



University of Haifa



Minerva Stiftung Gesellschaft  
für die Forschung m.b.H



Technion

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## The Max-Wertheimer Minerva Center for Cognitive Processes and Human Performance

מרכז מינרבה בטכניון שמח לארח את

פרופ' גדעון קרן  
Eindhoven University of Technology מ

ההרצאה תהיה בנושא:

### *When is $p=.90$ Preferred to $p=.70$ ? A Dispositional-Potency Approach to Lay Interpretations of Probability Statements.*

A descriptive framework that explains how people understand and evaluate probability statements will be presented. The framework is based on a notion termed Predictive Potency, reflecting the intuition that a probability mirrors the power or potency encapsulated in the mechanisms that are responsible for the possible occurrence of the event under consideration.

The framework is based on two conjectures: The first, termed "The search for definitive predictions" principle, asserts that high probabilities are preferred to medium ones and often favored over the corresponding complementary low probabilities. Experiments will be described showing that subjects have a clear preference for more extreme and higher probabilities to less extreme and lower ones. This pattern of preferences led subjects to prefer an overconfident to a more well-calibrated (accurate) forecaster. The second conjecture, termed "The probability-outcome correspondence" principle (linked to the interpretation of probability in terms of propensities, Popper 1959) asserts that probabilities are believed to convey information about the intensity by which an event will be manifested and the time of its occurrence. Following this principle, the higher a probability the sooner and the stronger the corresponding event will be unfolded. Several experiments will be presented that were designed to test the correspondence hypothesis. For instance, we show that an earthquake predicted with high probability is also expected to be stronger and to occur sooner than a low-probability earthquake. The implications for a descriptive lay theory of probability will be briefly discussed.

ההרצאה תתקיים ביום ה' 29 לאפריל 1999 בשעה 12:00  
בחדר הסמינרים במרכז מחקר לבטיחות בעבודה והנדסת אנוש (הטכניון)

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