

Getting those papers out the door: Tips on getting published Lisa L. Harlow February 2, 2006

For over 20 years, my main goal has been to encourage greater access, interest, participation, and leadership in quantitative science, particularly among women and minorities. This effort involves contributions to: research, teaching, leadership and service, all aimed at promoting psychological science, teaching, health, and inclusion.

Writing is a very big part of this overarching goal, whether it is a journal article, a conference presentation, a lecture, or even a book. That said, I have to admit to an incredible tension between a deeply felt joy in writing and several deterrents that get in the way of my writing more often than I'd like: things like an ongoing perfectionist tendency, not always finding or allowing myself enough time or freedom to engage in writing, and recognizing some challenges in writing what I truly want to write that result in my collaborating on others' projects sometimes disproportionately to working on my own. Although I value collaborative projects with others, I feel better about myself when I spend more time going after my own dreams. What helps me to get closer to my dreams is to focus less on the restrictions and distractions and more on what I really want to contribute.

To this end, I advocate the following:

- Write out several specific writing projects that you would like to complete, e.g.,
 - Finish revising and resubmitting a journal article
 - Frame a new project with the main ideas, method, analyses, conclusions and references
 - Plan an invited talk in your field
- 2. When asked to participate in a project, say you'll think about it and get back to them.
 - If after sleeping on the idea, it doesn't sit well with your current goals, let them know that although it sounds like a great project, your schedule does not allow for it at this time.
- 3. Set aside several designated hours each week for writing, e.g.,
 - Spend a morning or even whole day, ideally at home without interruptions
 - Immerse yourself in a fluid flow of writing, without censor or pause
- 4. Articulate and appreciate the kinds of ideas and contributions you would like to make, e.g.,
 - Create an effective melding of meaningful and rich issues with rigorous methodology
 - Share complicated concepts and ideas in terms everyone can understand
 - Demonstrate that there are several general themes that run through most statistics
 - Share the enthusiasm and empowerment that comes with the study of quantitative science
 - Help take the mystery and anxiety out of quantitative science
 - Encourage others, particularly those from underrepresented groups, to find their own joy in quantitative science
- 5. Identify books, articles, or even quotes that free up your thinking; e.g.,
 - Free-Thinking General Science-Based Books:
 - i. The Sciences of the Artificial (1969), by Herbert Simon: "The central task of science is to make the wonderful commonplace: to show that complexity, correctly viewed, is only a mask for simplicity; to find pattern hidden in apparent chaos" (p. 1).
 - ii. Consilience: The Unity of Knowledge (1998), by Edward O. Wilson: "Nothing in science nothing in life... makes sense without theory. It is our nature to put all knowledge into context in order to tell a story" (p. 56). "Scientific theories... are constructed... to be blown apart if proved wrong, and is so destined, the sooner the better" (p. 57).

- iii. Leadership and the New Science (1992, 1994), by Margaret Wheatley: "Equilibrium is a result of the workings of the Second Law of Thermodynamics... the tendency of closed systems to wear down, to give off energy that can never be retrieved" (p. 76). "The study of [living, open] systems, begun with Prigogine's prize winning work (1980), has shown that open systems have the possibility of continuously importing free energy from the environment and exporting entropy" (p. 78).
- More Specific (e.g., Quantitative) Science-Based Books in Your Field:
 - i. Mathematics: The Science of Patterns (1994, 1997), by Keith Devlin: "[Mathematics is] the science of abstract patterns... the very essence of thought, of communication, of computation, of society, and of life itself" (p. 7).
 - ii. Where Mathematics Comes From (2000), by George Lakoff & Rafael Núñez: "Mathematics is a magnificent example of the beauty, richness, complexity, diversity, and importance of human ideas" (p. 179).
- Inspiring Writing Books:
 - i. Writing Down the Bones: Freeing the Writer Within (1986), by Natalie Goldberg: "Keep your hand moving... Don't cross out... Don't worry about spelling, punctuation, grammar... Lose control... the aim is to burn though to first thoughts, to the place where energy is unobstructed... to the place where you are writing what your mind actually sees and feels, not what it thinks is should see or feel" (p. 8).
 - ii. If You Want to Write: A Book about Art, Independence and Spirit by Brenda Ueland (1938 & 1987): "There are wonderfully gifted people who write a little piece and then write it over and over again to make it perfect, absolutely, flawlessly perfect, a gem. But these people only emit about a pearl a year, or in five years. And that is because of the grind... But this is all a loss of time and a pity. For in them there is a fountain of exuberant life... and imagination, but it cannot get out because they are so anxiously busy polishing the gem... Work is not grinding but a wonderful thing to do; that creative power is in all of you if you give it just a little time; if you believe in it a little bit and watch it come quietly into you; if you do not keep it out by always hurrying and feeling guilty... Or if you do not keep the creative power away by telling yourself that worst of lies-that you haven't any" (p. 48).
- 6. Use others' works as a spring-board to help you articulate and concretize your own ideas
- 7. Place at least as much weight on your own thoughts and ideas as you place on others'
- 8. Make specific schedules for completing projects and stick to them as much as possible
- 9. Accept input (e.g., reviews) from others graciously and move forward with your objectives
- 10. With goals, thought, time, freedom and focus, you can develop the confidence and conviction to work on projects that you feel called to do and make meaningful contributions in the process.
 - Notes on books to help inspire the writing process:
 - i. The Creative Spirit (1992), by Daniel Goleman, Paul Kaufman, & Michael Ray
 - ii. A Whack on the Side of the Head (1983), by Roger von Oech, Ph.D. Founder and President of Creative Think
 - iii. Right Brain Write On: Overcoming Writer's Block and Achieving Your Creative Potential (1984), by Bill Downey
 - iv. Statistics in Psychology: An Historical Approach (2001), by Michael Cowles
 - v. On Writing Well: An Informal Guide to Writing Nonfiction (1980), by William Zinsser
 - vi. Stephen Hawking's Universe: The Cosmos Explained (1997), by David Filkin
 - vii. Einstein's Dream (1993), by Alan Lightman
 - viii. Fadiman, Anne (1997). The spirit catches you and you fall down: A Hmong child, her American doctors, and the collision of two cultures. [This is a true story of a young child with severe epilepsy whose Hmong parents have a strong distrust of the Western medical system. In turn, the doctors denigrate the spiritual and non-scientific beliefs of the Hmong, whom they believe are very near barbaric and uncivilized. The result is a huge chasm in communication, with the rigors of Western medicine and the deeply ingrained cultural practices of the Hmong seemingly at total odds, resulting in virtual tragedy for the young child. It is a great book to stress the importance of knowing how to translate all of our "wondrous science" into practical realities.]
 - ix. Kaufman, Stuart (1995). At home in the universe: The search for laws of self-organization and complexity. [From the back cover of the book: "A major scientific revolution has begun, a new paradigm that rivals Darwin's theory in importance. At its heart is the discover of the order that lies deep within the most complex of systems, from the origin of life, to the workings of giant corporations, to the rise and fall of greater civilizations. Kaufman contents that complexity itself triggers self-organization what Kaufman calls "order for free" and that if enough different molecules pass a certain threshold of complexity, they begin to self-organize into a new entity: a living cell. In turn, Kaufman extends this new paradigm to economic and cultural systems, showing that all may evolve according to similar general laws."]

- x. Wheatley, Margaret (1994). Leadership and the new science: Learning about organization from an orderly universe. [I absolutely loved this book. It took complex principles of quantum physics and presented them in a conceptual application to real life interactions. Here's an excerpt: "When I think of all those wave functions filling space, rich in potentials, accumulating more and more possibilities as they fan out, I wonder why we limit ourselves so quickly to one idea or one structure or one perception, or to the idea that "truth" exists in objective form. Why would we stay locked in our belief that there is one right way to do something or one correct interpretation to a situation when the universe welcomes diversity and seems to thrive on a multiplicity of meanings?" (p.73)]
- xi. Wilson, Edward O. (1998). Consilience: The unity of knowledge. [From back cover of book: "One of our greatest living scientists present us with a work of majestic learning and ambition whose central argument is at once path-clearing and as old as the Enlightenment. For biologist Edward O. Wilson believes that all knowledge is intrinsically unified, and that behind disciplines as diverse as physics and biology, anthropology and the arts, lies a small number of natural laws, whose interlocking he calls consilience...Consilience is science in the grand visionary tradition of Newton, Einstein, and Feynman."]