

**Robert R. Provine, Ph.D.**

### **Biographical Sketch**

Robert Provine, a neuroscientist at the University of Maryland, Baltimore County, uses interdisciplinary methods to study the development and evolution of the nervous system and behavior, including human social behavior. Provine's research is published in his book *Laughter: A Scientific Investigation*, and in over 50 peer-reviewed reports, magazine articles and book chapters, and he has been Principal Investigator on three NIH research grants.

He follows the scientific trail wherever it leads, acquiring the necessary research tools along the way, which have included electrophysiology, tissue culture, embryonic microsurgery, neuroanatomy, neurochemistry, optics, photography, psychophysics, and behavioral field methods. His studies are often comparative and have involved over 40 species, including avian embryos, penguins, insects, turtles, snakes, alligators, chimpanzees and humans. A feature of his research, whether of bird flight, yawning, or manual signing, is the pursuit of universal, underlying processes, often using novel methods to study unusual behavior.

His recent studies of yawning and laughter, for example, are an extension of his neuroethological research agenda to humans, with the contagiousness of these acts providing an entree into social neuroscience and associated problems, including empathy and autism. His research tactic is rather like assembling a very large jigsaw puzzle, starting at the edges with some odd-looking pieces, converging toward the center, revealing a pattern that is not anticipated at the outset.

As a graduate student in psychology at Washington University, his interdisciplinary inclinations were facilitated by a fellowship that permitted mentorship in developmental neuroscience with two of its founders, biologists Viktor Hamburger (a National Medal of Science recipient) and Rita Levi-Montalcini (a Nobel Laureate). His eclectic interests are also reflected in his employment and research settings, which have included Departments of Psychology, Biology and Ophthalmology at Washington University, the Research Laboratory of Electronics at MIT, the Central Institute of Brain Research (Amsterdam), and, currently, the Department of Psychology at UMBC.

Provine teaches five courses per year, including Sensation and Perception, Neuroanatomy, Physiological Psychology, Developmental Neuroscience, and Laughter and Humor. Lacking graduate programs in his area of specialization, most of his research collaborators and co-authors are undergraduate students.

Provine believes that good science makes a good story, complete with characters, plot, suspense, and resolution. The hunt for compelling stories guides his research, teaching, and work with the media. The popularization of science has been an interest since local newspapers covered his work as an amateur astronomer and telescope builder while a high school student in Tulsa.

The "practice of science in the public arena" is also reflected in his authorship of *Laughter* (a second book is under contract), writing magazine articles for a general audience, and participation in dozens of television shows, from *20/20* and *Good Morning America*, to *The Discovery Channel*, and over 100 radio shows, broadcast in the U.S., South America, Europe and Asia.

*Laughter* was selected as one of *The 25 Books to Remember from 2000* by the New York Public Library, and his recent articles are reprinted in two leading anthologies, *The Best American Science Writing 2006* and *The Best American Nonrequired Reading 2006*.

When not doing science, Provine is a jazz musician, martial artist, amateur astronomer, and road racer of his Corvette at local tracks.