

BEHAVIORAL ECONOMICS AND PUBLIC POLICY

API 304 Spring 2015
Harvard Kennedy School
Midterm Exam

INSTRUCTIONS

1. Write your name here:

NAME: _____

2. **No books or notes** may be used during the exam. A calculator is permissible.
3. Please show your work so that you can receive partial credit for incorrect answers. Your grade will be largely based on the explanations you give.
4. The exam is in-class. You have 75 minutes to complete the exam.
5. There are three sections to the exam: (1) Multiple Choice, (2) True/False/Uncertain, and (3) Short Answer.

PLEASE NOTE: The Multiple Choice questions can have MORE THAN ONE CORRECT ANSWER. Grading is 1 pt. for each option correctly chosen or not + 2 point bonus for getting the entire question correct.

6. There are 14 pages to the exam (including this cover page). Please check to make sure that you have all 14 pages.

Multiple Choice	Score	T/F/U Explain	Score	Short Answer	Score
1 (7 pts)		6 (7 pts)		10 (8 pts)	
2 (7 pts)		7 (7 pts)		11 (12 pts)	
3 (7 pts)		8 (7 pts)		12 (12 pts)	
4 (7 pts)				13 (12 pts)	
5 (7 pts)					
Subtotal (35 pts)		Subtotal (21 pts)		Subtotal (44 pts)	
TOTAL (out of 100):					

PART I.

MULTIPLE CHOICE. 5 questions (7 points each, 35 points total).

PLEASE NOTE: The Multiple Choice questions can have MORE THAN ONE CORRECT ANSWER. Please circle the letter(s) corresponding to each correct answer below.

1. Under the prospect theory probability weighting function (there may be more than one correct answer):
 - A) Individuals overweight low probability events in their decision-making and underweight high probability events
 - B) Individuals overweight all probabilities in their decision-making
 - C) Individuals overweight the probabilities of more recent outcomes in their decision-making and underweight the probabilities of things that have happened in the more distant past
 - D) Individuals prefer (on average) a probabilistic lottery payout to a sure payout with the same expected value if the probability of winning the lottery is very low, and prefer (on average) the sure payout to the probabilistic lottery payout if the probability of winning the lottery is higher (e.g. closer to a coin toss).
 - E) Individuals are risk averse for high probability events and risk seeking for low probability events

2. Complexity (there may be more than one correct answer):
 - A) Leads to delay/procrastination
 - B) Leads to imperfect optimization
 - C) Leads individuals to use simplifying heuristics
 - D) Increases when the dimensions of choice are non-alignable
 - E) Increases when multiple choice exam questions can have more than one correct answer

3. The disposition effect (there may be more than one correct answer):
- A) Arises because individuals overweight the probability that an asset will increase in value in the future
 - B) Arises because individuals are risk averse
 - C) Arises because individuals are risk seeking over losses
 - D) Arises because individuals use the purchase price of an asset as their reference point in evaluating their well being
 - E) Arises because individuals evaluate losses differently from gains
4. Present bias can explain which of the following education-related behaviors (there may be more than one correct answer):
- A) Students place more weight on tuition than on school fees in deciding which school to attend
 - B) An immediate reward has a greater impact on student performance than a delayed reward
 - C) An incentive framed as a loss has a greater impact on student performance than a equal-sized incentive framed as a gain
 - D) Students drop out of school even when the return to additional years of school are higher
 - E) Students don't go through the complicated process to apply for financial aid even when they would be likely to get it

5. Home Energy Reports (HERs) provide electricity consumers with information on their electricity consumption relative to their neighbors along with energy saving tips. These reports (there may be more than one correct answer):
- A) Reduce electricity consumption for individuals in liberal neighborhoods but increase electricity consumption for individuals in conservative neighborhoods (relative to a control group of consumers who don't receive these reports)
 - B) Reduce electricity consumption for individuals who initially consumed a high level of electricity but increase electricity consumption for individuals who initially consumed a low level of electricity (relative to a control group of consumers who don't receive these reports)
 - C) Have the greatest impact on electricity consumption right after a report is received (relative to a control group of consumers who don't receive these reports)
 - D) Result in a greater reduction in electricity consumption the longer the period of time over which households receive these reports (relative to a control group of consumers who don't receive these reports)
 - E) Reduce electricity consumption by more than a 10% short-run increase in the price of electricity

PART II.

True/False/Uncertain Explain. 3 questions (7 points each, 21 points total).

PLEASE NOTE: Your score will be based largely on your explanation, including your ability to draw on examples from the readings or discussed in class.

6. T/F/U Explain (7 pts). Taxes that are less salient are preferable to taxes that are more salient because other things equal, they raise more revenue.

8. T/F/U Explain (7 pts). Giving consumers more options to choose from makes consumers worse off.

PART III.
Short Answer. 4 questions (44 points total)

PLEASE NOTE: Your score will be based largely on your explanation

9. (8 points) In sporting competitions, we often observe that the team in the lead plays more conservatively (takes fewer risks) than the team that is behind. What behavioral model that we have covered in class can explain this result, and what evidence have we discussed in class that would support this observation?

10. (12 points) One concept that we have discussed in class is dynamic inconsistency.

A) What is dynamic inconsistency (as we have used the term in this class)?

B) What gives rise to this pattern of behavior?

C) What empirical evidence is there to support to notion of dynamically inconsistent behavior?

D) What types of interventions might help reduce dynamically inconsistent behavior?

11. (12 points) Explain how the following concepts can be applied to election outcomes and discuss any relevant empirical evidence from class lectures or from the course readings.

- A) Choice architecture of the ballot
- B) Planning
- C) Framing
- D) Social norms/social pressure

12. (12 points) A recent study examined the amount of life insurance coverage obtained by employees before and after their employer changed the life insurance coverage options offered to its workers. The firm provides all workers with a baseline level of life insurance coverage. In addition, employees can purchase additional coverage at competitive rates through the employer. Employees can increase or decrease the amount of supplemental coverage that they have at any time.

A few years ago, the employer substantially increased the level of baseline coverage provided to employees. This change applied to all employees at the firm. The study found the following results:

- A) For employees hired before the increase in the baseline level of life insurance coverage, the average total amount of life insurance (the baseline level of coverage PLUS the amount of additional coverage purchased by employees) increased one-for-one with the increase in the baseline level of life insurance coverage after the policy change
- B) For employees hired after the increase in the baseline level of life insurance coverage, the average total amount of life insurance (the baseline level of coverage PLUS the amount of additional coverage purchased by employees) was no different than the total amount of life insurance coverage held by employees with similar levels of tenure before the policy change.

Using principles of behavioral economics that we have discussed in class, provide a coherent explanation for this pattern of results.

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