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HISTORY, PHILOSOPHY & ETHICS

STURTEVANT AND DOBZHANSKY: TWO SCIENTISTS AT ODDS, WITH A STUDENT'S RECOLLECTIONS.

By Edward Novitski; Foreword by James Crow. Philadelphia (Pennsylvania): Xlibris Corporation. $31.99 (hardcover); $21.99 (paper). xix + 241 p; ill.; index. ISBN: 1-4134-7084- X (hc); 1-4134-7083-1 (pb). 2005.

I must admit that I am a bit skeptical of autobiographies in general. Although it is true that there is something inescapably interesting about hearing the direct voice of a protagonist of whatever human endeavor, it is also difficult to avoid the feeling that objectivity is the first thing that goes out the window when one writes about himself. Do not quote this to me if I ever decide to write my autobiography.

In the case of Novitski's book, I was not expecting an autobiography (although the subtitle, *With a Student's Recollections,* should have tipped me off), as much as a firsthand account of the relationship—and conflict—between two of the most influential evolutionary biologists of the first part of the 20th century: Alfred Henry Sturtevant and Theodosius Dobzhansky. Novitski began his graduate student career with Dobzhansky and then switched to Sturtevant, thereby having the unique chance to get to know both men well, personally and professionally.

Instead, what I read was an odd mix of occasionally interesting or amusing anecdotes from Novitski's own career and a biased (although not entirely one-sided) account of the Sturtevant-Dobzhansky controversy—not surprisingly, with the student favoring his second advisor. The contrast between the two scientists was important, rooted in both their personalities (e.g., Dobzhansky's religiosity and flair for public speaking versus Sturtevant's secularism and reserved personality) and their philosophies of research. Sturtevant was a precise experimentalist in the tradition of his mentor, Thomas Hunt Morgan, while Dobzhansky developed an interest for a more "fuzzy" population approach—it was the beginning of the divergence between molecular genetics on one hand, and evolutionary genetics on the other.

But we only have a very partial and fractured view of the intellectual and personal duel from Novitski's narrative. Ironically, the most informative part of the book—with respect to the scientific and philosophical aspects at least of Dobzhansky's career—comes after the appendixes, in the form of a reprinted short essay by Richard Lewontin, ironically one of Dobzhansky's own students. Lewontin's voice may, of course, have itself been biased, but the picture of Dobzhansky that emerges from his "a theoretician without tools" is more nuanced, highlighting both his mentor's strengths and weaknesses. More importantly, Lewontin turns his brief essay into an insightful discussion of the role of experiments versus demonstrations in evolutionary biological research, arguing that Dobzhansky was interested in *demonstrating* the action of selection, not in conducting experiments to uncover the underlying mechanisms (something that would have been much closer to Sturtevant's approach to science). Lewontin's essay is worth the price of the book, and some of Novitski's anecdotes

will give readers a bit of the flavor of what biological research and the academic environment were like during the first decades of the 20th century.

MASSIMO PIGLIUCCI, *Editor,* The Quarterly Review of Biology

MONKEY FARM: A HISTORY OF THE YERKES LABORATORIES OF PRIMATE BIOLOGY, ORANGE PARK, FLORIDA, 1930–1965.

By Donald A Dewsbury. Lewisburg (Pennsylvania): Bucknell University Press; distributed by Associated University Presses, Cranbury (New Jersey). $55.00. 347 p; ill.; index of names and subject index. ISBN: 0-8387-5593-3. 2006.

The author covers a lot of ground in *Monkey Farm,* discussing the personalities and research of several scientists who worked at the Yale Laboratories of Primate Biology (YLPB) in Orange Park, Florida, between 1930 and 1965. He highlights key shifts in research goals and funding sources by examining YLPB under the successive directorships of Robert Yerkes, Karl Lashley, Henry Nissen, Arthur Riopelle, and Geoffrey Bourne. Although the research interests pursued remained diverse during this period, the initial emphasis on psychobiology and particularly behavior development under Yerkes evolved into a reductionist approach that focused on brain function under Lashley's directorship and, eventually, an emphasis on biomedical research when it became the Yerkes Regional Primate Research Center. With these shifts in research, the YLPB expanded to include animals ranging from chimpanzees and rhesus monkeys to cats. By the 1950s, the funding of YLPB had also significantly changed, with federal funding sources beginning to take the place of substantial private and university funding, a trend Dewsbury rightly identifies as representative of developments in science more broadly. In addition to patronage, themes such as professionalization, urbanization, and race and gender are highlighted at the beginning and end of *Monkey Farm.* These themes can be identified as running through the text to varying degrees. For example, gender is barely examined.

Much of the YLPB research (and its funding) discussed by Dewsbury is deserving of further explanation and contextualization, and readers will be at times left frustrated. This feeling is amplified by excessive use of subheadings that seem to highlight the brevity of certain sections. Ideally, the informative and at times rich narrative of *Monkey Farm* should have been accompanied by an analytical approach that explored the themes present in the book in greater detail and connected them with existing literature in the history of psychology and biology. Nevertheless, this volume provides a well-needed and much overdue description of a highly significant institution and of a body of science that is deserving of further exploration and primate revisions.

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PHYSIOLOGY AND BEHAVIOUR OF ANIMAL SUFFERING. *UFAW Animal Welfare Series.*

By Neville G Gregory. Oxford (United Kingdom): Blackwell Science. $79.99 (paper). xii + 268 p + 12 pl; ill.; index. ISBN: 0-632-06468-4. 2004.

At first glance, this is yet another book that describes man's ill-treatment of animals, but this volume is distinguished by its focus on the underlying physiology, with only limited description of the practices. There is much less attention on behavior, but this may be in part because there has been greater experimentation on animal physiology in relation to suffering than animal behavior. Much is borrowed from human literature and animal models of human disorders in the quest to identify the underlying physiology. In most cases, this is quite legitimate and even desirable, because the author acknowledges that many unethical experiments were conducted in elucidating the physiological mechanisms, which might be better justified if greater use is made of the knowledge gained. An exception may be the extrapolation from human mental disorders, which are quite unique because of our high level of cerebralization compared to animals where there is often little evidence that they suffer in the same way. In the future, this is likely to be a major field of anthropomorphic exploration.

An almost impossibly broad subject matter is covered, but the author's systematic, physiological approach to suffering means that most areas relevant to at least farm animals are considered, even if there is less consideration of companion, laboratory, and zoo animals. There are some notable omissions (e.g., lead in the chapter on poisoning), but the focus on farm animals and in particular the underlying physiology, as well as the breadth of coverage, means that the book will be invaluable for veterinary students. Their interest in animal welfare should be enhanced by a careful consideration of the issues. The volume will also be of value to anyone interested in animal cruelty, since proving cruelty usually requires evidence that the animal has suffered unnecessary pain. The excellent chapter on pain, which again borrows heavily from literature on humans, is a rare insight into the potential impact of the many mutilations used by stockpeople to make animals fit their farming sys-