

# Behavioral Economics

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# Modeling human behavior

- Why? For policy recommendations
- Classical economics: rationality / optimization
  - Optimum is benchmark,
  - People think, learn, ask others,
  - Useful: firms, average individuals, endogeneity (e.g., 70's)
- Psychology and behavioral economics
  - People make (systematic) mistakes
  - Distribution: maybe those failing most need most help

# Rationality

(Savage, von Neumann)

- Precise comparisons across alternatives,
- Stable preferences (context independent)

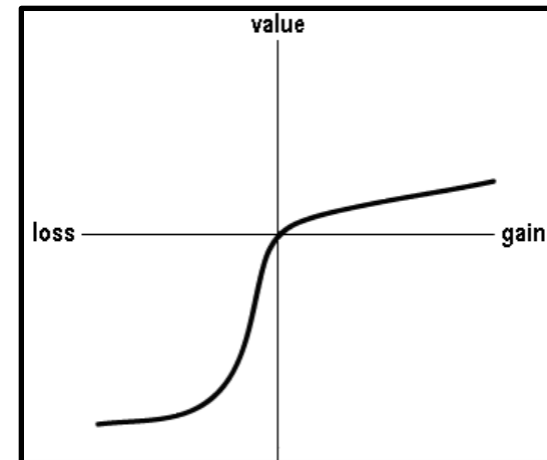
## AXIOMS:

1. Completeness:  $A \geq B$  or  $B \geq A$
2. Transitivity:  $A \geq B$  and  $B \geq C$ , then  $A \geq C$
3. Independence:  $A \geq B$ , then mix of A and C  $\geq$  mix of B and C
4. Continuity:  $A \geq B \geq C$ , then B as good as a mix of A and C,

then “rationality” and people behave as if they maximize **expected utility** – intrinsic valuations weighted by subjective probabilities.

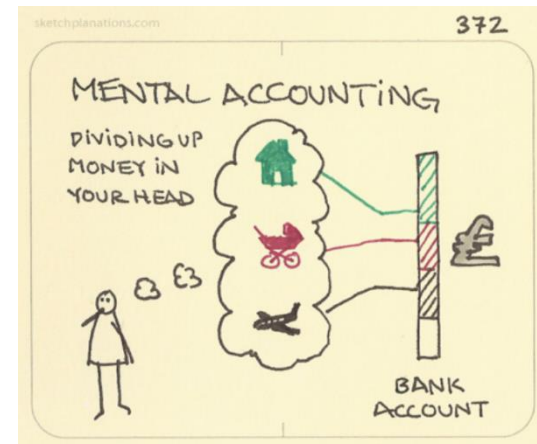
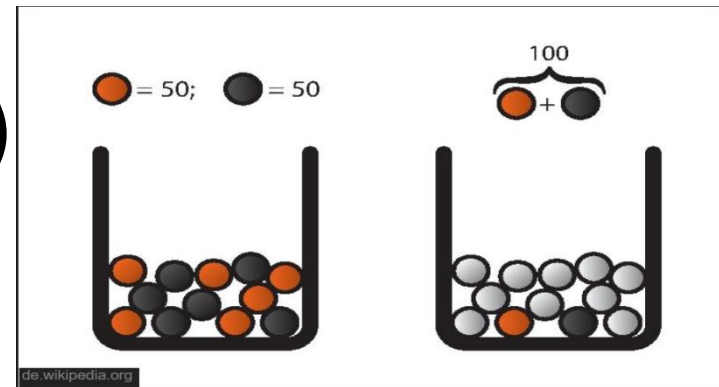
# Behavioral economics – deviations from rationality 1/3

- Deviations, collection of case studies
  - Self-control
  - Information / beliefs
  - Preferences: selfishness,
- Prospect theory (Kahneman, Tversky),
  - Loss aversion
  - Probability weighting function
  - Experiments in a lab



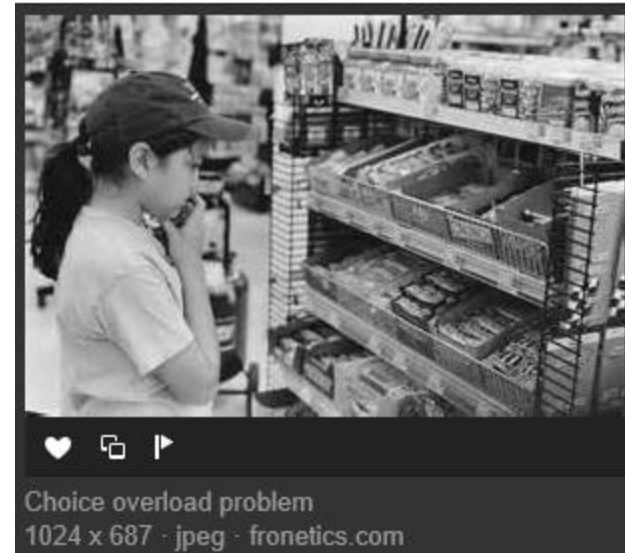
# Behavioral economics – deviations from rationality (independence) 2/3

- Ellsberg paradox: unknown uncertainty is painful, (Allais)
- Hyperbolic discounting (self-control)
- Mental accounting,



# Behavioral economics – deviations from rationality (info) 3/3

- Choice overload,
- Context dependence (decoys),
- Default choices, nudges.



## SHORTCOMINGS:

- How does behavior change with policy?
  - e.g., do rich adjust when defaults for poor?
- Cost vs accuracy of deliberation?
  - e.g, nudges manipulate; but for the better?

# Possible compromise: rational inattention

- Evidence: cognitive limitations a key,
  - Experiment: less self control when memory demands,
- Rational inattention (Sims)
  - Limited cognition with choice of what to think about
  - Potential to explain: systematic mistakes, context dep., defaults, choice overload, mental accounting,
  - Everything endogenous – useful for policy analysis.

# Take away

- Behavioral economics is full of insights,
- Don't abandon the classical approaches – good and lasting reasons,
- Take advantage of both.