Written Exam for the M.Sc. in Economics winter 2018-19

The Psychology of Choice

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Experimental Theory and Methods

Final Exam/ Elective Course/ Master's Course

January 15, 2019

(3-hour closed book exam)

Answers only in English.

This exam question consists of 3 pages in total including this page.

NB: If you fall ill during an examination at Peter Bangs Vej, you must contact an invigilator who will show you how to register and submit a blank exam paper. Then you leave the examination. When you arrive home, you must contact your GP and submit a medical report to the Faculty of Social Sciences no later than seven (7) days from the date of the exam.

Be careful not to cheat at exams!

- You cheat at an exam, if during the exam, you:
- Make use of exam aids that are not allowed
- Communicate with or otherwise receive help from other people
- Copy other people's texts without making use of quotation marks and source referencing, so that it may appear to be your own text
- Use the ideas or thoughts of others without making use of source referencing, so it may appear to be your own idea or your thoughts
- Or if you otherwise violate the rules that apply to the exam

(1) Attention
During the course we talked about attention and working memory. Especially, we talked about how information processing becomes a significant player when faced with many choice options. In the following questions you will be asked to consider which component influence selection for awareness and how these components are related to choice situations.

a. *Desimone, R. and Duncan, J. (1995) "Neural Mechanisms of Selective Visual Attention", Annual Review of Neuroscience, 18, 193–222,* describe two basic phenomena (i.e. competition and selectivity) that define the problem of visual attention.

   Explain the two concepts and describe how they affect choice. (Hint: use the rational choice model as a benchmark.) Describe the pop-out effect and what drives it.

b. *"Reutskaja, E., Nagel, R., Camerer, C.F. and Rangel, A. (2011) "Search Dynamics in Consumer Choice under Time Pressure: An Eye-Tracking Study", American Economic Review, 101(2), 900–926",* investigated the effects of attention on visual search dynamics of consumer choice.

   Explain the effects of increasing number of choice options, and how the effects verify or falsify the three hypotheses (i.e. models) that are tested. Relate the two basic phenomena from question "1a" to the dynamics of search behavior.

**(2*) Ref. Dependence, Framing and Loss Aversion*
We also talked about Prospect Theory— the fact that people make decisions based on the potential value of losses and gains rather than the final outcome, and that people evaluate these losses and gains using some reference point. Especially, we talked about some abnormalities that Prospect Theory could explain.

a. *Thaler, R. (1980) "Toward a Positive Theory of Consumer Choice", Journal of Economic Behavior and Organization, 1(1), 39-60,* argues that in certain well-defined situations, many consumers act in a manner that is inconsistent with standard economic theory and that Prospect Theory can be used as the basis for an alternative descriptive theory.

   Describe, explain, and draw the main mechanisms of Prospect Theory. Use Prospect Theory to describe the effects of searching and the psychophysics of prices [Section 5; Thaler, 1980]. (Hint: think about the minimal price differential which would induce a consumer to buy at a different store.) Contrast your answer, with the answer you gave in question "1b".

b. *Kahneman, D., Knetsch, J.L. and Thaler, R.H. (1991) "Anomalies: The Endowment Effect, Loss Aversion, and Status Quo Bias", The Journal of Economic Perspectives, 193-206*, describe deviations from standard economic theory that can be accounted for by Prospect Theory—one of these was the Endowment Effect.

Explain and draw how Prospect Theory can account for the Endowment Effect. Describe why and how the Endowment Effect is inconsistent with standard economic theory.

(3*) Anchoring and Heuristics*

During the course we talked about different heuristics (rules of thumb) that people use to evaluate the likelihood of uncertain events or uncertain quantities. Especially, we talked about the representativeness heuristics, in which probabilities are evaluated by the degree by which one event resembles another event.

a. *Tversky A. and Kahneman, D. (1974) "Judgment under Uncertainty: Heuristics and Biases", Science, 185(4157), 1124-1131*, argues that we rely on the representativeness heuristic when judging probabilities in specific situations.

   Describe the probabilistic questions that are typically answered by use of the representativeness heuristic. Explain how the representativeness heuristic can explain insensitivity to prior probability of outcomes (i.e. base-rate frequency)—relate your answer to Bayes-rule. By use of the representativeness heuristic explain how and why a limited sequence of events can lead to misconceptions of chance.