the atomic bomb." Two decades after Trinity, when asked whether he would do it all over again, he said yes. ¹⁹⁵

AFTER OPPENHEIMER DIED, I. I. Rabi spoke at a memorial session of the American Physical Society. He said that despite Oppenheimer's

¹⁹¹ Rouzé, Robert Oppenheimer, 122-23.

¹⁹² New York Times, 7 Aug. 1945, p. 5.

¹⁹³ Powers, Heisenberg's War, 464.

¹⁹⁴ Michelmore, Swift Years, 241.

¹⁹⁵ Lamont, Day of Trinity, 265, 302-03.

brilliant mind and mastery of nuclear physics, he never achieved as much as he could have. This was due, Rabi thought, to the physicist's being "overeducated" in other fields, "in the Hindu religion in particular, which resulted in a feeling for the mystery of the universe that surrounded him almost like a fog." 196 Rabi's point was that Oppenheimer never made a first-rate contribution to basic science, and that was true. What Rabi overlooked, however, was that Oppenheimer made his principal contribution not to basic science but to the applied science of war, and the *Bhagavad-Gita* helped him do that. Far from trapping Oppenheimer in a fog, Hindu ideas helped liberate him to act and to create his magnum opus, the atomic bomb. The *Gita* may have made the difference between Oppenheimer and Hamlet.

"Uncounted millions," claimed Arthur Ryder in his introduction to the *Gita*, "have drawn from it comfort and joy. In it they have found an end to perplexity, a clear, if difficult, road to salvation." ¹⁹⁷ So it was for Ryder's student, Oppenheimer. A verse that Ryder used as an epigraph to one section of his introduction and that Oppenheimer used (in his own translation) as an epitaph for Franklin Roosevelt might well serve to describe Oppenheimer himself:

For man is fashioned from his faith, And is what he believes. (17:3)¹⁹⁸

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¹⁹⁶ Rabi et al., Oppenheimer, 7.

¹⁹⁷ Ryder, Bhagavad-Gita, vii.

¹⁹⁸ Ibid., xvi.

Since I stubbornly resisted some of the changes that he and the other critics suggested, however, they are all absolved of responsibility for my blunders. I also wish to thank the following persons and organizations for assistance in researching this article: Linda Zieper and the other librarians at UMass Dartmouth; Brown University Libraries; Institute Archives and Special Collections, Massachusetts Institute of Technology Libraries; Fred Bauman and Michael Klein, Manuscript Division, Library of Congress; Edward J., Lauren, and Peter Szymanoski, Alexandria, Va.; the Archive for the History of Quantum Physics, American Philosophical Society; and documentary video producer Jon Else, San Francisco. I am grateful to the MIT Archives and to the Archive for the History of Quantum Physics for permission to cite and quote from their collections. Finally, whatever there is of merit in this essay I dedicate to two of my UMass Dartmouth colleagues, librarian Shaleen C. Barnes and physicist Robert Bento, who introduced me to the study of nuclear weapons and nuclear war.