### **Nobel Prize Connection**

## The Nobel Prize - Open University Connection

Prof. Daniel Kahneman of Princeton University was awarded the Nobel Prize in Economics for having integrated insights from psychological research into economic science, especially concerning human judgment and decision-making under uncertainty, research developed in close collaboration with his now deceased colleague, Prof. Amos Twersky. Both are from Israel, both taught at the Hebrew University, Jerusalem, and together they developed an approach towards some of the faulty human thought processes which lead to errors of judgment, an approach which differed radically from the accepted psychological theory of human judgment at the time. Collaboration with them led to the publication of three books at the Open University of Israel.

#### **Critical Thinking**

Prof. Amos Twersky, in collaboration with Dr. Varda Lieberman, wrote a book, entitled Critical Thinking, especially for publication by the Open University of Israel. The book traces the patterns of decision-making common to humankind, psychological mechanisms that govern thought patterns, the tools generally used to evaluate outcomes intuitively, errors in calculation, factors that influence judgment and deviance from statistical likelihood. Taking all these factors together, Prof. Twersky painted a picture of why faulty judgment and miscalculation are so common, in professional evaluation, in business, in gambling, in risk-taking in general and in practically every walk of life. The book is used as a standard and required textbook in all the universities in Israel, both in economics and psychology.

Prof. Twersky also lectured on the subject at the Open University of Israel. Among the points of his lecture: The critical question of presentation, how questions are formulated, how issues are perceived, what factors will influence judgment, how people relate to risk-taking, profit and loss, to matters of life and death and how they relate to very partial information in reaching important and incorrect conclusions based on limited and misleading information – all of these charted a new view of the vulnerability

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of human judgment. These thought patterns in judgment were reflected not only in the area of psychology, but touched on all walks of life in which decision-making was relevant. In fields as diverse as medicine and law, their research sheds light on the problematic manner of decision-making. Life and death decisions of doctors and patients alike are founded on shaky grounds at best. Legal decisions of lawyers and clients alike also reflect faulty estimation of chances of success in litigation. Both doctors and lawyers over-estimate their chances of success. Marketing and advertising also utilize those factors of human judgment that

could endear their products on an intuitive level, obscuring facts or couching them in terms that could misdirect the consumer. In the world of finances these questions are particularly salient as many of the issues, risk aversion against a backdrop



Critical Thinking
Statistical Considerations and Intuitive
Judgment
by Varda Leiberman and Amos Twersky

#### Research

#### **Nobel Prize Connection**

of profits and losses, prediction of failure or success, and evaluation of a total picture on the basis of partial information are an ongoing scenario in the business arena. Businesses regularly miscalculate their chances of success, explained Prof. Twersky, with 85% of new businesses closing within their first year of operation.

## Thinking Probability in Everyday Life

An offshoot of this book is a newer publication written especially for high school students, to take these important questions of human judgment and decision-making to the level of young people. The new book, **Thinking Probability in Everyday Life**, by Prof. Amos Twersky and Dr. Varda Lieberman, is mandatory material in the advanced math program of high school students. Based on the joint research of Prof. Kahneman and the late Prof. Twersky, for which Prof.

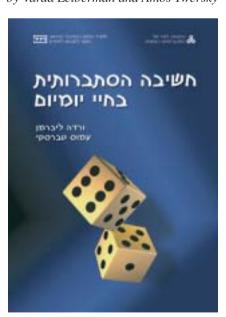
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Kahneman received the Nobel Prize this year, the book was jointly published by the Open University of Israel and the Ministry of Education as a required textbook to introduce statistical considerations into the decision-making process of young people.

# Judgment and Evaluation under Conditions of Uncertainty

Judgment under Conditions of Uncertainty is the textbook of an advanced course on the subject written by Prof. Beyth Marom, who served as research assistant of Profs. Twersky and Kahneman on decision-making under uncertainty and later did her master's and doctoral theses at the Hebrew University under their guidance in the same areas in which the Nobel Prize was subsequently conferred. Prof. Bevth Marom continued to engage in research and teaching in the same field. The advanced course is an elective in the psychology and economics program of the Open University and is taught in other universities as well. Prof. Ruth Beyth Marom is presently Head of the Department of Education and Psychology and formerly served as Vice President of the Open University.

Thinking Probability in Everyday Life by Varda Leiberman and Amos Twersky



Judgment and Evaluation under Conditions of Uncertainty by Ruth Beyth-Marom

