Research Master in Cognitive and Clinical Neuroscience

Specialisation Neuroeconomics

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Maastricht University

Neuroeconomics seeks to understand and explain (puzzling) everyday behavior.

So many choices.

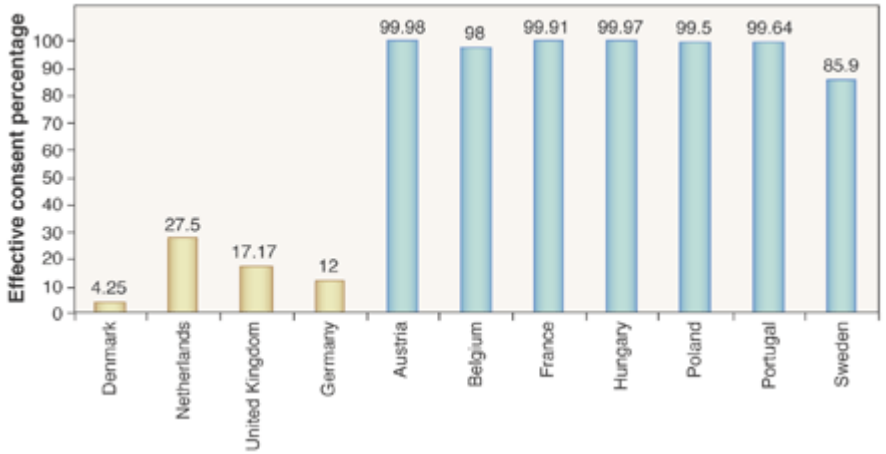
What is a good and a bad choice?

How do we choose?

Neuroeconomics seeks to understand and explain (puzzling) everyday behavior.

The power of defaults.

Organ donation rates in different countries.



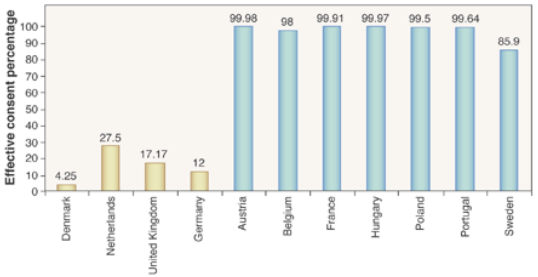
Neuroeconomics seeks to understand and explain (puzzling) everyday behavior

- Why are people gambling and taking insurance at the same time?

Neuroeconomics seeks to understand and explain (puzzling) everyday behavior

- What makes us humans greedy and cooperative at the same time?

Neuroeconomics seeks to understand and explain (puzzling) everyday behavior.

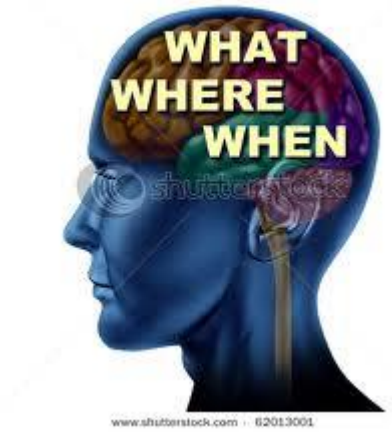


How does this all fit together?

Neuroeconomics is an interdisciplinary endeavor

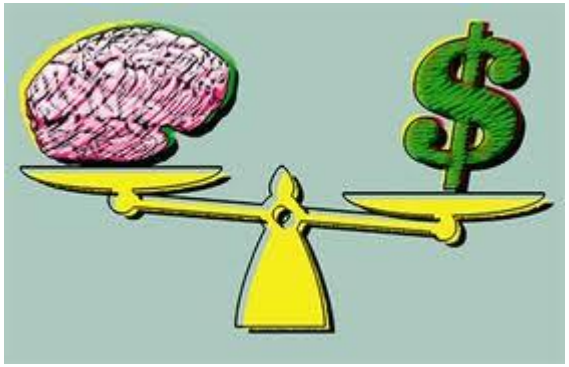
Neuroeconomics adds brain to economics.

- Neuroeconomics seeks to uncover the neuronal basis of our choices and behavior.



Neuroeconomics adds economics to neuroscience.

- Neuroeconomics looks at the brain as a system using limited resources.



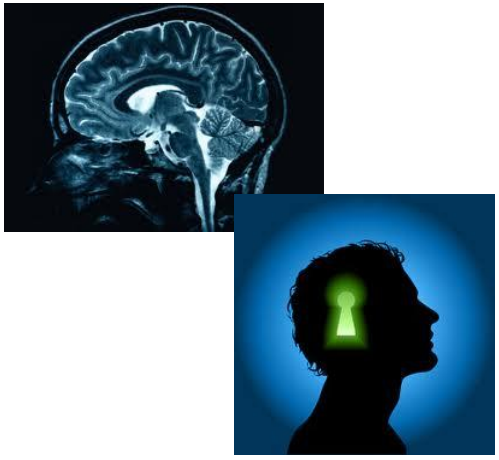
Tools and methods from economics, neuroscience, and psychology

Economics and Game Theory

Use the formal language of economics and game theory to model and predict behavior.

Economics Experiments

Use incentivized experiments without deception to explore behavior.



Neuroscience

Use methods from neuroscience to measure and explore neural processes underlying observed behavior.

Psychology

Use insights from psychology (illusions, heuristics, framing effects) to improve models of behavior.

The Neuroeconomics Curriculum.

Jointly offered by FPN and SBE, with courses at both faculties/schools!

The curriculum:

A. Behavior and Mind (at SBE at FPN)

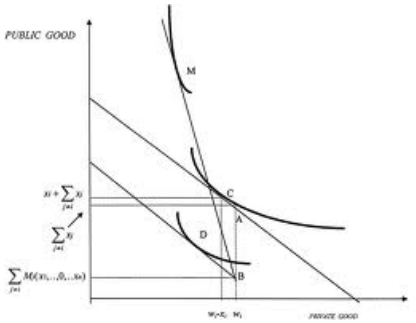
B. Neuroscientific Methods (at FPN)

C. Research Skills (at FPN and SBE)

D. Research (at FPN and SBE)

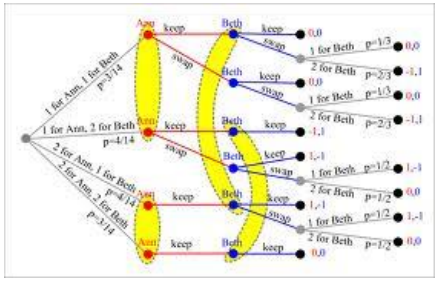
Behavior and mind

Psychology ~ Neuroscience ~ Economics



Decision & Equilibrium Theory

Social Neuroscience



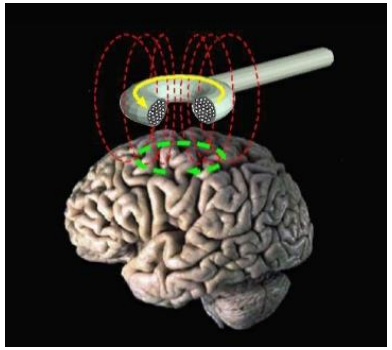
Game Theory & Information

Behavioral Economics

Neuroscientific methods

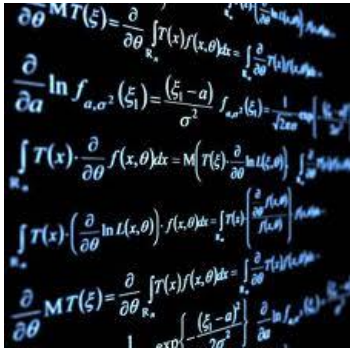
Imaging (fMRI)

Electroencephalography (EEG)
Magnetoencephalography (MEG)

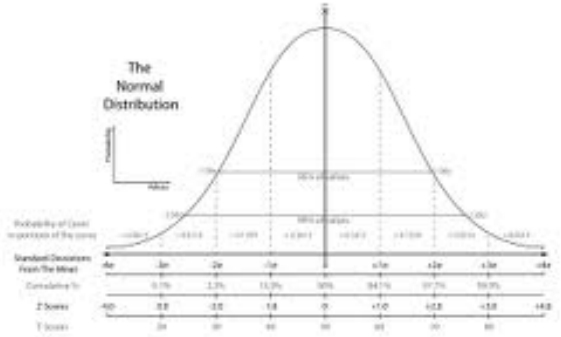


Transcranial Brain Stimulation (TMS)

Research skills



Mathematical Research Tools



Advanced Statistics

MATLAB & Brain Voyager

Experimental Economics Methods

Your own research

Almost the whole second year is dedicated to research:

A. **Research Grant Writing**

B. **Research Internship and Master Thesis**

In Maastricht: Excellent multidisciplinary research group at FPN and SBE.

Abroad: Students have joined research groups at CalTech, Cambridge, MIT, Oxford, WZB-Berlin, etc.

Topics: Range from individual decisions to social behavior.

Methods: Range from behavioral research to fMRI, TMS, …

Career focus

Optimal basis for fundamental and applied research in neuroeconomics and decision sciences:

- PhD careers at economics, psychology, or neuroscience department

Excellent preparation for advice in decision making and conflict resolution:

- Consultant and advisor at institutions and organizations.

More information? Questions?

- Meet us after the presentation:

  Roos Timmermans (1st year student)

  Matthias Wibral (me, track coordinator)

  m.wibral@maastrichtuniversity.nl

- Attend the Q & A session

- Visit our Research Master website or www.neuroeconomics.nl