

put forth the theoretical claim that *g* is not a cognitive process at all. Instead, he asserts, "[t]he knowledge and skills tapped by mental test performance merely provide a vehicle for the measurement of *g*....At the level of causality, *g* is perhaps best regarded as a source of variance in performance associated with individual differences in the speed or efficiency of the neural processes that affect the kinds of behavior called mental abilities" (1).

The scientific study of human intelligence was for a long time primarily an applied activity focused on measurement rather than construction of abstract theories. Times have changed and the search for human intelligence has become a major theoretical enterprise. *IQ and Human Intelligence* is a superb introduction to the current status of both facets of this important and fascinating endeavor.

References

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BOOKS: EVOLUTION

Stories from the Front

Michael Ruse

Science really ought to be all quite simple and straightforward. There is a real world over there in one corner, and there is a bunch of bright people over here in another corner. These people want to find out about the world, and so they set to with vim and vigor. There will be setbacks and disappointments, and people outside the loop may not always like what is being discovered, but the investigators themselves should not be quarreling. They, after all, are united in their quest of discovery.

It never quite works out this way. Notoriously, scientists are a disputatious crew. Again and again, they fall out and

call each other the most dreadful names. The field of evolutionary studies is an appalling sinner in this respect. Well before Charles Darwin put pen to paper, men were arguing bitterly over organic origins. Although the great Georges Cuvier was a sincerely practicing Protestant, the things he said about his fellow Frenchmen, Jean Baptiste de Lamarck and Geoffroy Saint Hilaire, were really quite unchristian.

This tradition continues. The most recent eruption has been over the extension of Darwinian selection theory to the topic of animal social behavior. It is true that Darwin touched on this topic in *The Origin of Species*. But it was not until the early 1960s, when a number of people developed new models for the evolution of behavior, that the field really caught fire. By the 1970s "sociobiology," as it was then called, was quickly moving forward—its successes marked in the United States by Edward O. Wilson's magisterial overview, *Sociobiology: The New Synthesis*, and in England by Richard Dawkins's wonderful popular discussion, *The Selfish Gene*.

Yet at the same time, criticism of this approach was building and then exploded. In America, Wilson's Harvard colleagues Richard C. Lewontin and Stephen Jay Gould led a band of radical biologists in condemning every aspect of Wilson's thought: the fondness for Darwinian explanations, the extension of the science to humankind, the belief that now we have a new ideology leading us progressively upwards toward a brighter future. In England, Dawkins came under attack from philosophers like Mary Midgley, who dipped their pens in the purest venom and then wrote polemics with a sarcasm index almost equaling Jonathan Swift's.

Opinion is divided on the significance of controversy like this. Your bluff Nobel laureate physicist thinks it has little import. Even discounting the second-class status of evolutionary studies, real science and the understanding thereof have no interest in personalities. The combatants and their quarrels will pass. To the contrary, your cultural studies enthusiast thinks such controversy is the very essence of science. Science is all a social construction anyway, and violent disputes are just what one expects when social values are at stake.

This disagreement over significance is the entry point for *The Darwin Wars: How Stupid Genes Became Selfish Gods* by science writer Andrew Brown. He

takes us through the sociobiology battles and, at the end, tries to draw some morals about the nature of science in general and evolutionary studies in particular. Although his account is tilted somewhat toward the British side of things, in basic respects Brown does a reasonable job. He introduces us to the main characters, attempts to summarize the pertinent scientific claims, and shows us how and why people fell out with one another. Brown clearly has favorites and non-favorites—on the back cover there is a particularly scathing comment by the philosopher Daniel Dennett and between the covers the sentiment is returned sevenfold—but, by and large, the author tries to be balanced. Brown provides some good stories and reports of really rather funny conversations. I particularly liked John Maynard Smith's assessment of chaos theory, although I am afraid that in this post-Clinton puritanical era there is no way I can repeat it in public. Some interesting judgments are also made; readers of *Science* will be interested to learn that *Nature* is "the most important and prestigious science journal in the world."

Yet when this is all said, despite the fact that Brown finds me "one of the most subtle and interesting philosophers of Darwinism," *Darwin Wars* is more pedestrian than inspired. The characters never really come alive as they do in the best science writing; the author is really not that comfortable with the science (for instance, he never dares to spell out the full details of Hamilton's explanation of hymenopteran sociality); there is no historical background; and Brown never truly engages the full import of all of the controversy for the really important questions about the nature of science.

Brown apparently cut his teeth for this work with a "highly-acclaimed book on the London Metropolitan Police," clearly not a sufficient training ground. I am not just being a snob about the relative merits of scientists and professional writers. The writer Robert Wright's thumbnail sketch of Ed Wilson (*Three Scientists and Their Gods*) taught me more about the man than I had garnered from a year of being in his lab. Jonathan Weiner's book on Peter and Rosemary Grant's research in the Galápagos (*The Beak of the Finch*) revealed more about the lives of real scientists than I had learned from my many years of sitting at the shoulders of my empiricist friends and colleagues. Good science writing is in a class of its own, with an irreplaceable value. I am afraid that *The Darwin Wars* does not make this grade. There is a good story out there still waiting to be told.

The Darwin Wars
How Stupid Genes
Became Selfish Gods
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