

Persi Diaconis

Born: January 31, 1945 in New York City

Mathematician. Statistician. Magician. Debunker. MacArthur Foundation award. Expert on the mathematics of card shuffling.

"The way I do magic is very similar to mathematics. Inventing a magic trick and inventing a theorem are very, very similar activities in the following sense. In both subjects you have a problem you're trying to solve with constraints. One difference between magic and mathematics is the competition. The competition in mathematics is a lot stiffer than in magic."

Persi Diaconis was born into a family of professional musicians. At 14 he had finished high school and was enrolled in the City College of New York when Dai Vernon, "the greatest magician in the US," invited Diaconis to go on tour with him. Diaconis dropped out of school, quit his violin lessons at Julliard after 9 years of study, and left home without telling his parents, who were understandably upset. At 16 he struck out on his own as a magician and did well doing magic, inventing tricks, giving lessons and living a "very colorful" life. This might have lasted more than the 8 years that it did if Diaconis had not happened to visit a book store with a friend who recommended a probability book by Feller as the best and most interesting on the subject. Diaconis bought it and then found that he couldn't read it. So he enrolled in N.Y. City College at night -- "They wouldn't take me during the day because I was something of a strange person." Two and a half years later, in 1971, he graduated with a degree in mathematics and was accepted into the statistics program at Harvard. By 1974 he had earned a Ph.D. and joined the faculty of the Statistics Department at Stanford. He has been at Stanford ever since except for sabbatical leaves or a year off -- "I go on sabbatical leave or take a year off every three years." Diaconis' strong background in magic has proved useful in another area – catching "psychics" cheating. If a person, even a well-trained scientist, has not had experience with human subjects and with cueing (subtle, body-language hints), then it is extremely difficult to spot what is wrong. Diaconis, however, is an expert at deception and has found cheating, or failure to perform, with every psychic he has been allowed to observe. Statistics is useful for spotting the errors and fallacies in the more 'scientific' parapsychology studies: "I have read very thoroughly for ten years all of the refereed, serious parapsychology literature. There is not a single, repeatable experiment in that literature. Most people don't seem to know that. I guess it is useful to go on record and to say that loud and clear." (For information about organizations and publications that try to document this kind of work click [The Skeptics Society](#) or [The Skeptical Inquirer](#).) In 1982, Diaconis was awarded \$40,000 a year, tax free, for 5 years. The award goes to individuals the MacArthur Foundation thinks have the potential to make "substantial contributions" in some area, and the recipients can do whatever they want with the money. It will probably not change Diaconis' life very much. "I work from seven A.M. to midnight each day. I'm always doing mathematics."