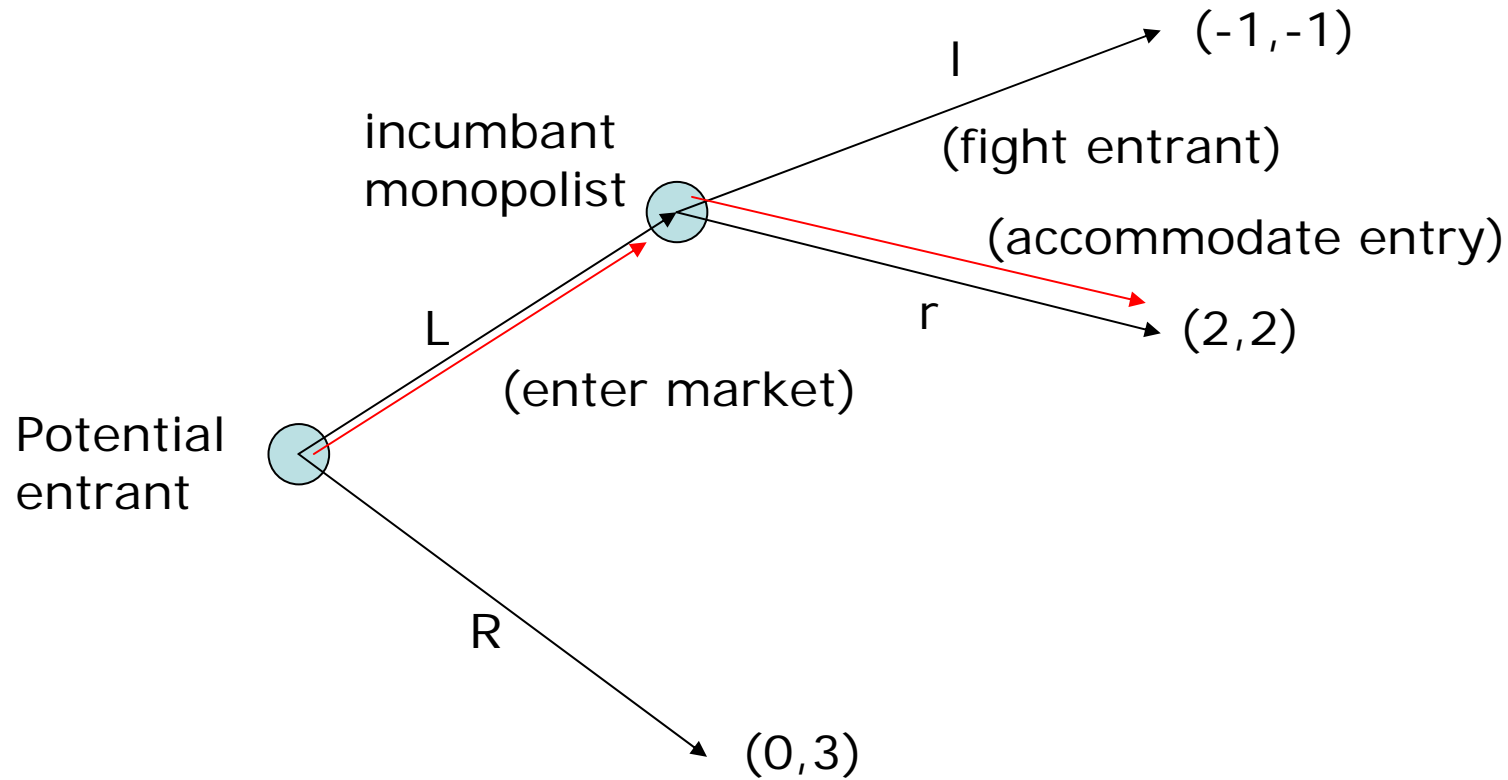


# BEEM109 Experimental Economics and Finance

How selfish are people?

# Potential entry



Subgame perfect Nash equilibrium:  $(L, r)$

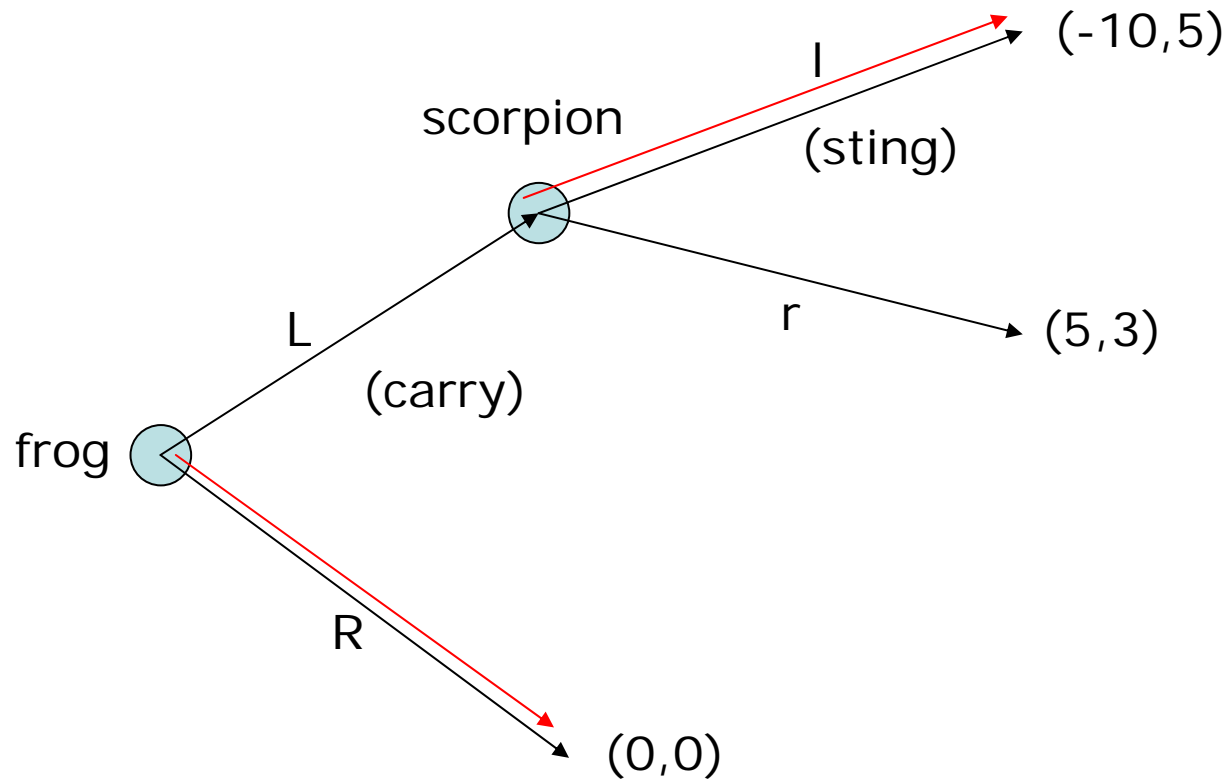
# Other Nash equilibria?

		<b>2</b>	
		<b>l</b>	<b>r</b>
<b>1</b>	<b>L</b>	-1	2**
	<b>R</b>	0	3

The table is a 2x2 matrix with a diagonal line from the top-left to the bottom-right. The top-left cell contains -1, the top-right cell contains 2, the bottom-left cell contains 0, and the bottom-right cell contains 3. A red arrow points from the top-left cell to the top-right cell. A red arrow points from the bottom-left cell to the bottom-right cell. A red arrow points from the top-left cell to the bottom-left cell. A red arrow points from the top-right cell to the bottom-right cell. A red horizontal line is drawn below the bottom row of the matrix. The cell containing 2 is highlighted with a red square and two asterisks (\*\*). The cell containing 3 is highlighted with a red square and one asterisk (\*).

Schelling, Selten: (L,l) is not a credible Nash equilibrium because if 2 would have to move he would play R.

# The scorpion and the frog



(do not carry, sting)  
Incredible promise?

# Ultimatum Bargaining

- Güth, Schmittberger, Schwarz (1982) £10 to divide
- Proposer specifies a division
- Responder has to accept division or reject
- In case of rejection, both get zero
- Version with minimal accepted offer (MAO)

# Ultimatum Bargaining

- Subgame perfect Nash-equilibrium:  
Proposer leaves a penny
- Actual (typical) result:
  - Proposers offer between 50% and 60%
  - Responders reject demands above 70% with probability 40% -66%
  - Proposers too pessimistic

# Camerer:

If I had a dollar for every time an economist claimed that raising the stakes would drive ultimatum behavior toward self-interest, I'd have a private jet on standby all day. Many experimental studies have raised stakes (see Camerer and Hogarth, 1999).<sup>5</sup> In simple tasks such as ultimatum games, paying extra

# Dictator game

- £10 to divide
- Proposer specifies a division
- This is automatically accepted
- Subgame perfect Nash-equilibrium:  
Proposer leaves zero



# Dictator games

- Theory: dictator takes all
- Experiments: this is indeed often the case
- Still, in some experiments around 20% split 50%-50%

# Variables

- Methodological variables
  - Repetition: weak effects
  - Stakes: (Cameron) Roth / Aumann, List and Cherry: 25% reject \$100 out of \$400; Andreoni and Miller: The price of altruism (different value of pie to responder); selfish, Rawlsian, utilitarian
  - Anonymity and Experimenter “Blindness”, weak
- Demographic variables
  - Gender: mild evidence that woman reject less often and offer more to men. Third party punishment: Female punish more and are “better shoppers”, more than 50% Rawlsian
  - Race: Black students offer more and reject more often, white students did not repay trust of Chinese
  - Academic major: Economics vs other subjects (education or self-selection?)
  - Age (before 5, 5- 7, 7+), height!
  - Brains, biology (testosterone) and beauty

# Variables

- Culture: Roth et al: Israeli and Japanese less than Americans and Slovenians, Buchan et al: Japanese more generous than Americans
  - Henrich, Camerer, Fehr et al:
    - Machiguenga
    - Ache headhunters and Lamerla whalers
- Descriptive variables: weak framing effects

# Variables

- Structural Variables: changes in the game
  - Identity: revealing identity of receiver, face to face, general knowledge questions determine proposer
  - Competitive pressure and outside options
    - Raises demands in dictator games
    - Outside options make standard of fairness unclear
    - Multiple responders
  - Incomplete information on pie size
    - Reduces demand of responder, Abbink et al...
  - Multiperson: Gueth + van Damme
  - Intentions: mini ultimatum game

# The trust game

- Example of Tokyo
- Berg, Dickhaut and McCabe
  - Investor invest  $T$  and keeps  $X-T$
  - Allocator splits  $(1+r)T$  between himself and the investor
  - Subgame perfect equilibrium?
  - Average repayment around 95%, except in Bulgaria (+), and Kenia (-)
  - Crop sharing
  - Video taped experiments
  - Trust and reciprocity
- Fehr, Kirchsteiger, Reidl: gift exchange game, labour markets

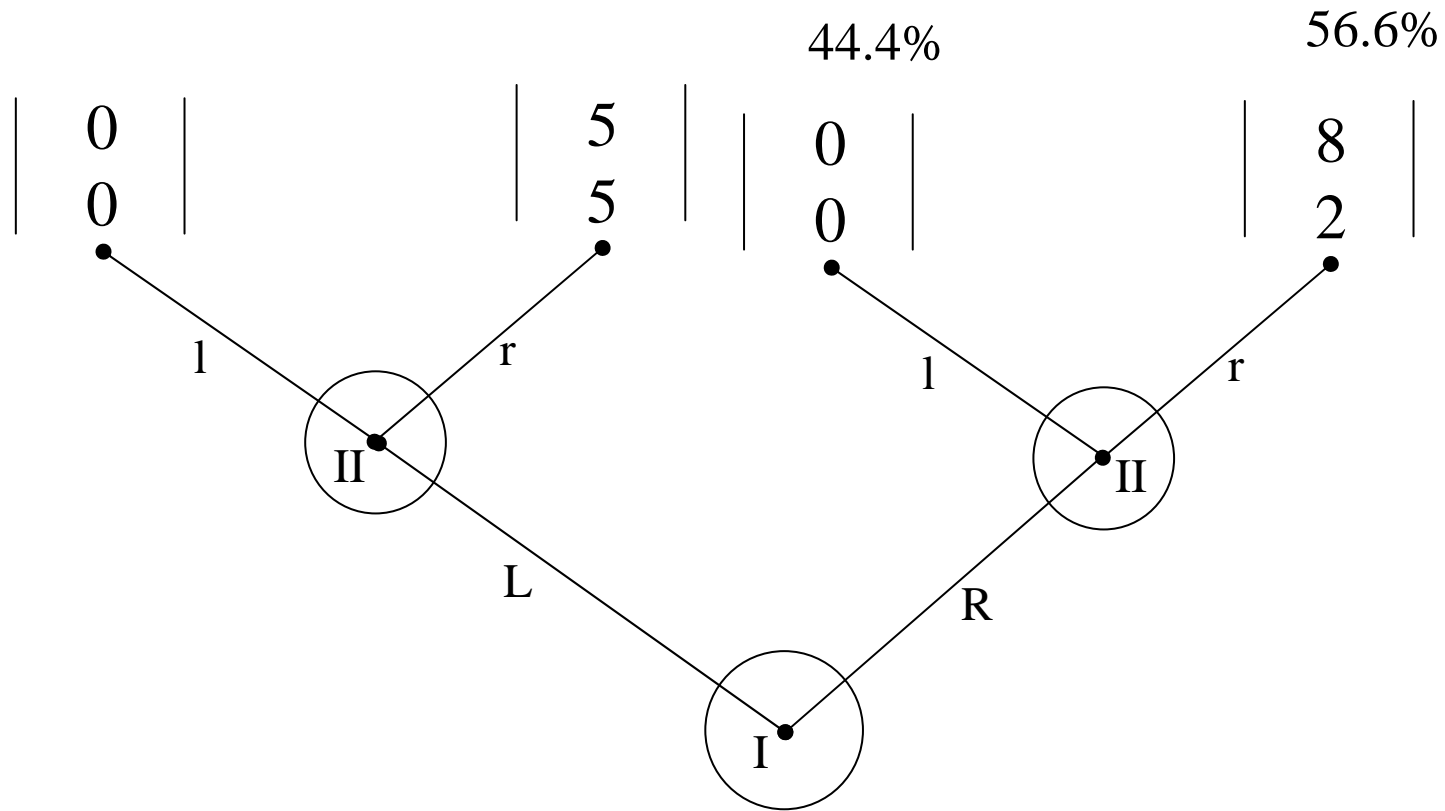
# Fairness

- The results contradict selfishness, but not rationality
- Fehr / Schmidt; Bolton / Ockenfels: fairness preferences
- Key: different fairness attitude of players
- Game with “incomplete information”
- Shaked’s critique

# Fehr / Schmidt preferences

- $x$ : my monetary payment,  $y$ : your monetary payment
- My utility:
  - if  $x < y$ :  $u(x,y) = x - \alpha(y-x)$  (e.g. envy, spite)
  - if  $x \geq y$ :  $u(x,y) = y - \beta(x-y)$  (e.g. guilt)
- “inequity aversion”, not altruism!
- $\alpha$ ,  $\beta$  vary among individuals

# Falk Fehr Fischbacher I





# Falk Fehr Fischbacher II

