Psychology and Economics Field Exam

August 2024

The questions on the exam are all short questions with about equal weight. You will be graded on the quality of your explanation. Make as convincing of a case as possible—whether that involves plain English or brief model sketches. Don't stress too much if you do not get all parts of all problems.

Question 1 Consider a mass of homogeneous agents who must complete a task by a certain deadline T. They have an opportunity to complete the task each period $t = 1, \ldots, T$. The cost c_{it} of completing the task in period t by agent i is an i.i.d. draw (i.i.d. both across people and periods) from some distribution F that is known to the agents, but the cost c_{it} itself becomes known to each agent i only at the beginning of period t. A behavioral economist collects a dataset that includes the fraction of agents who complete the task in each period t. The behavioral economist does not know the distribution F and does not have any other information about the realized c_{it}. Are there patterns of choices that would allow the behavioral economist to differentiate between time consistent and time inconsistent behavior? For example, would seeing that the majority of agents complete the task only at "the last minute" in period T allow the behavioral economist to conclude that the agents procrastinate due to time inconsistency? Please explain why or why not.

Question 2 Please explain (with a simple model sketch if possible) how loss aversion leads to the endowment effect.

Question 3 Can social image concerns explain the motivation crowd-out effect, where small incentives to act prosocially cause people to act *less* prosocially? Please explain why or why not, providing plenty of intuition.

Question 4 Consider the following experiment. One group of subjects is told that Jack's been drawn from a population which is 30% engineers and 70% lawyers, and that Jack wears a pocket protector. Another group of subjects is told that Jack's been drawn from a population which is 70% engineers and 30% lawyers, and that Jack wears a pocket protector. Both groups are asked to estimate the likelihood that Jack is an engineer. What patterns of answers would indicate that subjects exhibit base rate neglect, on average?

Question 5 Consider a market in which people over-consume sugary drinks because of limited self control and/or incorrect beliefs about health costs. A well-meaning behavioral scientist designs a health warning label about how consuming sugary drinks is bad for health. A field experiment finds that this label decreases consumption of sugary drinks. Assuming that the experimental population is representative, would this finding imply that the government could increase social welfare by mandating this label on sugary drinks? Please explain why or why not.

Question 6 Are opaque incentives, such as shrouded fees or sales taxes that are added only at the register, always harmful to social welfare? Please explain why or why not. Note that this is an open-ended question that does not specify the market structure.

Question 7 Consider the results of the Chetty et al. (2014 QJE) "Active vs. Passive Decision and Crowd-Out in Retirement Savings Accounts" paper. What does this paper find in terms of heterogeneity in response to defaults versus tax incentives?

Question 8 What are the key findings of Sydnor (2010) on home-insurance choices? Mention both the fact ("People tend to choose X") and the possible explanations for the key fact.

Question 9 Explain the Euler Equation Puzzle from behavioral development economics. Provide the equation, the statement of the puzzle, and one empirical example of the puzzle.

Question 10 Why might a poor individual with low cash-on-hand appear to be more impatient than someone with high liquidity, even if they have the same underlying present-biased time preferences? (Hint: recall the Hyperbolic Euler Equation)

Question 11 How do Hastings and Shapiro (2018) test for mental accounting in their paper on SNAP benefits? What are the main findings?

Question 12 In the Mobius et al paper on "Managing Self-Confidence", the authors observe belief updating in response to signals about one's own ability relative to others. What are the two ways in which the authors find systematic deviations from the Bayesian benchmark?