



DISPENSA DI
**Economic Analysis
of Law**

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Introduction to the Economic Analysis of Law – Chap.1

What is Law & Economics?

- Study of law with **economic lens**, i.e. in an economic perspective;
- Conception of the law as a system of **incentives**, which can be explained with the economic theory in order to have a better understanding of how it operates the legal system.
 - “Incentive” is an economic word, so judges don’t usually use it, but law gives incentives to perform in certain ways. For instance, if a sanction is provided for a crime, the rule is supposed to be an incentive not to perform that kind of action. Stronger the sanction, stronger the incentive. **Sanctions** may be:
 - Negative: people want to avoid them, since they consist of a restriction of freedom or of the payment of an amount of money. Law gives an incentive not to perform that conduct.
 - Positive: they consist of good consequences, like a benefit. The law operates giving incentives to perform that conduct, and people usually do it because they want the reward.
- Assumption that law’s addressees, as economic agents, respond to incentives **rationally**: they understand if what they do will have positive or negative consequences thanks to the incentives provided by the law, which tries to guide our conducts.

Positive and Normative Analysis

Positive

It’s the economic analysis of law as it is, with no purpose of making things better, it’s just an analysis, for instance, of how people respond to legal incentives. We have positive considerations that explain and describe reality without trying to change it. Based on this analysis, we can understand if the legal system works well or need to be improved.

How people respond to legal incentives, and to the threat of legal sanctions in particular;
Example: Will longer prison terms deter more crime?

More ambitiously, positive analysis claims that legal rules tend to reflect economic reasoning: efficiency is actually reflected in the law.

Efficiency theory

Positive law is already efficient in itself thanks to its logic construction. This is an ambitious claim made by the judge **Posner** (1939-*), who made this claim especially about the common law, which is the result of a revolutionary process. In the centuries, the bad rules – i.e. the inefficient ones – have been abandoned. This makes law similar to the evolution of natural species, so the system of rules we have now should fit the efficiency criteria. He said also that statutory law is completely different, since you have no guarantee that it is efficient, in fact it may be corrupted.

Normative

How can the law be improved to better achieve the goal of efficiency;
Example: How the health care system can be made more efficient?
Efficiency as a social value that the law should promote.

We have to understand the law with the purpose to make things better, more efficient, in the perspective of an economic analysis of the law. The law becomes a mean to have more efficiency. Some would argue that this makes law instrumental, which isn't a devastating critical comment, even if some people think that the law is not just a tool. Another critical comment is that, if you take this as your view, you'll have an imperialistic view of law, because economic efficiency would be the only goal of law, while constitutions promote also other values, such as fairness, equality, freedom, etc. The Italian Constitution, for instance, promotes also the cultural environment.

If it becomes a **monistic view** of the law - i.e. pursuing just one value - it would distort the actual nature of the legal system, which should promote many values, among which efficiency (**pluralistic view**). The legal system is characterised by lots of values which sometimes are in contrast with themselves and need to be balanced.

The Varieties of Efficiency

- Productive efficiency;
- Pareto efficiency;
- Kaldor-Hicks efficiency.

Productive efficiency

- It applies to processes and it requires **input** and **output** (=product);
 - It isn't clear what are the inputs of the law. Let's consider sanctions as inputs, since they are in a way the cost of the law; the output could be people's conduct. If people obey to the law, it is considered effective, not efficient, because inputs and outputs are measured based on quantity, not quality, which is the main critical point. In fact, it's obvious to identify these quantities in an economic process, but it isn't so evident dealing with law.
- A productive process is (optimally) efficient if and only if one at least of the following conditions obtains:
 1. Quantity fixed - it is **impossible to produce** the same amount of output using a lower-cost combination of inputs than the one used for the productive efficiency, i.e. **the same quantity at lower cost**;
 2. Cost fixed - it is **impossible to produce** more output using the same combination of inputs, i.e. **more quantity at the same cost**. If you managed to produce more, it means that the system wasn't efficient before.

Possible (and disputable) applications of productive efficiency to law:

- **Legislation** (=process of enacting laws): a legislative body is inefficient if it could produce the same amount of output (laws) at lower cost, or more output at same cost;
 - This is a translation of the productive efficiency in legal terms, but it's just a proposal and not necessarily a good one, since it says nothing about the quality, while we must consider the quality of laws and decisions. Who cares about the quantity of laws enacted, if they're bad laws?
- **Administration of justice** (=legal process whose outcome is a set of decisions): a court is inefficient if it could produce the same amount of output (decisions) at lower cost, or more outputs at same cost;
 - It is commonly believed that judicial proceedings are inefficient because they take too long, which is an important problem, but we must consider also the quality of those decisions. Besides, you could produce more decisions just by saying that everyone is guilty, without considering if the arguments are acceptable or not.

- **Costs and benefits of substantive rules:** a rule is inefficient if it achieves a goal at a cost which is greater than the cost of a possible alternative rule. In other terms, if you identify a precise outcome which costs more than the same one provided by another rule, you can say that the first one is inefficient.

Pareto efficiency

Vilfredo Pareto (1848-1923) was an Italian polymath (civil engineer, sociologist, economist, political scientist, and philosopher). He made several important contributions to economics, particularly in the study of income distribution and in the analysis of individuals' choices. He introduced the concept of Pareto efficiency and helped develop the field of microeconomics.

Pareto efficiency basically concerns the **satisfaction of individual preferences**, so it doesn't apply to processes.

- **Ordinal preferences** (ordinal ranking of states of affairs);
 - Liberal concept: individual preferences are what they are, there are not better preferences, because they're individual and there's no normative intention to change them. Everyone can have a different order of preferences, which is normally considered rational.
 - The only requirement of Pareto efficiency is that rational people must have an order of preferences.
- It reflects the impossibility of interpersonal comparisons of utility (no cardinal utilities);
 - It's impossible to calculate the utility deriving from the satisfaction of individual preferences. It is also implausible to measure the satisfaction itself, but maybe it's just a matter of technological tools. The only thing that we can know is the ordinal ranking.
 - Pareto thought that measuring utility was some sort of science fiction, since we don't have the right devices to do it. We just know that people have preferences, which can be expressed through basic rankings, without the intensity of each preference, which is sufficient to establish where they'd want to allocate resources.

UTILITARIANISM		
We have a duty to maximize utility, as individuals and as a society. This is both a moral and economic claim.	Utilities (+∞)	Something is good as it provides me some utility
	Indifferent (0)	Something doesn't produce neither utility nor disutility for me
	Disutilities (-∞)	Something is bad as it provides me some disutility

With this scheme, you could use cardinal numbers in order to measure a gain/loss of utility deriving, for instance, from a certain food. The problem is that we don't know exactly what utility is and, consequently, how to maximize it.

An allocation of resources is Pareto efficient when it makes someone better off and no one worse off, according to their preferences (Pareto superiority), or when it is impossible to make someone better off and no one is worse off, according to their preferences (Pareto optimality).

Some people argue that this theory deals with egoism and altruism: it is a matter of finding a compromise between my own well-being and the fact that we don't want others to be worse off. It might be a matter of individual rights.

Pareto Superiority

A state of affairs S2 is Pareto-superior to another state of affairs, S1, if and only if no one is worse off in S2 compared to S1, and at least someone is better off in S2 compared to S1. In other words, someone is allocated higher in his ordinal ranking of preferences.

For instance, if I choose sushi over pizza because I prefer sushi, while for my friend is indifferent, I'm superior based in my individual ordinal ranking.

Pareto Optimality

A state of affairs S_0 is Pareto-optimal if and only if there is no state S_n such that S_n is Pareto-superior to S_0 . No one is better off nor worse off and there's no Pareto superior state, because, in this case, you cannot make someone better off without making someone worse off.

Application to the law?

In any kind of balancing between principles there cannot be Pareto Optimality, because there will always be someone who feels worse off. On the other hand, if nobody is happy with the present allocation of resources and there isn't an agreement, since every solution would make someone worse off, we are in a Pareto optimal state of affairs. It comes from the definition: if a superior state of things is not imaginable, we have Pareto Optimality, so the status quo should remain. However, this conclusion might constitute a bias which would make reforms very difficult to approve, so it's puzzling.

Example: extension of a right - in principle, this kind of move should be Pareto superior, because some people would be better off, while the others would still have that right. However, the latter might simply say that they don't like that, which would nonetheless block the Pareto Superiority. We could argue that this opinion is morally and politically wrong, but this doesn't apply to Pareto Superiority, where you must have unanimity (you can just accept indifference). This makes very hard to adopt a Pareto superior move in a legal context, particularly in the legal allocation of goods, because, in the Pareto framework, if someone feels worse off, then there's a full stop.

How to theoretically overcome the problem? You should consider only self-regarding preferences (your own preferences) and no other-regarding preferences, because it would become a nightmare to include all of them.

N.B. In contracts you have Pareto superiority, because both parties feel better off, otherwise they wouldn't conclude them. If the contract has no pathological aspects, both parties are better off. The tricky aspect is that, if you consider the two parties, there's no problem, but, if you consider a third one or more, you might find someone worse off.

Kaldor-Hicks efficiency

- **Problem**: Pareto Efficiency does not apply to allocations with "losers", i.e. those who are worse-off;
 - To overcome it, Nicholas Kaldor (1908-86) and John Hicks (1904-89), working independently from one another, elaborated the same theory in the same period.
- **Definition**: An allocation of resources S_2 is efficient compared to allocation S_1 if those who benefit from S_2 can compensate those who incur costs and can still have a net benefit;
 - It's an improvement, because it permits to consider more efficient situations. In fact, if the benefit of the "winner" is greater than the cost supported by the "loser", the situation is considered efficient, too.
- This criterion is known as Kaldor-Hicks test, or **test of potential compensation**;
 - A compensation can be given to the loser, since the gain of the winner is greater than the loss of the former, so the latter would benefit from the situation no matter what.
- It is used to assess changes in **social welfare**;
 - Example: more restrictive laws concerning the use of firearms - gun users are likely to be worse off, but gun victims will surely be better off and, since their benefit is objectively greater than the loss of the others, the situation is efficient.

Example

A = economic agent

S = state of affairs

	A1	A2	Total welfare
S1	50	50	100
S2	70	40	110

Moving from S1 to S2 reallocating resources is K-H efficient, because the winner gained 20, while the loser lost 10, so the total amount of welfare is greater in the second situation. Moreover, the winner might give 10 to the loser having nonetheless a benefit of 10, so the move would still be efficient.

Considering Pareto Superiority, A2 might be worse off if the compensation is not paid. However, if the payment verifies, A2 would be indifferent with regard of the two situations, so we'd have Pareto Superiority (some could argue that A2 would be worse off even with compensation simply because A1 has a "bigger pie").

This example demonstrates:

- The **continuity** between the two theories, which makes sense since the second one was trying to be an improvement of the first one;
 - The **difference** between the two theories: in the first one we consider just preferences as they are, while here they are considered through a sort of cardinal utility, i.e. through cardinal numbers, which Pareto wanted to avoid.
- The Kaldor-Hicks criterion requires the **comparison** of the benefits to the "gainers" with the costs to the "losers";
 - When the winners gain more than the losers lose, the move is efficient;
 - It requires **cardinal** values and is a form of **CBA** (= cost-benefit analysis);
 - "In **cost-benefit analysis**, a project is undertaken when its benefits exceed its costs, which implies that the **gainers could compensate the losers**. Cost-benefit analysis tries to take into account both the private and social costs and benefits of the action being contemplated. There are both theoretical and empirical problems with this standard, but it is indispensable to applied welfare economics." (Cooter & Ulen 2012: 42).
 - In economy, we must consider a cardinal utility. However, there might be:
 - **Empirical problems**: not all the relevant dates are taken into consideration and analyzed;
 - **Theoretical problems**: how to properly measure the quality which should be expressed by means of cardinal numbers? If we have monetary values, there's no problem, but if we're dealing with rights, it might become difficult, since we have no data which could help us to translate them quantitatively.
 - Example: you have a car which you give a certain value to. You are not going to sell it for an amount of money which is inferior to that value. The willingness to receive/spend money could be the measure of the importance of a certain thing, but this cannot apply to individual rights. Analytically speaking, maybe there are some economic methods to do so, but in practice it isn't feasible. You can apply this theory only to things having a market price, otherwise it would be purely speculative.
 - According to the Kaldor-Hicks test, a state of affairs S2 is efficient compared to S1 if and only if the winners in S2 can compensate the losers so that no one is worse off compared to S1 and at least someone is better off compared to S1;
 - If there is compensation, economists say that we should only look at the total welfare. However, legally speaking, there's still a difference between the two situations if we look at the distribution of welfare. Therefore, S2 could be considered unfair by a jurist or a moral thinker, since they would consider the principle of equality, based on which a compensation through taxation should be imposed. How the "pie" is divided is legally important, not economically, because of the principles of the legal system.
 - The difference between Pareto superiority and Kaldor-Hicks efficiency is the difference between **actual and potential** compensation. If compensation is actual, a Kaldor-Hicks efficient move becomes a Pareto superior move;
 - The Kaldor-Hicks test is also called **test of potential Pareto superiority**.

Kaldor-Hicks and distribution

K-H efficiency + distributional concerns

Guido Calabresi (1932-*) says that an allocation – the distribution of wealth – should have not only efficiency but also acceptable distributional consequences according to the law or the principle of fairness.

Pie is important, but also slices. If the pie is bigger but unfairly distributed, jurists and moral thinkers cannot accept it, even if economists would think that it's good, since it would be an allocation of resources extremely unfair.

Problem: where is the threshold? We don't know. Operationally, Calabresi doesn't say very much; he hasn't fixed a threshold, which causes operational problems.

Coase Theorem

Ronald Coase (1910-2013) is one of the building blocks of the economic approach to law.

The Coase theorem was firstly presented on a paper called "The Problem of Social Cost", written by Coase, and it starts with the problem of reciprocal interference.

- Concept of **externality**: effect that your economic activity has on third parties.
 - They can be positive, negative or both, also depending on people preferences;
 - Example: you play the piano in your apartment. If your neighbors like it, it's a positive externality, while, if they don't like it, it's a negative one.
- Problem of **negative externalities**:
 - Pigou's approach: taxes on those who generate negative externalities.
 - Why taxes? We normally don't want to reduce goods produced by the economic activity, but taxes should be paid for the benefit of the society, for instance of the victims of pollution.
 - Coase's approach: **reciprocal nature of the problem**.

Reciprocal nature of the problem of negative externalities

- Problem in the causal process: the pollution caused by an industry constitutes a problem for who lives nearby, on the other hand those people cause a problem to the owner, who might have to pay a tax for this negative externality, so the problem is not unidirectional, it's reciprocal. The reciprocal aspect of the problem comes from interference, which is also the social cost.
- **Social cost** as the difference between the value of two economic activities when they do not interfere with one another and when they do.
 - **N.B.** The value of an economic activity becomes lower when another economic activity interferes.

Ex. Doctor v. Confectioner (Sturges v. Bridgman, 1879)

Defendant is the occupier, for the purpose of his business as a confectioner, of a house in Wigmore Street. In the rear of the house is a kitchen, and in that kitchen there are now, and have been for over twenty years, two large mortars in which the meat and other materials of the confectionery are pounded. The Plaintiff, who is a physician, is the occupier of a house in Wimpole Street, which until recently had a garden at the rear, the wall of which garden was a party-wall between the Plaintiff's and the Defendant's premises, and formed the back wall of the Defendant's kitchen. The Plaintiff has, however, recently built upon the site of the garden a consulting-room, one of the side walls of which is the wall just described. It has been proved that in the case of the mortars, before and at the time of action brought, a noise was caused which seriously inconvenienced the Plaintiff in the use of his consulting-room, and which, unless the Defendant had acquired a right to impose the inconvenience, would constitute an actionable nuisance.

The Defendant contends that he had acquired the right, either at Common Law or under the Prescription Act, by uninterrupted user for more than twenty years.

Economically speaking, the problem is reciprocal, because the presence of the doctor constitutes a threat for the confectioner, since he might receive a legal injunction and stop his activity.

	Doctor	Confectioner	Total welfare	Social Cost	
<i>S0 - no interference</i>	100	100	200	0	
<i>S1 - actual world with interference</i>	80	100	180	100 - 80 = 20	Sometimes the doctor might not be able to work due to the noise produced by the confectioner.
<i>S2 - rule for D</i>	100	50	150	50	We stop a mortar, but economically speaking it isn't a good decision, since it causes a loss to the confectioner, which generates a bad economic outcome.
<i>S3 - compensation to D</i>	100 (80+20)	80 (100-20)	180	20 (50-30)	

- **Law:** nuisance law (technically, doctrine of “coming to the nuisance”) (cf. Art. 844 Italian c.c.);
- **Fact:** plaintiff built a consulting room whose use is inconvenienced by the noise of two mortars of defendant;
- **Legal problem:** right of the plaintiff to be free from noise, or right of the defendant to go on with his business?
 - The decision of the court was in favor of the plaintiff because of the negative externality he suffered from. The solution of the judge is economically bad because it causes a greater social cost. No other worlds were considered.
- **Economic solution?** The optimal solution might be a compensation of 20 for the doctor, so that the social cost would be reduced to 20. The idea behind this suggestion is to restore S0 for the doctor without stopping the confectioner’s activity by offering a compensation, thanks to which the doctor should agree with the usage of both the mortars. The confectioner might be worse off with respect to S1, but he is surely better off with respect to S2.
 - **S3** will follow, which is good economically speaking, because the total wealth is greater than the one in S2, while the social cost is minimised. The externality is still there, but we were not wondering how to eliminate it, we were wondering about what to do given it.
- “With costless market transactions, the decision of the courts concerning liability for damage would be without effect on the allocation of resources.” (Coase 1960: 10).
- “When transaction costs are zero, an efficient use of resources results from **private bargaining** (=compensation), regardless of the legal assignment of property rights” (Cooter & Ulen 2012: 85).
 - If the economic agents are rational and the transaction costs are very low, the optimal allocation of resources can be reached through private bargaining, which might of course change the balance, but it would minimize the social cost, no matter what the law says.
- “If transactions are costless, the initial assignment of a property right will not affect the ultimate use of property” (Posner 2014: 8).

So, is the law economically irrelevant?

No, the law is not irrelevant in the real world, because we know that any real transaction has real **positive costs**, which is any cost affecting the transaction and which depends on many variables, which should be considered.

- Legal corollary of the theorem: “When transaction costs are high enough to prevent bargaining, the efficient use of resources will depend on how property rights are assigned” (Cooter & Ulen 2012: 85).

- Since there are transaction costs, we have no guarantee that parties will be able/want to support the bargaining. In fact, the benefit of the agreement depends on the value of the transaction costs, which is the legal corollary of this theorem. For this reason, it is important to assign precise property rights from the very beginning, so we can conclude that the law is important.

How to allocate property rights?

- **Normative idea 1:** Allocate property rights to the party who values them the most.
 - As a lawmaker/legislator/judge, if we were able to identify the party who values the most those rights, we should allocate resources in favor to her.
 - Subjective value as a proxy for efficiency.
- **Normative idea 2:** Allocate property rights in a clear and simple way.
 - If the allocation is unclear and complex, so that people don't understand it, transaction costs become higher.
- **Normative idea 3 (Miceli):** Use "standards" instead of "inflexible" rules, so that judges could use discretion in order to decide the proper solution.

An Economic Model of Tort Law – Chap.2

Social functions

1. **Compensate** victims for their injuries;
2. **Deter** "unreasonably" risky behaviors.
 - If a risky behavior is useful, law should regulate it, not ban it. For instance, even if there are car accidents, you don't ban driving, but you regulate the compensation for the victims and other aspects.

Economic analysis is especially interested in the latter (which operates "in the shadow" of the former, because you operate knowing that you'll have a duty to compensate the victim): goal of establishing "optimal deterrence", which is an incentive not to perform a certain behavior.

Liability schemes

There are two main problems: strict liability and negligence (cf. Arts 2043ff and 2056ff Italian c.c.).

Strict Liability

In order to have it, two conditions must be satisfied:

1. **Compensable harm** (the Italian "danno ingiusto");
2. **Causation** between behavior of defendant and harm.
 - There must be a causal process leading to the harm suffered by the plaintiff because of the action of the defendant.

Negligence

The above conditions plus:

3. **Negligence** of defendant.

In both cases causation is necessary, in fact many cases turn around the proof of causation, which can be complicated to prove not just empirically – i.e. knowing facts – but also conceptually. Moreover, it is an obligatory step you have to consider before talking about negligence.

No liability

The victim should bear all the costs herself.

An example on causation – How causation can be “thorny”?

Palsgraf v. Long Island Railroad Co. (1928)

Plaintiff was standing on a platform of defendant's railroad after buying a ticket to go to Rockaway Beach. A train stopped at the station, bound for another place. Two men ran forward to catch it. One of the men reached the platform of the car without mishap, though the train was already moving. The other man, carrying a package, jumped aboard the car, but seemed unsteady as if about to fall. A guard on the car, who had held the door open, reached forward to help him in, and another guard on the platform pushed him from behind. In this act, the package was dislodged, and fell upon the rails.

It was a package of small size, about fifteen inches long, and was covered by a newspaper. In fact, it contained fireworks, but there was nothing in its appearance to give notice of its content. The fireworks when they fell exploded. The shock of the explosion threw down some scales at the other end of the platform many feet away. The scales struck the plaintiff, causing injuries for which she sues (the plaintiff didn't sue the man with the package).

Problem: Does that justify the application of a liability scheme?

This causal chain is quite bizarre, very unusual and unpredictable, especially if we consider the outcome.

- One answer: consider **proximate v. remote causation**;
 - Proximity and foreseeability: not all facts are considered legally relevant to determine causation, which should always lead to something predictable. In fact, in this case, there is a remote/ordinary causation, but not a legal one (no proximity).

That fixes the problem of the **but-for test** (*conditio sine qua non*), which allows distant causes to have the same weight as proximate causes, because, if you imagined a world without the cause, you couldn't find the effect either.

In this case, without fireworks there wouldn't have been the effect, but also without the man being late, etc. This chain would be ridiculous, so we see how problematic this concept might be.

Torts and Hand Formula

The formula takes its name from the judge Learned Hand (1872-1961), who decided the following case.

US v. Carroll Towing Co. (1947)

A number of barges were secured by a single mooring line to several piers. The defendant's tug was hired to take one of the barges out of the harbor. In order to release the barge, the crew of the defendant's tug, finding no one aboard in any of the barges, readjusted the mooring lines. The adjustment was not done properly, with the result that one of the barges later broke loose, collided with another ship, and sank with its cargo. The owner of the sunken barge sued the owner of the tug, claiming that the tug owner's employees were negligent in readjusting the mooring lines. The tug owner replied that the barge owner was also negligent because his agent was not on the barge when the tug's crew sought to adjust the mooring lines.

- **Law:** we're dealing with tort law, so we must see if a compensation of harm for negligence is due – Conditions:
 - Compensable harm ✓ (sinking of the cargo);
 - Causation ✓ (it's predictable that if you don't readjust the mooring line properly, the cargo will collide and sink; judges didn't discuss causation, since it was obvious in their opinion and no one objected);
 - Negligence → they had a contract and that was their profession, so they were technically able to do it properly.
- **Fact:** Loss of barge and cargo, after improper adjustment of mooring lines (when no one was aboard the barge).
- **Legal problem:** negligence of defendant? of plaintiff too? There's a reciprocal claim of negligence and, according to professional standards, both parties seem to have been negligent:
 - The crew didn't readjust the mooring line properly;

- The plaintiff was negligent as well, since there was no one present during the operation. Besides, in January, when the accident happened, there are very few hours of light, during which the work had been done and someone was supposed to be there.
- **Economic solution?**

Hand formula

According to the Hand Formula, we have **negligence** if there's no compliance with standard of care ("due care standard" – you are negligent when you don't comply with standard of care); negligence can be:

- Professional;
- Reasonable (= what a reasonable person would do).

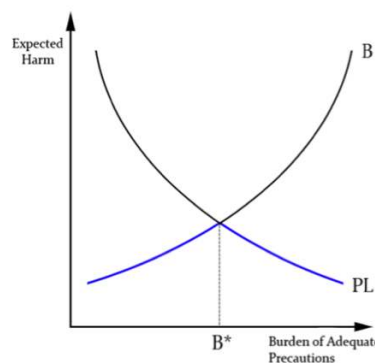
The **economic understanding** of the case U.S. v. Carroll Towing Co. (1947), adjudicated by Hand, considers three variables:

1. Precaution costs (**B** = *burden*) → money that you can invest to prevent a certain event;
2. Probability of event (**P**);
3. Gravity of resulting loss (**L**).

There is negligence if the **expected loss**, namely the magnitude of the loss (**L**) multiplied by its probability (**P**), is greater than the costs of precaution (**B**).

- Negligence when $B < PL$;
- Optimal level of precaution: $B = PL$ (this is the reasonable person standard, because you equalize the two figures);
- If they spend too little, they're negligent and they'll be sanctioned by the law for negligence, while, if they spend too much, they are not economically efficient (economic loss).

If you have numbers, you can easily apply the Hand Formula, since it gives a content which is economically determined.



Total values reading

	B		PL	
S1	0	<	Any positive value	Negligence
S2	10	<	100	
S3	20	<	50	
S4	30	=	30	Optimal level of precaution
S5	40	>	20	You spent too much

Problem: how do you know the values?

The assignment of a probability value can be tricky. It's difficult to have situations where you can totally rely on a statistic value given to B by means of intuition/speculation.

N.B. The formula helps you determine negligence, which is different from liability.

Negligence and liability

- **Simple negligence rule:** if the injurer is negligent, he has to compensate the victim;
 - It's simple to apply, not costly. Once you apply it, you can determine also liability. Therefore, in this case, the link between negligence and liability is pretty straightforward.
- **Contributory negligence defense:** if the victim too is negligent, she has no right to compensation, so, in this case, negligence is different from liability;
 - It's a bit more costly in terms of time and procedures, but people argue that it gives the right incentives not to behave in an unreasonable way. From an economic point of view, it is important to give appropriate incentives to possible victims too, in order to make them take more care of themselves, otherwise they would probably take unreasonable risks, while, in this way, it is their interest to behave properly. However, some think it's unfair, since the compensation is 0 in any case, even if the victim was only slightly negligent.

- **Comparative negligence defense:** damages should be split between negligent parties (cf. Arts. 2054-55 Italian c.c.);
 - Being negligent doesn't automatically determine the outcome of the case, it depends on which rule is applied. This method considers the level of negligence of both parties, then it compares them in order to establish the right proportion of damages. It is surely more costly, but it also makes more justice.
 - U.S. v. Carroll Towing Co. was decided under a comparative negligence scheme, since both parties were negligent.
- PS: those defenses can be used also in strict liability.

Class exercise – Stansbie v. Troman (1948), 2 K.B. 48

Troman, in charge of decorating Stansbie's house, suspends work for buying wallpaper and leaves the house without locking the entrance. During Troman's absence, the house is burgled by unknown persons.

With what economic arguments can Stansbie take legal action against Troman?

You can use the Hand Formula to determine that Troman was negligent, since he did too little to take precautions ($B=0$). Someone could disagree with the certainty of the value, but sometimes it is sufficient to use our intuition, as in this case, where the loss of the plaintiff was obviously much greater than what the defendant spent on precaution, which amounted to almost nothing. In this case, it is not important to establish a precise value of probability either, because it was obvious.

If precautions are taken, it becomes more costly for the burglar to do this operation, so criminal actions are somehow deterred.

Tort law

Purpose of the model

- **Model of precaution** (it's very technical and abstract, but we need to understand the logic);
- **Total costs of accidents** comprehend at least:
 1. Damages to victims ($=L$) – calculated through the Hand Formula;
 2. Costs of precaution ($=B$);
 3. Administrative costs of the tort system – costs of the procedures (ex. money for lawyers, judges and all the functioning of the tort law system); Miceli doesn't consider them in the book, because it's technical stuff.

Purpose of tort law: minimizing overall accident costs without banning social activities that are socially valuable (optimization).

This model tries to indicate the best way to achieve this purpose.

Unilateral care model

- Only the injurer can invest in costly precaution, so only who can prevent and determine the accident;
 - In some contexts, only one of the parties can effectively take precautions in order to prevent accidents from happening. Accidents, in those cases, don't occur because victims didn't invest enough, but for other reasons. Ex. When you're on a plane, you can do nothing to prevent an accident, you can't change PL, even trying would be a loss of money.
- Just focus on precaution and damages (ignore administrative costs, for the sake of simplicity);
 - This is a normative model thanks to which you can measure the efficiency of the investment in precaution.
- Two steps:
 1. Identify the socially efficient level of precaution;
 2. Take that as the benchmark for examining the incentives created by actual legal rules (see this in Miceli's book).

Notation:

- x = investment in precaution by injurer;
- $p(x)$ = probability of accident;
- $D(x)$ = damages suffered by victim.

Assumptions:

$p(x)$ and $D(x)$ are decreasing in x (and so are expected damages); they are decreasing at a decreasing rate. The more you spend in precaution, the less will be the expected damage.

The social optimum:

minimize $x + p(x)D(x)$ → Expected loss

The cost-minimizing level of care:

x^* is the threshold below which an extra unit spent in care reduces the expected damages by more than one unit, and beyond which an extra unit reduces the expected damages by less than one unit. It's the margin to understand the precaution costs considering the expected damage.

Bilateral care model

Both injurer and victim can affect the prevention and determination of damages.

Notation:

- x = investment in precaution by injurer;
- y = investment in precaution by victim;
- $p(x, y)$ = probability of accident;
- $D(x, y)$ = damages suffered by victim;

The social optimum:

minimize $x + y + p(x, y)D(x, y)$ → Expected loss given the accident

The cost-minimizing levels of care:

x^* = what the potential injurer should spend;
 y^* = what the potential victim should spend.

These are the efficient levels of care; then one has to figure out whether the actual rules of a given system approximate to the optimum.

Therefore, the legal system should give an appropriate level of incentives to adopt this level of precaution, otherwise it wouldn't be efficient. In fact, a legal rule that doesn't guide people in this sense is inefficient.

- *Carroll Towing* can be read against the Bilateral care model;
 - It's a bilateral care case with justified claims of negligence in both directions.
- And the **Hand formula** can be understood with marginal values: if you apply the Hand Formula in a marginal sense, as Miceli suggests, you need to compare marginal benefits and costs, which is what economists do, since it is more precise than the application with total values. Take just x^* - the optimal value of precaution - for simplicity:
 - At x^* - what the injurer should pay - the marginal cost of an additional unit of precaution equals the marginal benefit in terms of reduced damages and accident costs;
 - **B** can be taken as the marginal cost of care and **PL** as the marginal reduction in accident costs from that last unit of care (marginal understanding of the Hand Formula);
 - Injurer will be negligent when $B < PL$, which means $x < x^*$.

Hand formula - Marginal values reading

	B		PL	
S1	0	<	Any positive value	
S2	10	<	100	
S3	20	<	50	
S4	30	=	30	Some argue that this is the optimal level of precaution, but Miceli isn't sure about that.
S5	40 (30+10)	>	20 (30-10)	Increase in B = reduction PL An additional level of precaution equals the marginal cost and benefit, in fact the values are both 10.

These are just numbers for the purpose of mathematical modelling, but we don't really know how to calculate probability, which is the tricky part. You can try to guess the risk in order to understand how to be more efficient, but you are not supposed to reduce it to 0.

Class exercise

Tarasoff v. Regents of the University of California (1976)

The defendants - a therapist and the police (=injurers) - failed to confine a patient who had expressed his intention to kill the victim, and also failed to warn the victim that the patient had the intent to kill her. After the patient killed the victim, her parents sued, alleging that the defendants owed the victim the duty to warn of the impending danger.

Consider whether some economic arguments can support the plaintiff's case (max 400 words):

It isn't a criminal case, because the criminal himself was already in jail.

The plaintiffs' case can be supported with the Hand Rule [explain what this is]. **B** (the burden, or cost of precaution) was certainly lower than PL (probability of the loss and magnitude of the loss), especially if one notices that one of the "failures" of the defendants was the failure to warn the victim, which seems to be a relatively inexpensive kind of action, which would have nonetheless decreased PL. It's true that therapists have the deontological duty not to disclose confidential information, but this was a very particular case.

A complete answer also observes that the Hand Rule can be applied to establish negligence, which is not equivalent to liability [explain why]. Therefore, the above reasoning could help establish the negligence of the defendants; the next step, i.e. liability, would depend on the availability of a defense (like the contributory or comparative negligence defense), but in this case there seems to be no room for this, since this works in bilateral care model.

One might argue that this was a bilateral care model because of some signals the victim could have noticed, but it's okay to say that it's a unilateral care model, since the text doesn't specify that.

Punitive damages

Punitive damages are given to the plaintiff as a way of punishing the defendant. They don't traditionally exist in continental systems.

They can be awarded when the defendant's behavior is malicious, oppressive, gross, willful and wanton, or fraudulent. This is weird, because the victim was already fully compensated through compensatory damages, which are in fact the total amount of the damages the victim suffered. However, punitive damages have the function to punish the defendant for the wrong behavior, which is normally the purpose of criminal law, at least in continental legal systems. In fact, some argue that having them in tort law is quite bizarre.

Moreover, their computation (made by juries) is often erratic, and this causes a lot of uncertainty and fear among corporate and government defendants, because are the juries themselves who determine punitive damages, which are usually extremely high. This happens because juries often become empathetic.

However, they can be efficient. Why?

With a perfect tort liability system there is no economic need of punitive damages, compensative ones are sufficient.

But many losses are not actually compensated, because victims don't have enough money to pay a lawyer, especially a good one, so they become victims of civil corporation, too.

The ratio of uncompensated victims to total victims is called "**enforcement failure**": it's the failure of the legal system that doesn't enforce tort law in those cases. Potential injurers, as rational economic agents, have an incentive to profit from enforcement failures: they might take advantage of that since they are rational economic agents they want to maximize their own interests.

The efficiency loss due to enforcement failures can be offset by supplementing compensatory damages with punitive damages. Therefore, this measure is economically necessary to deter potential injurers by telling them that, even if only few victims succeed, they'll have to pay an impressive amount of punitive damages. However, some argue that compensatory damages are sufficient to deter them.

Enforcement failure account:

Punitive damages as "**punitive multiples**" restore the injurer's liability to the level that would have prevailed under perfect enforcement.

Some alternative accounts:

- Punitive damages as approximation to the subjective value of the loss (which does not coincide with market value);
- Punitive damages as reflecting the moral externalities in society (moral condemnation of the injurer's behavior).

Ford Pinto case - Grimshaw v. Ford Motor Co. (1981)

In the '70s Ford Motor Company decided **not** to invest in a device to improve the safety of a Ford Pinto (preventing the gas tank from rupturing and exploding after a rear-end collision).

That decision was made since the burden per vehicle of the additional investment was calculated to be \$11 (B) and the expected loss \$1 (PL). So the investment was not cost-justified according to a cost-benefit analysis.

The expected loss was determined assuming an amount of \$200,000 per death and of \$67,000 per injury, with a very low accident probability.

(One can read that with the Hand Formula.)

The jury decision for the plaintiff in Grimshaw was supported by a different estimate of L (even if in actual cases numbers can change), which dramatically changed the Hand formula scenario, leading to an expected loss of \$37.5 (an estimate approximately 37 times greater than Ford's).

Ford had decided to run the risk of potential injury, and even of death, rather than pay the additional per-unit cost. But that decision was economically wrong considering the different figures assumed by decision-makers. However, note that with Ford's figures the decision not to invest was cost-justified.

Jury established, on top of compensatory damages, \$125 million in punitive damages. The purpose was punishment, as if it was a sanction. The logic was that many other victims didn't sue or didn't succeed dealing with the same issue, so the decision might be economically justified.

However, trial judge reduced them to \$3.5 million. In fact, when juries give an unreasonable amount of punitive damages, the judge has the power to reduce them.

Punitive damages in Italy

There are doubts on their compatibility with our system, in fact, nowadays, they don't exist as an institution in our legal system. However, the SC said that they're compatible dealing with foreign decisions, even if many disagree.

Cassazione Civile, Sez. Un., n. 16601/2017

“Civil liability is not only assigned the task of compensating the subject who suffered the injury, since the deterrence function and the punishing function are internal to the system of civil liability (many people disagree with this). Punitive damages are not therefore “ontologically incompatible” with the Italian legal system. The recognition of a foreign decision that contains a ruling of this kind must however satisfy some normative conditions including the predictability of the punitive damages amount and the indication of quantitative limits (cap on punitive damages).”

The Elements of a Valid Contract – Chap.4

Contracts and Efficient Exchange

The virtue of contracts

Why contracts?

Because there are economic benefits of exchange (“gain from trade”).

The benefits of exchange

Contracts are good in the perspective of efficiency, because:

- **Voluntary** exchanges move resources from lower to higher valuing users;
 - Contracts let resources go to the party who evaluate them the most, which is the logic of contracts. Ex. Money to the seller and product to the consumer.
- Coase theorem, again (and Pareto);
 - If transaction costs are low enough, there is the best allocation of resources thanks to contracts.
- Wealth maximization (Posner), given the different subjective evaluations of goods and services (car example).
 - It’s made by 2 rational parties who benefit from it, so they should be both better off.

	Selling price	Wealth of the seller	Wealth of the buyer	
S1	7500	5000	10000	
S2	5000	7500	12500	The value for the buyer increases because he paid 2500 less than the value the seller gave to the product. We aren’t multiplying money, it’s simply the technical definition of wealth by Posner.
S3	10000	5 000	15000	

The basic reason for which we have exchanges is that we evaluate products differently. Opposite distribution of additional wealth depends on the value parties attribute to the product. Wealth is distributed differently depending on the selling price, even if the total wealth might stay the same.

Involuntary transaction, instead, diminish social welfare.

Contract efficiency

$$\text{Pareto efficiency + Posner wealth} \\ V_b \geq P \geq V_s$$

- V_b = value to the buyer;
- P = price;
- V_s = value to the seller.

It would be irrational to buy something at a higher price than the value I attribute to it.

Reasons of contract law

Why contract law?

Contract law provides the legal means thanks to which people enforce promises to one another.

- Why set legal rules about contracts? Because of the role of transaction costs.
 - In an ideal world (rational people, no transaction costs) there would be no need for contract law. However, in the real world (transaction costs, information asymmetry, ...) we need some contract laws.
- Why supplement or interfere with private bargaining? Because of rationality problems and other "pathologies", including moral externalities.
 - Societies think there must be some limitations, because there are laws which ban certain transactions which are perceived as morally arguable, even if the parties might benefit from them.

We need general contract rules to lower transaction costs and pathologies as much as possible.

Purposes of contract law

Main purposes of contract law:

- Promote and facilitate exchanges (e.g. with default contract rules);
- Lower transaction costs (e.g. by providing some general rules and the missing terms of incomplete contracts) as far as possible, compared to a situation without contract law, where the parties would have to establish every clause, which is more demanding and costly.
 - Sometimes it's rational to leave the contracts incomplete, not to discuss every possibility, which would result in very high transaction costs. However, law can complete them if necessary.
- Remedy market failures (e.g. with remedies about forms of irrationality).
 - Market failures occur when the market itself doesn't allocate resources efficiently, so we need a remedy provided by the law, especially contract law.
- Ensure enforcement (with remedies against nonperformance).
 - You don't have a way to enforce moral promises apart from persuasion, but legal promises can be enforced thanks to law, which provides remedies against nonperformance (you sue and receive compensation). Without the threat of legal enforcement, you cannot be sure that the parties will accomplish their performances.

Miceli's (ideal) picture

Assumptions regarding the economic model of contract law:

- Rationality: we're dealing with rational parties;
- No third-party effect (no externalities);
 - Including legal barriers to transactions (for instance to drugs and alcohol, as happened in the past), because they make some better off and others worse off.
 - Including moral externalities, which occur when people are morally harmed by some contracts.
- Assumptions on competitive markets (perfect information, no transaction costs);
 - You have what the Coase theorem says: the private bargaining, because it's an ideal model, not a descriptive one or a representation of the real world.

Contract validity

Contract is described as a mutual agreement between parties. The elements of a contract are (traditional picture):

1. **Offer** = promise of a party to another to provide a certain service/resource/price;
2. **Acceptance** by the other party;
3. **Consideration** (the promisee's "return promise");
 - The promisor makes an offer, the promisee accepts that offer and makes a return promise to give the price at a certain moment, for instance. It's a sort of condition (ex. I'll give you the money when you turn 21), but, without it, the contract would be a simple moral promise not enforceable by the law. In fact, if, at the happening of this condition, the party doesn't perform, the other party has the right to ask for the enforcement and the compensation.

If there are these three conditions, there's a "meeting of the minds".

Reasons for Invalidating Contracts

Contract pathology (≠ physiology → when the contract is okay)

Contracts that courts are not supposed to enforce because they're legally wrong and there's something which should be fixed (with some exceptions):

1. **Mental incapacity**, or "incompetence";
 - Mentally incapable people are considered not fully rational, not properly able to determine their welfare/benefits. Therefore, they cannot decide what is beneficial to them and, for this reason, we have to protect them.
2. **Coercion**, or "duress";
3. **Mistake**, given imperfect information or information asymmetries;
4. **Unconscionability**.

This is the American doctrine. In Italy we have something similar with *violenza* and *errore*.

Mental Incapacity or incompetence

We can protect this category in two ways:

1. Evaluating case by case: courts shall not enforce contracts made by parties judged to be mentally incompetent or otherwise unable to exercise rational judgment. With this method, the system would become very costly.
2. Legally fixed threshold: generally, the law presumes competence beyond this threshold (conventionally in terms of age), unless it is proven otherwise. It improves legal certainty and it's less costly, so it's more efficient. However, there are tricky cases.
 - Presumptions are default rules: they can be rebuttable or irrebuttable.

Coercion or Duress

Courts shall also invalidate contracts that a party signed under duress or as a result of coercion, which is basically a threat (persuasion is considered an acceptable threat, because it's typical of the functioning of the market). The reason is a lack of voluntariness.

"An offer you can't refuse" can be a legally qualified as coercion, because it's contradicting: an offer should have always the possibility to be refused, while here you aren't free to decide what's best for you, which is morally and economically wrong, since the selling price could determine an economic loss and the party would be worse off, which is inefficient.

Cases

Alaska Pacjers' Assn v. Domenico (1902)

The defendant hired a crew of sailors to go on a salmon-fishing expedition off the coast of Alaska. Prior to the voyage, the crew agreed to a set wage, but once at sea they refused to fish unless the wage was raised. Defendant agreed but later reneged.

In this case there wasn't a threat determining the first agreement, but saying no at first would have caused an economic loss to the defendant. If he hadn't accepted, he would've lost the investment. For this reason, we could argue that there was a form of coercion.

He promised to give more money, but there was no consideration from the sailors, who just asked for more money without explaining the reason of this request. The court decided for the defendant because of this lack of consideration.

Goebel v. Linn (1882)

When an unseasonably warm winter caused a short supply of ice, the ice company requested a price increase, and the brewery, which had a supply of beer that would have spoiled, agreed but later reneged saying that they wanted to pay the original price.

The case is similar to the previous one, because the first agreement happened in a condition where, if the brewery had refused, he would've supported and economic loss. However, the big difference is that, in this case, there was an economic reason for the new agreement. In fact, this case was decided against the defendant, since there was a valid economic reason to increase the price, while in the first case the sailors were just trying to exploit the defendant.

Economic understanding of duress

Duress is about the prevention of "monopoly power", which is generally considered bad, even if not everyone thinks so.

This explains and justifies the different decisions in the fishing and ice case:

- **Fishing case:** opportunistic modification of contract terms, to exploit bargaining power (a sort of monopoly);
 - This is the economic justification of the decision if you consider monopoly bad.
- **Ice case:** legitimate modification, due to increase in costs (there was no monopoly power).

Mistake and Disclosure Duty

Situations in which the parties formed a contract based on mistaken beliefs.

A mistake can be:

- **Mutual:** normally there's no problem, because, when the parties discover it, they're no more interested in the performances.
- **Unilateral:** there is an asymmetry, which is legally and economically intriguing. There are different beliefs, because maybe a party has additional information.

Duty to disclose private information? Rules for the purpose of maximal production and disclosure of information?

In a perfectly functioning market, we have perfect information, which allows the optimal allocation of resources. According to this view, we should try to approximate this situation introducing disclosure duty no matter what, but it isn't always a good economic idea, so we should conclude that the duty of disclosure depends on certain conditions.

Ex. Underpriced second-hand books; a violin that the seller didn't know to be a Stradivari;...

Cases

Sherwood v. Walker (1887)

The case concerned a contract for the sale of a cow by Mr. Walker, a cattle breeder, to Mr. Sherwood, a banker and farmer.

The parties agreed to a price of 80 based on the apparent belief that the cow was infertile and hence only valuable for slaughter.

Before delivery, however, Walker discovered that the cow was pregnant, and hence worth much more, between 750 and 1,000. He therefore refused to deliver the cow to Sherwood, who sued seeking enforcement of the contract.

Apparently, it was a mutual mistake, so the contracts should be invalid according to Miceli's theory. There was a meeting of the minds, but it was a mistaken one, so the seller seems to do the right thing not delivering the cow.

If the buyer had some expertise in cows and was more able to make a distinction between fertile and infertile cows, should he have had the duty to disclose that information?

Miceli said that it depends on the kind of information.

There's a mutual mistake: both parties were wrong.

However, there's a minority opinion which considers it a unilateral mistake: the buyer would have made an investment to see if the cow was fertile or not. He was in a better position to establish that, but, at one point, that information would have become public.

Even before the cow was pregnant, he knew that it was fertile thanks to some expertise, so it's an investment which is a purely distributive information, because he achieves a more valuable goal at the expense of the seller.

On the other hand, if the cow had not been bought, it would have gone to slaughter, because the seller thought it was infertile. In this case, the information becomes socially valuable and, metaphorically, it enlarges the size of the pie, since it makes the cow more valuable.

Economic understanding of information and disclosure duty

Miceli makes a distinction between socially valuable information versus purely distributive information (see Miceli's tables, where he draws distinctions about different scenarios in which there's a social value loss):

- **Socially valuable** info: enlarges the "size of the pie". The economic theory says that there's no need to disclose it.
 - If the decision affects the expected value, the info is socially valuable or productive;
 - In this case, the disclosure duty would be efficient? If there was this duty, no economic agent would invest on them, since the law would be making you pay for information you must disclose, which discourages investments. We want to know that information, but, considering the perspective of the buyer, it risks generating a discouragement of investments, as it would affect negatively the expected value of transactions. We must protect the investments based on this kind of information, because they're socially valuable.
 - Economic rationale for enforcement of contracts based on productive info: incentive to invest in this kind of information.
 - If the cow had been slaughtered without that information, the investment would have been socially valuable, since discovering it later would have been useless. However, no economic agent would invest with a disclosure duty, so we shouldn't put this obligation, otherwise it would generate the free riding phenomenon. Without that investment we wouldn't have discovered the true nature of the cow (social loss), so, even if the seller won't be better off discovering it later, we should protect this kind of information because we want it and we want also investments based on it.
- **Purely distributive** info: only changes "the way the pie is cut". You should disclose it.
 - If the court's enforcement decision affects the distribution of gains from the contract, but it does not affect the expected value of the transaction, the info at stake is just distributive.
 - At one point that information will become public, so it doesn't change the size of the entire pie, only the size of the slices. Therefore, there's no reason to protect people who hide this kind of information, since that determines a social loss. The investment is only privately beneficial and, consequently, it's actually a social loss, since that information will be known sooner or later. It's better not to protect this kind of information, because it's just a matter of distribution and law doesn't want to encourage investments which will determine a social loss.

As a consequence, the law should **not** require the disclosure of socially valuable information. On the contrary, the law should require the disclosure of purely distributive information, which doesn't enlarge the pie, but it changes only the way it is cut. There's no need to protect this kind of information, because investments based on it determine a social loss. For instance, if the buyer had this kind of information, which is valuable to him, he would profit from it only because he knew it before. It's a social loss because later the information would have become public no matter what he did.

Therefore, the contracts based on purely distributive private information should not be enforced.

Besides, there should be a duty to disclose unfavorable information (e.g. defect in the thing), since there's a social loss when a defect is the result of an investment, so there's no need to protect it.

Another useful distinction:

Information acquired as a result of **deliberate search** and information acquired **casually**

- The law should impose a duty to disclose deliberately acquired information, which you got because you invest to research and product them, when it is purely distributive (social loss) but not when it is socially valuable.
- When information is causally acquired - information that you get by chance, without investment/research - the disclosure rule is irrelevant for efficiency: its impact will be purely distributive (only a principle of fairness would justify a disclosure duty).
 - Miceli thinks that this information is irrelevant for efficiency, because it doesn't depend on behavior: it cannot alter your behavior nor give any incentive to perform a more efficient behavior, since you happen to know it by chance. Consequently, a disclosure duty concerning information acquired causally wouldn't be justified from the point of view of efficiency, but only from a moral point of view (justice, fairness).

Final reason for invalidating a contract: unconscionability

Courts should invalidate contracts whose terms appear to be grossly unfair to one of the parties.

That shifts the burden of proving that the contract was fair at the time it was formed: defendant must prove it. This often happens in situations of unequal bargaining power, since one party is likely to take advantage of this.

Case

Laidlaw v. Organ (1817)

The case concerned a contract in which a merchant in New Orleans, after receiving private information about the treaty ending the Anglo-American War of 1812, ordered a quantity of tobacco at a given price. When the information became public, ending the naval blockade of New Orleans, the price of tobacco shot up (by 30 to 50%) for market reasons, and the seller sought to invalidate the contract, because he sold it for a much lower price.

Was the contract enforceable according to EAL?

On one hand, if the information was casually acquired, it wouldn't be relevant for the purpose of efficiency. The only reason to impose a disclosure duty would be a sense of justice. It isn't entirely clear if he acquired information casually, but he made a profit from it. However, the law cannot make incentives based on this kind of information.

On the other hand, if the information had been deliberately acquired, it would have been a purely distributive one, since it would have been only privately beneficial and would have determined a social loss. For this reason, there should be a disclosure duty.

If you have a disclosure duty and you don't disclose information, you cannot enforce the contract. On the contrary, if there isn't this duty, you can enforce it no matter what.

Table 1

INFORMATION	acquired by investment	acquired by fortuity
socially valuable	No duty of disclosure → Enforcement	It depends: - Efficiency → no duty → enforcement. - Fairness → duty → no enforcement. It is supposed to be revealed based on fairness, but the law might not care about fairness.
purely distributive	Duty of disclosure → No enforcement (for the purpose of efficiency)	Duty of disclosure → No enforcement (for the principle of fairness pursued by the law). Even in this case, it depends on the fact that law values fairness or not.

Table 2 – From Miceli’s perspective

INFORMATION	acquired by investment	acquired by fortuity
socially valuable	No disclosure (otherwise you allow free riding)	No disclosure (for the purpose of efficiency, it’s irrelevant)
purely distributive	Duty of disclosure	No disclosure (for the purpose of efficiency, it’s irrelevant)

The Economics of Contract Law: Remedies for Breach – Chap.5

The Efficient Breach Model

Breach of promise

Always (morally) wrong?

- **Kantian intuition:** it is always wrong not to do what you promised, because promises are a source of moral obligations, so you must comply with those no matter what.

p (promise) → Oq (obligation)

However, what if I promised to meet you for lunch and then one of my parents is hospitalized and the doctors ask me to go there?

The earlier obligation is defeasible.

$(p \& r) \rightarrow \sim Oq$

Defeasibility: exception to the general rule which contemplates the fact that something else (r) might enter the situation changing the circumstances (\sim).

Similarly, what if I promised to sell you my car and then my son implores me not to sell it?

Dilemma: breach of contract or disappointment of the son. The performance becomes problematic for the promisor.

And what if I promised you to sell you my car and then someone else offers me a higher price?

- **Utilitarianism** (moral philosophy): it depends on the proportion between costs and benefits (if costs > benefits, the breach of promises is justified). You must evaluate in which decision costs and benefits are greater empirically.

Efficient breach: CBA (= costs-benefits analysis)

A breach of contract is sometimes more efficient than performing it.

In fact, unforeseen contingencies can make performance inefficient (decreased value or increased cost of performance).

The core idea of CBA is that breach of contract is efficient in those cases where the cost of performance turns out to exceed the benefit of performance.

If it becomes inefficient, then it's better to breach.

However, in order to have an outcome which is socially acceptable, you need **remedies** (e.g. damages for nonperformance), which can make nonperformance (+ remedies) Pareto efficient.

With damages for nonperformance, victims would be at least indifferent, and who didn't perform would be better off, because the costs of the contracts would exceed a certain ratio (Pareto superiority).

Efficient breach: Remedies and Pareto

A failure to perform a contractual promise is efficient if no one is worse off than they would have been with performance and at least someone is better off with nonperformance.

In this way, an efficient breach is perceived as **Pareto superior**.

Remedies should be designed in a proper way, economically speaking, so that they encourage performance when performance is efficient and breach when breach is efficient.

Efficient breach model

1. Very generally speaking, you must breach when $C > V$, where C is the cost of performance to the seller and V is the value of performance to the buyer;
 - Performance would produce a net loss of $C - V$.
2. Breach when $V2 > V1$, where V2 is the value to a second buyer and V1 the value to the first buyer (the second buyer values the performance more);
 - Given some appropriate remedies, it's more efficient to choose the second buyer. We want social efficiency, not private one; for this reason, remedies are important. In fact, if there are remedies:
 - Expectation damages: $D = V - P$ with $D < C$ (it's efficient, because it gives the right incentives and the right compensation, in fact the buyer is indifferent between the performance and the breach and the seller is happier paying D than C).
 - Problem: V is usually a private information which the seller doesn't have and which is likely to cause litigation costs, since the buyer will try to increase it.

Remedies for Breach

Remedies for breach of contract

1. Expectation damages;
2. Reliance damages;
3. Specific performance;
4. Party-designated remedies.

Remedies have to leave the promisee (buyer) indifferent between breach and performance (condition for Pareto efficiency).

Expectation damages (cf. Arts. 1218 and 1223 Italian c.c.)

$$ED: D = V - P$$

Where D is the damages amount, V the value to the buyer and P the price.
These damages give the right incentives for efficient breach.

Example:

$$100 (V) - 75 (P) = 25 (D)$$

C = 125 (cost of performance to the seller)

D is the net benefit for the seller, which makes him better off (because otherwise he would have a loss of 50 = 125-75) and the buyer indifferent.

However, the seller might not be happy anyway considering the compensation, but he would surely be in a better situation compared to the performance.

Problem: How do we know V? If we had complete information, everything would be easier, but normally buyers don't disclose this kind of information. Moreover, you cannot ask for it to them: they would take advantage of that by lying, as the seller would take advantage of an honest answer.

Reliance damages (cf. Art. 1337 Italian c.c.)

$$RD: D=R$$

Where R is a reliance investment made by the victim.

They leave the promisee as well off as if the contract had never been made.

Like expectation damages, this measure is meant to fully compensate victims of breach, except that the reference point is their precontract status rather than their post-performance status.

Sometimes the law gives this kind of damages, which make one party the victim not with reference to the post-contract situation, but to the pre-contract status, as if the contract had never been made. You want to bring the promises back to the status where he hadn't made the investment yet.

Reliance damages thus reimburse buyers for their non-salvageable reliance expenditures.

Example:

You buy a house. In order to prepare the entrance in it, you buy also a kitchen appropriate to it. It was a reliance investment which would become a loss if there was a breach, so you should be compensated for these expenses.

Risk: $P + R < V$ and seller breaches too often under reliance damages

Miceli seems not to like this kind of damages very much, or at least less than ED, because, using them, you run the risk of having too many breaches of contract from the sellers.

Example:

$$100 (V) - 75 (P) = 25 (D)$$

$$C=150 \text{ e } R=5$$

$P+R < V \rightarrow$ If sellers had to pay just R, they would breach too often.

Moreover, the reliance investments are likely to increase the perception of V, which would bring the buyer to over expense, view the fact that he knows that all will be compensated (moral hazard).

Additional risk: under expectation damages, overinvestment of buyer in reliance expenditures (a form of moral hazard)

How to address this problem?

Miceli suggests addressing the previous example according to efficiency + standard of reasonableness:

1. Standard of reasonableness, as to what follows from breach "according to the usual course of things" (with communication burden on buyers if special needs arise) (cf. Arts. 1225 and 1227 Italian c.c.);
2. Economically, that means that damages will be limited to the losses that result from a reasonable (efficient) level of reliance.

Example:

$$100 (V) - 75 (P) = 25 (D)$$

$$C = 150 \text{ e } R = 5$$

$S_p = -75 \rightarrow$ state of affair with performance;

$S_b + ed = -25 \rightarrow$ state of affair with breach and expectation damages \rightarrow more efficient.

Scheme:

- Social condition for an efficient breach: $C > V$;
- Private condition for an efficient breach: $C > P + D$;

We want the two conditions to match: $V = P + D$, i.e. $D = V - P$;

But with R the private condition becomes $C > P + R$;

Too often $P + R < V$, so sellers breach too many times for self-interests (whenever $C > P$).

Cases

Hadley v. Baxendale (1854)

Plaintiff operated a mill that was forced to shut down when the crank shaft (something you need to operate the mill) broke. Plaintiff needed to ship the broken one back to the manufacturer to serve as a pattern for construction of a new one.

Defendant was hired to transport the shaft, and promised delivery to the manufacturer the following day, but delivery was "delayed by some neglect", which caused the mill to be shut down for several days.

Plaintiff sued for the lost profits. Defendant agreed with negligence, but claimed that the requested damages were too high because the need for the mill to shut down was a "remote" possibility (the defendant assumed the mill had a spare shaft, which is apparently a usual practice).

The court reduced damages because the buyer had a duty to specify special needs: you might suffer a greater loss than usual, but that's a private information which the seller doesn't know and it would be too costly to discover it alone. This burden is efficient, since it ameliorates the communication, even if it might affect the price of the performance, but that's normal business. Some react to this argument saying that it's the usual practice to communicate that it's important and urgent, but the difference here is that you have to specify the reason, the details (in this case, that they didn't have a spare shaft).

Specific performance (=obligation to perform)

Where money damages are thought to provide inadequate compensation - generally, contracts involving land or "unique goods" - courts can order specific performance.

It's the Kantian remedy: you promised to do 5, so you must do 5. This remedy is applicable when you're dealing with unique goods, such as paintings. It doesn't make sense to apply this kind of remedy when you can easily have a substitute.

Efficient? When breach is efficient, specific performance is not?

Bargaining can achieve efficiency also under specific performance.

- Economic argument against: If $C > V$ and you order the seller to perform, this would generate inefficiency by definition, so it wouldn't be an economic remedy;
- Counter arguments based on bargaining: you can achieve efficiency with the right kind of bargaining.

Ex. of sale of a parcel of land:

$V_1 = 60K$ and $P = 50K$, but $V_2 = 65K$ (we suppose that everyone knows about this second offer)

- Efficient breach with expectation damages (=10K)? Gain = $5K = 65K - 50K - 10K$ (benefit of the seller);
- Or specific performance? Gain = $5K = 65K - 60K$ (benefit of V_1 , because V_1 sells to V_2).

There's a different distribution in the increasing of wealth.

Problem: Transaction costs - Lower under specific performance?

They are usually high because we usually don't know V . If they start negotiating and don't find an agreement, transaction and litigation costs will be even higher.

Specific performance would require lower litigation costs than the determination of expectation damages through the value of V , since determining it could cause opportunistic behaviors, but you don't have this kind of problem with specific performance.

Cases

Peevyhouse v. Garland Coal and Mining Co. (1962)

The case concerned a contract between the Peevyhouses, owners of a farm containing coal deposits, and a mining company. The contract allowed the mining company to conduct a strip-mining operation for a period of five years, after which it was required to perform "certain restorative and remedial work at a cost estimated by expert witnesses at about \$29,000." When the mining company failed to repair the land (because $C > V$), the Peevyhouses sued for damages. At trial, the mining company admitted to having breached the contract, arguing that the cost of performance was substantially larger than the mere \$300 (=ED) reduction in the market value of the farm resulting from the failure to do the repairs.

They argue that the loss in $S_b + e_d$ (300 \$) would be lower than in S_p (29,000 \$).

Efficient? Usually there's a difference between subjective and market value. If the price was equal to market value we wouldn't have any problem, but, in reality, the seller tries to profit, it's a normal behavior. In fact, if $V > C$, we don't usually sell. If damages were calculated on market value, they might determine a loss, because V is usually higher.

Problem of subjective value v. market value

Remember that, if price (P) is equal to market value (V_m), contract efficiency requires that $V_b \geq V_m \geq V_s$.

Now, if your subjective value is $> V_m$, you don't sell.

Economic exchange should respect subjective value, but this is usually unobservable.

Specific performance gives the possibility to resolve the problem through negotiation ("buying consent").

The outcome depends on the bargaining ability of the parties, otherwise there would be high transaction costs. If they manage to find an agreement, everyone would be better off. If they don't, they'll have to pay litigation costs, which are higher than transaction costs. Moreover, if the law is unclear and the judge has to use discretion, this would introduce further costs.

Party-designated remedies

"Liquidated damages" for some forms of breach can be agreed to as part of the contract.

They save litigation costs, but damages may be considered as an additional price in some contexts (especially if they are not very high), which, however, is not the purpose of this remedy.

Prevailing doctrine: enforce only an amount that is a reasonable approximation to the actual losses from nonperformance

Economic explanation: excessive damages might induce performance when breach is more efficient.

Problem: if a party has more bargaining power than the other, she could influence the other negatively. However, if they find that the amount is unreasonable, too expensive, judges are likely to reduce these damages.

What Miceli does not say

- Imperfect information as information asymmetry that systematically favors sellers;
- Imperfect rationality that systematically favors sellers (producers/providers of financial services) at the expense of buyers (consumers);
 - Miceli assumes that economic agents are perfectly rational, only influenced by lacks of information. However, behavioral studies in L&E describe the reality: we are not completely rational nor irrational, but we have problems with rationality.
- Biases affecting real economic agents and consumers in particular (see slides 9(3));
 - Imperfect rationality often comes from biases, which might also determine a bad allocation of resources.
- Behavioral market failures due to the above-mentioned factors and that require legal interventions to be counterbalanced.

Consumer transactions

We have market failures because of imperfect information and imperfect rationality (or information asymmetries and rationality problems).

“When consumers are imperfectly informed and imperfectly rational and, as a result, misperceive benefits and prices, sellers design their products, contracts, and pricing schemes to maximize the **perceived** (net) benefit to consumers” (Bar-Gill, from Harvard law school), which does not always correspond to the **actual** (net) benefit (what is actually good for you).

There’s the need of legal interventions in order to solve the misalignment between perceived and actual benefit: e.g., ex ante rules on contract design, such as the duty of producers; ex post right to withdraw for the consumers without saying the reason, since it’s sufficient to be worse off (the time limit to do so must be reasonable).

Are we Rational?

Let’s discuss the Rationality Assumption (made by Miceli and by standard models of human and economic behavior, especially when discussing contracts and contract law):

- Conventional Law & Economics assumes economic agents to be rational;
- Behavioral Law & Economics challenges that assumption;
 - It isn’t a speculative theory: there are studies which show we make mistakes, so it’s an a posteriori consideration which evidences the fact that we are not perfectly and always rational.

Tversky and Kahneman: Heuristics and Biases

When we have a little time to make a decision, we’re often influenced by our emotions, without considering too much the consequences.

The system of heuristics is a method to make decisions which are essential for our survival without any reasoning.

The study of heuristics in human decision-making was developed in the 1970s and the 1980s by the psychologists Amos Tversky (1937-1996) and Daniel Kahneman (1934-*, Nobel Prize 2002), although the concept had been originally introduced by the Nobel laureate Herbert A. Simon.

They are a sort of mental shortcuts, i.e. a way to address problems quickly, which is often effective, but not always natural reactions are effective.

Heuristics and Biases Research Program (starting in the 1970s)

Systematic deviations from Rational Choice Theory (RCT)

Empirical studies show systematic deviations from the conventional RCT picture. Why is that?

Heuristics that guide us are successful in some contexts but also produce systematic errors.

For instance, some heuristics generate **biases**.

Systematic biases

Framing effect

The problem of the Asian disease* (experiment made in the 70s)

Choose between alternative health programs aimed at eradicating a disease (the Asian disease) that would otherwise destroy the entire population of a community of 600 people.

You have to choose between:

- program (A) that saves 200 lives with certainty;
 - The text doesn't explicitly say that the other 400 people will die, which makes the option become more attractive. However, people normally consider implicit the fact that the others will die (tricky interpretation).
- program (B) that has the probability of 1/3 of saving all 600 lives and 2/3 of not saving anyone;
 - Some people argue that if the community is lucky everybody will live, while if it's unlucky everybody will die (equal treatment, equal destiny)

What to choose? The majority prefers A.

The problem of the Asian disease**

The situation is the same, you have to choose between:

- program (A) involving the certain death of 400 people;
 - Implicitly we understand that 200 people will live.
- program (B) that involves a 2/3 chance of losing all 600 lives and 1/3 that no one will die

What to choose?

What's crucial here is the way options are presented: the option A in this case sounds horrible, even if it's the same content, only with a different emphasis, which generates a different perception in people, who experimentally switch to B. That seems to be a failure of our rational capacity, since we should understand that the content is the same, even if framed differently, which however causes a different behavioral effect influenced by emotions, generating different reactions.

- Now, 72% respondents choose (A) in the first scenario, and 28% choose (B);
- While 78% choose (B) in the second scenario, and 22% choose (A).

Why is that? Framing effect + role of feelings.

Additional problem: Expected utility theory

Consider 1 as the value of each life:

A/B → Expected utility = 200

The expected value of (A) and (B) is exactly the same: 200 ($200 \times 1 + 400 \times 0$ and $600 \times 1/3 + 0 \times 2/3$).

The two programs are equivalent, in both scenarios, in terms of expected value (or expected utility).

Therefore, rationally speaking, the choice is indifferent, but no one would give this answer, so our behavior deviates a lot from rationality. It isn't just an error of some individuals, we systematically behave differently.

Advertising companies know this theory very well, in fact they can induce you to buy something you didn't need. Even doctors make propositions considering the framing effect.

This theory applies also to juridical problems: it doesn't normally matter if people behave irrationally, since law indicates what they should do.

Why those differences and deviations from RCT?

- Effect of the way the problem is presented;
- Role of emotions: fear, panic, trust, etc. (emotional approach);
- Sense of fairness (reasoned approach).

In any case people deviate from rational decisions.

More technically: **loss aversion**?

- We tend to take risks when we think in terms of losses;
- We tend to avoid risks when we think in terms of gains.

Hindsight bias

When you know how things went, you change your perception of ex ante probability, often over evaluating the option which prevails in the given outcome.

Who won the Nepalese war?*

Between 1814 and 1816 a war was fought in Nepal between the British and the Nepalese Gurkhas (population of that area):

- Better military organization of the British, greater availability of weapons;
- Better knowledge of the territory of the Gurkhas, stronger motivation.

Who wins the war? What probabilities?

Who won the Nepalese war?***

We have the same information plus an additional information: **British victory** (it's a fact, not a supposition).

What was the ex ante probability of a British victory?

Rational people should not consider this information in order to answer, because it concerns ex-post probability, while you should predict the outcome. Irrational people will attribute a higher ex ante probability to the British victory.

Problem: people are influenced by this kind of information and change their perception of ex ante probability.

Who won the Nepalese war?***

We have the same information plus an additional information: **Victory of the Gurkhas**.

What was the ex ante probability of a victory of the Gurkhas?

Some people changed their mind, which is not rational.

Effect of the received information on the estimate of the ex ante probability:

- **Systematic overvaluation;**
 - **Judging "in hindsight":** once people know how things went, they tend to estimate the relevant event as more predictable than it really was;
 - Once things happen, the majority seems very confident about ex-ante probability.
1. On average, the group (version * of the experiment) attributed these probabilities:
 - 67% victory of the British;
 - 33% victory of the Gurkhas.
 2. In the first subgroup (version **), victory of the British rose to 90%;
 3. In the second subgroup (version ***), victory of the Gurkhas rose to 65%.

Judging "in hindsight": **legal effects**?

Effect of the **assessment of liability** (especially for negligence): once an accident happens, irrational victims would consider the ex ante probability higher than before, which influences managers and investors liability. You cannot completely eliminate the bias, since you cannot cancel the main information, but you could hide some other information.

Example: **banana peel in supermarket (US: Rule 407 FRE)**

After the accident, they improved the cleaning to better the safety, which would help to demonstrate the previous negligence. However, this argument might be a fallacy, since the efficient measures might have been the ones used before, while now they might be spending too much.

Therefore, you cannot prove negligence through this kind of information, because it generates hindsight effects. The British system banned this kind of proof, while in Italy judges are considered able to evidence biases as professional decision markers. In the British system, because of this rule, some accidents are not compensated and many argue to change it. In some cases, this evidence would be actually admissible, but with very low probative value. The real problem is when a case is decided by a jury.

US: Rule 407 FRE

"When measures are taken that would have made an earlier injury or harm less likely to occur, evidence of the subsequent measures is not admissible to prove:

- negligence;
- culpable conduct;
- a defect in a product or its design; or
- a need for a warning or instruction.

But the court may admit this evidence for another purpose, such as impeachment or - if disputed - proving ownership, control, or the feasibility of precautionary measures".

Anchoring effect

Answer in 5 seconds:

- $1 \times 2 \times 3 \times 4 \times 5 \times 6 \times 7 \times 8 = ?$
- $8 \times 7 \times 6 \times 5 \times 4 \times 3 \times 2 \times 1 = ?$

Experimental results:

- Median estimate with ascending series: 512;
- Median estimate with descending series: 2.250;

Correct answer: 40.320.

Explanation: given figures as anchors, point of reference; then adjustments

Both groups are wrong, but the second group is a little better, because we take the first figures as anchors, as points of reference, so they were likely to say a higher estimate (good heuristic move).

If the figures are reliable indicators, anchoring works as good heuristic; if not, it leads to error.

Also the judge might be influenced by the first figures in determining damages. It isn't certain, but there's a risk, especially in criminal law, where we traditionally think that the defense should have the last word, which closes the procedure before the decision. However, with this effect the judge might keep in mind what the plaintiff said, which goes against the defendant.

The Economics of Property Law: Property Rights and Consensual Exchange – Chap.6

The economic function of property law

Thomas Hobbes (1588-1679) – State of nature and social contract

He compared productive efficiency in civil society to the state of nature, a fictional notion where life is "solitary, poor, nasty, brutish, and the short" (Leviathan, I, 13).

We are not sure that it was actually like that, but Hobbes describe the original condition of the world as a war against everyone. The purpose of the social contract was to establish a legal and political order.

This move was efficient from a Paretian perspective, because people were better off, so this social arrangement generated Pareto and productive efficiency.

Without institutions and States or authorities, most of your resources and time would be spent protecting yourself from others. Therefore, the cost of production would be very high, since there would be the constant fear of being robbed without anyone defending you. It wasn't a peaceful state, while with the social contract,

the State has the monopoly of punishment, as in the civil society, where you can spend much less on the production of goods having the same output.

To sum up, giving property rights through property law generates benefits, since property law reduces the costs of production of goods and encourages production.

John Locke (1632-1704) - The labor theory of property

"Though the earth, and all inferior creatures, be common to all men, yet every man has a property in his own person: this nobody has any right to but himself. The labour of his body, and the work of his hands, we may say, are properly his. Whatsoever then he removes out of the state that nature hath provided, and left it in, he hath mixed his labour with, and joined to it something that is his own, and thereby makes it his property. It being by him removed from the common state nature hath placed it in, it hath by this labour something annexed to it, that excludes the common right of other men. For this labour being the unquestionable property of the labourer, no man but he can have a right to what that is once joined to, at least where there is enough, and as good, left in common for others." (Second Treatise of Government, § 27)

According to him and with the natural law theory, "every man has a property in his own person": this is a natural right, in particular the right of self-ownership. You cannot decide for someone else, since everyone has the right to decide for himself, to produce something with his own body, which becomes therefore his own property. As a consequence, things that come from your labor become your property, the result of your activity is yours.

The right of self-ownership is an individual right which includes also the right of excluding everyone else from that right, with the limit of natural law theory: you cannot take everything and let the others die, because it would be against morality. Therefore, something must be left to others, but people are encouraged to invest and to produce only if this fundamental right is guaranteed, which has an economic rational.

Jean-Jacques Rousseau (1712-78) - The critique of property rights

"The first person who, having enclosed a piece of land, took it into his head to say "This is mine" and found people simple enough to believe him, was the true founder of civil society. What crimes, wars, murders, what miseries and horrors would the human race have been spared, had someone pulled up the stakes or filled in the ditch and cried out to his fellow men: "Do not listen to this imposter. You are lost if you forget that the fruits of the earth belong to all and the earth to none!"" (Discourse on Inequality, II)

According to him, in the state of nature everyone was happy, while problems started with the birth of society. This is a very unreliable representation of the state of nature, since it is very unlikely that there were no problems at all. What is certain is that the property rights as individual rights created lots of problems as well.

The tragedy of the commons

This case deals with a community of herdsmen and a group ownership of grazing land ("commons"): they had their own individual animals but they had a common land.

"As a rational being, each herdsman seeks to maximize his gain. Explicitly or implicitly, more or less consciously, he asks, "What is the utility to me of adding one more animal to my herd?" This utility has one negative and one positive component.

The positive component is a function of the increment of one animal. Since the herdsman receives all the proceeds from the sale of the additional animal, the positive utility is nearly + 1.

The negative component is a function of the additional overgrazing created by one more animal. Since, however, the effects of overgrazing are shared by all the herdsmen, the negative utility for any particular decision-making herdsman is only a fraction of - 1." (Hardin 1968)

In this case, there is something in common and something not, but every human being is an economic agent who tries to maximize his utility, which has it to components:

1. **Positive** → increment of 1 animal (for each additional animal, the utility increases of 1);
2. **Negative** → the more animals there are, the more resources are used, which can be perceived as the cost for using the common land for your animal.

- In the worst-case scenario, this would lead to a resource overuse and depletion: the land would be destroyed by the excessive number of animals, which is the tragedy of the commons.

"Adding together the component partial utilities, the rational herdsman concludes that the only sensible course for him to pursue is to add another animal to his herd. And another; and another... But this is the conclusion reached by each and every rational herdsman sharing a commons. Therein is the tragedy." (Hardin 1968)

Similar example: **fishing**.

If everyone reasons in that way as rational maximizers, how to prevent the tragedy?

- **Law:**
 - Limiting the number of animals and the use of the commons, giving strict rules about its usage;
 - Dividing the commons in individual parties through property rights, so that people won't put an excessive number of animals on their land, because it would be against their interests.
- **Social control:** it works where communities are small and homogeneous, because everyone knows everything and manages to control and sanction bad behaviors immediately. Our contemporary global world cannot be compared to a small village, so commons are unlikely to be adequate, since the costs to make them respected would be too high.

Therefore, the solution is either divide the commons through property rights or elaborate very strict rules for the use of the commons, so that it isn't destroyed (prevention of the tragedy).

However, group ownership has the advantages of exploiting scale economies and risk sharing, on condition of strong commitment and social control.

Property law according to Miceli

It is constituted by individual rights, particularly property rights.

Economic function:

To protect investments in property and enforce contracts (consensual exchange), so that you're encouraged to exchange goods and to exploit the benefits of the trade.

That is, to have a stable legal background protecting investments, against which economic activity can take place. Therefore:

- **Property rights** are perceived as **incentives** (internalizing externalities);
 - The negative aspect are the costs.
- **Ownership of an asset** is perceived as a "bundle of rights" (to use, exclude, dispose), which are ownership rights.

Ways of legally acquiring property

How to acquire property?

- **Creation (of ideas):** some ideas have an economic value which must be protected, so you can acquire the property of those ideas themselves, which are a human creation legally relevant only if they have an economic value.
- **Production (of material goods):** as ideas, goods are not a legal fact in themselves, but they can become one if they have an economic value.
- Contracts, wills,...

However, for some items it's complicated to establish property.

For instance, what about "fugitive property" (e.g. natural gas, wild animals, oil)?

It is in their nature to be fugitive, to escape, but they have economic value. How do we acquire property rights on those things?

- Principle of **First possession**: ownership is acquired by first possession (remember *Popov*);
 - It is sufficient an act of taking possession, but you must be the first.
 - A problem might be the legal definition of possession: total or partial control?

- Principle of **Tied ownership**: owner of surface has exclusive right on fugitive property on it or under it (ex. wild animals which pass on your land, gas under your land,...).

You must understand when there are economic reasons to prefer one principle to the other. In our legal system we don't have this problem, since those items cannot be private property, only public.

Hammonds v. Central Kentucky Natural Gas Co. (1934)

The Central Kentucky Natural Gas Company leased tracts of land above large deposits of natural gas. Some of the leased tracts were separated from one another by land that the company did not own or lease. The geological dome of natural gas from which the company drew its supply lay partially under the leased land and partially under unleased land. Hammonds owned 54 acres of land that lay above the geological dome tapped by the company, but she had not let the subsurface rights in her land to the company. When it extracted natural gas and oil from the dome, she sued the company on the theory that some of the natural gas that was under her land had been wrongfully appropriated by the defendant.

This is a civil case, in fact they were asking for compensation.

The Coase theorem would predict that the gas went to the company, because for it it's more valuable, but it should ask Hammonds for the rights of extraction. From the text we can understand that the company probably asked for them and started a negotiation, but Hammonds were probably opportunistic, which would determine high litigation costs and, eventually, market failure.

The other possibility is that the subjective value that Hammonds attributed to the land is greater than what the company could give, which explains why they couldn't find an agreement and it's economically logic, even if it isn't very plausible. However, there are more arguments against Hammonds, who didn't possess, but owned the gas (if you possess something you become the owner and that's a fact).

Ways of legally acquiring property

- Principle of First Possession applied also to non-fugitive property?
 - According to tied ownership, the owner of the land is the owner of the natural gas. On the contrary, according to first possession, the company is the owner, so there would be no right to compensation. The outcome are two opposite legal consequences: which principle is better for the purpose of efficiency? There are litigation costs in any case. Apparently, there's no reason to use the principle of first possession in order to establish the property of lands, because it doesn't make any sense. However, you cannot exactly calculate the amount of gas under the land in order to establish a proper compensation, since it would result in high litigation costs (argument to prefer first possession). Moreover, for the company the gas has probably more value than for the Hammonds and also socially speaking first possession would be a better decision, as it would be more profitable. If you'd consider other variables, such as fairness, the problem would become more legal than economic, and also the economic aspects would become more complex.
- Ex. **Homestead Act** (1862) about public land in the West of the US
- Awarding property rights to land on a "first come, first served" basis, with \$10 entry fee and promise to reside there for 5 years;
 - The land was assigned to the first offeror in this case, at a price which was relatively cheap, but it was a way of allocating property in an underdeveloped country, in order to encourage the starting of economic activities, which would have been much more costly if done by the State. This is an example of non-fugitive property attributed through the principle of first possession. However, the risk are episodes of violence between settlers, indigenous people and wild animals and overinvestment in order to be the first possessor (people ran to be the first, but who arrived late lost all his investment).

CBA of First Possession approach

- **Costs:** wasteful race to acquire exclusive use of a resource, or excessive depletion of an open-access resource (the tragedy of the commons);
 - You encourage people to get the most they can, which would generate an overinvestment and an excessive use of resources.
- **Benefits** (according to Miceli): less administrative costs, mix of private and public enforcement and protection methods (e.g., since land ownership on the frontier was a risky proposition, some protection was provided by the government with military presence and the settlers invested in forms of self-enforcement – almost everyone carried a gun to protect themselves).

Class exercise: Pierson v. Post (1805) – Chasing a prey

“Post, being in possession of certain dogs and hounds under his command, did, on a certain wild and uninhabited, unpossessed and waste land, called the beach, find and start one of those noxious beasts called a fox, and whilst there hunting, chasing and pursuing the same with his dogs and hounds, and when in view thereof, Pierson, well knowing the fox was so hunted and pursued, did, in the sight of Post, to prevent his catching the same, kill and carry it off. A verdict having been rendered for [Post, who was] the plaintiff below, [Pierson appealed] ...”

In this case, there was no tied ownership nor first possession, because Post was just chasing a fox.

- **Economic argument** in favor of Post: he invested in that activity (dogs), while the other was a sort of free rider;
- **Counterargument:** investments may result in losses if someone gets the thing first, which is the economic logic of the principle of first possession.

Appeal decision

“However uncourteous or unkind the conduct of Pierson towards Post, in this instance, may have been, yet his act was productive of no injury or damage (to Post) for which a legal remedy can be applied. We are of opinion the judgment below was erroneous, and ought to be reversed ...”

Enforcement: should the law protect the possessor or the claimant?

Two systems for protecting title to land:

- **Recording** (not efficient): prospective buyers can consult a public record for evidence that possessor has title, but the record itself does **not** establish title.
 - It just contains evidence, it has no authority, so there’s room for the claim of the possessor (the owner will be given a compensation in case of possessor’s success).
- **Registration** (more efficient): buyer registers property with the government at the time of purchase, followed by judicial inquiry into the status of the title; if no claim is found, government issues a certificate that is good against future claims.
 - This certificate has authority, but it has also a cost issue: it’s expensive to have this certificate and to make inquiries, but the benefit is legal certainty (with the other system there would be greater litigation costs).

Primary difference: the latter awards title to possessor and compensation to claimant, the former awards title to claimant and compensation to possessor, who gives a higher subjective value.

Possession and “endowment effect”

“Man, like a tree in the cleft of a rock, gradually shapes roots to its surroundings, and when the roots have grown a certain size, can’t be displaced without cutting at its life” (Oliver Wendell Holmes)

This is a metaphor according to which you cannot displace a tree without harming it. Similarly, the fact of living in a certain place increases the subjective value of the possession, so men cannot be obliged to leave without being harmed.

Possession and subjective value are inextricably linked, and subjective value likely grows overtime as possessor occupies the land.

Possessor generally prefers a system that allows to retain title than receiving market value as compensation; claimant is most likely indifferent. We shouldn’t neglect the subjective value, so maybe we should prefer the

system which permits the claim of the possessor, because he attributes a higher value to the thing. As a result, the registration system seems better for it leaves the land in the hands of the higher valuer (possessor). With this system, even if the higher value is attributed to the thing by the owner and not the possessor, this mistaken allocation can be solved through future negotiation: the owner can buy the land offering more than the value attributed by the possessor.

Not only about land: endowment effect is shown by experiments also with mugs (difference in value if bought or sold), because, when you possess something, you give it more value due to feelings. This is a phenomenon studied by behavioral scholars, who found out that having a certain item generates an increasing of its value, statistically speaking. When you're given a certain thing, even if trivial, you change your evaluation about it, how much you're willing to receive in order to resell it,...

Possible explanation: **loss aversion** (would you accept tossing a coin with +10 if it lands heads and -10 if it lands tails?)

It's a strange phenomenon. In fact, according to economic theory the value should stay the same, but:

- The possessors might be opportunistic;
- Endowment effect: there's no economic reason for this augmentation. The psychological reason is that people have risk and loss aversion.
- Loss aversion: people want to avoid losses more than they want a gain, even if the expected profit is the same. For the rational choice theory, you should pursue a greater gain, a higher expected utility, but people prefer not to go into that bet. This is why the value is greater and the registration system should be preferred.
 - For our survival, maybe it's better to be concerned about risks rather than about gains (good heuristic to survive in a hostile world).

Regulation and limitation of property rights

Intellectual property and the trade-offs of protecting ideas

Ideas which have an economic value are protected by the law through intellectual property rights.

- Benefits to the inventor and costs to society given **protection**:
 - Society has not open access to those protected ideas: if we just gave open access, we wouldn't give incentives to invest in good ideas, with economic value, while we want to encourage development. On the other hand, if we protect them too much, this would generate a great cost for society. We have to find a tradeoff.
- Benefits to society from **availability** of ideas and costs to inventors.

That needs an understanding of the economic distinction between public and private goods - notice it is different from the legal distinction.

Limitation of property rights for other reasons.

Public and private goods in the economic sense

Economic distinction (different from legal distinction):

- Public goods are **nonrival** in that consumption of a public good by one person does not leave less for any other consumer.
 - The good survives, it's still there after consumption. Ex. military defense, legal system (everyone can take advantage of the law), information (theoretically, everybody can be given the same information, nobody is prevented from finding that).
- Private goods, instead, are **rival** in that consumption by one person leaves less/nothing for the others.
 - Ex. busses (limited seats), an apple (if someone eats it, others cannot).

The judiciary system seems to be in between, since, theoretically, everyone has access to justice, but, in practice, the number of judges is limited.

As a consequence, private ownership of public goods will result in underproduction because the producer will not internalize the full consumption benefits.

If a public good was given private ownership, producers would underproduce, since they wouldn't receive benefits, view the fact that once the good is available, everyone can access it. For this reason, public goods are better provided by the State (in this case, economic distinction = legal distinction).

Additionally, **exclusion costs** are usually high for public goods. It's costly to exclude someone from public goods.

Intellectual property

Intellectual property (e.g. ideas, inventions, musical compositions, artwork) is perceived as **public good** (economically speaking): it can be reused without diminishing its quantity and its value to consumers, so the quality isn't affected either.

Moreover, it is costly to exclude someone from its benefit.

On the other hand, it is costly to produce, and producers would be discouraged if they couldn't internalize at least a part of the benefits.

If artworks had open access producers would be discouraged, while we want private individuals to produce those goods, so we need to implement protection.

Trade-off between the benefits of public ownership of ideas and the need for incentives to invest in producing them:

- Paintings → private good, because it's unique and, if I have it, nobody else can;
- Book/ music → public goods, because you can make copies and everybody can benefit from them.

Ways in which the law has resolved that trade-off:

- Patents;
- Trade secrets;
- Copyrights;
- Trademarks.

Patents

A farmer (producer = seller) can capture returns in apple investment by charging a price for apples and denying consumption to nonpayers.

In contrast, it is difficult for inventors to prevent nonpayers from using their ideas (high exclusion costs).

Risk: this system isn't an incentive to produce in a fair space, because I don't get enough profits with respect to the cost.

The **patent system** awards exclusive property rights in ideas to inventors; on the other hand, it creates a monopoly problem (incentive for the monopolist to restrict output and raise prices), which is a bad side effect for society.

Solution: legally imposing a time limit on patents (mostly 20 years). You can calculate an efficient time limit based on the effects of the monopoly.

The optimal patent life (in terms of time duration), giving optimal incentives to invest in ideas, balances two effects:

1. Welfare loss from monopoly;
2. Investor's returns.

Problems of the patent system (any trade off has problems, because it isn't a perfect solution):

- **Patent races:** overinvestment in research and development of ideas;
- **Patent scope:** need to define the extent to which ideas are protected (not a matter of duration, but of "imitation", an issue concerning the extent of protection which determines high litigation cost);
 - Can a similar idea be considered an infringement of your intellectual property? There are degrees of imitation.

Trade secrets

- The inventor does **not** need to reveal the nature of the invention to the authorities, as he must when he seeks a patent application (**1st advantage**);
- A Trade secret is of **unlimited** duration (**2nd advantage**), differently from patents.

Trade-secret law offers less protection than a patent (chief disadvantage): competitors can legally appropriate the idea by means of independent discovery.

Given these variables, people have to decide what they prefer.

Copyrights

Copyright law provides legal protection to writing, music, artistic works, and other creations.

Copyright protection is of **limited duration**: life of the creator plus 70 years (similarity with patents), then you can republish for free, because the copyright protection will be expired.

Copyrights do **not** preclude independent discovery (similarity with trade secrets): if a genuinely independent work is similar to another, this doesn't constitute a copyright infringement, even if it is much unlikely for this to happen. If the creation is independent, there's no problem. It's the way in which the idea is expressed which is protected by copyright.

Copyright law protects the **expression** of the idea, rather than the idea itself.

Exception to copyright protection

"**Fair use**", for educational purposes or in a **review**.

For instance, the [Google Books database](#) was considered fair use

Why? That database contains the full text of public-domain books and small portions of copyrighted books; in 2013 the US Second Circuit Court of Appeals pointed to the significant public benefits of the wide availability of such works and the sufficient protection of the rights of copyrights holders, since they are easily available and cheap, but only small portions of the books are available for free, because there are limits also to fair use, so there's sufficient protection.

In any event, there's the need to continually adjust the scope of fair use given technological change (challenge to copyright).

Music copyright case 1: David Bowie/ Queen v. Vanilla Ice

Vanilla Ice paid for the infringement and had to give credits. Probably his lawyers conveyed it was much more convenient to pay.

However, also between "Under Pressure" and "Ice Ice Baby" the difference is only one note more, but they pretended it was original.

Music copyright case 2: Skidmore (Spirit) v. Led Zeppelin

"Taurus" v. "Stairway to Heaven" → more controversial case.

Trademarks

A trademark is a symbol or any sort of sign with the function to identify a product/service.

Consequently, trademark law protects symbols, phrases, or any other distinctive signs that uniquely identify a product or service.

Legal protection of a trademark requires only that the owner be the **first** to use it commercially.

Protection may be limited to the geographical region, though, but there's no time limitation.

Function of the law: help lower consumer search costs rather than protecting ideas.

It wants to help consumers finding quickly what they're looking for, making their life easier by lowering the cost of searching.

Some people argue that the primary function is always protecting ideas, but it's debatable.

Remedies for intellectual property rights infringement

The legal system establishes them to encourage the respect of intellectual property:

- First, **injunctive relief** against infringers (induction not to infringe intellectual property);
 - The victim can ask for injunction and the infringing activity will be stopped (the defendant will be ordered to stop copying; it's an order given by the judge).
- Second, **damages** for lost profits due to the infringement (compensation for victims);
 - Once the violation has been found, damages can be asked for lost profits.

These two solutions can be coupled: it isn't an alternative.

From an argumentation viewpoint, note that claims about lost profits involve counterfactual claims (you consider what the legislator would have done in an alternative world, which isn't easy to justify, because you don't have proof): they are about the profits someone would have made if infringement were not the case.

How to support counterfactual claims?

It's a claim about a hypothetical world which does not correspond to the real one. The exact amount of the compensation is consequently disputable, since it deals with a counterfactual world.

Sennheiser fights fake electronic goods

Sennheiser, the maker of high-performance headphones costing several hundred dollars, said the fakes cost the company at least \$2m a year in lost sales.

Counter argument: if there weren't fakes, everybody would buy our headphones → Too simple: people are buying fakes because maybe some of them haven't got enough money to afford them. That's a very cheap argument to justify such a compensation.

Limitations

Ploof v. Putnam (1908)

Defendant owned a dock. Defendant's servant was in charge of the dock when Plaintiff and his family were sailing. A storm arose and Plaintiff was forced to tie his boat to Defendant's dock (because of the storm). Defendant's servant untied Plaintiff's boat. Plaintiff and his family were injured and the boat was destroyed. Plaintiff sued in trespass, claiming that it was Defendant's servant's duty to allow Plaintiff to tie his boat to Defendant's dock.

The defendant claimed it was his property and that his servant was there to defend his property, given the right to exclude others from his own property. He denied the use of the dock based on a lawful right he possesses.

Cost benefits analysis: the benefits of the defendant seems to be trivial with respect to the cost supported by the plaintiff (lives + boat). There are clear economic reasons to argue that the plaintiff should get compensation. Moreover, there's a valid economic argument to limit the right to exclude someone from my own property.

Besides, in this situation, the defendant had a sort of monopoly power in a hypothetical negotiation, which didn't occur because there wasn't enough time. However, even with negotiation, the result would have been inefficient because of the disparity between the parties.

Property rights limitations: Art. 2045 Italian c.c.

"When the injurer was forced to act by the need to save himself or others from the current danger of serious personal injury, and the danger was not voluntarily caused by him nor was it otherwise avoidable, the injured party is due an indemnity (≠ compensation), the amount of which is left to the fair judgment of the judge."

The victim here seems the defendant, since the plaintiff was trying to use his property, so he would be the injurer. The legal system can establish a limitation of property rights with some conditions: they can be limited if the benefit consists in saving lives or protecting important property. In this case, the plaintiff got compensation because of the damage caused to his family.

The Economics of Property Law: Involuntary Transfers and Regulation of Property – Chap.7

Market imperfections and Coase's lesson

Markets do not always function smoothly, even when rights are clearly defined.

Negative externalities (= cost imposed by an economic activity to a third party without her consent) as "market failures", which the legal system wants to internalize through a duty to compensate the victim, which would make the economic activity establish the efficient amount of production.

Externalities can lead to inefficient use of property, thus providing a possible justification for government intervention to restrict the way in which people can use their property.

Every time there's a market failure, especially due to an externality, the law is justified to intervene with the purpose of fixing it. Therefore, the law is needed to fix the problem.

In literature, discussions about market failure are usually influenced by political views: people who dislike economic intervention by the government think that market failures are just a few, so there's no need of State intervention. On the contrary, left-wing people argue that there are a lot of them, so the State intervention is much needed. This is a controversial topic.

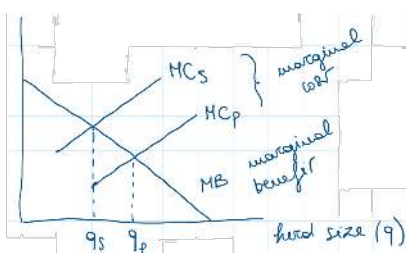
Bundle theory of property rights:

Property rights are composed of some subjective rights which have to be clearly defined in order not to have high litigation costs.

Pigovian taxes as a government intervention:

This is a typical government intervention in order to internalize the costs of the economic activity, because economic agents who produce negative externalities to maximize their profit won't compensate victims unless there's a legal duty.

According to Coase such taxes are **not** necessarily efficient, since the social cost can become much greater than the individual benefit.



"qs" (in the picture) is the optimal herd size that the law should obtain, usually through taxes (Pigovian style), while Coase says we could reach an optimal allocation of resources through the lowering of transaction costs and the allocation of rights to the part who values them the most, independently on how the rights are initially assigned.

We must take into consideration the endowment effect, which makes important to have the right allocation of resources from the very beginning, since transaction costs are likely to become higher later on.

Example of straying cattle:

Straying cattle is a problem because it destroys part of the crop (loss of the farmer).

From a property rights perspective, the Pigovian solution is equivalent to awarding the farmer a "right" to be free from straying cattle, and requiring the rancher to "purchase" that right by compensating the farmer for his crop damage.

However, if the rancher had the right to allow his cattle to stray, the farmer would "purchase" that right if he put a higher value in the use of the resource.

There should be a compensation duty on the rancher (Pigovian solution), since the externality is coming from him. If you apply this, the rancher could still produce the externality, provided that he pays compensation, so the bargaining might not determine the efficient allocation of resources and the government intervention might be irrelevant.

Coase Theorem and Corollaries

- **Theorem:** when property rights are well defined and transaction costs are low, the allocation of resources will be efficient regardless of the initial assignment of property rights (only distribution of wealth changes).
- **Corollary 1:** when transaction costs are high, which would prevent the parties from negotiating, the assignment of property rights matters for efficiency. Specifically, rights should be assigned to the party that values them most.
- **Corollary 2:** to enforce rights, use property rules when transaction costs are low, and liability rules when transaction costs are high (see following slides for the property/liability rules distinction).

On Corollary 2:

Rules for enforcing assignments are also important for determining the allocation of resources because they dictate how property rights can be legally transferred and what remedies are available for infringements. Contracts contain the element of enforcement, which is crucial to establish the right allocation of resources. Economic decisions by economic agents are made in the shadow of remedies and enforcements, because they influence what people decide to do.

Then comes the distinction between Property rules and Liability Rules.

Property rules and Liability rules

The “Cathedral” paper (Harvard law review)

Calabresi and Melamed (1972) “Property Rules, Liability Rules, and Inalienability: One View of the Cathedral”.

Purpose: to integrate various legal relationships which are traditionally analyzed in separate subject areas such as Property and Torts

Cathedral metaphor: Monet used to paint the cathedral in different times and with different weather conditions. The legal system can be considered like the cathedral: it can be seen under different lights, which results in different legal theories/areas.

The idea is to provide a view of the cathedral/ legal system which makes people see the connection between different areas of law. The advantage would be seeing together, in a complex view, subjects that normally people discuss separately. Independently from where you start, the important thing is that you see the connection, especially between property and tort law. These are theoretical categories that need to be considered together in order to understand better how the legal system works; they are meant to give a clear picture of the legal system and also to provide practical advice, even if they are positive law categories.

The “Cathedral” paper: property rules

Miceli’s example: A initially holds the right to plant a tree that would block B’s view of the ocean:

B can “purchase” the right through bargaining.

“An entitlement [right] is protected by a **property rule** to the extent that someone who wishes to remove the entitlement from its holder must buy it from him in a voluntary transaction in which the value of the entitlement is agreed upon by the seller” (Calabresi & Melamed).

B could buy A’s right to plant the tree through compensation, if he attributes a greater value to the view. It depends on the property rule: A has a bigger power, because the rule protects its entitlement. If they don’t find an agreement about how much B will have to pay, there will be no transaction. In fact, the seller A has a veto power if the offer is insufficient.

The “Cathedral” paper: liability rules

“Whenever someone may destroy the initial entitlement if he is willing to pay an objectively determined value for it, an entitlement is protected by a **liability rule**” (Calabresi & Melamed).

If the legal system allows this, it means that the right is only protected by a liability rule, which means that B can acquire that right by paying compensation even without consent. No consent is needed, so there’s no veto power of A.

Since it is something which is not agreed upon, the amount which must be paid will be decided by the court. That’s bizarre that someone can acquire someone else’s right just by paying compensation. However, if there’s just a liability rule, it is considered legal.

Plus inalienability rules: “An entitlement is inalienable to the extent that its transfer is not permitted between a willing buyer and a willing seller” (Calabresi & Melamed)

Limits on the entitlement, or right, itself; ex. prohibition to sell body parts. Therefore, legally speaking, you cannot do that transaction, even with consent, because there are moral externalities, it is morally outrageous. However, if we give too much importance to negative externalities, we run the risk of limiting individual rights, so it’s a problematic argument.

Property and liability rules

Remedies for breach of contract:

- **Expectation damages** in contract law are an example of liability rule: promisor is free to breach a contract without first obtaining the promisee’s consent, provided that losses are paid;
 - Promisor is free to decide, provided that he pays for damages. The entitlement of the promisee consists of either the performance or the payment of damages, because it is only protected by a liability rule, which doesn’t allow to ask for the enforcement of the performance.
- **Specific performance** is an example of property rule: the promisor can breach only by first obtaining the promisee’s consent. If the promisee doesn’t agree, the promisor is obliged to perform.
 - Sometimes it can be efficient, but not always, because sometimes it might not maximize efficiency.

If consent was always required, transaction costs would sometimes prevent otherwise beneficial exchanges from occurring.

When transaction costs are high, liability rules are preferred over property rules.

So, with public negative externalities (like some pollution affecting a high number of people), how to proceed to solve the problem?

If you protected people through veto power, there would be opportunistic behaviors, which would increase transaction costs, so liability rules are better. They consist in directly giving money from the polluter to the people, in order to avoid transaction costs.

Therefore, provided that the compensation is paid, the factory has the right to pollute by enforcing the liability rule.

When transaction costs are low, property rules are preferred over liability rules.

So, with private negative externalities (like noise from the confectioner’s mortars, or the loss to the landowners in *Peevyhouse*), it would be useful for them to bargain and find a solution under the property rule. In these cases, it’s appropriate to have the specific performance, the possibility to seek for an injunction, since they probably attributed a greater value to the land. Other solutions would be inefficient.

Traditional doctrine of trespass and nuisance (common law)

Trespass and nuisance are the primary common-law doctrines designed to protect a property owner's right to exclude other users.

Trespass is an "invasion" – a more serious form of violation of rights – while nuisance is an "interference" (less serious).

In terms of remedies, a trespass victim has the right to seek an injunction against trespass; this is a property rule.

The law of nuisance is more complicated.

Nuisance

Victim cannot bring legal action unless the harm is substantial (it must be beyond a certain threshold, it cannot be something trivial). There are some margins which should be appreciated.

There are different qualifications depending on the situation:

- In some cases, only damages are awarded; then there is a **liability rule**;
- When victim can seek an injunction, there is a **property rule**; but, economically speaking, it is efficient only when the victim passes a cost-benefit test (the injunction must provide more benefits than costs, otherwise there shouldn't be an injunction).
 - o This constitutes a burden on the victim, which is not an easy task. This kind of situation involves private negative externalities, so parties are likely to find an appropriate bargaining, with low transaction costs.

Note that trespass cases usually involve a small number of parties, while nuisance cases tend to involve high transaction costs.

Boomer v. Atlantic Cement Company (1970)

The case involved a group of landowners who sought an injunction against a large cement company because of the dirt, smoke, and vibration that it produced. An injunction would have likely caused the plant to shut down with the consequent loss of hundreds of jobs plus lost profits and lost investment value (originally \$45 million).

Decision of the court: award of damages of \$183,000, with incentive for the plant "to research for an improved technique to minimize nuisance".

Comment on this ruling

Qualify the case: nuisance case with liability rule.

They tried to seek for an injunction, claiming a property rule, but the Court denied it. They didn't have the right to stop the production, so they won the case, but not as they hoped, since only compensation was paid.

Negative externalities are allowed if compensation is paid, which doesn't sound right, since there are many rights in conflict with one another: health, rights of workers,... It's difficult to find a solution without making someone worse-off. These are complex cases to decide.

Cf. decisions 85/2013 and 58/2018 of the Italian Constitutional Court on the ILVA case:

It's similar but more complicated, because there were many rights conflicting, in fact it was a constitutional decision.

Property law and tort law

Property and torts are **not** separated areas of law

You should be able to see the relationship between them to have a complete view.

The economic approach to law reveals that these two areas simply reflect alternative solutions to the general problem of allocating resources efficiently and, to this purpose, designing an efficient transaction structure for internalizing externalities (see concluding slides).

There's a general problem of allocation of resources and some aspects are protected by these different areas, so we should see the connection and the communalities. The system encourages the detailed research about precise aspects, but it's also important to have a general view. Also criminal, procedural and anti-trust law are connected with those areas, if we consider their economic analysis.

Miceli: ability of economics to provide a unifying theory of law.

Government acquisition and regulation of property

We've always considered private citizens, while here we consider the role of the government as the State (not as the executive power) which has some special powers.

Eminent domain doctrine

Fifth Amendment to the US Constitution (**takings power**): private property cannot be taken for public use, without just compensation paid to the owner of the property.

Two conditions for "**takings**" (economic understanding):

- a) Public use;
- b) Just compensation.

Due to the peculiar nature of this power, no consent of the owner is needed.

No veto power of the private owner; therefore, the entitlement of the owner with respect to the State is only protected by a liability rule.

Miceli's argument: public use is different from public good (= economically speaking, no rival good + high exclusion costs). We shouldn't mix the 2 categories:

- Taxation can be justified for the purpose of providing **public goods** (in the economic sense);
 - They can be provided thanks to taxation because of their nature, otherwise there wouldn't be enough of them, so public intervention is needed (ex. public defense, army).
- Takings can be justified because some **large-scale goods** (not necessarily public) require the assembly of private property (e.g. parks and highways made possible by the assembly of several contiguous parcels of land whose ownership is dispersed).
 - Without transaction costs, the State could bargain with all of them, but in the real world this would be inefficient: high transaction costs + everybody would try to profit, which would mean that they have veto power, i.e. their entitlement would be protected by a property rule. We want to prevent that, so this special power is justified.

"Public goods require tax financing to overcome free riders but do **not** require forced sale of the needed land **unless** assembly is necessary. In contrast, assembly requires forced sale of land to overcome the holdout problem but does **not** require tax financing **unless** the project being produced is a public good" (Miceli).

If there's no assembly problem, taxation will be sufficient, otherwise also takings are necessary, because without them there would be veto power (property rule).

Compare cases I-IV in Table 7.1 (p. 218):

Assembly problem?	No	Yes
Public good?	No I - Easy case: no taxation nor takings are justified.	II - Private good + assembly problem: no taxation is justified but takings may be justified (actual cases are hard to find)
	Yes III - Taxation justified, no takings.	IV - Easy case: the State is justified in doing taxation + takings.

Eminent domain: (a) “public use”:

- The **ends approach** to the definition of “public use” concerns the nature of the use to which the land will be put;
- The **means approach** concerns the method by which the land is acquired. It doesn’t deal with the ends of the use, it focuses on the assembly problem.

The two approaches yield different conclusions in cases II and III of Table:

- **Case III:** example of police force (public good, you need taxation → counterargument: everything risk to become private if we consider the fact that if there’s a limited number of policemen, I could not be helped, economically speaking) and the need to acquire land for the police station.
 - o Ends approach: the nature of the use is for the public good;
 - o Means approach: the State should operate as an economic agent at the same level of the owner, through the market system. Let’s consider how the property is taken: if there wasn’t an assembly problem, takings would be an abuse of the State’s power.
- **Case II:** example of railroad and canal (private goods economically speaking, because there are limited seats) and the need for assembly (similar logic in *Boomer*: the Court’s decision, based on a liability rule, was to protect citizens’ entitlement through a liability rule, which follows the same logic of the decision which allows takings when there are assembly problems).
 - o The private companies are likely to coordinate together, otherwise it wouldn’t be efficient (English railway), or they’d end up being financed by the State, even if they’re private (Italian railway).

Which is better, the ends or the means approach?

Miceli’s answer: means approach is generally better, and takings power should be extended to any party, public or private, facing a holdout problem.

However, that may be inconsistent with the literal meaning of the term “public use”, as Miceli admits, while we should never go too far from that concept.

Eminent domain: (b) “just compensation” (interpretative problem):

What does that mean? Market value?

“Just” is a qualification, which for the economists simply consists of the market value, but it is not sufficient, since you would undercompensate people, who would be worse-off. There would be also the risk that the State overuses the takings power, which would determine losses for the individuals and the society, because, if the State acquires too many lands, they might be underused.

Subjective value problem: people tend to put more value into their land.

Further drawback: by undervaluing land in private use, the market value approach potentially leads to excessive public acquisition.

A possible solution: a conventional above-market compensation (e.g. 150% of market value).

Case: “The Assassin’s Bequest”

Assassination of JFK in 1963

Government took title to things possessed by Oswald as part of evidence collection, because the State needed to have evidence.

Just compensation was due to his widow.

Market value of items increased, compared to similar items, by their connection to the crime.

The decision was appealed by the widow, and the last decision increased the value of the items, which is an indirect incentive to commit crimes. In this perspective, you should give less, it would be more appropriate or, at least, the value of similar things should be given.

Regulatory takings

They are government regulations that restrict the use of private property.

This impacts the market value of the land: with limitations, the value of the land decreases dramatically. So, according to American constitutions, you have the right to receive compensation.

E.g. zoning ordinances, environmental law, safety regulations.

The compensation question: How to distinguish between compensable and non-compensable regulations?

This isn't in the Constitution, it's in case law, and there are various tests:

- **Physical Invasion:** if the regulation involves it (ex. electric wires) that's compensable as if it was a taking;
- **Noxious Use:** not entitled to compensation, if the prohibited activity was injurious to the community;
- **Diminution of Value:** right to compensation, because, if regulation was too far, it would be as a taking, even if not formally qualified as such. Compensation is needed in order to prevent State threats.

There's a disagreement between Holmes and Brandeis:

- Holmes: "if regulation goes too far it will be recognized as a taking"; compensation to limit the threat of government excess;
- Brandeis: "restriction imposed to protect the public health, safety or morals from dangers is not a taking"; no compensation needed (noxious use test).
- Miceli's solution: determining an efficient compensation rule, comparing the (i) **loss** to the landowner from the regulation and (ii) the **savings** in external costs:
 - No compensation if (i) < (ii);
 - Compensation if (i) > (ii).

In this way the State has incentives to provide regulations in order to protect citizens' health. The State must be careful to regulate this topic.

Diminution-of-value and noxious-use tests are two sides of the same coin.

Holmes and Brandeis disagreed over facts rather than over law.

The General Transaction Structure

Economic analysis can provide a unifying theory of law that emphasizes its role, in conjunction with markets, in achieving an efficient allocation of resources.

There are connections and commonalities across different areas of law.

Example: straying cattle and damage of 120 to Farmer; fence erected by Rancher for 100; both parties have initial wealth of 200; aggregate wealth, given the social cost problem, of 300.

See Table 7.4 (p. 229)

Combinations I-IV, with different assignments and enforcement rules (property or liability rules).

In all of them, aggregate wealth of 300 (with different distribution and different transaction-litigation-costs).

General transaction structure as the foundation of the economic approach to law.

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