Law And Economics

Tort Law: Unilateral Care

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Tort Law

- **Tort Law**: area of the law that is concerned with accidental injuries.

  Examples:

  - Personal injuries.
  - Product Liability.
  - Workplace accidents.
  - Medical Malpractice.
  - Environmental Accidents.

- Risk zero is, generally, not efficient! However, incentives to curb risks are important.

Other ways to control risk

Tools to mitigate risky behavior:

- Safety & Hygine regulations.
- Criminal penalties.

Tort law: private remedy that gives the right of accident victims to sue injurers for damages.

Elements of Tort Claim

- Enforcement in hands of the victim.

- Burden of the proof on the plaintiff.
  - She sustained some damages.
  - The defendant was the *cause* of those damages.

Causation

Self-driving technology example.

"The Coming Collision Between Autonomous Vehicles and the Liability System" by Gary Marchant and Rachel Lindor.

Liability Rules

How damages should be splint between the injurer and the victim?

- No liability: victim bears all damages.
- Strict liability: all damages on the injurer, independently of the actions.
- Negligence rule: Injurer is fully liable if he is found to be at fault.
- Contributory negligence: Injurer is fully liable unless the victim is found to be at fault.

Tort Law

- **Costs of accidents**:
  - Damaged suffered by victims.
  - Cost of precautions by potential injurers.
  - Cost of precautions by potential victims.
- In this section we present a *unilateral* model of precaution: only injurers can affect the probability of accident.

The unilateral Care Model

- x: investment in precaution by injurer.
- $p(x)$: probability of accident.
- D: dollar losses suffered by the victim. D is a random variable whose distribution, conditional on accident, depends on x.
- Let $D(x) = E_x[D|\text{accident}]$

Assumption: $p(\cdot)$ and $D(\cdot)$ are decreasing convex functions.

Social Optimum

$$\min_{x \geq 0} \quad E[x + D] \quad = \quad \min_{x \geq 0} x + p(x)D(x)$$

Solution x^*.

Care choice by the injurer

What level of care would the injurer choose? this depends on the liability rule: $\psi(x, D)$.

Implicit assumption: level of care is ex-post observable. Also total damages.

$$\min_{x \geq 0} E[x + \psi(x, D)]$$

- Any ψ such that $x^* \in \arg\min_{x \geq 0} E[x + \psi(x, D)]$ recovers efficiency.
- What would Coase theorem say about this?