
Inside the AMS

A Summer at *Popular Science* Magazine

Each summer the American Association for the Advancement of Science (AAAS) runs a fellowship program that places science graduate students in ten-week internships at media outlets. In sponsoring the AMS-AAAS Mass Media Fellowship, the AMS provides funds for one or two mathematics graduate students to participate each year. What follows are reflections by Kathryn Leonard, a mathematics graduate student at Brown University, about her fellowship at Popular Science magazine in New York City during the summer of 2000.

The deadline to apply for the AMS-AAAS Mass Media Fellowship is traditionally January 15 each year. Information about applying will appear in the “Stipends” section of the October issue of the Notices.

I sit on the other side of a massive desk from Glennys Farrar, chair of New York University’s physics department. In my lap I hold a white notepad, upon which I am scribbling notes while Professor Farrar describes her research. Nothing is remarkable about this; I have been taking notes on white notepads in professors’ offices for over a decade. But today, for the first time, I am a reporter instead of a student.

Farrar’s gray curls dance as she describes the surprises awaiting us when scientists better understand the behavior and composition of high-energy cosmic rays. Nothing less than our fundamental understanding of the universe will change as their mysteries unravel. When she mentions theories that these streams of charged particles may be manifestations of high-energy events in a fourth dimen-

sion, chills scurry down my spine. I wonder how she maintains her composure while probing the secrets of the universe on a daily basis.

Not until I’m passing the bustling shoe stores on 8th Street, reveling in the stimulation of our interview, do I realize I have never before left a professor’s office so excited and curious and motivated to learn more. In my quest to find an interesting, accessible story in Farrar’s research, I asked all the right questions—questions I would never have asked as a student. Surprisingly, my short-lived role as reporter made me a better student than years of academic training.

A few months earlier, science writing boot camp for the twenty-odd science graduate students in the AAAS Mass Media Science and Engineering Fellows Program had introduced me to the unfamiliar world of journalism. An intensive three days in Washington, DC, the training involved lectures on topics from interviewing techniques (consider “Have you ever done time?” as an opening question) to finding sources (ask interviewees for names of people who hate them). We practiced our craft in workshops, then toured National Public Radio and WashingtonPost.com to observe the professionals. At every opportunity our drill sergeants reminded us of the differences between the worlds of academia and of popular media. They were right of course. Academia’s conservative thoroughness is inherently at odds with the edgy, fast-paced media. Imagining my summer as a writer for *Popular Science* magazine, I expected to learn anything but how to be a better student.

I did learn other things. *Popular Science* was ideal for my media initiation because its small, overworked staff eagerly involved me in a wide variety of projects. Writing articles on subjects ranging from evolution to space tourism

to bioengineered corneas gave me crash courses in subjects I hadn't studied in years. The short length of most of the pieces—around 300 words—taught me sharpness and efficiency in writing, as well as creative ways of communicating sophisticated ideas simply and colorfully. Clever editing showed me how adding a single word can focus a whole paragraph. Careless editing demonstrated how easily misinformation prevails. I learned about general magazine operations, the delicate dance between editorial and advertising content, and the agony behind every cover design.

I also learned of similarities between academic and mass media career paths. Advertising and marketing staff are as overpaid as university administrators, while editors and writers earn far smaller salaries than professors. While postdoctoral positions require relocation every two years, newly graduated journalists often move every three months for internships paying as little as \$300 per month. Freelance writers' earnings are comparable to adjunct professors', without benefits or access to university health services. Sadly, those in power seem reluctant to change the system, echoing arguments I've heard on the lips of numerous professors: they made the sacrifices when they were starting out, so why should the new generation have it any easier? If I hope to escape the hardships of launching an academic career, I shouldn't look to journalism.

Yet here I am at NYU, bridging these two imperfect worlds. The end of the exhilarating and exhausting day that began with a lesson in cosmic rays and continued through DNA robots, insect flight simulation, and bioengineered neural networks finds me lounging in an easy chair facing neuroscientist Paul Glimcher as he describes his work on the mechanisms of decision making in primates. I've applied my newly empowered student skills to understand how the level of brain activity in monkeys reflects the amount of benefit the monkeys expect from a particular decision. Glimcher stops short of the really good stuff, he explains, because it involves math—game theory, in fact—and he doesn't know how to explain it to me without technical constructions. With a smile, I expose my secret life as a mathematician. His jaw drops for just a second before he enthusiastically launches into a description of his latest experiment and how he's certain his results will be consistent with game-theoretic predictions.

As I walk to the subway in a gentle drizzle, I can't help chuckling at all the warnings I received about how journalists and academics think differently. Today I have discovered the synergy between these two mindsets. And now that the reporter and the mathematician in me have been introduced, their differences will make each indispensable to the other. I thought my summer would be about choosing a future career. Instead, it's been about enlightenment.

—*Kathryn Leonard, Brown University*

Deaths of AMS Members

DOUGLAS DERRY, of the University of British Columbia, died on April 24, 2001. He was a member of the Society for 63 years.

CAROLYN EISELE, of New York, NY, died on January 15, 2000. Born on June 13, 1902, she was a member of the Society for 66 years.

ROBERT FAURE, of Paris, France, died on July 24, 2000. Born on November 20, 1919, he was a member of the Society for 48 years.

MAY H. MARIA, of Austin, TX, died on June 8, 2001. Born on December 16, 1904, she was a member of the Society for 73 years.

C. W. MCARTHUR, of Tallahassee, FL, died on May 26, 2001. Born on November 4, 1921, he was a member of the Society for 51 years.

JAMES HENRY MICHAEL, of the University of Adelaide, Australia, died on April 17, 2001. Born on April 3, 1920, he was a member of the Society for 40 years.

STANLEY W. NASH, professor emeritus, University of British Columbia, died on March 28, 2001. Born on October 8, 1915, he was a member of the Society for 49 years.

WALTER PRENOWITZ, professor emeritus, Brooklyn College, CUNY, died on August 7, 2000. Born on October 19, 1906, he was a member of the Society for 68 years.

J. J. SEIDEL, professor emeritus, Eindhoven University of Technology, The Netherlands, died on May 8, 2001. Born on August 19, 1919, he was a member of the Society for 36 years.