A Life in Science, Editing, and Writing

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When I was six years old, I happened to notice a small pink book on the lower shelf of one of the family’s bookshelves. I don’t remember the title, and I don’t recall what made me pull it off the shelf and thumb through its pages (a child’s curiosity, I suppose), but in any event it proved to be my first introduction to biology. Paging through that book, I learned about the earliest stages of human embryonic and fetal development, which I found fascinating and which held particular relevance for me at the time because my mother was then pregnant.

Other influences also shaped my ultimate choice of careers. For example, my father, an experimental physicist, inspired me to question everything and to bring experience and knowledge to bear on the solution of problems. I was also inspired by the science courses that I took in school—by dissecting frogs and researching my first “real” science paper (which, incidentally, happened to be about the jet stream) in middle school, by my high school biology teacher, Mr. Holzer, who kept a rather impressive menagerie of animals in his classroom, and by professors in college, Dr. Warren Walker, who made comparative anatomy come alive, and Dr. George Scott, who made sense of physiology. When I reached graduate school, I was drawn to the molecular biology of chromosomes and early development—that is, chromatin regulation and DNA replication during those exceptional stages of the life cycle when the developing embryo kicks off parental control of the genome and sets up its own regulatory patterns, which perhaps suggests that lessons contained in the little pink volume never left me.

I should also note that it wasn’t only the science of biology that interested me during what I would call my formative years. In a particularly challenging literature class (taken in Cambridge, UK), I learned the value of writing—not simply writing to communicate effectively, but writing as an active method of analyzing issues. I also learned that writing is not necessarily an innate gift, but rather a skill that could be mastered, given the right spirit. This lesson proved particularly valuable in my current position, because it enabled me to become comfortable with the challenges of being an editor.

However, biology has always been my greatest interest, and it has never failed to inspire me in the same way that it inspired me when I first thumbed through the pages of that pink book. Some time ago, I took a position as an editor at SCIENCE magazine (published weekly by the American Association for the Advancement of Science). I have to say that it has turned out to be one of the most interesting and exciting jobs that I could ever have taken, because it has kept me in touch on a daily basis with cutting-edge science and with leading scientists from all around the world.

Let me back up a bit. When I first noticed the category of editor, I wasn’t entirely sure what the job was. After all, my training and work experience had been academic (I received an AB from Oberlin College, an MS from University of Wisconsin, a PhD from the Johns Hopkins University, and I did post-doctoral work at the University of Washington—which summarizes all too briefly the tremendous help and support of a great variety of mentors, colleagues, and friends), and I therefore had little information about opportunities outside of the academic track. Call it the pink book syndrome, but I decided to delve a little further and discover just what it was that editors at SCIENCE do. What I found out was a revelation of sorts that changed my ideas of what a career in science could be.

To clarify this, let me give you an idea of some of the variety of things my job entails. I try to determine which is the best research suitable for the publication, sorting through the advice of peer reviewers along the way. I propose and build special issues composed of articles that focus on a particular topic. I propose and organize sessions for the annual meeting of the American Association for the Advancement of Science. I attend scientific conferences and visit scientists in their labs—literally anywhere around the globe. I work with authors to improve the science, writing flow, and logic of presentation of their articles (although I don’t, on the other hand, make much of a focus of fixing authors’ commas and subjunctives). I work to incorporate into the publishing world the changes and opportunities brought by the advent of the on-line world. Ultimately, what my job at SCIENCE entails is good communications—with researchers, readers, reviewers, and authors—and therefore I also spend considerable time in conversation or e-mail correspondence, looking after such things as sorting out the thorny technical details in a seemingly opaque manuscript or brainstorming about what discoveries and insights science might deliver in the next 6 to 12 months.

Of course, there are some downsides to my position as an editor (as there are downsides to every profession). The most significant is that because we select only the very best science for publication in SCIENCE, as an editor I am also forced to reject most of the manuscripts submitted for consideration.
(which works out to be about 90% of them). This is certainly not fun either for the authors or for the editor, but it comes with the territory.

Finally, for those who may be interested in becoming an editor or science writer, the shift from bench research to wordsmithing entails two major issues. 1) You’ll trade the hands-on dealing with scientific equipment, plants, and animals for the more in-your-head stuff of considering experimental explanations and formulations of hypotheses. 2) You’ll trade the fine focus and ownership of your own bit of research for a much larger view of the research output generated by the scientific community as a whole. But this shift of focus can ultimately be very invigorating, as my editorial colleagues and I will attest.

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