wrong? He was no chemist; he had not studied the specimens; his belief in the existence of Precambrian life was both valid and later vindicated. One might as well apologize for Copernicus because planetary orbits aren't circular.

The prospective bias is especially inappropriate in Huxley's case because he immersed himself so deeply in the issues of his day—and because he affected his own times so profoundly. Contemporary historians of science often distinguish an "internalist" from an "externalist" approach to their subject: the first treats the history of ideas much as an evolutionist studies phylogeny; the second emphasizes the interaction of science and society. Up to now, the internalist approach has generally prevailed. We are led, in its light, to measure greatness by the invention of ideas that serve as "ancestors" to large and successful branches in the evolutionary tree of human thought. On this criterion, Huxley must stand in the second rank. His early work on coelenterates set the basis for phyletic applications of germ-layer theory, and for the comparative embryology that dominated late-19th-century biology. His victory over Owen in the great hippocampus debate represented the first and greatest triumph for a Darwinian view of human origins. Yet much of his later research consisted of abstracts, albeit brilliant ones, for ambitious projects that remained uncompleted.

"Iffy history" may be a sterile pursuit; yet I have no doubt that Huxley would be the Newton of our textbooks if the externalist approach to the history of science had prevailed heretofore. I doubt that anyone, with the possible exception of Ernst Haeckel, ever attained such eminence and influence as a public spokesman for biology. Hundreds of millions of people were touched in the most direct way by his efforts—for whose influence is the greater: the man who invents an important theory or the man whose public addresses, private exhortations, and willingness to endure countless hours of soul-sapping committee work set the curricula of schools at all levels for generations to come? The theorist is exalted in the lofty treatises of future centuries; who, after all, reads the primers of the 1890's? But the spokesman translates ideas into action and sets their impact upon society. How can we deem one skill more important than the other? Huxley had abundant capacities for either role; he chose well. We should not judge him as Darwin's obedient, if ferocious, bulldog, but as a man of equal rank and different skills. "The great end of life," he once wrote ("Technical Education," 1877), "is not knowledge but action."

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