An Economic Theory of Tort Law

Lecture 6

Defining Tort Law

- For some kinds of harm, the cost of bargaining high, (drivers and negotiation)

- For other kinds of negotiations, the absolute cost are low, but the relative costs are high, (hunters could negotiate an agreeent to allocate cost of an accident-large cost, but small probability of an accident)

- Gap exists within property and contract law when high transaction costs (Coase type of costs) preclude bargaining →

- Tort law („law-French")-third body of law, transaction costs of private agreements high compared to contract law

- Tort liability-induces injurers and victims to internalize the costs of harm. Making the injurer compensate the victim

- Examples (Joe Potatoes-intentional tort and obstacle to cooperation, three hunters-unintentional, low level of quality control of cars-ignorant consumers and keeping information private)

The traditional theory of tort liability

3 conditions for recovery by the plaintiff:

- the plaintiff must have suffered harm

- the defendant´s act or failure to act must cause the harm

- the defendant´s act or failure to act must constitute the breach of a duty owed to the plaintiff by the defendant

Harm

- Plaintiff must have suffered harm (example-workers exposed to chemical)- "it has to happen"

- Economic interpretation-downwards shift in utility or profit function of the victim

- Charlie´s utility function $u_0 = u(H_0, W_0)$

Where H_0....health, W_0.....wealth

Amanda injures Charlie, his utility falls (H_1, W_1)

- Amanda-restores Charlie satisfaction to level u_0

- Money damages-traditional means (the size of compensation?)

- If Charlie´s health stuck at H_1-irreparable damage-Amanda could restore it by...
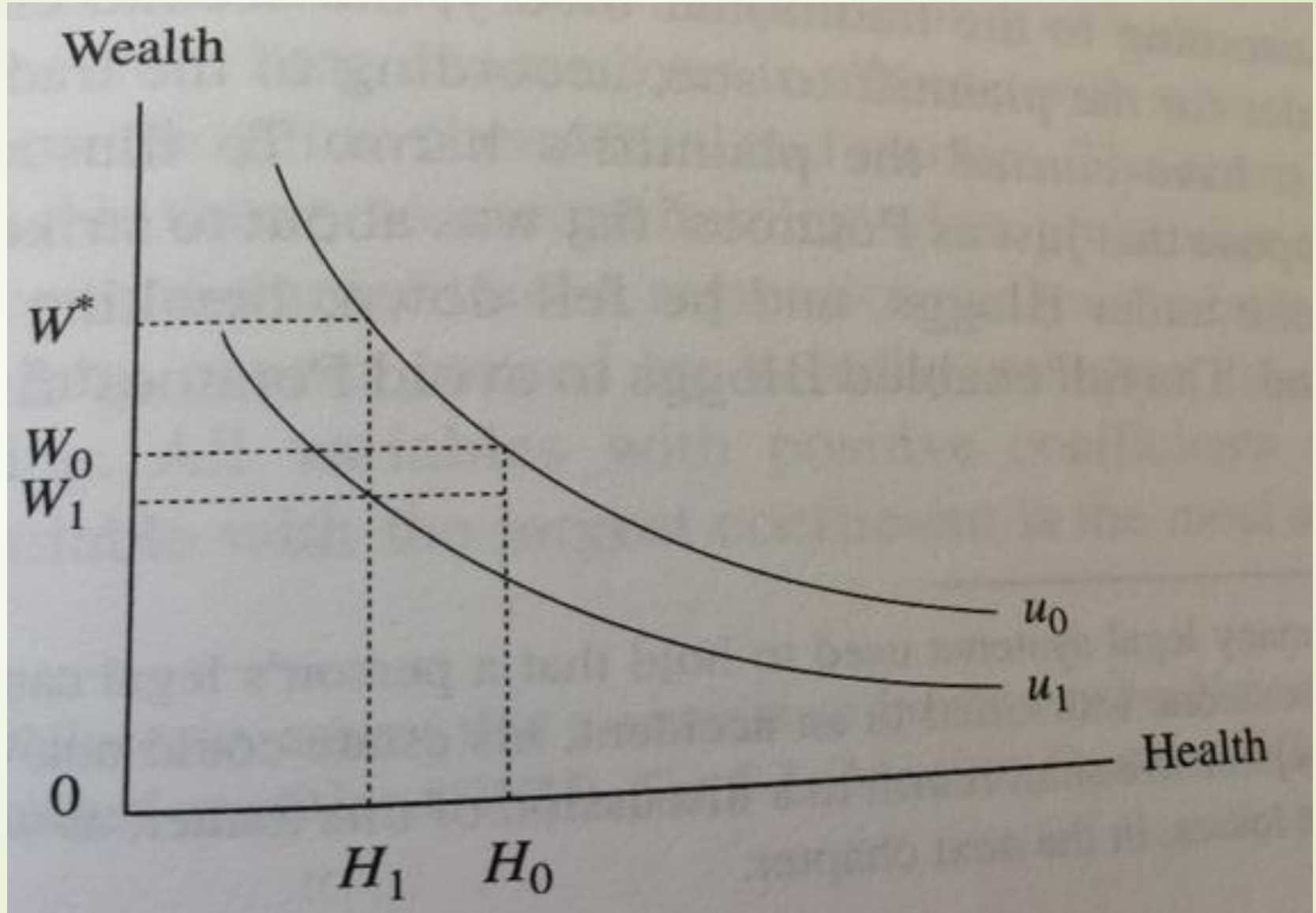
Harm

- In reality –tort law limits the harms for which victims receive compensation
- *Tangible losses* -easy to compensate, (medical costs, lost income, cost of replacing damaged property)
- *Intangible losses*, (emotional harm, distress, loss of companionship, pain and suffering)
- Expansion over time towards intangibles
- *Perfect compensation*- a sum of money sufficient to make the victim equally well off…
- *Liability disparity*- occurs when the same court awards different amounts of compensation to victims who suffered identical injury, (American, Germans, Japanese)

Cause

- Defendant must have caused the plaintiff´s harm

- Potatoes fist was about to strike Bloggs nose. The floor board broke under Bloggs. He fell down, breaking his nose. There is a wrong (throwing a punch) there is damage (broken nose), but the former did not cause the latter. Without causation, Potatoes is not liable for the harm.

- Torts and morality (three hunters equally reckless, only hunter who caused a harm is liable)

- „cause in fact"-simple criterion „the but-for test" to decide wehther action A was the cause in fact of event B

„But for A would B have occured? If the answer is no, then A is the cause-in fact of B.

Example: Potatoes-unclear whether Potatoes´ punch was the cause-in-fact of broken nose. Punch not necessary condition.

Cause

- Multiple causes of harm (cause in fact becomes useless)-the person whose parents died from lung cancer…, courts-difficulties

- Sequence of events that precede an injury- distant causes have the same weight as proximate causes, (Joe´s parents-remote cause, Potatoes fist-the proximate cause), plaintiff standing on platform hit by explosion)

- Expression of cause with help of function, (Amanda´s smoking in her utility function affects Charlie´s health in his utility function, functions interdependent because of S)

$u_c = u_c(H(S), W)$, $u_a = u_a(S, ..)$.

Breach of duty

- Strict liability-a rules based upon harm and causation, this rule applied for abnormally dangerous activities

- Negligence rule-rule of liability requiring the plaintiff to prove harm, causation and fault. Permits the defense that the accident occurs despite the fact that the injurer satisfied all of the applicable standards of care

- **Economic representation of fault**

x…the level of precaution (a legal standard prescribing the minimum acceptable level of precaution)

-plaintiff must demonstrated that defendant breached this duty of care

$\tilde{x}$….the legal standard

Breach of duty

- $x < \tilde{x}$…the actor is at fault

- $x \geq \tilde{x}$ …the actor is not at fault

precaution as great or greater than legal standard- escape liability for another´s person accidental harms

less precaution- compensatory damages for another person´s accidental harms.

- Duty of reasonable care (common law)

- Abuse of right (civil law)

- Strict liability (clans, tribes Europe of 19th century), negligence rule (20th century)

An economic theory of tort liability-minimizing the social costs of accidents

Developing the model of const internalization by tort law:

- x...level of precaution

- p...probability of an accident, p=p(x) (decreasing function)

- A.....the monetary value of the harm from an accident

- p (x)A...the expected harm in dollars-**costs of harm**

- taking precaution involves costs $w per unit, (the loss of money, time, convenience)

- wx...the total amount spent on precaution-**costs of precaution**
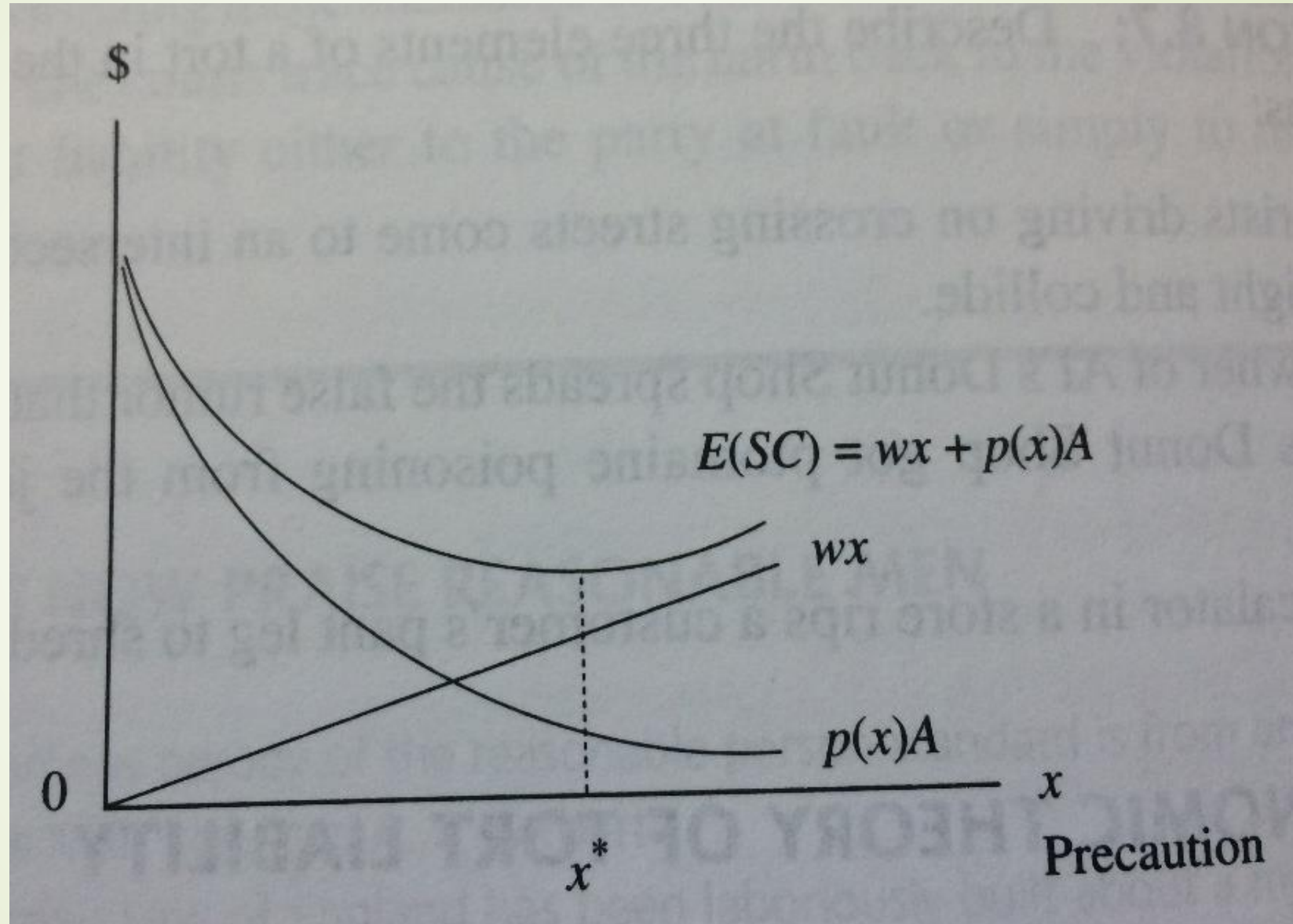
An economic theory of tort liability- minimizing the social costs of accidents

- $SC=wx+p(x)A$

SC...the expected social costs accidents, (U shaped curve)

- $x*$...the level of precaution that minimizes the expected social costs of the accident

More precaution reduces the expected cost of harm (=which reduces probability of an accident multiplied by cost of harm)

$(w)= -p´(x). A$

if $x*$ is less than the efficient amount MC‹MB, take more precaution, otherwise less

-sometimes only one person takes precaution (surgeon and his patient), sometimes both (manufacturer of drug, consumer)

Table 8.1
Example of Accidents and Precaution

ACCIDENT	INJURER'S PRECAUTION	VICTIM'S PRECAUTION
faulty electrical wiring causes house fire	manufacture wiring more carefully	fireproof house
moving car hits parked car	drive more safely	park car in safer space
car hits pedestrian	drive more safely	walk more safely
software fails	better design of software	back up data at risk
exploding coke bottle	improve quality control by bottler	handle bottles carefully
medicine causes side effects	improve warning on medicine	study warning on medicine

Incentives for precaution under no liability and strict liability

- No liability for accidental injuries

-no liability, victim bear the expected harm

$TC = w_v x_v + p(x_v)A$

$w_v = -p'(x*_v)A$

Victim´s marginal cost of precaution=victim´s marginal benefit.

Victim behaves efficiently-internalization of marginal costs and benefits

- The injurer strictly liable and the victim perfect compensation

-the victim pays to cost w_v for x_v units of precaution and the expected cost of harm $p(x_v)A$, he receives $D=A$

$TC_v = w_v x_v + p(x_v)A - p(x_v)D$

perfectly compensatory damages-no incentive to take precaution. Victim indifferent (externalizes benefits, internalizes cost of precaution)

Incentives for precaution under no liability and strict liability

- Strict liability with perfect compensation and injurer

-x_i…the amount of precaution taken by the injurer, he pays the cost w_i for x_i units of precaution, he must pay damages D=A, where $p(x_i)A$ is injurer´s expected liability

$TC_i = w_i x_i + p(x_i)A$

$w_i = - p´(x_{i*})A$

Injurers MC and MB

-perfectly compensatory damages-causes the injurer to internalize MC and MB of precaution-incentives for efficient precaution

- No liability and injurer

-he bears the cost of precaution $w_i x_i$, pays damages D=0

$TC_i = w_i x_i$

-no incentive to take precaution

Bilateral precaution

- Unilateral and bilateral precaution

- $SC = w_v x_v + w_i x_i + p(x_v, x_i)A$

-social costs minimized at positive values of precaution for both parties

$x*_v > 0$

$x*_i > 0$

Neither the rule of strict liability nor the rule of no liability creates incentives for efficient precaution by both parties as required for efficiency under the assumption of bilateral precaution.

Paradox of compensation

Solution-negligence rule

Incentives for Precaution under a Negligence Rule

- ➧ $\tilde{x}$…   the legal standard
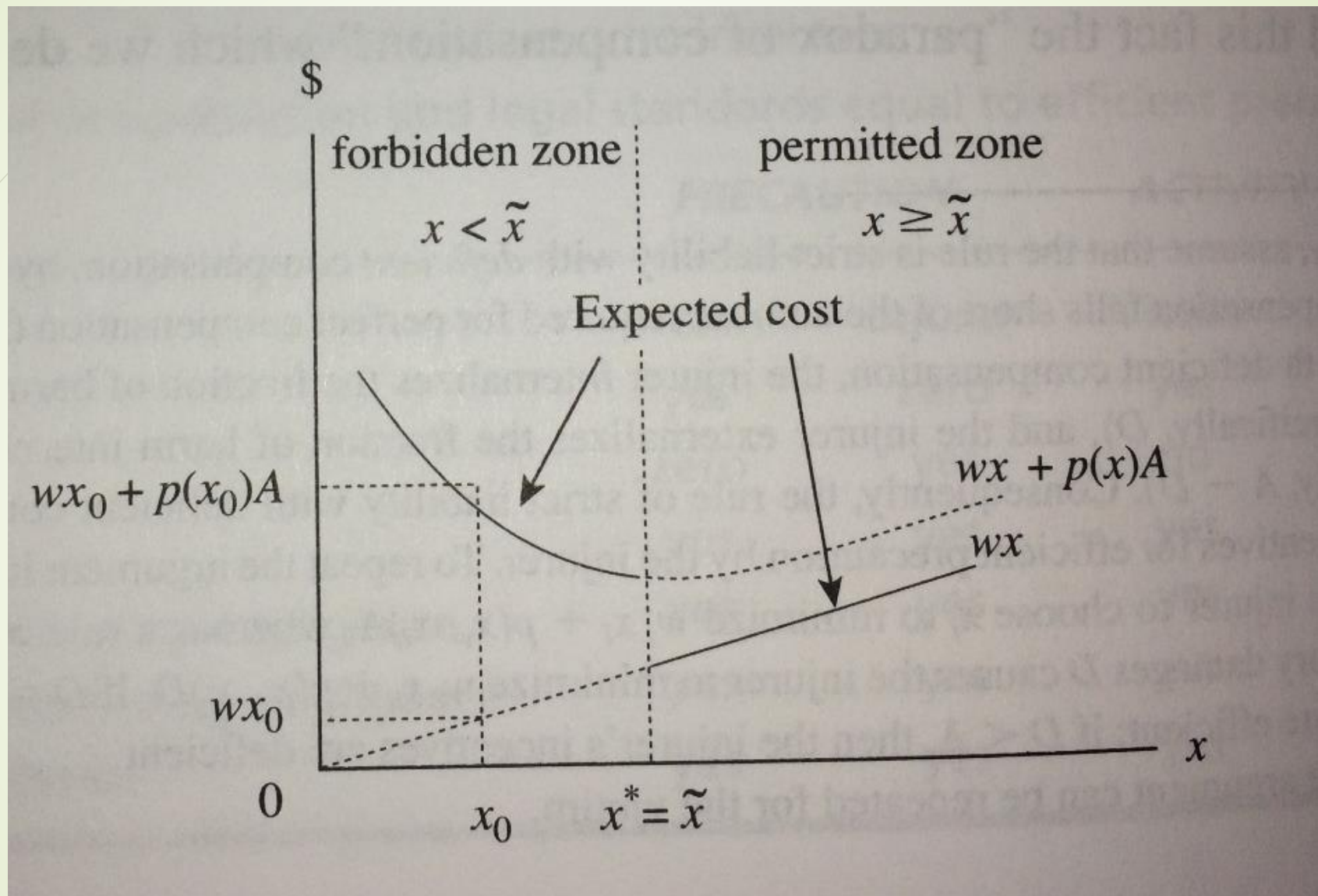
- ➧ x∗….   efficient level of precaution

forbidden zone x‹ $\tilde{x}$ corresponds to deficient precaution

permitted zone x≥ $\tilde{x}$ corresponds to excessive precaution

efficient precaution $\tilde{x}$= x∗

at x= $\tilde{x}$ (the lowest point) motivation to minimize total costs

A negligence rule with perfect compensation and the legal standard equal to the efficient level of care gives the injurer incentives for efficient precaution.

Incentives for Precaution under a Negligence Rule

■ Efficiency by injurer

-if he takes the level of precaution x_0, precaution costs him ? He expects to pay? In liability for accidents, rational injurer-more precaution, why not beyond this level?

■ Efficient precaution by the victim

If xi≥$\tilde{x}$ rational injurer takes precaution in order to avoid liability, victim responds as if the rule were not liability

Contributory Negligence and Comparative Negligence

- Simple negligence

Injurer at fault, $x_i < x_i^* \rightarrow$ injurer liable

Injurer faultless, $x_i \geq x_i^* \rightarrow$ injurer not liable

- Negligence with a defense of contributory negligence

Injurer at fault, $x_i < x_i^*$ and victim faultless, $x_v \geq x_v^* \rightarrow$ injurer liable

Injurer faultless, $x_i \geq x_i^*$ or victim at fault $x_v < x_v^* \rightarrow$ injurer not liable

- Comparative negligence

divides the cost of harm between the parties in proportion to the contribution of their negligence to the accident

Contributory Negligence and Comparative Negligence

Injurer at fault $x_i < x_i*$ and victim faultless, $x_v \geq x_v* \rightarrow$ injurer bears 100%

Injurer faultless, $x_i \geq x_i*$ and victim at fault $x_v < x_v* \rightarrow$ victim bears 100%

Injurer at fault $x_i < x_i*$ and victim at fault $x_v < x_v* \rightarrow$ bear cost in proportion to negligence

➡ Strict liability with a defense of contributory negligence--assigns the cost of accidental harm to the injurer, regardless of his or her level of precaution, unless the victim was at fault

Victim at fault, $x_v < x_v* \rightarrow$ injurer not liable

Victim faultless $x_v \geq x_v* \rightarrow$ injurer liable

Example: consumer products subject to strict liability with a defense for contributory negligence

Contributory Negligence and Comparative Negligence

- *Assuming perfect compensation and each legal standard equal to the efficient level of care, every form of the negligence rule gives the injurer and victim incentives for efficient precaution.*

- Redundant precaution

- Unilateral harm and bilateral precaution

- Bilateral harm and bilateral precaution

Table 8.2
Efficiency of Incentives Created by Liability Rules.

"yes" indicates efficient incentives
"no" indicates inefficient incentives
"zero" indicates no incentive
(assuming perfect compensation and legal standards equal to efficient precaution)

LEGAL RULE	PRECAUTION		ACTIVITY LEVEL	
	Victim	Injurer	Victim	Injurer
no liability	yes	zero	yes	no
strict liability	zero	yes	no	yes
simple negligence	yes	yes	yes	no
negligence + contributory negligence	yes	yes	yes	no
strict liability + contributory negligence	yes	yes	no	yes
comparative negligence	yes	yes	yes	no

Activity level

- Under a negligence rule-drivers can escape liability by conforming to the legal standard of care, the marginal risk of harm to others is externalized

- Under a rule of strict liability-the driver strictly liable, efficient precaution and efficient activity level

- Residual bearer-in the end someone has to bear the cost of accidental harm

the victim is residual bearer of harm under the simple negligence rule, the injurer is the residual bearer of harm under the rule of strict liability with a defense of contributory negligence

-efficiency criterion-choose a liability rule that the party whose activity level most affects accidents, bear cost of an accident

Setting legal standards: the hand rule

- -the marginal hand rule-the injurer is negligent if the MC of his or her precaution (w_i) is less than the resulting MB, he is liable under the hand rule when further precaution is cost-justified.

- $w_i ‹ -p´A \rightarrow$ injurer is negligent (probability cost of accidental harm)

- -to escape liability under hand´s rule, the injurer must increase precaution until the inequality becomes equality

$w = -p´(x*)A$

-American courts use it frequently

-another approach-draft regulations or statues

-or the law to enforce social customs (community of people) or best practices in an industry

Setting legal standards: the hand rule

the court must balance the injurer´s burden against the full benefit of precaution

the full benefit includes the reduction in risk to plaintiff (risk to others) and reduction in risk to injurer (risk to self). Courts overlooked the reduction in self-risk and set standard too low

Example: Court must determine whether the speed at which a driver took a curve was unreasonably dangerous. Must balance slowing down and the benefit of reducing the risk of accidents to others and the driver, courts typically focus on reducing the risk to others and lose sight of value of reducing the risk to the injurer, losing sight of self-risk will cause the court to allow more speed than allowed by the correct application of the hand rule.

Errors

- expansion of strict liability rules-because it is much easier to prove causation than negligence

- *Consistent court errors in setting damages under a rule of strict liability cause the injurer´s precaution to respond in the same direction as the error*

- *Consistent court errors in failing to hold injurers liable under a rule of strict liability causes subsequent injuries to take less precaution.*

- *Under negligence rule injurer´s precaution does not respond to modest court errors in setting damages.*

- *Under negligence rule injurer´s precaution does not respond to injurer´s modest errors in predicting damages.*

- *Injurer´s precaution responds exactly to court errors in setting the legal standard under a negligence rule.*

Vague standards and uncertainty

- Vague and unpredictable torts-how to respond?

The injurer who minimizes expected costs does not change his or her precaution in respond to random errors in computing or predicting damages under any liability rule.

Small random errors in the legal standard imposed by a negligence rule causes the injurer to increase precaution.

Administrative Costs

- Administrative costs

- Public law X private law

- The rule of no liability-leaves the cost of accidental harm where they fall, no attempt to relocate them, it eliminates administrative costs

- A rule of strict liability and the rule of negligence-reallocate the costs of accidental harm

- No fault rule (adopting rule of no liability)

A rule of strict liability lowers administrative costs relative to a rule of negligence by simplifying the adjudicator´s task

A rule of negligence lowers the administrative costs relative to a rule of strict liability by reallocating the cost of harm in fewer cases,
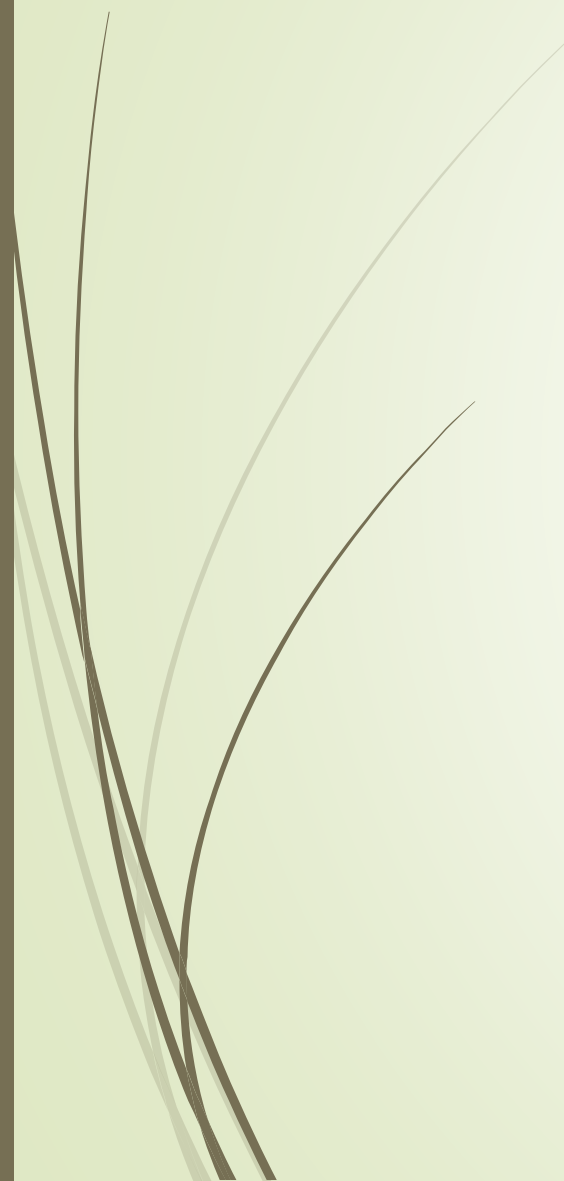
Wholesale rules save administrative costs and distort the relationship between the marginal cost of precaution and the marginal reduction in harm, whereas case-by-case adjudication has the opposite effect

Consumer product injuries

- *Perfectly informed consumers will choose the most efficient product under a rule of no liability.*

- Consumers can overestimate the danger. *Imperfectly informed customers will not necessarily choose the most efficient product under a rule of no liability.*

- Consumers will prefer cans regardless of whether they under or overestimate the danger. *Imperfectly informed customers will choose the most efficient product under a rule of strict liability.*

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