

PARAMETER



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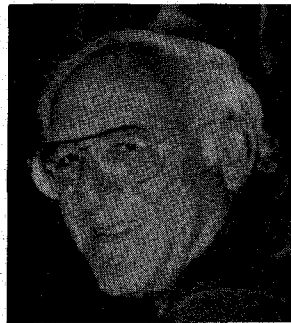
April 1991

No. 9

Statistics and Illusions of Judgement

(Bohr) never trusted a purely formal or mathematical argument. "No, no," he would say. "You are not thinking; you are just being logical." This excerpt from *What Little I Remember* by O. R. Frisch introduces the book, *Patterns, Thinking and Cognition*, authored by Dr. Howard Margolis. At the April luncheon, Dr. Margolis will challenge us to think, not merely be logical.

He reduces thinking and judgement to the familiar basic ideas of pattern recognition and makes it the central theme of his research. He points out that the most elaborate computerized character recognizer cannot yet match a bright six-year-old in recognizing letters from the alphabet from many different fonts.



Rather than react to this situation by building a more elaborate computer, Dr. Margolis admits he errs in the other direction. He observes that when we arrive at decisions, we justify them by any one of a range of reasons from rationalization to "SWAG." The judgement we exercise results from seeing and responding to cues that were important in the pattern of the problem.

Dr. Margolis applies these ideas to a series of well-known cognitive anomalies, where the most striking of these illusions turn on simple statistical intuitions. (See the "car and goats" problem in the March *Parameter*.)

He has planned a unique experience for us. After discussing the concept of the illusion, he will ask for input from the audience as a way of stimulating thought and describing the thinking process of pattern recognition.

The luncheon will be held on Tuesday, April 9, 1991, at the Midland Hotel, 172 W. Adams at LaSalle in downtown Chicago. Registration will start at 11:45 a.m. and lunch will be served, starting at noon.

Dr. Margolis is Professor, Graduate School of Public Policy Studies and the College at The University of Chicago. His career as a science and political writer was interrupted by an assignment as staff assistant to the Secretary of Defense. He was a research fellow at the Center for International Studies at MIT, where he earned his Ph.D. in political science.

Dr. Margolis has shared his research ideas at

Princeton, University of California (Irvine), and the Russell Sage Foundation in New York. In 1985 he joined The University of Chicago.

Dr. Margolis has published extensively in the social sciences and has written *Selfishness, Altruism and Rationality*. His third book, *Paradigms and Barriers*, is in progress.

Please join in what promises to be a stimulating session in audience participation; seeing the way your mind really works. To make reservations, call Sheila Proietti, (312) 727-4373, or Kenneth Wollenberg, (312) 727-7575, by noon, Friday, April 5, 1991. The cost is \$20 for members and \$22 for non-members. If you make reservations and then are unable to attend, please let Kenneth know, since the Chapter must pay for luncheons prepared for no-shows.

As usual, the Chapter's Lucile Derrick Fund will purchase a limited number of luncheon tickets for students who wish to attend.

Special Dinner Meeting

As we enter the 1990's, "Total Quality" has become the rallying cry for U.S. competitiveness. Organizations now are attempting to identify what "quality" means for their businesses, to understand more fully the relations between process and product, and to implement organizational changes directed toward improving processes, products, costs and services. The Malcolm Baldrige National Quality Award is designed to focus on and recognize such changes.

This ongoing process of organizational change clearly requires both measurement and modeling — the areas in which statisticians by definition can excel. If ever there was a time for statisticians to assume a widely influential role in their firms, this is that time.

Tentatively scheduled for the evening of June 11, 1991, the Chicago Chapter ASA will hold a dinner/workshop focusing on the Baldrige Award. An expert panel will discuss the award and the organizational achievements which the award recognizes. In addition — and just as important — your colleagues and friends who are interested in the measurement, modeling and improvement of operations will be there. Plan to attend this workshop and explore the important ways in which firms can move toward total quality and the high-profile role statisticians can have in this process.

Further details will be available in the near future.

The Parameter regrets an error in an ad in last month's issue. The ad should read as follows:

10% MEMBER DISCOUNT

Prob.(Disability) = 3.5 Prob.(Death)†

Most people insure against premature death
BUT
the probability of Disability before age 65 is
GREATER

*Call us for details on Equitable's
Disability Income and Overhead Expense coverage*

**Tsai-Fen Lin, Agent 708-674-0348
(Fax) 708-674-0347**

Carl Viard, CLU, ChFC, Agent . . . 708-291-3096

† At Age 32 — Disability lasting 90 days or more
(Source: Commissioner's Disability Table)

**The Equitable Life Assurance Society
New York, NY**

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Parameter, the official newsletter of the Chicago Chapter of the American Statistical Association, is published 11 times per year as a service for its members. Materials for publication should be submitted to the editor at Household Bank — 2N, 2700 Sanders Rd., Prospect Heights, IL 60070. **Deadline for the May Parameter is April 16.**

Parameter offers a free placement service for ASA Chicago Chapter members. Job applicants should send a draft of their advertisement and a resume to the editor at the above address. Applicant names will remain confidential if requested.