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Can a Young Man Whose Mind is on Girls, Booze, Skiing, and High-Class Parties Win the Nobel Prize?

PETER FARB

About a dozen years ago I announced, with a perfectly straight face, at a meeting of the New York Entomological Society that our fellow member, the distinguished lepidopterist Vladimir Nabokov, had published a new "paper" entitled *Lolita*.

I now find myself about to make a similar sort of announcement, only my straight face is somewhat older. The Double Helix is a brief story of the structure of the genetic material DNA. As such, it is exceedingly valuable to the historian of science. But another, somewhat irreverent aspect of the book, to be discussed later in this review, makes it an important document for the general reader as well and one that deserves wide reading.

DNA determines the nature of every living thing from the amoeba to man. No one understood how this complex molecule transmitted genetic instructions from cell to cell and from generation to generation until the author and his co-workers showed it to be a double helix (somewhat like a circular staircase) with the two strands of molecules bound together by hydrogen. The discovery of this structure explained how a dividing cell can replicate itself: the strands separate and each serves as a model for a new strand, thus resulting in two double helices.

The discovery, made in 1953, is probably the most important contribution to the life sciences made so far in this century, and it has sent other scientists scurrying off in many directions to build upon its implications for heredity and biochemistry. Understandably, it won the Nobel Prize for Watson and two of his co-workers in 1962 (there is usually a lag in awarding the science prizes since a discovery must be confirmed and its implications judged).

Watson's discussion of the scientific details makes little concession to the general reader who quickly finds himself swimming in a muddy sea of jargon: alpha-helix, Mg++ ions, X-ray diffractions, polypeptide chains, and so forth. The diagrams confuse rather than clarify, and I am not certain I understood all of them myself. Not even the crutch of a glossary is offered the reader. High school students nowadays routinely learn about the double helix-but older readers will need a genetics primer. I suggest The Science of Genetics by Auerbach and The Genetic Code by Asimov, both available in paperback.

The Double Helix would scarcely be worth discussing in these pages if it were not more than a bald scientific account. What makes it important for the general reader is the ruthless honesty with which it views the modern scientist. Writing some fifteen years after the actual events, Watson records

^{*}Reprint of an article appearing in Book World.

them as if they happened only yester-day. At no time does he censor his youthful thoughts and actions, or compromise his honesty by taking the stance of a mature person looking backward and assessing what happened in the years 1951-1953. He suggests that the other participants in the discovery might tell it differently—and well they might, for at this writing, the gossip is that at least one other participant is planning to bring suit.

This book will undoubtedly shock an older generation that read Paul de Kruif's *Microbe Hunters* and other books about lonely, improverished scientists offering their lives and their fortunes to the goddess Science. Better forget about Dr. Ehrlich's 606 attempts to find the "magic bullet" or the lonely vigil passed by Alexander Graham Bell in his laboratory. That, Watson informs us, is not the way science is today.

Instead, scientists play the "game" (Watson's word, not mine) of research. They inveigle government grants, and then use some of the money for skiing holidays in the Alps. Or they attend a scientific congressheld in the winter, in sunny Italywhere the participants do not understand one another's languages. They booze it up, chase French girls, and spend an inordinate amount of time wangling invitations to high-class parties. Watson also points out that "in contrast to the proper conception, supported by newspapers and mothers of scientists, a goodly number of the scientists are not only narrow-minded and dull, but also just stupid."

In addition to the boozing and the girls, the skiing and the tennis, The Double Helix reveals what goes on in a laboratory: some work, much idle talk, and considerable back-biting. The director of the laboratory was Sir Lawrence Bragg, a Nobel prizewinner himself, who is recalled by young Watson as stodgy and rather bumbling. Yet, the mature Watson asked Sir Lawrence to write the foreword to this book, and a very gracious job he makes of it. The feminist Dr. Rosalind Franklin was a constant trial to the young Watson, and scarcely a kind word about her appears in the book. Yet she is mentioned in a moving epilogue in which the mature Watson tells of her early death and his regret that he was too young at the time to appreciate her honesty and generosity.

So, in the end, this is really a book about the maturation process, traditional American theme of, for instance, Huckleberry Finn, Moby Dick, and Catcher in the Rye. The rebellious young genius Watson, who came to Cambridge preoccupied with the impression he could make on people, had turned into a revered name in science—but he felt he had ceased to be "interesting" as a person. As the book ends, he is alone in Paris and foregoes pursuing the passing girls. "I was twenty-five," he concludes, "and too old to be unusual."

So, with a perfectly straight face, I urge that this book be read by all parents of budding scientists.