# Economic Analysis of Self-Help

Huabing Li (Bing)

# I. Research Motivation

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## What is self-help?

- Rights are infringed

- No neutral third party to resolve the dispute

- Rely on own force or effort

- Without going to court or arbitration

## Examples

- Pickpocket

- "Okupas"(Squatting)

- www.airhelp.com

# I. Research Motivation

## Questions …

- Why do so many people choose to use self-help to defend their rights?

- How do self-help relate to other tools in the rights redress system?

- How should the law respond to self-help?

## Why important?

- In many areas of extreme inequality and institutional backwardness

- In developed industries and new rights

- Law and justice outside courts

# I. Research Motivation

Self-Help in the Redress System: A Game Theory Model

Choices in the Real World: A Behavioral Experiment

Legal Responses to Self-Help: Empirical Findings
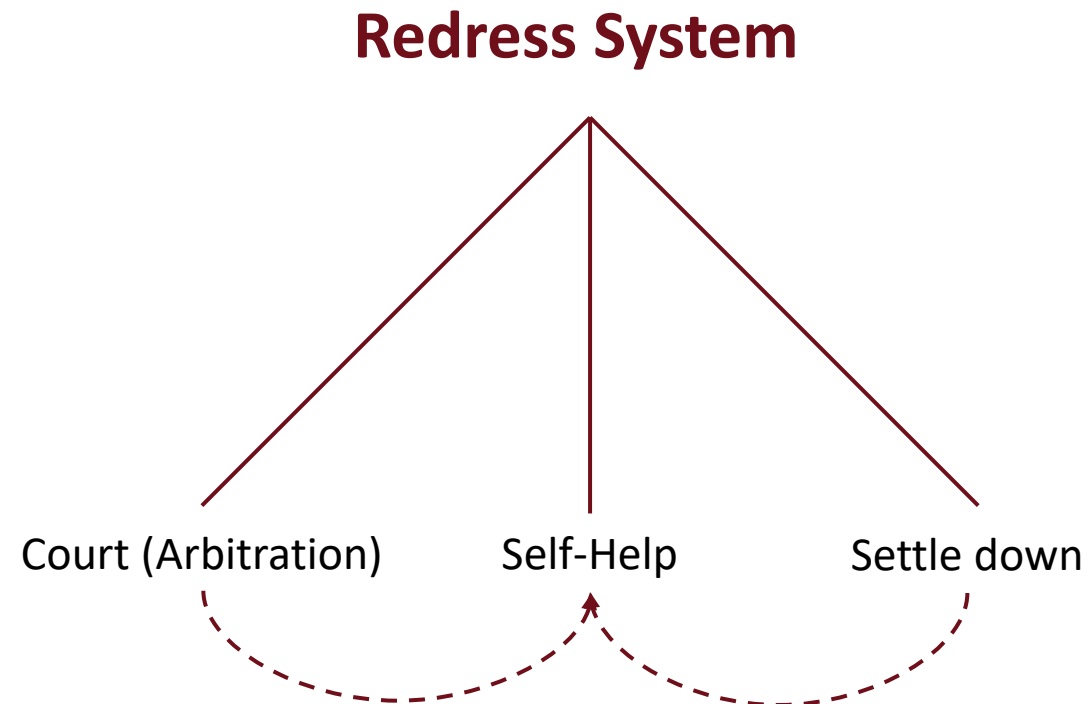
# II. Self-Help in the Redress System: A Game Theory Model

## Systematic view of self-help

- "You think I'm trying to help myself? I was having to help myself!"

**Redress System**



Court (Arbitration)      Self-Help      Settle down

# II. Self-Help in the Redress System

## Court system

- **1:** the infringed party; **2:** the infringer

- **$C_1$:** cost and effort of the infringed party; **$C_2$:** cost and effort of the infringer

- **Payoffs in the very beginning:** (0, T)

## How should the court decide?

- Give the property to the people who values it most!

- Let p represent the probability that $C_1$ win the game, then…

- $C_1$ >> $C_2$ => p = 1; $C_2$ >> $C_1$ => p = 0; $C_1$ = $C_2$ => p = 0.5

- $\frac{\partial p}{\partial C_1} > 0$ and $\frac{\partial^2 p}{\partial C_1{}^2} < 0$; $\frac{\partial p}{\partial C_2} > 0$ and $\frac{\partial^2 p}{\partial C_2{}^2} < 0$

**e.g. $p = \dfrac{C_1}{C_1 + C_2}$**

## Court system (cont.)

- Rule: the people who puts more effort in sue wins the game; the lost pay both parties' cost.

- For the infringed party:

$$E_1 = \frac{C_1}{C_1 + C_2} \times T + \left(1 - \frac{C_1}{C_1 + C_2}\right) \times (-C_1 - C_2) = \frac{C_1}{C_1 + C_2} \times T - C_2$$

- For the infringer:

$$E_2 = \frac{C_1}{C_1 + C_2} \times (-C_1 - C_2) + \left(1 - \frac{C_1}{C_1 + C_2}\right) \times T = \frac{C_1}{C_1 + C_2} \times T - C_1$$

- **And they want to maximize their expectation!**

# II. Self-Help in the Redress System

## Court system (cont.)

- For the infringed party:

$$\frac{\partial E_1}{\partial C_1} = \cdots = \frac{T \times C_2}{(C_1 + C_2)^2} \geq 0$$

- For the infringer:

$$\frac{\partial E_2}{\partial C_2} = \cdots = \frac{T \times C_1}{(C_1 + C_2)^2} \geq 0$$

- **The optimal strategy is to keep increasing inputs until the maximum => Chicken Game!**

# II. Self-Help in the Redress System

## What about settlement?

- Coase Theory …

- "Who are you to talk to me about settlement?"

- No incentive

## And self-help?

- Dynamic games

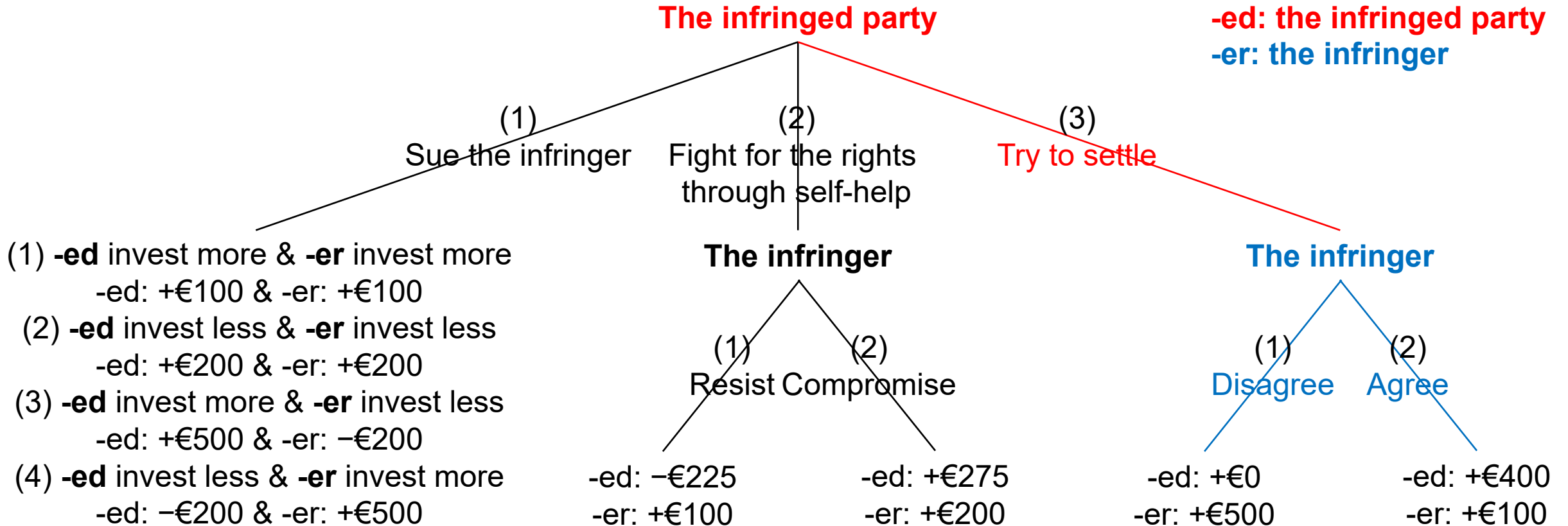- Backward induction

- Threats harsh enough

**=> Compromise!**
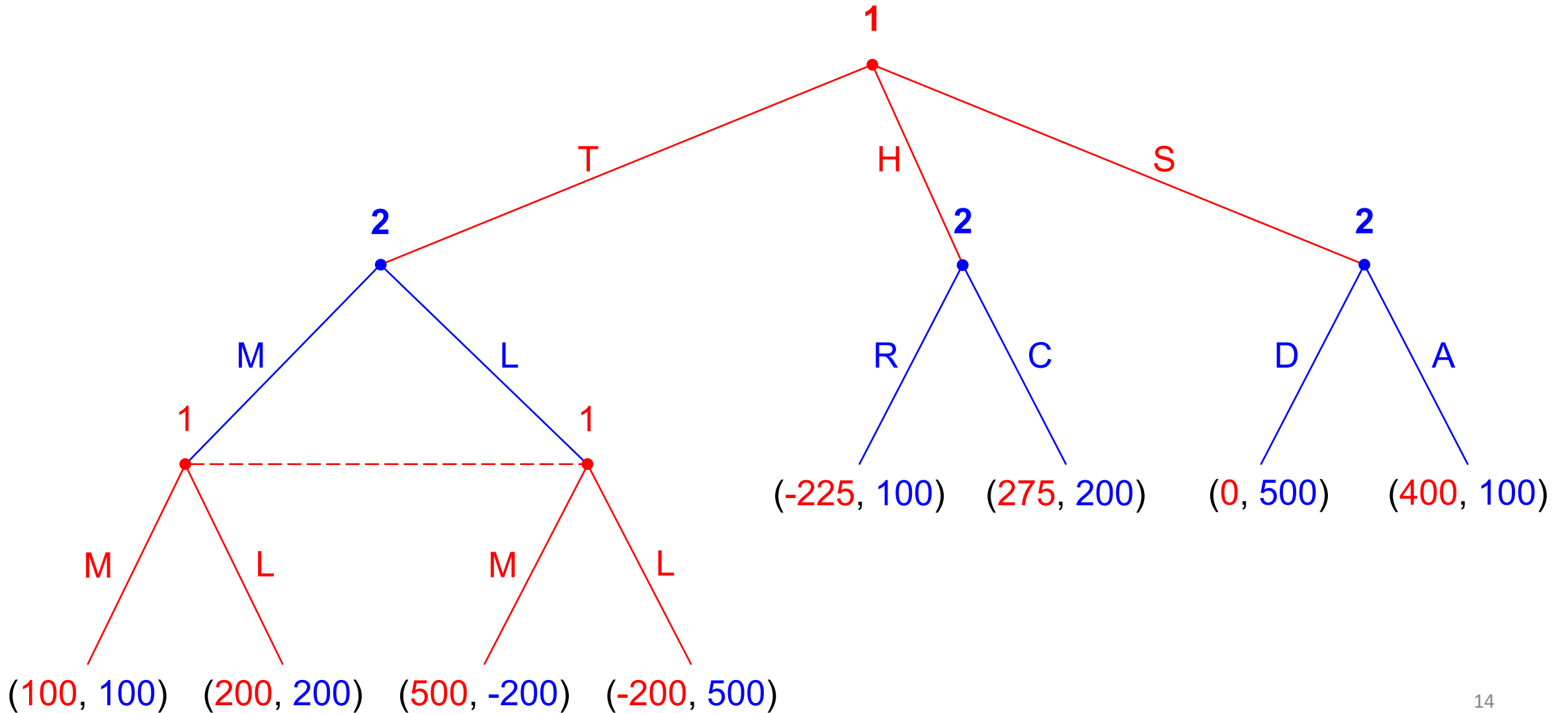
# III. Choices in the Real World: A Behavioral Experiment

# III. Choices in the Real World

**The infringed party**

(1)
Sue the infringer

(2)
Fight for the rights through self-help

(3)
Try to settle

(1) **-ed** invest more & **-er** invest more
   -ed: +€100 & -er: +€100
(2) **-ed** invest less & **-er** invest less
   -ed: +€200 & -er: +€200
(3) **-ed** invest more & **-er** invest less
   -ed: +€500 & -er: −€200
(4) **-ed** invest less & **-er** invest more
   -ed: −€200 & -er: +€500

**The infringer**

(1) (2)
Resist Compromise

-ed: −€225       -ed: +€275
-er: +€100       -er: +€200

**The infringer**

(1) (2)
Disagree   Agree

-ed: +€0       -ed: +€400
-er: +€500     -er: +€100

https://self-help-english.onrender.com/join/kizodini

13

# IV. Legal Responses to Self-Help: Empirical Findings

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**Does more refined legislation on self-help leads to less inappropriate self-help?**

- E.g., China Civil Code (2020)

- Difference in differences

**Does reducing the expense of the justice system and increasing the speed of litigation help reduce inappropriate self-help?**

- Online litigation reform

- Many empirical method

**……**

# Wish you a happy day!

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