Introduction

> The nature of physical things is much more easily conceived when they are beheld coming gradually into existence, than when they are only considered as produced at once in a finished and perfect state.
>
> John Dewey, quoting René Descartes, *Discourse on Method*

More than four decades ago, I wrote *The Darwinian Revolution: Science Red in Tooth and Claw*. For all that the eminent evolutionist Ernst Mayr chided me for the silliness of my subtitle, I remain very proud of that book. As might be expected, much of what I wrote then is seriously dated, I would like to think in major respects because of the work that book stimulated – work by myself and others. It has long been my hope that, as my career of over fifty years as a philosopher and historian of science draws to an end, I could write a serious revision of the book that helped launch my career.

This is that revision. Except it isn't really. Most importantly, the very intent of the earlier book has been changed, and this (not Mayr) is the reason for the change of title. Then, I wrote a straight history of science, trying to show what happened in the Darwinian Revolution. It was a much needed overview, much needed because of the flood of new information and ideas that had appeared in the twenty years since the history of science became professionalized. It was the book I wished I had had ten years before, when, as a young philosopher of science under the influence of Thomas Kuhn, I turned to the history of science. As one who, in childhood, prayed for wet weather so the order to go out and play was rescinded and I could finish reading *The Children of the New Forest* and move on to *The Secret Garden*, Darwin and his achievements were from a time and a land where it was always raining – leading me in a direction I have never regretted.

Now my commitment to philosophy has reasserted itself, and this book here is a history of ideas. By this I mean, writing in the tradition of Arthur Lovejoy

and Isaiah Berlin, I am using history to throw philosophical light on issues that engage us today. The book is deeply autobiographical. It is by no means simply a précis of work I have done in the past forty years. However, unashamedly, I will use already expressed ideas to push forward to my concerns now. Specifically, I shall ask about the relevance of Darwin's work towards an understanding of attitudes towards foreigners, especially immigrants; towards an understanding of the nature (if they exist) of racial differences, and how these (real or otherwise) affect society's attitudes towards African-Americans; towards an understanding of sexual orientation, whether it is a matter of nature or of choice; and, finally, towards an understanding of the nature and status of women. Recently, it has become evident that there is still huge prejudice against Jews. After I have discussed beliefs about foreigners and attitudes towards race, I add a short codicil addressing this issue. Overall, I shall look at Darwin's work against its background, at our thinking today and the extent it has been shaped by Darwin's work, and whether Darwin himself had any idea of the ways in which his findings and theories would be an integral part of our thinking today. The proof of the pudding is in the eating. Here, I will not defend my change of intent. The reader must judge whether the change was proper and whether I have succeeded in what I have set out to do.

I will say, however, that I write within a framework – more precisely, against a framework. In my earlier book, I acknowledged that, whatever the importance of Darwin's science, particularly in the *Origin of Species* and the *Descent of Man*, in respects he did not do what he set out to do, namely convince professional evolutionists of his own generation to adopt, as the chief mechanism of change, Darwin's cause: natural selection. I did not then see that this was a claim with supposed wider implications, namely that it is a mistake to think that Darwin led to an actual scientific "revolution." That he was rather one of many who contributed to the nineteenth-century change from a world of the miraculous origins of organisms to a work of the natural origins of organisms. In other words, while there was certainly a general non-evolutionary consensus before the *Origin*, and there was a general evolutionary consensus after the *Origin*, really Darwin had little or no role to play in the change. As they accept the literal resurrection of Jesus, the general public might accept the revolutionary nature of Darwin's legacy. Those in the know realize that neither claim withstands the critical eye. In the Darwinian case, given especially that Darwin's theory was already existing beliefs stitched together – in this respect he was certainly no rebel – talk of "revolutions" is pushing beyond the boundaries.

Typical of criticisms of the "revolutionary" claims for Darwin's achievement are the concluding words of James Secord at the end of his (deservedly)

prize-winning book on the pre-*Origin* evolutionary work *Vestiges of the Natural History of Creation* by the Scottish publisher Robert Chambers. Darwin is important, but not that important. Many of the claims promoting his importance are "implausible." Adding: "the Origin's main novelty, natural selection, was rejected by almost all readers in the first seventy-five years after publication" (Secord 2000, 516). Secord is but one of a number of voices that want to shrink the author of the *Origin of Species* down to size. He and the others are nothing to Peter Bowler, the eminent historian of evolutionary biology. The titles of three of his books tell the tale: *The Eclipse of Darwinism* (1983); *The Non-Darwinian Revolution: Reinterpreting a Historical Myth* (1988); and *Darwin Deleted: Imagining a World without Darwin* (2013). That tells it like it is! Bluntly: "There is now a substantial body of literature to convince anyone that the part of Darwin's theory now recognized as important by biologists had comparatively little impact on late nineteenth century thought" (1988, ix).

"Comparatively little impact on late nineteenth century thought"?! Although, primarily, I am telling the tale of Darwin and his accomplishments, I write against the *background* of this claim and I look at the evidence that leads to such a judgment. Since the *Origin* is – or claims to be – a work of science, let us be generous and assume that it is to this that people such as Bowler would have us turn. So let us pick up the challenge. However, not to make hasty judgments, constrained by the interests of Bowler and other Darwin belittlers, I shall also look at other areas of inquiry that might have felt the effects of the arrival of the idea of natural selection – philosophy, religion, literature. Also, since the titles and contents of Bowler's books certainly suggest that he is talking of the Darwin Revolution without temporal restrictions, I shall reject the assumption that one can make a clean division between "revolutionary" in the nineteenth century and "revolutionary" in the twentieth century. These topics and interests one might regard as the foreground of my discussion.

Let us turn at once to see if I have succeeded in what I set out to do.