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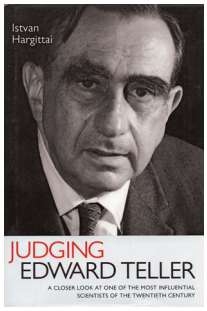

I. Hargittai
Judging Edward Teller
A Closer Look at one of the Most Influential Scientists of the Twentieth Century
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István Hargittai, Professor of Chemistry at the Budapest University of Technology and Economics and Head of the George A. Olah PhD School of Chemistry and Engineering, is especially known for his books and interviews with Nobel laureates, including the six-part *Candid Science* series (Imperial College Press: London, 2000-2006).

Because of his book, *Martians of Science*, (Oxford University Press, 2008) about five eminent Jewish-Hungarian-American physicists (Theodore von Karmán, Leo Szilard, Eugene P. Wigner, John von Neumann, and Edward Teller), Hargittai became involved in the centenary of Teller's birth (January 15, 1908), which motivated him to write the book under review here, dedicated to "victims of totalitarian regimes." He found that of the five physicists the least satisfactory and most controversial material was that about Teller. Furthermore, his background and Teller's were very similar, and he was intrigued that during his years as a visiting professor in the United States (1980s and 1990s), he was puzzled that most of his American colleagues spoke of Teller in extremes.

Hargittai explains:

"My deep interest in American affairs in general and in Teller in particular has made me wonder about the black-or-white approach to him even by some outstanding minds. My principal motivation for writing this book was to counter such a one-dimensional approach and create a portrait regardless of any preconceived image about Teller. Years of reading and writing about Edward Teller have brought me close to him, and I have learned to be appreciative of his virtues and to be conscious of his flaws" (p. 22).

After receiving his last letter from Teller, shortly before his death at age 96, Hargittai states that the letters

"convey the impression that he was not quite at peace with himself and the world, and that he was readying himself for the judgment of his *oeuvre* by later generations" (p. 25).

This book may be a step in that process.

Teller, considered by some as "Father of the H-Bomb" as the "Dr. Strangelove" of Stanley Kubrick's 1967 award-winning antiwar movie of that name, and as one of the architects of the policy of mutually assured destruction (bearing the appropriate acronym MAD) between the United States and the USSR, probably contributed to the avoidance of a third world war. However, his aggressive personality and controversial activities have made it difficult to acknowledge and appreciate his achievements. To his supporters he was a hero of the Cold War, while to his detractors he was evil personified.

Making use of previously unknown material from Hungarian, American, and German archives as well as interviews with Teller himself and with prominent figures such as Richard L. Garwin, Freeman J. Dyson, George A. Keyworth, and Wendy Teller (Edward Teller's daughter), Hargittai has left no stone unturned in producing an insightful, balanced full-length portrait of this multifaceted and enigmatic scientist who was active during a turbulent period of history that saw two unprecedentedly destructive world wars. Avoiding bias and preconceptions, he critically examines Teller's personality, family background, the experiences that directed his actions, and the ruthless actions that he took to achieve his goals. He also corrects many of the contradictory myths that others and Teller himself promoted.

The duel between Oppenheimer and Teller has become a legend. Both were first-class scientists who carried out important research. Oppenheimer worked out the so called Born-Oppenheimer approximation and carried out pioneering theoretical research on neutron stars. The discovery of the Jahn-Teller effect opened up a vast area of research that Teller himself did not pursue further. If it were not for politics, they could both have gone on to win Nobel Prizes.

Both were part of the "second quantum generation" that followed the giants Bohr, Born, Heisenberg, Dirac, and others. However, they did not merely collect the crumbs or leftovers of the preceding giants. Furthermore, Oppenheimer's demise was not entirely a consequence of Teller's misbehavior. It was President Harry S. Truman , who decided to proceed with the H-bomb project. Similarly, President Ronald W. Reagan proceeded with the Strategic Defense Initiative (SDI), the so-called "Star Wars." Teller enthusiastically followed both orders, thus endowing himself with a public persona ("Dr. Strangelove ").

Hargittai credits Teller with a sharp political intuition and a correct evaluation of the strength of Soviet Russian science. Many persons in the West were convinced that great Soviet successes, such as Sputnik, were primarily due to the forced labor of German prisoner scientists. An incorrect assessment of Russian science was not only typical of popular Western culture; it was quite widespread even among the liberal *intelligentsia*. Despite his staunch anticommunism, Teller did not make this mistake.

The most embarrassing part of Teller's life is the latter part. The old cold warrior certainly contributed to the downfall of the USSR, which was the result of a sort of poker game on Reagan and Teller's part. Nevertheless, both the X-ray laser weapon and "Brilliant Pebbles" antimissile program appear to be unfinished projects. Recently, Secretary of Defense Leon Panetta complained that the technique for detecting IRD (Improvised Road Devices) has not made much progress since he was in the military, despite the billions of dollars provided to the Pentagon.

We are pleased to recommend *Judging Edward Teller*, a comprehensive and personal yet objective composition that reveals the contradictory nature of a politically motivated scientist with all his strenghts, brilliance and shortcomings. A definitive biography of such a complex, many-sided individual may be impossible. Hargittai's effort certainly comes close to reaching this goal.

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