



Nanyang Technological University
DIVISION OF ECONOMICS
Seminar Series

The Division of Economics invites you to a seminar by Dr JuBo Yan

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- Speaker** : **Dr JuBo Yan**
Doctor, Cornell University
- Topic** : **"Reference Dependence under Risk: An Experimental Examination"**
- Chairperson** : **Assistant Professor Hong Fuhai**
*Division of Economics
School of Humanities & Social Sciences*
- Date** : **Thursday, 16 April 2015**
- Time** : **4.30pm to 5.30pm**
- Venue** : **Meeting Room 5 (HSS-04-89)**
*Nanyang Technological University
School of Humanities and Social Sciences
14, Nanyang Drive
Singapore 637332*

About the Speaker:

Jubo Yan is a Ph.D. candidate at the Charles H. Dyson School of Applied Economics and Management at Cornell University. His research interest includes behavioral economics, experimental economics, and energy economics. He also frequently uses microeconomic techniques to study economic issues in reality. His works have been published in *Environmental and Resource Economics*, *Resource and Energy Economics*, *Agricultural Economics*.

Abstract:

The critical feature of prospect theory, loss aversion, has been extensively tested in both laboratory and the field. The other important feature, probability weighting, has been less emphasized in economic literature. This paper studies reference dependent behavior under risk using a controlled laboratory experiment and demonstrates the need of probability weighting in explaining the observed behavior. The paper also suggests a behavioral model that explains reference dependence under risk using loss aversion and rank-dependent probability weighting. The behavioral model used in the estimation is flexible enough to accommodate both expected utility theory and prospect theory as special cases. Certainty equivalents for either lottery tickets for a \$5 gain or insurance policies to protect against a \$5 loss are elicited. On one hand, between subject variation in elicitation mode (Willingness To Accept vs. Willingness To Pay) provides two different values for each lottery ticket or insurance policy which enables further exploration of reference dependent behavior under different probabilities. On the other hand, within subject variation of probabilities allows an examination of response to risk changes. A specific functional form derived from previous studies is used to estimate a single loss aversion parameter and separate decision weights for each of nine probabilities between zero and one. The resulting nonparametric probability weighting function is consistent with the inverse S shaped curve in literature and the loss aversion parameter is also similar to prior estimates supporting prospect theory. The experiment is then replicated using risky prospects of obtaining or losing a coffee mug with a university logo. With these data, one can explore the formation of reference points in the different treatments of the experiment. Consistency between the two sets of estimated parameters again supports the behavioral model with loss aversion and rank-dependent probability weighting.

Reservation:

Admission is free. Please reply to d-egc@ntu.edu.sg to confirm your attendance.