HE 4004 – Behavioral Economics

…” Every truth has four corners: as a teacher I give you one corner, and it is for you to find the other three. (Confucius)”

Lecturer

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Course Description and Scope

The above figure depicts the Moller Franz illusion. The lengths of the three lateral lines above appear to be different, although they are actually of the same length. The cognitive function of our brain tricks us to think that they are different. Behavioral Economics studies how psychological limitation like this influences economic decision making. The importance of this field was also evident from the award of Nobel Prize in Economics 2002 given to Daniel Kahneman for his pioneering works in the field. HE4004 presents an introduction into this exciting field of study to advanced undergraduate students. In particular, it focuses on how adding important and more realistic human psychological attributes, which include bounded rationality, bounded willpower, and bounded self-interest, into economic agents’ decision making process can have profound impacts on the theoretical predictions of the standard economic models.

Prerequisites

You should at least have taken Microeconomics I (HE1001). It would also be useful if you have taken Microeconomics II HE2001.

Syllabus & Basic Readings

Notes and Disclaimer:

I will add more materials and readings from recent journal articles, and whenever possible some real-examples of applications as the course progresses. This syllabus is meant only for guidelines, the actual contents may change as the course progresses. The
reading-materials listed here are the basic readings only, in the lecture notes I include many more materials from other sources.

Use the lecture notes as the main point of entry when studying for the course, and I encourage you to go search for the readings and other relevant materials yourself to enrich your knowledge and to understand the materials better. Pro-active strategy is recommended. Remember that …” *Every truth has four corners: as a teacher I give you one corner, and it is for you to find the other three. (Confucius)*”.

There are two recent books I would like to strongly recommend you to read. They would also be excellent reference books you might want to have for your own personal library. The first one is written by Daniel Kahneman (Princeton University), one of the founding fathers of behavioral economic, “*Thinking Fast and Slow*”. He won the Nobel Prize in Economics in 2002 together with Vernon Smith, the ‘father’ of Experimental Economics.

The second one is written by Richard Thaler (University of Chicago), *Misbehaving: The Making of Behavioral Economics*. Richard Thaler is responsible in introducing Behavioral Economics to the policy making and he was awarded the Nobel Prize in Economic Sciences in 2017.
Almost all materials covered in the first part of the lectures (up to before the behavioral game theory) can be found in these two books and are presented in a non-technical way.

Lecture Notes

I will try my best to upload lecture notes every week before the class begins onto the NTULearn, but there will be times where I upload the lecture notes to the NTULearn late. Thus, I want to seek your understanding when that happens. I consider the lecture notes as a work in progress in which we continuously revise and add new materials onto them. So please bear with me.

I compiled the lecture notes from various sources; 1) my own sources, 2) journal articles and books listed in this syllabus, 2) popular news articles, 3) internet (webpages and YouTube), and 4) existing lecture notes I found online provided by various lecturers from various universities. I would therefore like to place my sincere gratitude and credits to them.

Topics and Readings

1. Introduction to Behavioral Economics


2. Prospect Theory, Reference-Dependent Preferences, Endowment Effect and Loss Aversion


3. **Heuristics and Biases: Representativeness, Availability, and Anchoring**


4. **Framing, Mental Accounting, Reversal of Preference and Money Illusion**


5. **Present-Biased Preferences and Intertemporal Choice**


6. **Behavioral Game Theory I: Dictator Game, Ultimatum Game, Trust Game, Prisoner’s Dilemma, and Public-Good Game**


• Camerer, Colin (2003), Behavioral Game Theory, New Jersey: Princeton University Press (Chapters 1&2).

• Various readings.

7. **Fairness and Social Preferences**


- Various readings.

8. Behavioral Game Theory II: Mixed Strategies, Iterated and Dominance Solvable Games, Learning


- Various readings.

Disclaimer: The coverage of the syllabus may change subject to time availability.

Method of Instruction

This is a seminar-style course. Students are expected to engage in class discussions and are asked to make presentations based on the assigned reading materials. The class will meet once a week, with each session lasting for 3 hours.

Course Assessment
(Tentative and Subject to Changes)

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<thead>
<tr>
<th>Component</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Class Participation</td>
<td>10%</td>
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<tr>
<td>1st Project</td>
<td>20%</td>
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<tr>
<td>The “Nudge” project</td>
<td>20%</td>
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<tr>
<td>Final Examination:</td>
<td>50%</td>
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<td>100%</td>
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The weight and components of the course may vary depending on the exact number of students who eventually enrolled in this module. If the class becomes big, some of the components may become infeasible and I would therefore replace them with some alternatives.

1. Class Participation

I am not going to take your attendance every week, but instead I will do it randomly from time to time. You are encouraged to actively participate in class discussions, and you will be rewarded for your active participation.

2. 1st Project

It is a group assignment. Each group will consist of 5 members. In this assignment, your group is asked to come up with some (2 or more) examples of behavioural economics
based policies or strategies (e.g. behavioural *nudges*) designed by policy makers or firms to induce people to make ‘better’ decision or to ‘sway’ people’s decision towards the direction (good or bad) they want them to make. Your examples should include *good* (well designed) behavioural nudge(s) and *bad* behavioural nudge(s). The notion of ‘bad’ here could mean that the policy is either; 1) badly designed and therefore not optimal in achieving its goals, or 2) designed with the objective of taking advantage of people (e.g. marketing ploys).

Please elaborate what you think the objectives of these behavioural nudges and their design are and also the reasons why you consider them as either good or bad. If you could also relate them to behavioral economics concepts that you learn (or will learn) in class, that would be great).

Your group will be required to present in class. Every week we will have 3 presentations (15 minutes each). The exact schedule of the class presentations will be communicated in due time. Please submit your power point slides of your presentation.

Examples (‘Bad’ or ‘Good’):

The principle of *good* Nudges (Thaler, 2015):

1. All nudging should be *transparent* and *never misleading* (and simple to understand).
2. Should be as easy as possible to *opt-out* of the nudge (e.g. one mouse click).
3. Behavior being encouraged should *improve the welfare* of those being nudged.
3. **The Nudge project (your 2nd project).**

It is also a **group** assignment. This would be something exciting to do. Your group (with 5 members) is given a task to propose a simple behavioral economics solution to help policy makers designing environments and contexts that make it easier for people to choose an action that is best for themselves and for the society (examples: inducing healthy eating habit in people, making people quit smoking, solving traffic congestion problems, encouraging people to recycle, etc). Presentations will start on the second half of the course onwards. Every week we will have 2 or 3 presentations (15-20 minutes each). After you presented your project, you have to submit an executive summary of the nudge project you proposed written in a clear and concise way describing the problem you are tackling, the solution you propose, the behavioral economics aspects related to your proposed solution, and arguments why your proposed project is feasible to be implemented.

**This year your nudge project assignment will just get even more exciting!**

**Note:**

Since you have group projects, the problem of free riding within the group could become problematic. I hope you all contribute as best as you can to the betterment of your group project. Your individual grade may not necessary be the same as that of your group members.

You are also welcome to **report** to me any group member whom you think has not done his (her) best in the project and just ‘free-ride’ on other members’ effort.
Additional Readings

A. General Background Readings


