

# Behavioural Economics

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## *Economics is a **behavioural** science*

Observe → build theories → draw implications

Practitioners are usually way ahead... (winners curse, marketing)

Theory → Data → **Paradox** → New theory is born

Paradoxes are the reason why economics reaches into psychology and becomes what we refer to as “behavioural economics.”

One of the first and well known behavioural paradoxes:  
Water-diamond paradox (Adam Smith, 1759)

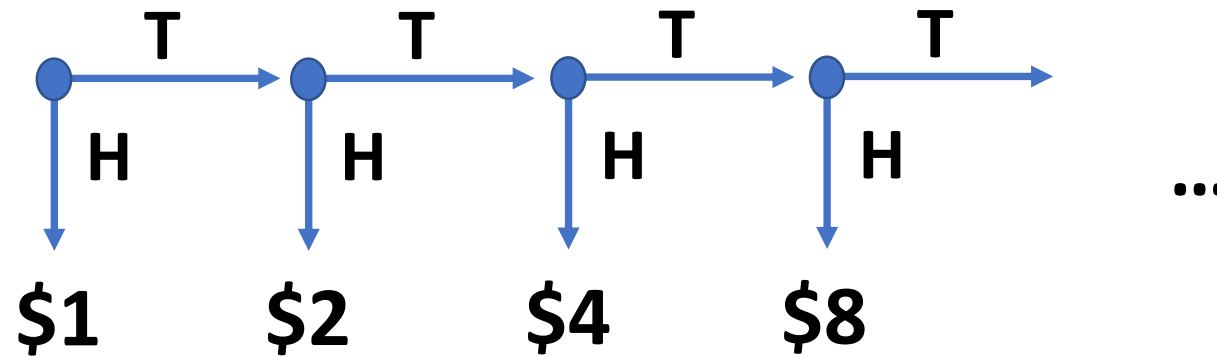


→ diminishing marginal utility

Economics: a step toward **psychology**:

St. Petersburg paradox (Bernoulli, 1738/1956):

Flip a coin until Heads comes up; pay  $\$2^{\text{\# of tosses}}$



How much would you pay to play this game with me?

→ dim. marg. utility over \$ implies risk aversion

Economics becomes **more psychological**:

Exotic disease paradox (Kahneman & Tversky, 1979)

**A.** Cure saves 90% of people

vs.

**B.** Cure fails and people die 10% of cases

People are more favorable in case of A

→ editing of outcomes (gains and losses) and probabilities leads to prospect theory

To present day: economics getting **even more psychological**

Model of decision making:

1. **preferences**; 2. **beliefs**; 3. **solution concept**

Example:

		Opponent's choice	
		Coop.	Def.
Your choice	Coop.	\$4      \$4	\$0      \$5
	Def.	\$5      0	\$1      \$1

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*If observe  
Cooperate  
what does it  
mean?*

*What is failing?*



## Behavioural work: advances

1. **Preferences:** reference dependence (risk/time), social preferences, emotions (psychological games)
2. **Beliefs:** correlation sometimes wrongly ignored, sometimes wrongly believed
3. **Solution:** noisy choice (QRE), hierarchical thinking (k-level), coarse thinking, theory of mind

**Warning:** beware of the degrees of freedom (flexibility) “One can cook up a *behavioural soup* to explain almost anything ...”

# Nobel prize in the last 5 years: worked on behavioural topics



2012: Alvin Roth: market design



2013: Robert Shiller: exuberance in markets



2015: Jean Tirole: self/social image concern



2017: Richard Thaler: too many...