

Review of Blueprints: Solving the Mystery of Evolution

New York Times, April 9, 1989
IN SHORT: NONFICTION

Date: April 9, 1989, Sunday, Late City Final Edition Section 7; Page 34, Column 2; Book Review Desk

By RICHARD DAWKINS; Richard Dawkins, a fellow of New College and lecturer in zoology at the University of Oxford, is the author of "The Blind Watchmaker: Why the Evidence of Evolution Reveals a Universe Without Design."

Lead: LEAD: BLUEPRINTS Solving the Mystery of Evolution. By Maitland A. Edey and Donald C. Johanson. Illustrated. 418 pp. Boston: Little, Brown & Company. \$19.95.
Text:

BLUEPRINTS Solving the Mystery of Evolution. By Maitland A. Edey and Donald C. Johanson. Illustrated. 418 pp. Boston: Little, Brown & Company. \$19.95.

"Do you realize," said Don, "that nearly half the people in the United States don't believe in evolution?" This sentence epitomizes both the provocation for and the odd provenance of the book under review. To take the latter first, "Blueprints" purports to be the joint work of a distinguished scientist and a journalist, Donald C. Johanson and Maitland A. Edey. It is their second collaboration; the first was "Lucy: The Beginnings of Humankind." Such a combination is bound to arouse suspicions of ghostwriting by the journalist, cashing in on the name of the scientist. The difference here is that the ghost manifests himself with unusual frankness. Mr. Johanson enters the book only as Don, a third-person character who occasionally drops in, looks over the author's shoulder and comments on whatever he happens to be working on at the moment. " 'Those things are called Punnett squares,' said Don, watching as I laboriously completed the large square on the preceding page. 'Boy, are they dull.' "

In other places, especially in the sections on molecular genetics and bacterial evolution, there is an odd role reversal: "Don" comes off as pupil, his colleague as master. "Mait" indulges in pedagogical questions like "Does that suggest anything to you?" and Don's answer is rewarded with a magisterial "Right." Mr. Johanson, the director of the Institute of Human Origins in Berkeley, Calif., is a fine paleontologist and anthropologist. He has many achievements to his name, but writing this book is not one of them, and I shall henceforth refer to the author in the singular. But it is a shame to carp, for this book should be welcomed by anyone with a love of truth in a dark time. It has an important and true story to tell - the story of evolution. As far as I am able to judge (which is adequately far), the science in the book is accurate and up-to-date. On the whole it is pleasantly written, in spite of the reservations entered above (and a few others: I had earlier promised myself that if I had to endure the silly story about Thomas Henry Huxley's schoolboy triumph over Bishop Wilberforce one more time, I'd scream; and I duly did so).

Following a history of Darwin and his predecessors, the large middle section of the book covers the important science of genetics, from Gregor Mendel through the American geneticist T. H. Morgan to Francis Crick - giving too little credit, for my money, to the English geneticist R. A. Fisher and his colleagues in the 1930's. The section called "The Origin of Life" is notable for its courageous attempt (which I have shirked in my own writings) to explain the difficult ideas of the German chemist Manfred Eigen. For me, the most interesting chapter is the one devoted to the work of the American bacteriologist Carl R. Woese because it deals with the earliest phases of evolution, the split between our remotest cousins, the archaebacteria, and all the rest of us.

The chapters on human evolution display predictable expertise on fossils, but it is also good to see Mr. Johanson's arid home ground irrigated by a refreshing trickle of molecular evidence, and particularly gratifying to find at last proper recognition of the enormously important work of the American biochemist Vincent Sarich. Contrary to the erstwhile conclusions of all paleontologists,

we now know from the work of Mr. Sarich and his colleague, the molecular biologist Allan Wilson, that our common ancestor with chimpanzees lived astonishingly recently. Moreover, we are closer cousins to African apes (chimpanzees and gorillas) than those apes are to other apes (orangutans and gibbons). We are not, then, merely like apes or descended from apes; we are apes, and African apes at that. The final chapter, a reflection on extinction and the dangers of being too smart, moves toward being noticeably well written. Mr. Edey may call himself a journalist, but he evidently is a pretty high-class journalist.

So to the book's provocation, the statement that nearly half the people in the United States don't believe in evolution. Not just any people but powerful people, people who should know better, people with too much influence over educational policy. We are not talking about Darwin's particular theory of natural selection. It is still (just) possible for a biologist to doubt its importance, and a few claim to. No, we are here talking about the fact of evolution itself, a fact that is proved utterly beyond reasonable doubt. To claim equal time for creation science in biology classes is about as sensible as to claim equal time for the flat-earth theory in astronomy classes. Or, as someone has pointed out, you might as well claim equal time in sex education classes for the stork theory. It is absolutely safe to say that if you meet somebody who claims not to believe in evolution, that person is ignorant, stupid or insane (or wicked, but I'd rather not consider that).

If that gives you offense, I'm sorry. You are probably not stupid, insane or wicked; and ignorance is no crime in a country with strong local traditions of interference in the freedom of biology educators to teach the central theorem of their subject. I recently toured East Coast radio stations, doing phone-ins. I came away optimistic. I had expected hostile barracking from creationists with closed minds. Instead, what I found was genuine curiosity and honest interest. I got sincere questions from intelligent people who really wanted to know because they had literally no education in evolution.

I don't think it is too melodramatic to say that civilization is at war. It is a war against religious bigotry. In Britain recently our newspapers have shown crowds of fundamentalists (they happen to be Muslim rather than Christian, but in this context the distinction is of no importance) baying for the death of the distinguished novelist Salman Rushdie, displaying his effigy with its eyes put out and publicly burning his books. The truly appalling thing all such people have in common, whether they are incited to murder by ayatollahs or to less violent observances by television evangelists, is that they know, for certain, that their particular brand of revealed truth is absolute and needs no reasoned defense. In Iran I don't suppose evolution is even an issue, but in the United States a case can be made that it is right there on the front line.

If you feel even vaguely in the mood to stand up and be counted, evolution is a pretty good issue on which to take your stand. It is an excellent standard-bearer for reason and the gentle virtues of civilization. This is because the more you read, quietly and soberly, the evidence for evolution, the more powerful will you discover that evidence to be. You are as safe taking your stand on the fact of evolution as you would be on the fact that the earth goes round the sun. But the latter is not - any longer - at stake in the war against fundamentalism. Evolution is on the front line because it is an important issue disputed by fundamentalists, and you can be completely confident that you can easily prove them wrong.

"Blueprints" is not the only book, and probably not the best book, in which you may locate the ammunition. Even in time of war one should not suppress criticism of one's own side, and I haven't done so. But this is an honest book, telling the truth in an area where half the country claims to believe an absurd and palpable falsehood. I say "claims" because a belief that is held in carefully nurtured ignorance of the alternative is hardly a belief to be taken seriously. For all its faults, "Blueprints" is about more important matters than many a book you will find displayed in your bookshop or, I dare say, reviewed in these pages.

HomeSite