Richard Dawkins: How a Scientist Changed the Way We Think

Edited by Alan Grafen & Mark Ridley. Oxford University Press, 2006, 283 Pp.
ISBN 0-19-929116-0 (hardcover)

Richard Dawkins' media profile has recently surged thanks to the controversy surrounding his latest book, *The God Delusion* (Dawkins, 2006a), at the time of this writing, number 10 after 22 weeks on the New York Times list of bestsellers. In spite of all this current attention, (whether he likes it or not) most scientists probably know Dawkins for his first book, *The Selfish Gene*. In his introduction for the 30th anniversary edition of *The Selfish Gene*, Dawkins (2006b) grumbles that over the years, as he has toured to promote his subsequent books, "[a]udiences respond to the new book, whichever one it is, applaud politely, and ask intelligent questions. They then line up to buy, and have me sign . . . *The Selfish Gene*." To further emphasize the huge impact of *The Selfish Gene* and its author, thirty years after its publication Oxford University Press has released a collection of essays discussing Dawkins' influence on science, philosophy, and human culture.

Richard Dawkins: How a Scientist Changed the Way We Think, edited by Alan Grafen and Mark Ridley, features 25 essays contributed by renowned scientists, philosophers, writers, and intellectuals. The essays are organized into seven themes: Biology (how Dawkins' contributions have influenced prominent biologists); *The Selfish Gene* (how Dawkins' first book in particular has contributed to biological advances); Logic (the philosophical implications and extensions of *The Selfish Gene*); Antiphonal Voices (dissenting views to some of Dawkins' scientific opinions); Humans (the extension of Dawkins' arguments to human behavior); Controversy (Dawkins' views on religion, politics, and philosophy); and Writing (Dawkins' contributions to literature). For the sake of brevity and to avoid spoiling the sense of discovery that comes from reading the essays in sequence, rather than list them all I will focus on a few that I hope will give the flavor of diverse content represented.

In the first section, several contributors comment on how Dawkins has affected the science of biology. For example, Helena Cronin's essay, "The Battle of the Sexes Revisited", provides a delightfully crafted summary of how sexual selection in general and sexual conflict specifically have been advanced by a "genes' eye perspective". Cronin's presentation of sexual conflict cuts to the heart of some of the thorniest questions in the field, and serves as a useful reminder that the fundamental questions that are in current fashion owe much to Dawkins. More notably, Cronin's writing rephrases these questions and controversies artfully and economically, arguing for example that some cited examples of conflict, such as the dead female dung fly drowned by eager males, are not in fact examples of sexual conflict at all, but "civilian casualties caught in [the] crossfire" of intrasexual competition between males. Cronin's essay is a fitting tribute to Dawkins, as she shares his gift for clarifying scientific principles while popularizing them.

In the section on *The Selfish Gene*, David Haig's essay, "The Gene Meme," is a wonderful exercise in mental gymnastics that will leave your mind limber and strengthened or cramped and sore. Haig discusses the concept of the gene as a unit of information, and explores its use in scientific language as a case study in memetics. His attention to detail in defining the jargon words of our science demonstrates how a careful consideration of information theory affects our perception of the selective replication that is central to evolutionary theory.

Some readers will appreciate the relatively more technical contributions, for example "*The Selfish Gene* as a philosophical essay" by Daniel Dennett, who praises *The Selfish Gene* as "philosophy at its best", and "mind candy of the highest quality". Dennett's essay, along with those by Seth Bullock and Kim Sterelny on algorithmic biology and the roots of irrational human behavior, respectively, could provide a platform for interested readers to explore other sciences adjacent to evolution.

My favorite part of the book was the collection of five essays grouped in the section entitled Controversy. Marek Kohn's piece examines the perceptions (and misperceptions) about Dawkins' politics, and the naturalistic fallacy (that what is natural is good) which many critics (incorrectly) accuse him of committing. This will be especially illuminating for young readers and those who grew up outside Thatcher's Britain, who may not appreciate the political environment in which Dawkins and his critics were operating in the years following the publication of *The Selfish Gene*. David Barash's essay on existentialism and the human search for meaning draws on many literary references, most notably a passage from *A Hitchhiker's Guide to the Galaxy* (Adams 1979), and left me thinking deep

thoughts long after I had closed the book to consider life, the universe, and everything. Both Barash and A. C. Grayling compare Dawkins' efforts in promoting science to the task of Sisyphus, mythical king of Ephyra, who was condemned to push a rock uphill for eternity. Grayling, like Dawkins a persistently strong critic of religious belief, produces a typically piercing summary of how Dawkins' writings "meet and contest, repeatedly and with equivocal success, the weight of the majority outlook in this world, which as regards the relative merits of science and religion is stubbornly ignorant, superstitious, impermeable to rational argument, lazy, narrow, shallow, and prejudiced."

This cynicism regarding the thanklessness of promoting reason underlines my chief complaint about *How a Scientist Changed the Way We Think*. Perhaps a book about a generally acclaimed author (particularly one edited by his former graduate students) strays inevitably towards hagiography, but even understanding this I found too little in this book reflecting the often-virulent opposition that Dawkins encounters. Michael Ruse (on whether there is such a thing as progress over evolutionary time) and Patrick Bateson (on the most appropriate unit of selection) present friendly dissenting views on some of the details in Dawkins' reasoning, but neither debate captures the intensity of controversy surrounding Dawkins' most hotly contested opinions. For his part, Richard Harries, the Bishop of Oxford, prefers to comment on where he and Dawkins concur (they are both humanists) rather than discussing their fundamental disagreements concerning religion. This makes for eminently reasonable discourse and is doubtless preferable to irrational quarrelling, but nevertheless I found myself hungry for a passionate and strongly argued opposition that was never even attempted.

In spite of this complaint, I enjoyed the book for the very variety of its perspectives. No doubt the essays that I preferred will not necessarily be the favorites for others, but every reader is likely to find something he or she likes. Some of the essays would make for great discussion in seminar courses that touch on the philosophy of biology. I also recommend this book for anyone who enjoys grappling with the wide-ranging implications of evolutionary thinking, and for anyone who, like me, has a hard time imagining what biology was like before *The Selfish Gene*. Perhaps *The God Delusion* will prompt many readers to visit or revisit *The Selfish Gene*, and this will be a very good thing. For those who need extra encouragement, *How a Scientist Changed the Way We Think* fits the bill.

Luc F. Bussière
Zoologisches Museum der Universität Zürich
Zürich, Switzerland

References

Adams D 1979. *The Hitchhiker's Guide to the Galaxy*. London: Pan Macmillan.

Dawkins R 2006a. *The God Delusion*. London: Bantam Press.

Dawkins R 2006b. *The Selfish Gene, 30th Anniversary ed.* Oxford: Oxford University Press.