
PREFACE

My thoughts to work on this project began some time ago, while discussing biology at Morningside Elementary School in Atlanta. I asked a group of students to show me, using their hands, how *small* they were at their *smallest point* in life. Every child indicated that they were the smallest at birth; most had pictures at home of this day. They had no idea, perhaps couldn't even conceive, that they'd been growing and developing for months prior to being born. So I thought to organize a book around basic, fundamental processes in biology where the truth is almost too remarkable to believe: How do brains develop and evolve? How are boys and girls made differently? How does social information influence development? How do creatures regenerate body parts? How did human language evolve?

The idea for me is that most scientists are just as creative and full of wonder as are second graders, and that the most captivating questions then remain so now. My particular prism, through which to view these questions, is the discipline of evolutionary developmental biology because evo-devo links proximal data to ultimate explanation, via mechanism.

This book is organized into chapters that pass the second-grade litmus test—each addresses fundamental biological mysteries that open the eyes of the child in us all. I thank the authors who have written and illustrated with such care and beauty; my students and postdocs who provided encouragement and comment on this endeavor throughout; and of course those friends and colleagues who reviewed and improved chapter content.

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