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8. See Richardson, M.K., and Keuck, G., Haeckel's ABC of evolution and development, *Biol. Rev.* **77**:509, 512–513, 519, 2002.
9. Not reading German, I have here relied on a description of the interview in Hermann Bahr, Ernst Haeckel, in *Der Antisemitismus: Ein internationales Interview* (Berlin: S. Fischer, 1894), provided to me by a German-speaking professional historian.
10. See Haeckel, E., *The Wonders of Life*, trans. Joseph McCabe, Watts, London, pp. 123–124, 1904; Haeckel, E., *The History of Creation*, trans. E. Ray Lankester, D. Appleton, New York, **1**:170–171, 1880.
11. Haeckel, *The Wonders of Life*, ref. 10, p. 116.
12. Haeckel, *The Wonders of Life*, ref. 10, pp. 122–123.
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Like the dark side of the moon

A review of
*The Dark Side of Charles Darwin:
A Critical Analysis of an
Icon of Science*
by Jerry Bergman
Master Books, Green
Forest, AR, 2011

David J. Oberpriller

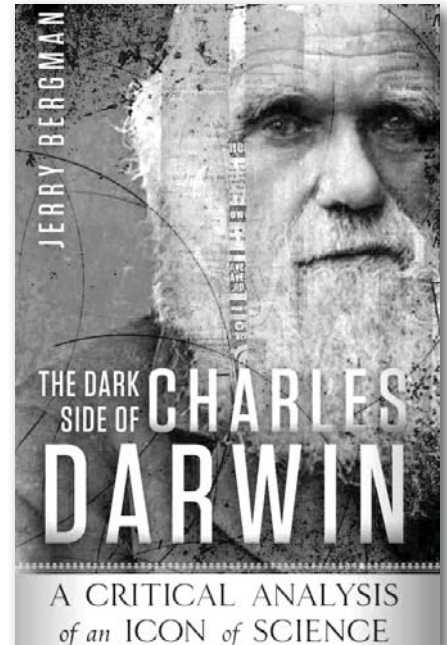
The dark side of the moon is often considered—erroneously—to be the side of Earth's natural satellite that is permanently turned away from the earth—never to be seen.¹

The book

The books and journal articles written on evolution would probably fill a moderately sized library. The books written on the man who is revered as the founder of evolution and considered by many as the greatest scientist of our age—Charles Darwin—are considerably fewer. The books written on his mental and physical failings, his errors, and his prejudices as they impacted his science work are very few indeed—and this book is one of those.

Early theories of origins credited God; but Darwin, in replacing the Deity, has become close to god-like in stature—at least to evolutionary biologists (p. 120). However, a study of the man's life and thoughts reveals a deep, dark, hidden side—one that would not even qualify Darwin as a saint (p. 2). Terry Mortenson's endorsement of this book is on target when he says of Darwin:

“... his writings on evolution used a mixture of scientific facts, faulty data, misinformation, plagiarized ideas, distortions of reality, and unbridled imagination



to deceptively advance his anti-Christian, anti-biblical agenda, which has wreaked such social, political, theological, and moral havoc in the world” (p. 2).

And that is precisely what this book is about.

Jerry Bergman has written a well-researched, thoroughly documented volume that is easy to read, even by those who have only a basic knowledge of Darwin's life and evolution theory.

The book is divided into four sections with chapters that each cover a single topic. The chapters are written in a style that makes each one appear to stand alone as a journal article—yet they are coherent when the book is taken as a whole. The similar structure of each chapter—starting with a chapter synopsis (which serves as a brief abstract) and an introduction; finishing with a summary or conclusion—supports the feel of a journal article. A disadvantage of this approach is that there is some duplication of information disseminated throughout multiple chapters; which is only noticeable when the book is read cover-

to-cover but does not detract when the chapters are referred to individually.

The text has copious footnotes for the source material and contains numerous quotations, substantiating Bergman's conclusions and making it conducive to verification and further research. The footnoted information is so voluminous that it becomes apparent that Bergman's contribution with this book is not one of providing *new* information but in providing an organization and synthesis of *existing* information and an analysis that makes the information useful in understanding Darwin and his motivations.

Darwin, the man

The book is divided into four sections, each covering a different aspect of Darwin's relationship to his theory of evolution. Within each section there are three or four chapters that each address a specific topic.

Section I—Christianity

The first section has four chapters that deal with Darwin's religious background and beliefs. Bergman characterizes the Darwinian revolution as follows:

"A common assumption in Western society is that the Darwinian revolution was based on the accumulation of scientific evidence that eventually convinced the academic community of the theory's scientific validity. In fact, the overthrow of creationism and its replacement by Darwinism was largely accomplished by political, and not scientific, means" (p. 24).

Bergman then goes on to discuss the deception and politics involved in achieving the scientific world's acceptance of Darwin's theory. The desire of the scientific community to overthrow the reigning theistic paradigm and its willingness to accept the alternative Darwin proposed (the only one they had) is summarized in the statement:

"Many scientists, such as Huxley, were willing to fight on Darwin's side of the battle to overthrow creationism even though they had major reservations about

Darwin's theory itself, especially his central idea of natural selection. Nonetheless, they worked tirelessly to overthrow theism and to establish Darwinism as the only accepted origins story" (p. 31).

This leads in to a discussion of why Darwinism requires atheism and conflicts with theism and how claims to the contrary (often coming out of the courtroom) are naïve and uninformed (p. 58). In fact, the conflict was present at the start of Darwin's thinking due to his social circle (p. 63) and his doubts about Christianity (p. 65). But the conflicts in his life were also a driving factor: the influence of his devoutly Unitarian wife (pp. 65–66) and the contradictory nature of his continued monetary support of Christian social and missionary works (p. 69). The closing chapter of this section discusses the implications of Darwin's evolution theory as it is taught in schools today for the purpose of life and the social evils that proceed from it—and Darwin knew these consequences (p. 78).

Section II—Mental health

A variety of suggestions for the illnesses that plagued Darwin have been made—including a typical Victorian "unexplained sickness"². In a review of the book *Darwin's Illness*, Thomson (the reviewer) offers the solution, "But the story of Darwin's health is like a mystery novel from which the last chapter has been deleted. Short of exhuming his body from Westminster Abbey, we probably will never fully know what ailed him."³ However, Bergman claims that:

"Historical investigations increasingly support the diagnosis that the main cause of his illness was psychological. Since Darwin wrote extensively about his mental and physical problems, we have much material on which to base reasonable conclusions about this area of his life. The diagnosis of his mental and physical problems included a variety of debilitating conditions, but agoraphobia complicated by psychoneurosis was most probably correct" (p. 101).

The causes of Darwin's mental health problems are next discussed, and evidence is presented that his inner conflicts and guilt regarding theism may have been a key factor. In Darwin's own words, he felt that he had "murdered God" (p. 107) and the guilt of this permeated his life with conflicts.

Chapter 7 is devoted to an in-depth analysis of Darwin's sadistic side, his love of killing animals, exhibited in his youth and acknowledged in his old age—even to the point of blaming God for the behavior (pp. 125, 133). Bergman concludes that:

"He evidently suffered from an inordinate sadistic desire to kill animals for much of his life, especially when he was a young man in the prime of life. Unfortunately, most scholars and writers have ignored the implications of this trait of Darwin's, indicating only that he liked to hunt—hardly an accurate assessment of his behavior. Many men hunt to put food on the table, but Darwin's obsession went well beyond this. He loved to kill and, apparently, loved to see animals suffer" (pp. 133–134).

Section III—Evolution theory

The third section deals with the quality of scholarship that Darwin demonstrated in proposing and promoting his theory. The first chapter reviews the state of scientific knowledge at the time of Darwin and demonstrates that:

"A study of the history of evolution shows that, in fact, Darwin 'borrowed' all of his major ideas—some conclude plagiarized is a more accurate word—without giving proper credit to these people until he was forced by complaints from his fellow scientists to do so" (p. 140).

This chapter includes an analysis of Darwin's 'borrowing' from (to name a few) predecessors, Erasmus Darwin (his grandfather), Montesquieu, de Maillet, Diderot, and Lamarck and contemporaries, Chambers, Matthew, Wallace, and Blyth—even evoking

them to accusations of failing to acknowledge their work when Darwin published it as his own.

Another chapter deals with Darwin's fraudulent, unethical, and sloppy work. A lengthy discussion of the fraudulent photographs used in Darwin's 1872 book *The Expression of the Emotions in Man and Animals* describes how he posed models for photographs of facial expressions (p. 172) and



Figure 1. Photograph taken by Duchenne de Boulogne as part of his research into the effects of stimulating facial muscles using electricity. Note that the subject's reaction was due to the electric current, not the expression of any emotion.

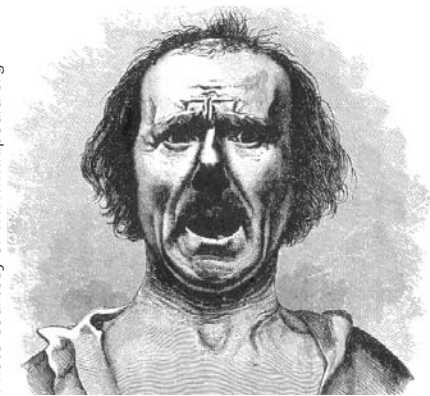


Figure 2. This was figure 21 in Darwin's book *The Expression of Emotions in Man and Animals*, where it was captioned "Horror and Agony, copied from a photograph by Dr. Duchenne". It is clearly derived from figure 1; the experimenters and the electrodes have been removed while the facial expressions have been copied quite accurately.

'doctored' the photographic work of (then) contemporary photographer Professor Duchenne who used electrodes to stimulate the facial muscles of patients in order to capture photos of facial expressions (p. 174)—much like what can be done today by an unscrupulous tabloid photographer using software such as Photoshop (refer to figures 1 and 2). This chapter also contains a discussion of Darwin's questionable claims of the cannibalism and primitive language of the natives of Tierra del Fuego based on his observations while on the voyage of *H.M.S. Beagle* (pp. 166–170).

The third and final chapter of the section discusses Darwin's theory of pangenesis that he developed to account for new genetic information—the driving force behind evolution. Pangenesis was related to Lamarckism (p. 194) and, like Lamarck's theory, was later empirically proven wrong (p. 196).

Section IV—Racism and sexism

The fourth section reviews Darwin's ideas of racism, eugenics, and sexism. The first chapter deals with Darwin's racism:

"It is widely acknowledged that Darwinism contributed to the problem of 19th- and 20th-century racism. It is sometimes claimed, however, that Darwin himself was not a racist but, rather, others misused and even misquoted his writings. In this chapter, Darwin's own views as recorded in his writings are explored. Darwin clearly held beliefs that today would be considered blatantly racist" (p. 211).

The chapter further discusses Darwin's attitude toward those he referred to as 'savages', his list of inferior races, and his specific belief that the natives of Tierra del Fuego were unable to be evangelized by Christian missionaries—because they were not completely human (p. 223).

The next chapter discusses Darwin's role in the eugenics movement

and the roles of close family members—cousin Francis Galton and Darwin's sons Leonard, Horace, Francis, and George—as leaders of the eugenics movement into the early twentieth century (p. 237).

"It is well documented that Darwin's ideas had a major influence on 19th-century biological racism as well as on Nazism. The end result was the Holocaust, in which 11 million perished—and the loss of over 200 million lives in World War II and the communist holocaust. Darwin, though, did more than all of his mentors to establish evolutionism in science and society. For this reason his work, and that of Darwin's cousin Francis Galton, were among the most important influences causing the appropriation of eugenics into the Nazi movement in collusion with Darwin's disciples in Germany" (p. 242).

Another chapter provides an in-depth look at Darwin's teachings on the biological and intellectual inferiority of women. Although he believed a wife would provide some advantages, "Darwin also wrote that, as a married man, he would be a 'poor slave ... worse than a negro,'" (p. 248)—shortly thereafter he married his cousin—yet another example of conflicting thoughts in this life. A woman's inferiority was central to his concept of evolution (p. 252). However,

"The Darwinian conclusion that women are inferior has had many major unfortunate historical social consequences. Sexual selection is believed to be critical in evolution, and among the data Darwin and his followers gathered to support the inferiority of women view, natural and sexual selection were critical. Disproof of women's inferiority means that a major mechanism originally hypothesized to account for evolutionary advancement turned out to be erroneous. The data, although much more

complete today, are similar to those that Darwin utilized to develop his theory, yet support radically different conclusions. This vividly demonstrates how important both preconceived ideas and theory are in interpreting data” (pp. 253–254).

Overall, this chapter is one of the most eye-opening in the book.

The final chapter is an analysis of natural selection and its ability to function as a mechanism to drive evolution. Serious failures of this mechanism are acknowledged, even by evolutionists. Bergman sums up the issue succinctly in the Chapter Synopsis:

“Natural selection may help to explain the survival of the fittest but cannot explain the arrival of the fittest. It cannot create, it can only eliminate” (p. 259).

Although this chapter is not designed to be a summary of the entire book (there is, in fact, no single ending summary encompassing the entire book), it eloquently provides a refutation of Darwin’s evolutionary thesis from the standpoint of motivation, bias, and scientific validity.

Ad hominem?

An issue that is justifiably raised over such a book as this is the question of whether it can be considered an *ad hominem* attack—an attack against a person utilizing information not directly relevant to the person’s work in order to discredit that person’s work. It should be widely acknowledged that *ad hominem* attacks against the scientist should not be considered valid evidence against that scientist’s work. However, a discussion of biases and other characteristics that would influence a scientist’s work is not an *ad hominem* attack if these biases and other characteristics are relevant to the work.⁴ Bergman anticipates allegations of *ad hominem* attack to damage Darwin’s reputation and this potential allegation is addressed several times in the book, for example:

“Darwin’s lifelong serious medical complaints have been the subject of much research and speculation for more than a century. Dozens of scholarly articles and at least three books have been penned on Darwin’s incapacitating health problems. Unfortunately, most Darwin biographers have shied away from this topic, partly because Darwin is now openly idolized by many scientists and secularists. His supporters are no doubt concerned that his health problems could diminish his iconic status in science and among the public. Often listed as one of the greatest scientists of the 19th century, if not the greatest scientist that ever lived, Darwin is one of the few scientists known to most Americans. To understand Darwin’s work and his motivations, though, his mental condition must be evaluated to help determine if and how it affected his conclusions about God, worldviews, and life’s origin” (pp. 88–89).

In the last quoted sentence, Bergman asserts that the link between Darwin’s mental conditions, health problems, motivation for his research, and conclusions is germane to understanding the man and his work. Scientists (both creationist and evolutionist) may attempt to be unbiased in their work, but a complete denial of any bias is, in reality, highly improbable if not completely impossible. The only questions remaining are ‘Which bias?’ and ‘How much?’ Bergman’s thesis in this book is that Darwin’s work and the theory he propounded were deeply colored by his religious beliefs, his mental state, and his physical condition. This book makes a very strong case for Darwin’s anti-theistic bias and links that bias as a probable cause of the mental and physical conditions that permeated Darwin’s life and his scientific work. This results in a study of biases, not an *ad hominem* attack.

This book is recommended reading for both creationists and evolutionists (and that wide spectrum between) to help them understand the motivations and biases of Charles Darwin and his work. An objective reading of it will be, at least, interesting and enlightening and may even progress to life-changing.

Return to the moon

The error in talking about the ‘dark side’ of the moon when referring to the side that is never seen is simply explained. During the course of the lunar month, when the moon revolves around the earth, the ‘dark side’ rotates slowly around the entire surface of the moon—the side facing the sun is the only lighted part. In fact, at the phase that calendars mark as ‘New Moon’, the moon is between the earth and the sun, and its ‘dark side’ is actually facing the earth and is completely visible to Earth!¹ In a similar way, this book turns Charles Darwin so that we may—full-on—view his dark side. For Darwin can be likened to the moon—shining only by reflected light. And unlike the sun, which produces its own light, there *is* a dark side.

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