

(First lecture after midterm)

Cash in a hat

Player 1 can put \$0, \$1, or \$3 in a hat
 The hat is passed to player 2
 Player 2 can either "match" (ie add the same amount)
 or take the cash

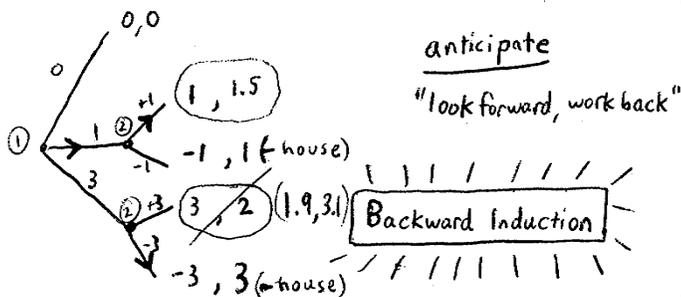
payoffs player 1 $\begin{cases} 0 \rightarrow 0 \\ 1 \rightarrow \text{double if match, } -1 \text{ if not} \\ 3 \rightarrow \text{ " " " " , } -3 \text{ " "} \end{cases}$

player 2 $\begin{cases} \text{net } 1.5 \text{ if match } 1 \\ \text{net } 3 \text{ if match } 3 \\ \text{the } \$ \text{ in the hat if takes} \end{cases}$

« Toy version of lender and borrower »

Sequential Move Game

player 2 knows player 1's choice before 2 chooses
 player 1 knows that this will be the case



Moral hazard

« agent has incentives to do things that are bad for the principal »

example // kept the size of loan/project small to reduce the temptation to cheat

- « solutions »
- laws
 - limits/restrictions on money
 - break loan up
 - change contract to give incentives not to shirk »

« Incentive design » "a smaller share of a larger pie" can be bigger than a large share of a small pie.

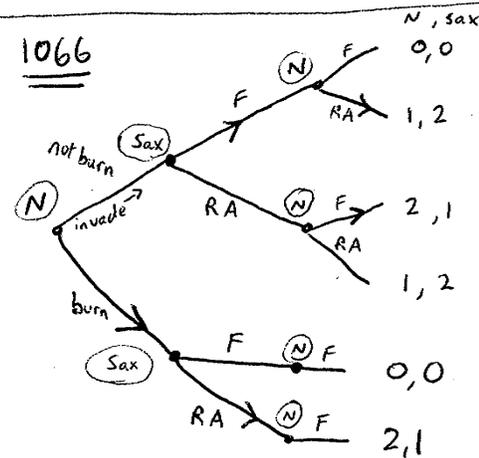
« Incentive Contracts: CEOs Baseball Managers »

Piece rates } incentives
 Share cropping }

Collateral « subtract house from run away payoffs: »

↓
 « lowers payoffs to borrower at some tree points, yet makes the borrower better off »
 lowers your payoffs (if you do not repay) ⇒ better off
 Changes the choices of others in a way that helps you

Commitment strategy

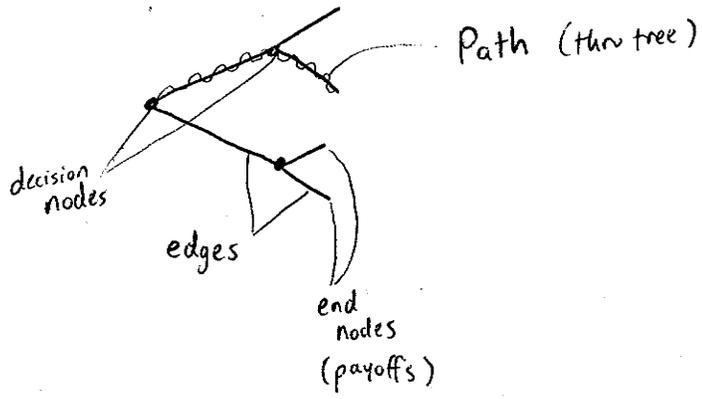


« getting rid of choices can make me better off »

COMMITMENT FEWER OPTIONS
 CHANGES BEHAVIOR OF OTHER
 THE OTHER PLAYERS MUST KNOW

« Backward Induction is important »

Tree



Lion game