

Darwin Under the Microscope

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**Paul Johnson, *Darwin: Portrait of a Genius* (New York: Viking, 2012)
164 pages, \$25.95 cloth.**

Scholars familiar with Paul Johnson's work know that when terms like "intellectual" or "genius" appear on the cover of one of his books, it is likely that some revisionist history is in the making. His brief monograph on Darwin is no exception. That Johnson could have the *chutzpah* to write such a short book about Darwin is something of a statement in itself. Studying Darwin's life, his contributions to science, the rhetoric he used to convey his findings, and the fallout from his revolutionary theories about the natural world has occupied hundreds of scholars in disciplines from biology to political theory (with rhetorical theory wedged somewhere in the middle, I believe). In the year *Darwin: Portrait of a Genius* was published, at least a dozen other books about Darwin appeared. That number pales in comparison to the total published in 2009, the bicentenary of Darwin's birth – more than fifty. Few of these are under two hundred pages, and several exceed five hundred.

Johnson's reputation as an argumentative sort precedes him. For some he is, as Jonathan Foreman described him in a 2009 *Wall Street Journal* profile, "the most celebrated and best-loved British historian in America" – at least, Foreman, says, for "readers of a conservative bent." Since Darwin has been revered for more than a century by those who want to write God out of the creation story, one should not be surprised to find the conservative Johnson taking a contrarian view of Darwin's achievements. After all, in his monumental *History of the American People*, Nixon is one of his heroes and Kennedy dismissed as a fraud.

Though I find that in this study of Darwin Johnson has muted the strident conservatism that characterized his assessment of the United States in *A History of the American People* (for which historian Pauline Maier excoriated him in a *New York Times* review), there is plenty in *Darwin: Portrait of a Genius* to raise the hackles of liberal scholars and scientific purists, as the initial reactions demonstrate.

Early reviews make one wonder if the reviewers read the same book. Carl Rollyson, a Johnson admirer, says in his *Wall Street Journal* review that this study follows Johnson's general ideology, viz., "it is never permissible to do evil – even in a good cause" – an axiom of Johnson's hero, Socrates. Following that logic, if Darwin sometimes does evil (even unwittingly) then he must be called to account, even if his devotees object.

One might have expected a critical review from Michael Flannery, author of a biography of Alfred Russel Wallace, Darwin's chief competitor for the title Discoverer of Natural Selection. But Flannery is particularly complimentary, calling Johnson's monograph "an interesting and valuable brief to an ever expanding minority opinion." James Barasch, writing for Tufts University's online news service, offers higher praise, calling the book "a compelling portrait that raises important new interpretations of Darwin and his work for the 21st century."

Gene Mirabelli believes Johnson's is a balanced portrait, giving Darwin credit for his achievements but holding him responsible for failures that led to sloppy science on occasion and even sorrier support for ideas that would prove inimical to society in succeeding decades. Yet even Mirabelli has trouble swallowing some of Johnson's vituperative conclusions about Darwin's abilities or his direct influence. He finds Johnson's attack on Darwin's work after the publication of *Origin of Species* "the weakest and weirdest" section of the book. *Slate's* Mark Joseph Stern says that, while "there's no harm in remembering Darwin's flaws, misunderstandings, and racist ignorance," when Johnson begins to take Darwin to task in the final chapters of *Darwin: Portrait of a Genius*, "the book begins to veer off the rails."

In his long review for the *Dublin Review of Books*, David Askew makes several more serious charges, accusing Johnson of getting important facts wrong (such as the method of H.M.S. *Beagle* commander Captain Robert FitzRoy's suicide), developing questionable interpretations based on misreadings (of Malthus, among others), and on occasion using pop psychology to explain motives. He condemns *Darwin: Portrait of a Genius* with the dismissive judgment that "Johnson is coasting on his considerable reputation" rather than doing the hard work it would have taken to write a truly serious and informed work.

More dismissive – and less kind – is Rowan Hooper, an environmental scientist and Darwin admirer. Writing in *New Scientist*, Hooper accuses Johnson of manufacturing "an air of mediocrity" around Darwin's achievements. Of course, Hooper admits, Johnson's real targets are "Darwinian fundamentalists" – the term Johnson uses to describe those who, like Christian fundamentalists reading their Bibles, take every word in *Origin of Species* and *Descent of Man* as gospel. He concludes that Johnson's book should never have been published: "We don't need another agenda-driven biography to add to the pile." Science teacher Cary Seidman is similarly appalled, claiming that this "witty and graceful account" is little more than "a historical and philosophical hatchet job on the founder of evolutionary biology."

So what is one to make of a book that provokes such diverse resaction? Certainly Seidman is right about one thing: *Darwin: Portrait of a Genius* is a thesis-driven book, less a biography than a polemic against Darwin worshippers who have elevated their hero to the status of sage and saint. Johnson's aim is not to retell Darwin's life, but to use details from that life to explain why Darwin was able to become not only the leading scientist of his day, but in some ways the most influential scientist of all time. But, as with his other studies, Johnson views Darwin's accomplishments with a certain degree of skepticism. Rather than being the Sage of Down House, Johnson's Darwin achieves his fame by being keenly observant, relatively intelligent, particularly diligent, and exceptionally lucky.

Darwin's luck began with his fortunate birth into a family of distinguished scientists. He also had the good fortune of being financially independent, allowing him to follow his scientific interests wherever they led him. By another stroke of luck he sailed as the doctor and gentleman companion to FitzRoy aboard the *Beagle*, spending most of his time on the five-year voyage exploring the flora and fauna of South America and the Galapagos Islands. He married well and lived near but not in London, enjoying the company of a loving family and the companionship of fellow scientists but avoiding the strain of city life. For years he collected data to support his theory that evolution by natural selection was the key to understanding the animal kingdom – including the human species. The luckiest moment in his charmed life came when Alfred Russel Wallace, who had come to similar conclusions about the way the natural world evolved, deferred to him and allowed *Origin of Species* to be the first major publication in which the theory of natural selection was explained in detail.

To Darwin's credit, Johnson explains, he made the most of his time observing nature, taking copious notes and working out his ideas until they appeared – to scientific minds, at least – foolproof. After *Origin* made him the most famous scientist in Europe, perhaps in the world, Darwin refused to rest on his laurels, but instead continued to conduct research on topics that interested him. Among those was a belief that humankind was no exception to the law of natural selection, a radical idea that put him at odds with a large segment of the population, especially clergy and deeply religious laity who clung to the biblical story of creation despite the mounting scientific evidence that the Bible's account was at best metaphorical. *Descent of Man*, like its predecessor, became a best-seller.

Darwin's good luck and diligence are counterbalanced in Johnson's account by critical judgments about his intellect and his penchant for letting emotions shape his judgment. The latter phenomenon influenced the way Darwin viewed and wrote about the process of natural selection and caused him to be reticent about being associated publicly with

scientific findings that might appear controversial. On the former point, Johnson harps on Darwin's inability to understand mathematics, a problem that caused him some difficulty in working out details of the process of natural selection and – a much more important failing – led him to ignore the work of the Silesian friar and scientist Gregor Mendel. Had Darwin paid attention to Mendel, Johnson insists, he would have been forced to modify some of his more fanciful (and downright wrongheaded) claims about the way natural selection really works. Additionally, Johnson explains, Darwin's failure to master anatomy when he was a medical student at Edinburgh University led to problems when he turned from writing about subhuman species in *Origin* to a detailed analysis of humankind in *Descent*.

Perhaps the most controversial claim Johnson offers in his brief biography is that Darwin was motivated as much by his emotions as he was by the discoveries he was making. Johnson believes Darwin was permanently affected – perhaps scarred would be a more precise word – by his encounter with the natives of Tierra del Fuego, whom he considered savage cannibals. As a result, his subconscious began to formulate the idea of natural selection as a constant struggle in which the fittest survived. The language of *Origin* is filled with metaphors and allusions to war; nature was, Darwin seemed to conclude, just as Tennyson had described it nearly a decade earlier, “red in tooth and claw.” How could he possibly put forth such a hostile view of God's creation without rankling some very important people? Even though Darwin did not believe in God, he believed it was better to simply keep quiet until forced to speak out.

Why the reticence? Where other biographers have attributed Darwin's delay in publishing his findings about natural selection to his penchant for collecting unassailable evidence for his conclusions, Johnson believes there were other, more personal reasons. Darwin was afraid that he might suffer the same fate as Joseph Priestley, the chemist (and theologian) who discovered oxygen. During the incendiary times following the French Revolution, Priestley was hounded by a political

faction that found his work too revolutionary. His writings were burned, his scientific apparatus was destroyed, and he was forced into exile. Additionally, Johnson says, Darwin feared offending his religiously-minded wife, whom he was certain would be horrified at the notion that natural (sometimes cruel) processes, not a benevolent deity, controlled the development of living things – including people.

While he chides Darwin for delaying publication of his findings, Johnson is clear that he considers *Origin of Species* a masterpiece. Well written and intelligible to the educated lay person, *Origin* lays out an incontrovertible case for natural selection as the means by which species survive or die out. However, Johnson insists that Darwin deliberately chose to describe the process as a struggle – he could have opted for other analogies. The constant use of militaristic language in *Origin* seems to bother Johnson more than Darwin's occasional mistakes. If Johnson's Darwin is not a genius, he is at least a man of great influence – and not all of it good. While Johnson has virtually nothing but praise for *Origin of Species*, he is decidedly less enamored with *Descent of Man*, a book that in his view should simply have been a coda to *Origin*. He takes Darwin to task for supporting – by silence if not by active promotion – the unpleasant theories that others developed from his findings about nature. Most historians and political scientists absolve Darwin of any responsibility for the extremist ideas built on his theories. Johnson is not so forgiving. He believes Darwin could have spoken out against Herbert Spencer's Social Darwinism and Francis Galton's theory of eugenics. Because he did not, Darwin is to blame – not solely, of course, but in part at least – for the atrocities of Hitler and other twentieth-century monsters.

Johnson believes one can understand Darwin's true accomplishments only by reading his work, not by relying on reductive accounts in biographies and scientific textbooks. For details of Darwin's biography, Johnson relies heavily on previously published sources, citing two notable ones in his section on "Further Reading": Janet Browne's two-volume *Charles Darwin* and Adrian Desmond and James Moore's *Darwin*. The reason Johnson pays scant attention to manuscript sources

about Darwin's life is simple: What interests him is not uncovering some new detail about biography but in reinterpreting available data to create a revised portrait that squares more with what, in Johnson's view, actually motivated Darwin to take up scientific pursuits, develop his revolutionary theory, and carry on with his research after the consequences of his discoveries became public. The approach he takes in *Darwin: Portrait of a Genius* seems to me to be the same one he uses in his longer and more sweeping study *Modern Times*, which reviewer William Livingstone called "an ideological debate based on the historical record of facts." Interested as always in the larger patterns that shape the lives of people and society, Johnson takes a step back from the mountain of biographical and scientific detail to ask, What does all this mean?

It is unlikely that Johnson would ever be able to please the most devoted of contemporary Darwin admirers – the "Darwinian fundamentalists" he refers to in his concluding paragraphs – with any study based on the arguments about Darwin's personality and accomplishments advanced in *Darwin: Portrait of a Genius*. However, even those willing to approach Johnson's book without bias may wish Johnson had provided more details to bolster his case. For example, a better explanation of why Darwin was so frightened by the "Priestley curse" could have bolstered Johnson's case for the reticence Darwin felt in publishing controversial materials. Better documentation of his sources might have saved Johnson from some of the criticism leveled against him for getting his facts wrong. It is a commonplace among scholars that one wrong fact can spoil an otherwise well-crafted argument – especially for those predisposed not to like either the premises or the conclusion. And even scholars who admire Johnson's intellect and appreciate his revisionist critique of modern times and the people who have shaped them have to admit that on occasion Johnson gets his facts wrong.

Additionally, in such a brief book, Darwin and especially those influenced by him can on occasion be reduced to caricatures and stereotypes. Herbert Spencer and Francis Galton come off as villains,

Emma Dalton as a Victorian Angel in the House. One might say that Johnson protests too much in making Darwin a proponent of eugenics simply because he praised his cousin Francis Galton's book. As Desmond and Moore note in their biography, Darwin's son wrote in support of Galton's theories, prompting a supportive comment from his father. One wonders if this was just a simple case of family loyalty trumping scientific sense. On the other hand, while Darwin may have been more complex than he comes across in Johnson's portrait, I can find nothing in the longer biographies that directly contradicts many of Johnson's conclusions about him.

In the final analysis, whether one admires or detests *Darwin: Portrait of a Genius* may depend on one's view of Paul Johnson. There will always be a contingent of scholars, mostly left-leaning ones, who will do their best to insure that Johnson's conservative revision of history is challenged and defeated. However, those who want to dismiss this study of Darwin may have difficulty wiping out its impact. Whatever its faults, *Darwin: Portrait of a Genius* demands that we revisit our opinions of this important historical and cultural figure.

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