

Preface

I am completing this ninth edition of my textbook soon after having retired from the School of Life Sciences at Arizona State University. I began my long and happy tenure as a university professor in classrooms dominated by chalkboards, which were then supplanted by pull-down screens and overhead projectors, before PowerPoint presentations became standard operating procedure. Concurrently, I saw manual typewriters give way to electric ones, which disappeared in the competition with the first personal computers running on MS-DOS, whatever that was, to the latest version of Windows, wireless connections, thumbdrives and the like. The standard 50-minute uninterrupted lecture has largely gone the way of the dodo, and now most of my still-employed colleagues use versions of the Socratic method or divide their classes into teams for cooperative learning exercises or rely on electronic personal response systems so that students can click their way into an interactive, 21st century education.

The field of animal behavior has changed mightily as well during my professorial career, which began in 1969, the year of my first job, to 2008, the year when I said good-bye to teaching at ASU. When I started out, I wanted to write a textbook in order to bring news to my students of a revolution in the field that was not covered by the textbooks of the time. This revolution was stimulated by the work of W. D. Hamilton, who showed us how to use gene thinking to identify interesting theoretical challenges, like how could self-sacrificing altruism evolve in animal species, and George C. Williams, who knew why for-the-good-of-the-group explanations for behavior were almost certainly wrong. I had barely absorbed these messages myself 40 years ago but I knew that they were hugely important and well worth presenting to students who were then only a little younger than I was.

After the first edition came out in 1975, I continued to keep tabs on developments in animal behavior in order to revise the textbook every four or five years. I could and did rationalize revision on the grounds that every year brought a host of excellent new papers on behavior. The nature of science is such that the earth is constantly changing under our feet as old ideas are revisited and changed or thrown out altogether while their replacements are presented, challenged, and modified in turn. Therefore, it was both possible and desirable to update my textbook regularly. Of the 502 reference citations in the first edition, only a handful have survived the multiple revisions to date and are still used in this, the 9th edition, which features over 1500 references. Science is not static.

In this edition, I have followed the rules of revision used in many of my preceding editions. My main goal has been to add information from recent papers that change or amend conclusions based on what is now older material as well

as to provide readers with newer, fresher examples that illustrate particular points of theoretical importance. With each revision, I have been impressed with both the quantity and quality of published research in animal behavior available to a textbook writer. Experimental procedures are more sophisticated, statistical tests more complex, reliance on the hypothetico-deductive method more pervasive than in the past.

So these days I have an embarrassment of riches to consider when it comes to updating and revising my text. In selecting what to use, I have been helped by one of my early Ph.D. students, David Skryja, who sends me (and a number of other colleagues) news releases on behavioral research that has caught his eye. I save these items in order to identify promising research reports as I begin the revision process. I track down the original articles via the Web of Science (<http://www.webofscience.com>), a wonderful search engine that every undergraduate with an interest in science should learn about and use. Highly recommended.

Subsequently, the revised chapters go out for review to persons who not only catch errors in what I have written but also direct my attention to fine papers that I did not know about. As always, their usually gentle criticisms help me avoid making a hash of things and steer me toward an improved version. This time around, I have had the benefit of help from Steve Phelps (Chapter 1), Sarah Woolley (Chapter 2), Maydianne Andrade (Chapter 3), Ken Catania (Chapter 4), Brian Trainor (Chapter 5), Don Owings (Chapter 6), Todd Blackledge (Chapter 7), Anthony Zera (Chapter 8), Stephanie Dloniak (Chapter 9), Gerry Borgia (Chapters 9 and 10), Dustin Rubenstein (Chapter 11), Jeff Hoover (Chapter 12), David Queller (Chapter 13), and Joan Silk (Chapter 14). Taewon Kim and Juergen Leibig also alerted me to errors in the eighth edition, so that I could correct them this time around. I haven't accepted every bit of advice I received, although I probably should have, but the changes I have made have been all to the good.

Many colleagues have generously provided illustrations for this edition. I have acknowledged the collegial suppliers of photographs and drawings in the caption to the relevant figures in the text but would like to especially thank Bob Montgomerie for working with me on the box on microsatellite analysis (see page 389). Doug Emlen was also exceptionally helpful; he spent much time constructing an entirely new figure for Chapter 10 (see page 343). Acknowledgements to publishers who have kindly granted permission to use their copyrighted material appear in the Illustration Credits.

My editor at Sinauer Associates, Graig Donini, has been hugely helpful over the years. Among his many contributions has been to organize the chapter reviews that make the revision process better. I have also received much assistance from other members of the Sinauer Associates team, including Joanne Delphia, Laura Green, David McIntyre, Elizabeth Morales, and Chris Small, all of whom have been extraordinarily helpful and competent at their respective publishing specialties. My copy editor, Lou Doucette, did what good copy editors do, which is to clean up prose that needs help, a task that requires immense patience and a meticulous sense of detail. Thanks for that.

Even though I am retired, my chair at the School of Life Sciences, Rob Page, has not dragged me into the street, but has encouraged me to remain on campus and to this end he has permitted me to retain my office, for which I thank him. I have been spending most weekdays in my office at ASU, the better to have lunch with my non-retired colleagues, the same group who has been with me for decades now (except for Jim Collins who moved on to an administrative post at the National Science Foundation). With Dave Brown, Stuart Fisher, Tony Lawson, Dave Pearson, and Ron Rutowski still alive and

kicking, we continue to have a quorum most weekdays for a robust discussion of character defects in higher administrators and assorted companions (provided they are not present at the table), our views on a full spectrum of political issues and personalities, how to prepare financially and psychologically for retirement, and what decent movies are in town or available through Netflix, all matters of much import to us.

One aspect of life has remained constant over my academic lifetime: I remain married to Sue Alcock, a tolerant and accommodating wife who still talks to me, as do our two grown sons, Joe and Nick, one whom (Joe) has during the last four years provided us with a daughter-in-law (Satkirin) while the other (Nick) has in collaboration with his wife Sara come up with a granddaughter for us named Abby, who calls me Yoyo, if she is in a good mood. Abby and company make my existence richer and more amusing than it would be otherwise, for which I am grateful.