

FILM REVIEW

Oppenheimer — The complexities of scientific advancement

GEORGE THOMAS

Oppenheimer, Producers: Christopher Nolan, Thomas Hayslip, Charles Roven, James Woods, Emma Thomas, Director: Christopher Nolan, English, 3 hours, July 2023.

The lives of scientists who have been successful in contributing to the understanding of the world we live in are always of interest. The field of nuclear physics is one of those fields in which these contributions are also subject to value judgements — are the contributions an advance or are they in the category of letting the genie out of the bag? Oppenheimer is one of those unlucky scientists whose contributions, while admired for their scientific aspects, evoke strong feelings of antipathy because of the horrific destruction unleashed on Hiroshima and Nagasaki.

Christopher Nolan has done a masterly job of not only relating the life and times of J Robert Oppenheimer, capturing the essence of this tortured genius who put together the science to harness the tremendous and terrible energy contained in the atom, but also presenting the issues of ethics and morality that this scientific enterprise has brought forth. The Manhattan project, which resulted in the creation and deployment of the atom bomb, was truly one of those epochal events in human history of which it is said that the world was never the same again. Furthermore, he deals with the procedure and the consequences of the witch-hunt launched against Oppenheimer several decades after the successful completion of the Manhattan project.

Moving back and forth between timelines, Nolan tries to delineate the character of Oppenheimer. This is not an easy job, and one will need to read the book — *American Prometheus: The Triumph and Tragedy of J. Robert Oppenheimer* by Kai Bird and Martin J. Sherwin, on which the movie is based — to get closer to understanding this complex personality. Oppenheimer was a polymath, a scientist of genius abilities who also wrote poetry, read literary classics in several languages and liked to sail. The young American had a

somewhat shaky start in physics in the famous Cavendish Laboratory at Oxford, where he, in a fit of anger tried to poison his tutor. The depiction of this incident in the film is not exactly factual and is one example of artistic licence that Nolan has taken. Another example, which gained notoriety in India is the use of the quotation from the Bhagavad Gita, "I am become death, destroyer of Worlds," which Oppenheimer is supposed to have said at the time of the first successful test of the atomic bomb, and which, in the film, he says while having sex.

More importantly, the film focusses on how Oppenheimer, in spite of having known socialist sympathies and friends, was still recruited for this top-secret, highly sensitive mission of making the atomic bomb. The stories of how Oppenheimer put together a team which developed the necessary physics and engineering to make the bomb have been told several times and the film does not dwell too much on this. After the devastation of Hiroshima and Nagasaki, Oppenheimer tried fervently to prevent such destruction ever happening again. He tried to convince the American government to share the science with other countries, notably the Soviet Union. These efforts, and his friendships with socialists and pacifists made him suspect in the eyes of the establishment. It was thus, not difficult for Lewis Strauss, Chairperson of the Atomic Energy Commission to launch a McCarthyist enquiry against him. Lewis Strauss had a grudge against Oppenheimer dating from an incident where Oppenheimer publicly exposes Strauss's shaky knowledge of science. The process of the enquiry and the roles of the various protagonists, the nuances and subtleties of human behaviour are portrayed very well by Nolan. That Oppenheimer was loyal to his country, that he desired to avoid the bomb being used again, that he believed that scientific advances should be shared – none of this will be in doubt in the minds of those who see this film.

Was Oppenheimer right in making the bomb? Was it ethical to use it? Does he share moral responsibility for the terrible suffering of the inhabitants of Hiroshima and Nagasaki? These are difficult questions and the film does not give answers. Perhaps there is no way that we can honestly answer these questions.

This is a masterly film. Through the story of the complex human being who put together the intricate science and complex engineering required to split the atom we get a sense of what was at stake in the Second World War. The possibility that human civilisation may have taken a dark turn is brought vividly to life. Scientific advancement can pose deep moral questions. Nolan makes us face this.

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