

BOOKS

High Marks and Caveats for a Picture of the "New," More Human Einstein

Albert Einstein: A Biography

▶ Albrecht Fölsing
Translated by E. Osers
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Reviewed by John Stachel

Einstein scholarship took a great leap forward with the start of work on his *Collected Papers* (Princeton University Press, 1987, John Stachel *et al.*, Mortin Klein *et al.*, eds). It then became possible to supplement or replace anecdote, conjecture and myth with documented accounts of important events in Albert Einstein's life, many of them (such as the birth of a daughter out of wedlock and the existence of a notebook recording crucial early steps on his road to general relativity) hitherto unknown. In recent years, numerous biographers have attempted to use the available material to shape a new picture, less hagiographic and more realistic, of Einstein the man and the scientist.

As his early years started to emerge from the twilight, it became tempting to replace the familiar icon of ancient sage and seer with the portrait of a more youthful, impudent, rebellious and altogether more appealing figure. If the stick is sometimes bent too far and an attempt made to turn a plaster saint into an inveterate sinner, we may hope that sooner or later an equilibrium state will be reached: an understanding that Einstein was a human being, although a most extraordinary one, whose genius constantly challenges our ability to comprehend its unique features—one whose life we are better advised to attempt to understand than to judge.

Albrecht Fölsing's *Albert Einstein* is certainly the fullest and probably the best of the recent attempts to bring the "new," more human Einstein to a wider public. It is surely no accident that he is most successful in covering the first

40 years of Einstein's life—just the years the editors of the Einstein papers have already investigated. Although Fölsing has done some admirable research of his own, he is still most heavily indebted to these editors, who made available to him much then-unpublished material. Readers of even the best earlier biographies will be impressed by the wealth of new material about the young Einstein that Fölsing presents in a highly readable and usually accurate form. If he, too, occasionally bends the stick a bit too far, I am inclined to pardon him in view of the book's overall biographical merits.

One could wish, however, that Fölsing had been content to end his book two-thirds of the way through it, with Einstein's apotheosis in 1919, saving the last 35 years for a future second volume, after more material on this period becomes available. As it is, his treatment of topics concerning Einstein's later years is often glib and superficial.

To give just one example: His treatment of Einstein's relations with the Jewish community in Germany and abroad, probably the nonscientific topic closest to Einstein's heart, is based almost exclusively on Einstein's letters and writings on a topic—particularly as concerns the history of the world Zionist movement—that calls for much more background study. The treatment is further marred by constant references to Einstein's "tribal companions"—a bad mistranslation of *Stammesgenossen*, roughly "fellow members of the tribe." Fölsing finds Einstein's use of this term singular ("a phrase that sounded odd even to Jewish ears"); but most Jews will find in it the familiar mixture of affection and irony that is as common among Jews in the US today as it was in pre-Hitler Germany.

In spite of the lack of any indication by the publisher, this book constitutes a substantial abridgment of the German original (*Albert Einstein Eine Biographie*, Suhrkamp, 1993). I estimate that almost 20% of the original text remains untranslated, and cuts there are not always been made smoothly; cryptic allusions become clear only when one consults the uncut German text. Fölsing has also not always been well served by his translator. For example, well-known scientific terms ap-

pear under sometimes bizarre pseudonyms: What should be "non-commutativity" appears as "non-interchangeability," "angular momentum" becomes "torque," "contradictions" becomes "conflicts," "quantum of action" becomes "quantum of effect"—to take only a few examples from chapter 30.

In spite of his physics background and career as a radio and TV science journalist, Fölsing himself "shoots quite a few goats" (the German idiom *einen Bock schießen* was Einstein's favorite expression for committing a blunder) in scientific matters. Between misstatements and mistranslations, many of the scientific explanations are quite unreliable—and sometimes even unintelligible. Short of an exhaustive list of blunders, one can only advise extreme caution here. It is curious that the author found it necessary to include, and the English editors to preserve (when they cut so much else) a 23-page list of Einstein's scientific publications. A list of his non-scientific publications would have been more useful—especially since many that are not included in earlier lists have been discovered in recent years.

In spite of these caveats, readers who want an up-to-date account of Einstein's life and extrascientific activities, particularly up to about 1920, will find here the best currently available biography. Readers who want a superb and accurate account of Einstein's scientific work and its impact on 20th-century physics are still advised to turn to Abraham Pais's *Subtle is the Lord . . . The Science and the Life of Albert Einstein* (Oxford, 1982).

Physics of Biological Systems: From Molecules to Species

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Complexity is the central issue in biological physics. This is so because, while physicists have a bombproof track record when dealing with simplicity, they hardly know what truly

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