Notes on
LEGAL ARGUMENTATION AND ECONOMIC ANALYSIS OF LAW

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IUS@B

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First part: Legal Argumentation

Argumentation and reasoning

Argumentation and reasoning

Argumentation is *a linguistic and social activity* aimed at increasing or decreasing the acceptability of a controversial claim; in this activity, the speakers put forward a set of reasons aimed at justifying or refuting controversial claims.
This definition summarizes several important aspects that distinguish argumentation from individual reasoning. Arguing is:

a. a **linguistic activity**, as it is carried out by the use of language and not (only) by gestures or images;
b. a **social activity**, requiring at least one speaker and one recipient;
c. about a **controversial claim**, since there is no need to convince someone of something they are already persuaded of;
d. **giving and asking for reasons**, that can be in favor of the claim (*pros*) or against it (*cons*).

Reasoning (or inference) is a *process that leads from premises to conclusions* in a manner that is taken to be **justified** (you cannot draw a conclusion whatsoever, there must be a connection between premises and conclusions, a connection that coincides with the justification of the reasoning: if you simply "jump to conclusions" you are not reasoning).

Reasons are the premises of reasoning, whose conclusion is indeed the disputed claim: argumentation and reasoning are then strictly interconnected, since reasoning is the **logical structure** of an argument (there is no argument without reasoning: people may agree on a conclusion but disagree on the premises).
In argumentation through reasoning, appeal is made to the reason of the participants or audience, but argumentation is not only a matter of logic and reasoning: it also has some rhetorical aspects, which correspond to its persuasive purposes towards the audience.

Kinds of reasoning

Given the definition of reasoning, we know that those who advance an argument do so by presenting it as correct, claiming that the connection between premises and conclusion is justified. But what are the **criteria for correctness**?
A fundamental distinction is that between:

1. **deductive reasoning**, the inference whose conclusion cannot be false is the premises are true;
2. **non-deductive inference**, the inference whose conclusion can be false even if the premises are true.

In **deductive reasoning** the truth of the premises is conveyed to the conclusion, that is therefore <u>necessarily certain</u> once the premises are proven true. Deductive methods are used in *formal* sciences, such as mathematics, chemistry, etc.
An example of deduction is the classic Socrates' deduction: *All men are mortal* (P1) */ Socrates is a man* (P2) *// Socrates is mortal* (conclusion). You are sure on the conclusion if you are sure on the

premises (it would be, in this case, senseless to disagree on and deny the conclusion). In deduction, we derive the consequent of the conditional of the major premise, from the conditional itself and the antecedent (p).
If we formalize the scheme of our deductive reasoning, we will distinguish between a **general** (**major**) **premise** (predicating a property referring it to a whole class on entities), followed by a **singular** (**minor**) **premise** (predicating a quality of a single entity) and the **conclusion**. Particularly, we can formalize deduction as it follows:

- in Aristoteles' **Logic of Predicates**, *every M* (member of the class, in our case: men) *is P* (property, or predicate: mortal) / *S is M* // *S is P*;
- in the Stoics' **Propositional logic** (that represent logical relations with prepositions as entities that counted as such, regardless of the elements in the preposition), *if p then q / p // q* (if it is true that if p then q, i.e. if "an entity is a man" then "that entity is mortal", and if it is true that p, i.e. Socrates is a man, then q, i.e. Socrates is mortal, is logically true);
- in the **System of Quantification** (that integrates the two logics, since we have both the conditional structure of propositional logic and the idea of predication), *∀x (if Fx then Gx) / ∃x Fx // ∃x Gx*, that can be read as "For any x [∀ being the so-called Universal Quantifier], if x is F then x is G" (in our example: for every entity, if that entity is a man, then it is mortal); "There exists an x such as x is F" [∃ being the Existential Quantifier] (in our example: there is an entity, Socrates, that is a man); therefore, given the two premises with the universal quantifier and the existential quantifier, "There exists an x which is mortal" (in our example: there exists an entity, Socrates, that is mortal).

In **non-deductive reasoning** the conclusion does not necessarily follow given the premises, and therefore it is not certain but only probable (probability: used in statistical contexts and numeric inquiries) or plausible (plausibility: the conclusion is assessed qualitatively), that is only more likely to be true than false; hence, it is possible to have more than one conclusion, one being more probable/plausible than the others (with different degrees). Non-deductive methods are especially used in *empirical* sciences, where it is often impossible to have all the necessary information about a phenomenon that would lead to certain conclusion (induction) and where hypotheses are made and need to be tested (abduction).
Examples of non-deductive inferences are:

a. **induction** (e.g.: *Raven 1 is black* (P1) / *Raven 2 is black* (P2) / ... / *Raven n is black* (Pn) // *All ravens are black?*), in its standard form, is the inference that generalizes some observation; you cannot be sure of the conclusion: the more data you have, the more the conclusion is probable (I have observed a large number of raven and all of them were black, so I can be confident to a certain extent that all ravens are black and there is a certain grade of probability that the next raven I will see will be black), but it is not necessarily true (just one non-black raven, that might exist even though I have not seen it yet, would make the conclusion false). In an inductive method, we only have minor premises, as each one comes from a single observation; the conclusion is general (it is the generalization of something that has been observed).
   - in the **Logic of Predicates**, an induction is formalized as follows: M_1 *is P* / M_2 *is P* / M_3 *is P* / ... / M_n *is P* // *Every M is P* (by generalization);
   - in **Propositional logic**, we have: p_1 & q_1 / p_2 & q_2 / p_3 & q_3 / ... / p_n & q_n // *if p then q*. That is: *a certain entity is a raven* (P1) & *this raven is black* (Q2) / … // *if a certain entity is a raven, then it is black*;

- in the **Quantitative theory**, an induction is formalized as it follows: $\exists x_1 (Fx_1 \& Gx_1) / \exists x_2 (Fx_2 \& Gx_2) / \exists x_3 (Fx_3 \& Gx_3) / \ldots / \exists x_n (Fx_n \& Gx_n) // \forall x$ (*if Fx then Gx*); in induction we have premises with Existential Quantifiers: "There exists an entity x_1 which is F and G" (and so on with the other observations: x_2, x_3, etc. up to x_n); the conclusion, by induction, states that: "For any X [Universal Quantifier], if x is F then x is G".

b. **abduction** (e.g., *Socrates is mortal (P1) / All men are mortal (P2) // Socrates is a man?*), in its standard form, is the inference that provides a hypothesis explaining some "surprising" observations; you cannot be sure about the conclusion, it is just a conjecture (what makes the conclusion plausible, given that all animals are mortal, is that Socrates is indeed a name commonly used for humans: this makes it plausible to infer that Socrates is a man, but the conclusion still remains hypothetical). Notice that the sentences used are the same of the ones in the deductive reasoning, but they are used in a different role (i.e., the abductive conclusion is a premise in deductive inference):
   - in the **Logic of Predicates**, an abduction is formalized as follows: *S is P / Every M is P // S is M*;
   - in **Propositional logic**, we have: *q / if p then q // p*;
   - in the **Quantitative theory**, an abduction is formalized as it follows: $\exists x\, Gx / \forall x$ (*if Fx then Gx*) $// \exists x\, Fx$.

c. **analogy**, which will be discussed in a second moment.

Logical validity and soundness

An important distinction that has to be made is that between **logical validity** and **soundness**. Take two arguments:

1. *All men are mortal / Socrates is a man // Socrates is mortal*;
2. *All men fly / Socrates is a man // Socrates flies*.

Both conclusions are *logically valid* (meaning deductively inferred from the premises) and therefore justified, but the second one is *unsound*.

There is **logical validity** (note that logical validity ≠ legal validity, which has to do with norms) when *the conclusion cannot be false if the premises are true*, thanks to a correct logical structure of the inference (both examples are valid).
There is **soundness** when *the premises are valid and true themselves* (the second example is unsound, since it is not true that all men fly).

Legal argumentation

Having talked about argumentation in general, we can now focus on **legal argumentation**, that is a linguistic and social activity aimed at justifying or criticizing a controversial *legal* claim or decision. In this activity, participants put forward a set of *legal* reasons aimed at justifying (or criticizing) that claim or decision (thus, *economic* reasons must be usually put aside in a proper legal reasoning: it is indeed possible to have legally correct decisions despite producing bad outcomes in economic terms).

Legal argumentation specifically **differs** from everyday argumentation as:

a. it involves specific roles (lawyer, judge, juror, expert, witness, etc.), who act differently and in a very specific structure (although in everyday argumentation there might be some social roles as well, i.e. a discussion between parents and children);

b. it is made in <u>legal contexts</u> with <u>relevant rules</u>, i.e. contexts and procedures are usually regulated by law (lawyers meet before a judge/jury/court in a Courthouse and not before a pastry chef in an ice cream shop – even though it definitely would be sweeter);
c. it is made of <u>formalities and technicalities</u>.

Contexts of legal argumentation

The **contexts of legal argumentation** are varied.
One context is **legislative debates**, where participants (members of Parliament in parliamentary systems) state the reasons they believe support or discredit a certain <u>legislative proposal</u> or the <u>claim</u> of certain social group. In this context, the purpose is not so much to convince political opponents, but rather to convince the undecided that take part in the deliberation and especially the public opinion: for this reason, this kind of debate is often influenced also by political and economic considerations (that are not legal *strictu senso*).

The most typical, however, is the **litigation context**, where forms of argumentation are conducted:
1. by the <u>parties</u>, who (through their representatives) advance the reasons that support their respective claims with the intention of persuading the decision-maker
2. by the <u>judges/jurors</u> in decision-making (when the decision-maker is collegial)
3. by the <u>judges</u> in the (ex post) justification of judicial decisions

Judicial decision has indeed to be **justified**, as stated in *art. 111 c. 6* of the *Italian Constitution* and in *art. 6 of the ECHR*, that is interpreted to include the right to a reasoned judgement.
Judicial decision has also to follow a general requirement of the **rule of law**/**legality**: decisions must be supported by legal reasons, (becoming *reasoned verdicts*) and not based on non-law considerations (such as friendship, purely economic reasons, etc.)
As a matter of fact, written decisions and "opinions" will be public and, potentially, the appeal trial will be based on the reasons written in the justification; however, it might not always be the case: in the Anglo-American system, for instance, juries do not give justifications, but only verdicts.

Aspects of legal argumentation

Multiple aspects belong to and are present in Legal Argumentation.
Argumentation, being the intersubjective version of reasoning, has primarily to do with **logical aspects**: argumentation is the praxis of *giving and asking of reason*, thus the logical structure of an argument is the reason and reasoning is the logical aspect of argumentation. However, arguments in legal field are rarely presented in a clear logical form: they appear as a set of statements and a logical analysis must be made in order to extract their form of reasoning.

But legal argumentation has also some **dialectical aspects**, that pertain to the *dialectical dimension* and stand out in the dynamics of litigated points, claims and counterclaims, arguments to support or refute a claim, or to justify or criticize a decision, critical questions (often opposed by someone else, e.g. a lawyer brings a witness and wants the decision maker to hear the witness demonstrating his reliability, but someone might argue that he is not); it is also a matter of strategic interaction, like in game theory: every litigating lawyer has his own litigation strategy.

Legal argumentation has **rhetorical aspects** as well, that have to do with *persuasion*: the aim of LA is indeed to persuade the other participants, the audience, or the judge/jury and matters of style are crucial (order, synthesis, clarity, etc.) in this respect; this is something we have known ever since, given that also the Romans were interested in rhetorical aspects of Law, and were well aware of the power of rhetoric to make an argument effective.

Judicial style and rhetoric

Rhetoric is an extremely interesting subject: it can be used not only by lawyers but also by judges, as they too have their individual style (in a mix of inspirations from other judges' style). **Benjamin Cardozo**, an Associate Justice of the US Supreme Court, in a paper called "*Law and literature*", made a distinction between six **types of judicial styles**, in a sort of *art of arguing*:

1. **magisterial**: the judge presents himself in a magisterial tone, as a *grand judge* giving a sort of "revelation" of the law; the outcome of the case in a top-down approach;
2. **laconic**: the judge concisely says *very few things*, with few sentences and short opinions and details; this style is more frequent in the higher courts (with the exception of our Court of Cassation), because highest courts must not discuss factual aspects, but only the legal ones (based on legitimacy);
3. **conversational**: the judge tries to be a *friend*, an ordinary person who uses common expressions; it is not appropriate with controversial matters, as legal language has its own technicalities
4. **refined** (or artificial): the judge shows he masters the *legal language* and its technicalities, in convoluted constructions
5. **demonstrative**: the judge is like a *mathematician*, using axioms and strict logical demonstrations, and arguments are presented as if they were a matter of science; but hard cases (based on discretion) should not be discussed this way;
6. **tonsorial** (literally "about a barber"): the judge is very *eclectic*, and he has not the sense of proportion, writing a giant number of pages, full of quotations and smart observations that could be useless.

It is possible, obviously, that more than one style coexists in a single context.

Now, here are some examples.

Oliver Holmes, Justice of the SCOTUS and a great lawyer, published in 1881 an impressive book on the American Common Law, with rhetorical, theoretical, and historic aspects. He was one of the members of the Metaphysical Club and he was very effective in writing judicial opinions, with a great sensibility of appropriateness based on each situation. Among others, two of his opinions are important: in the first one, he writes in a very effective way something that is now pacific; in the second one, he does the same with a very controversial matter.

Lochner v. New York *(1905)*

It was about a controversial State regulation that limited bakers' working hours and freedom of contract, in order to achieve more balanced contracts between employers and employees: the majority declared the regulation unconstitutional. Holmes, however, in his **dissenting opinion**, states something that would have become famous in the following years, influencing the future Court's opinions: "This case is decided upon an <u>economic theory</u> which a large part of the country does not entertain [which means that his fellow judges decided using economic theories instead of the law]. …The 14th Amendment does not enact Mr. Herbert Spencer's Social Statics. ...A *constitution is not intended to embody a particular economic theory*, whether of paternalism and the organic relation of the citizen to the state or of laissez faire. ...*General propositions do not decide concrete cases*.". In this last sentence, he conveys the idea that the majority is deciding abstractly, not considering the actual situation of bakers' working conditions: it is not possible – for him – to decide concrete cases with such general propositions (that are – moreover – not law!).

Buck v. Bell *(1927)*
The Virginia's Sterilization Act, passed by the General Assembly in 1924, made sterilization compulsory for people with mental illness: in that period, eugenical ideas were spreading around the world and the US were affected. The Virginia Colony (an asylum) officials selected 17-year-old Carrie Buck to test the law's legality under the US Constitution and brought her case before a court: they were expecting such a case sooner or later, even if they were convinced it was indeed legal. The case reached the SCOTUS.
Carrie Buck's foster parents had committed her to the Virginia Colony shortly after she gave birth to an illegitimate child: the family's embarrassment may have been compounded by the fact that Carrie's pregnancy was the result of being raped by a relative of her foster parents (however, this point was never raised in the subsequent court proceedings). Carrie's mother, Emma Buck, had previously been committed to the asylum (it was thought that both the mother and her daughters had mental illness). Officials at the Virginia Colony asserted that Carrie and her mother shared the hereditary traits of feeblemindedness and sexual promiscuity (even though Carrie had been raped). Carrie was eventually sterilized in 1927, after the Supreme Court decision (8 to 19). In Holmes' **majority opinion**, we find that: "We have seen more than once that the public welfare [an economic term: how coherent!] may call upon the best citizens for their lives. ... It is better for all the world, if instead of waiting to execute degenerate offspring for crime, or to let them starve for their imbecility, society can prevent those who are manifestly unfit from continuing their kind [meaning that public welfare justifies imposed sterilization of mentally ill people]. The principle that sustains compulsory vaccination is broad enough to cover cutting the Fallopian tubes. ...*Three generations of imbeciles are enough*".

In any case, whatever the style used in the judicial opinion, it is important to **discern** the arguments used by the judge and identify the reasoning behind the style, pinpointing the arguments and their relation. In order to do this, we have to make sense of judicial reasoning, to fit the reasoning into a model that can help us identify the relevant parts and crucial arguments in those parts.

Models of Legal Argumentation: the model of Legal Syllogism

Legal Syllogism

The father of syllogism is **Aristoteles**, who was the main theorist of syllogism as a *standard logical tool*: syllogism, in his view, is the reasoning you construct in the Logical Predicates (with formulas like *any m is p / s is m // s is p*). He distinguished several kinds of syllogisms and classified them, depending on the *affirmative* or *negative* of certain premises.
Next, **Cesare Beccaria** took up that notion and presented the syllogism as a *normative model* of judicial decision-making, creating what we now call *Legal Syllogism* and indicating how judicial reasoning should be conducted: "In every criminal cause the judge should [Beccaria's claim is then normative, not descriptive] reason syllogistically. The major should be the general law; the minor the conformity of the action, or its opposition to the laws; the conclusion, liberty or punishment. If the judge be obliged by the imperfection of the laws, or chooses to make any other or more syllogisms than this, it will be an introduction to uncertainty." (*Dei delitti e delle pene*, IV).

In Beccaria's *normative* (not descriptive!) *claim*, the **major premise** should be the general law (or the general norm provided by legislation and applied by the judge to the particular case) and the **minor premise** should be the facts of the case: the judge should in fact consider, in the minor premise, *whether* the conduct is lawful or not (e.g., if the defendant committed a crime or not). If the conduct was in conformity with the law, no sanction is applied; if, on the contrary, the defendant acted against the laws, then the law should apply with a sanction: the **conclusion** must be either liberty or sanction. That's the structure of a syllogism: *major premise*, *minor premise*, *conclusion*.

Beccaria configured this model with criminal legality in mind: he, operating in the Era of Enlightenment, was unsatisfied with the criminal system: there was too much discretion, if not arbitrariness, on judges, leading to **legal uncertainty** (which is even worse in the criminal field) with no respect whatsoever for legality and the rule of law. Not by chance, we should consider that one of the main ideas of enlightenment was the *separation of powers*, and according to this doctrine judges must not create law: Beccaria himself attacked interpretive speculations of judges, stating that "There is nothing more dangerous than the common axiom: the *spirit of the laws is to be considered*. To adopt it is to give way to the torrent of opinions. ...The spirit of the laws will ... be the result of the good or bad logic of the judge; and this will depend on his *good or bad digestion*; on the violence of his passions; on the rank and condition of the abused, or on his connections with the judge; and on all those circumstances which change the appearance of objects in the fluctuating mind of man." That is: when the judges speculate about the **spirit of the laws**, they are prone to all sorts of influences (*ante litteram* concept of digestive jurisprudence).
The syllogism was thus the preferred solution in his normative model because it puts severe constraints on judicial decision, given that many "external" factors could influence the decision of the judge: it's a **logical form**, requiring the judges the application of a major premise and minor premises that are kind of objective; and so forth, the conclusion must be for this reason *objective*.

Now let us restyle the syllogism in modern terms:
1. **major premise**: the *Norm* (applicable to the case) /
2. **minor premise**: the *Fact* (as reconstructed by the factfinders with the presented evidence) //
3. **conclusion**: the *Legal consequence* (for the case in hand).

If the premises are true, then, the conclusion is true as well. To exemplify, consider the following criminal syllogism:
1. *whoever does A shall be punished with S* (if we assume this is taken from legislation, it can be seen as a general norm: it is addressed to every person who does A) /
2. *Basil did A //*
3. *Basil shall be punished with S*.

The same reasoning can be applied also to civil cases:
1. *whoever wrongfully harms another person shall compensate this person /*
2. *Basil wrongfully harmed Theodor //*
3. *Basil shall compensate Theodor*

It is endowed with **deductive logical structure**: if (1) and (2) are true, (3) cannot be false; however, the critical problem is that we *need reasons to assume the premises* (1) and (2) *are correct*. This is the problem Wroblewski analysed when he stated that internal justification is not enough and that external justification is also needed, but Beccaria recommended making only one syllogism and warned against making "even two syllogisms", as this would open the door to uncertainty.

Criticisms to the model of Legal Syllogism

Wroblewski, a polish legal scholar, explored in one of his papers the **controversies of syllogism**, even though he had previously stated that syllogism successfully provided a model of *rational* decision (and not an arbitrary one). Those controversies are:

1. is the syllogism **descriptively adequate** or not? (= does the syllogism correctly represent what happens in practice?)
2. what is the role of the judges, do they have a **law-making role**?
3. if not, **should** the judges have a law-making role?

The first and the second controversies are *descriptive*, concerning what is done in practice; however, this might be pointless, since Beccaria's aim was to provide a normative model (and not a description of actual practice). The third controversy is, on the other hand, *normative*: it is a matter of judicial ideology, whether judges should or not have a law-making role.

Let us consider the historical context where these controversies arose.
The controversy about the **amount of discretion** to be put on judges was discussed by the so-called **School of Free Law**, active in the XIX Century Europe: they supported Anti-formalism, claiming (oppositely to Beccaria) that the *judge should have fewer constraints* and has the power of creating law, in order to meet the social issues that legislation does not address (notice that this is a controversy about a *normative* issue).

Secondly, a controversy that was developed some decades later in the US, by the supporters of the so-called **Legal Realism** (that focused on law in action, in judicial practice, rather than in the books), was about the <u>descriptive adequacy</u> of the syllogism. They were interested in how judges *de facto* decide and, in that respect, they thought that the syllogism was not informing at all: *judges do not syllogize*. If you read their decisions, you do not find syllogisms, but several considerations. Going deeper, the Legal Realist **Jerome Frank** was a judge and a lawyer, as well as a very provocative thinker and writer, who focused his attention on the psychological aspect of decisions; he wrote about the concept of *digestive jurisprudence*: the law [made by judges] depends on what the judge had for breakfast, that is the quality of what he ate determines the quality and the outcome of his decision. It is unclear why Frank believed this, and some commentators stated that his theory was, indeed, a joke. Perhaps, however, the claim is more serious than it appears: Beccaria himself made a similar claim, speculating about the spirit of the law (practice that must be avoided) and the uncertainty generated by it; La Mettrie pointed it out as well. To support this claim, we may consider an Israelian study on sequential parole[1] decisions: the empirical result from the analysis of judges' decisions was that judges are statistically in favor of a positive outcome after a food break, whereas the first prisoners of the day have less probabilities to have a favorable decision; if this is true, we need an explanation of that: how is this possible? Possibly, being tired and hungry plays a role in that respect; then, after eating, judges may have a positive psychological reaction, based on the quality and the quantity of the food. However, the study was about quite simple decisions (the parole ones), totally different from a complex criminal case (where you have evidence and counterevidence, objections, etc.). At any rate, this is a descriptive and empirical study that does not tell how a judge should decide: therefore, it is not contradicting Beccaria, who created a <u>normative</u> model that indicates the logical structure judges should follow, not the one they actually

[1] "*Libertà condizionale*", in Italian.

follow; moreover, one can reply to this critic that the syllogism is a model, and a model by definition is just a schematic representation (obviously, judges will not limit themselves to a single syllogism).

The last controversy was developed by the supporters of **Legal Hermeneutics**, in 1960-70s Germany, who claimed that *legal and factual issues are intertwined*. One of the tools of the theory is the so-called hermeneutical circle, a virtuous circle followed by interpretation and application of law: facts of the case are given by the parties to judges, who categorize those facts in legal terms [i.e., apply legal categories to the facts]; in trying to do that, the judges may realize they need to ascertain more details about facts and, once they have those details, they could change their categorizations, going from facts to the norms and from norms to the facts like a circle, and so on: that is why legal and factual issues are intertwined. According to Gadamer, the bad thing in the syllogism is that there is an artificial division between norms (legal issues) and facts, as there are a major and a minor premise, creating two different and separate things: for this reason, the syllogism model would be quite useless and uninteresting (as it does not tell us what really happens in judgements). Nonetheless, judges following this hermeneutical process is a descriptive fact, an actual practice: it has nothing to do with the justification of their decisions, which is – again – a *normative* issue.

In general, however, Beccaria's model is undoubtedly **too simple**, especially with respect to the unconsidered need of external justification: Beccaria doesn't seem to take into consideration that premises are not found already formed, but they are formed by the judges on the basis of the arguments produced by the parties and of further considerations that are legimately relevant. In addition to the connection between the premises and the conclusion of the syllogism, reasons are needed to assume the premises, given that most legal controversies concern the arguments supporting the syllogism.

Models of Legal argumentation: Wroblewski's model

In the second part of the paper, after exploring the controversies about the syllogisms, Wroblewski defends the syllogism against some objections and provides a final picture. According to Wroblewski, the judge is supposed to make **three decisions**:

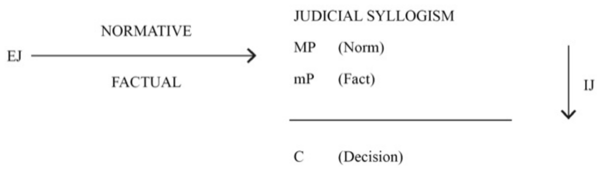
1. a decision on the **interpretation of the relevant legal texts** (by using interpretative directives);
2. a decision on the **relevant facts** (by using the evidence and rules on evidence);
3. a final decision on the **outcome of the case** (based on the interpretative decision and the factual decision).

Evaluations and **decisional lee ways** are also sometimes required form judges (e.g., decision on kind and amount of sanction), as the legislator itself leaves to the judge some margin of discretion in his decisions, given specific features of the case.

Each of these kinds of decisions needs to be **justified**, and the final decision has to take into account the interpretation of the relevant texts (interpretative decision) and of the relevant facts (decision of evidence): all of them need to be considered both from the *internal justification* (validity of the conclusion) and from the *external justification* (validity and soundness of the premises).
Three decisions, different from one another: it is therefore important to distinguish each one from the others and understand its main "components". Wroblewski was indeed an analytical thinker, who liked categorizing everything; nonetheless, he took Beccaria's very simple model further, adding the concepts of *discretion* and *decisional leeway.*

Models of Legal argumentation: the Double Justification Model

Wroblewski's model of legal argumentation later evolved, in turn, into the so-called **Double Justification Model**: according to this model, legal argumentation includes Internal Justification, that is the justification of the conclusion of the judicial syllogism (typically *deductive*, but in some cases, such as the ones not disciplined by a norm, there might be more than deduction) and External Justification, that is the justification of the premises of the judicial syllogism (typically abductive, as it makes hypothesis on the meaning of legal terms to get the major premise and on the facts of the case to get the minor premise).



What are the **main values** of this model?

1. **Legality**, since decisions are made *according to law* (or, in Common Law systems, *to the rule of law*);
2. **Legal certainty**, since decisions becomes *predictable* (provided that laws hare *pre-existing* and *knowable*, accordingly to the principle of publicity and knowability of law);
3. **Equality under the law**, that is *like cases are treated alike, and different cases differently* (even though this principle is susceptible of disputes, in matters of substantial equality); for instance, quoting our criminal example, the decision of punishing Basil with S allows a consistent application of the Law: for any case in which someone does *A*, *S* must be the sanction, since treating Basil differently it would be illogical and, moreover, against the principle of (formal) equality;
4. **Full Justification** of a judicial decision, principle according to which *arguments* must be given for *both premises and conclusion*; it is a sort of a process *ad infinitum*, as each premise should be justified by another premise that has to be justified and so on, but in legal procedures this would be intolerable: justification must end at one point (also considering the limited time by which the parties must present their relevant arguments, especially for the one who has the burden of proof), thus the reasoning must start by premises that are accepted by (ideally) everyone.

External justification and interpretative arguments

According to the mode, the two main forms of justification of judicial decisions are therefore **IJ** and **EJ**.

In turn, EJ divides into two:

1. **Normative** External Justification, that is the justification of the *major premise*, offered by:
   a. interpretative arguments, consisting of *drawing normative content* from legal provisions;
   b. integrative arguments, consisting of *filling gaps* in the system.
2. **Factual** External Justifications, that is the justification of the *minor premise*, offered by probatory arguments, consisting in drawing evidential conclusions from empirical evidence or from other factual information.

Interpretative arguments are used for the justification of the normative premise of a judicial syllogism, giving reasons for validity (used here as legal validity) and applicability of a general norm to the given case. **Norms** are the *result of the interpretation* of **provisions** (i.e., normative texts): this process of interpretation proceeds by means of interpretative arguments.

Interpretation can then be seen as a form of argumentation (with reasons and arguments), whose **logical structure** consists of:

a. **Provisions** (**P**) / (i.e. *normative texts* to be interpreted in order to determine valid and applicable norms)
b. **Interpretive Argument** (**IA**) // i.e. *canons, directives of interpretation* of normative texts)
c. **Norms** (**N**) (i.e. *result* of the interpretation of normative texts through interpretive arguments)

We cannot interpret provisions as we like: there are **constraints** put by uses and logic structures. To understand it better, we will consider a case. In analyzing cases, we must keep in mind that things in reality are always much more complicated than the models, which try indeed to simplify things, giving guidelines (when they're normative, like in this case).

***Smith v. US**, 1993*

Smith v. US, decided by the Supreme Court, was a hard case: the relevant provisions were to be interpreted by the judges. The double justification model suggests how to deal with this case: the problem lies with the external justification of the major premise (there were no doubts about the facts of the case).

The Law: "Whoever, during and in relation to any crime of violence or drug trafficking ... uses or carries a firearm, shall, in addition to the punishment provided for such crime of violence or drug trafficking crime, be sentenced to a term of imprisonment of not less than 5 years [and not less than 30 years if the firearm is equipped with a silencer]" (Statute 18 U.S.C. § 924(c)(1)).

The facts: the defendant, Smith, had tried to buy some cocaine in exchange for an automatic weapon (instead of money).

Facts were clear: the minor premise was not a problem; instead, the problem was the **subsumption of the facts to a norm**, since the normative provision was not sufficiently clear: was trading an automatic weapon of cocaine "using a firearm**"** during and in relation to a drug trafficking crime? From the same text, **two norms** can be drawn:

a. Norm I: "Whoever, during and in relation to any crime of violence or drug trafficking ... uses or caries a firearm [as a weapon], shall, in addition to the punishment provided for such crime of violence or drug trafficking crime, be sentenced to a term of imprisonment of not less than 5 years."
b. Norm II: "Whoever, during and in relation to any crime of violence or drug trafficking ... uses or caries a firearm [in any way], shall, in addition to the punishment provided for such crime of violence or drug trafficking crime, be sentenced to a term of imprisonment of not less than 5 years."

What are the **consequences** of the two interpretations of one single legal provision?

If we start from the beginning of the provision: was the action of using/carrying a firearm ***during*** or in ***relation*** to the crime? Yes! It was indeed during and in relation to the crime of drug trafficking, as Smith tried to trade it: the first part of the provision is so satisfied by our facts of the case.
The question here is: is the norm referring to ***any kind of use*** of a firearm or to a ***specific*** one (i.e., harming someone)? The problem remains whether the use was relevant to apply the norm (that is: relevant to trigger the aggravating circumstance).

Our guy Smith was indeed facing a conviction not less for 30 years! Poor Smith.
The **Majority Decision** held that: "After petitioner Smith offered to trade an automatic weapon to an undercover officer for cocaine, he was charged with numerous firearm and drug trafficking

offenses. Title 18 U.S.C. 924(c)(1) requires the imposition of specified penalties if the defendant, during and in relation to a drug trafficking crime, uses a firearm. In affirming Smith's conviction and sentence, the Court of Appeals held that 924(c)(1)'s plain language imposes no requirement that a firearm be "used" as a weapon but applies to any use of a gun that facilitates in any manner the commission of a drug offense.". The plain language of the norm imposes *no requirement that a firearm be used as a weapon*, so the norm applied to *any use of a gun* that facilitates in any manner the crime at stake.
The Supreme Court agreed to use an argument from **(broad) ordinary meaning**: "Petitioner argues that exchanging a firearm for drugs does not constitute "use" of the firearm within the meaning of the statute. ...In essence, petitioner argues that he cannot be said to have "used" a firearm unless he used it as a weapon, since that is how firearms most often are used. ...When a word is *not defined* by statute, we normally construe it in accord with its ordinary or natural meaning ...Surely petitioner's treatment of his gun can be described as "use" of the firearm within the everyday meaning of that term. Petitioner "used" his gun in an attempt to obtain drugs by offering to trade it for cocaine...". Therefore, according to this argument, if a norm does not specify how to interpret a word (like "use", in our case), we should interpret it *in accordance with its ordinary meaning.*

Oppositely, J. Scalia wrote a **Dissenting Opinion**, based on the concept of distinctive purpose of the firearm. He held that: "In the search for statutory meaning, we give nontechnical words and phrases their ordinary meaning ...To use an instrumentality ordinarily means to use it for its intended purpose. When someone asks, "Do you use a cane?", he is not inquiring whether you have your grandfather's silver-handled walking-stick on display in the hall; he wants to know whether you walk with a cane. Similarly, to speak of "using a firearm" is to speak of using it for its distinctive purpose, i.e., as a weapon. To be sure, "one can use a firearm in a number of ways", ...including as an article of exchange ... but that is not the ordinary meaning of "using"".
Despite agreeing with the Majority on the use of the ordinary meaning argument when the legislator does not give a specific definition of a word (he does not mention the intention of legislator: he sticks to the *ordinary* meaning of the text), he uses an argument from **(narrow) ordinary meaning**: he *disagreed* on the meaning that the majority gave to the instrumentality of the concept of "using a firearm", sustaining that using a firearm in its ordinary meaning stands for doing it for its distinctive purpose, that is indeed shooting.

Nonetheless, the Majority added a final argument to its opinion, based on **systemic and purposive interpretation** in order to overcome the narrow interpretation by Scalia. Here's the argument from purpose: "Imposing a more restrictive reading of the phrase "uses ... a firearm" does violence not only to the structure and language of the statute, but to its purpose as well. When Congress enacted the current version of 924(c)(1), it was no doubt aware that drugs and guns are a dangerous combination. ...We therefore see no reason why Congress would have intended courts and juries applying 924(c)(1) to draw a fine metaphysical distinction between a gun's role in a drug offense as a weapon and its role as an item of barter; it creates a grave possibility of violence and death in either capacity. "
To put it differently, the majority focused on the dangerous combination made by drugs and guns: combination that – in majority's view – was indeed well-known to the legislator when he wrote the norm in order to *minimize the risk* of injuries and violence. Both as a weapon and an item of exchange, using a firearm would equally be a risk to the society (the simple *presence* of a gun makes

it more likely that someone may be injured – sooner or later). That is why the Court should **criminalize any use** of firearms in relation to drug trafficking.
Bye Mr. Smith, see you in 30 years.

Normative external justification and interpretative arguments (I)

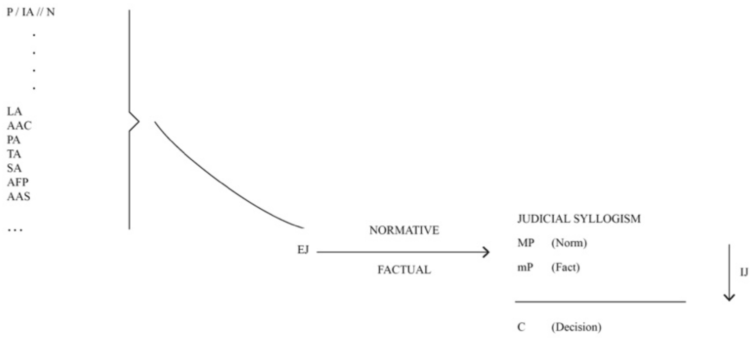
Normative External Justification

Normative external justification is the justification of the major, normative premise of the judicial syllogism: it involves giving reasons for considering a certain norm as valid and applicable to the case. Norms are the result of the interpretation of provisions.

In doing so, judges:

a. start with provisions (i.e. normative texts);
b. determine their normative content or meaning;
c. apply this normative content.

The typical structure of the normative inference is then **P / IA // N**.



Note that interpretive reasoning (normative EJ) and evidential reasoning (factual EJ) are **closely intertwined** in practice: in the light of the available evidence and an initial reconstruction of the facts, the legal practitioner searches for one or more provisions from which a norm suitable to regulate the case can be derived; the norm identified will, in turn, orient the reconstruction of the fact, leading the legal practitioner to refine, progressively and jointly, both the major and minor premises.
Picking up on a metaphor by Karl Engisch, one could depict this inferential path as the construction of a tunnel moving from both sides of the mountain, that is only successful if the two sides of the tunnel remain in constant communication with each other.

Judges mainly use **interpretative arguments** to determine and justify the content of provisions, but **integrative arguments** can be used too in order to justify the construction of an implicit or unexpressed rule (starting from expressed norms or from other normative materials), when there are gaps in the law. The main distinction between the two types of arguments is that interpretative arguments move from provisions to norms, integrative arguments move from explicit to implicit or unexpressed norms.

***Oliari and others v. Italy**, 2015*

The Law: "Everyone has the right to respect for his private and family life, his home and his correspondence. There shall be no interference by a public authority with the exercise of this right."
The facts: Same-sex unions/marriage were not recognized under Italian Law. The applicants claimed that this is discrimination under Article 8 of the ECHR.
The problem: Is Italy under the obligation to recognize same-sex unions under article 8?

The **majority opinion** of ECHR established that: "While the essential object of Article 8 is to protect individuals against arbitrary interference by public authorities, it may also impose on a State certain positive obligations to ensure effective respect for the rights protected by Article 8.". Through **inference**, the Court reaches the conclusion that lack of action in this specific case can be considered a violation of Article 8: a lack of action in this specific case would mean no legal protection for same-sex couples.
"[…] The Court considers that in the absence of marriage, same-sex couples like the applicants have a particular interest in obtaining the option of entering into a form of civil union or registered partnership, since this would be the most appropriate way in which they could have their relationship legally recognized and which would guarantee them the relevant protection.
[...] The Court finds that the Italian Government have overstepped their margin of appreciation and failed to fulfill their positive obligation to ensure that the applicants have available a specific legal framework providing for the recognition and protection of their same-sex unions. To find otherwise today, the Court would have to be unwilling to take note of the changing conditions in Italy and be reluctant to apply the Convention in a way which is practical and effective."

Interpretative arguments

Functions

Interpretive arguments have at least **two functions**:

1. a **decisional** function, when they serve as means of interpretation (in the context of decision-making)
2. a **justificatory** function, when they serve as reasons justifying the interpretation and the reasoning that led to the decision

However, interpretative arguments are not the only reasons that determine the decision of the judge, that might be determined by individual, idiosyncratic factors. Still, judges justify decisions by giving reasons that are considered to be legitimate, and those are the reasons that are fully available to us in public judicial opinions and that are taken into consideration for possible appeals.

First order interpretative arguments

Interpretative arguments are to be found under various names ("interpretive maxims", "interpretive directives", "canons of interpretation", "interpretive methods") and their catalogue varies considerably from system to system.
We will consider seven in particular (**first order interpretative arguments**), the last of which is precisely an integrative argument:

1. **literal argument**, the argument from linguistic meaning;
2. **argument *a contrario***, the argument from difference with other regulated situations;
3. **psychological argument**, the argument from the intention of the author;
4. **teleological argument**, the argument from the purpose of the normative text;
5. **systemic argument**, the argument from the system to which the provision belongs;
6. **argument from principle**, the argument from the general principles of the law;
7. **argumentum *a simili***, the argument from the similarity with other regulated situations.

Interpretative arguments are usually **defined** by legal practice, legal doctrine and legal science in a centuries-long process of elaboration: judges use interpretative arguments because they are consolidated in the legal practice within a jurisdiction.

Moreover, they are seldom used in isolation; most often they are used **together**, in concatenation with each other as to form chains of arguments leading to a determinate interpretative result.

However, the most relevant problem from the perspective of the judges is the **conflict of arguments**: typically, in real-life actual legal process, the interpretive arguments of one party are opposed by arguments of the other party, so that different and incompatible norms are derived from the same provision. When this happens (almost always, if the dispute is not merely factual), it is up to the judges or courts (since legal systems do not usually provide for a hierarchy between arguments) to determine which argument, with which outcome, is (most) correct.

***Smith v. US**, (1993)*

In Smith v. the US, Smith argued that the correct interpretation of "use" is "use as a weapon" and suggested the conclusion that he shouldn't be sentenced to 30 years, because he didn't use the gun as a weapon but as a trading item.
The prosecution argued that the word "use" should be understood as "using a weapon for any purpose" (not just as a weapon) and that the conclusion should be that Smith did use a gun, and he should be sentenced to 30 years of prison.

The majority opinion sided with the prosecution's interpretation and argued for it using both **linguistic**, **systematic**, and **purposive** arguments. The descending opinion sided with Smith and used **linguistic** arguments.

Second order interpretative arguments

In order to solve the problem of conflicting interpretative canons, legal doctrine and legal theory developed **second-order interpretative arguments**, which provide legal practitioners with directives for the use of first-order arguments.

There are two groups of second-level interpretative arguments:

1. **procedural directives**, that determine the order in which the interpreter should apply first-order directives. For example: "Ascribe to the provision the literal meaning. If the literal meaning is indeterminate, ascribe to the provision the meaning according to the intention of the legislator. If the intention of the legislator is not clear, use systematic interpretation";
2. **preferential directives**, that justify the choice of the norm to apply to the case from among those derivable from the same provision, on the basis of the first-order interpretive arguments. For example: "Between the meaning that the text has on the basis of literal interpretation, and the meaning that the text has on the basis of intentional interpretation, the second one should be preferred".

Normative theories of interpretation

By combining directives of the first and second levels judges and scholars formulated **normative theories of interpretation**, that are supposed to guide the activity of legal interpretation as a whole:

1. **Textualism, originalism, intentionalism**, according to which, in interpreting legal texts, the judge must guarantee the certainty and the stability of the legal system over in time (most important IA: literal and psychological);

2. **Evolutionary interpretation, living tree constitutionalism** according to which, in interpreting legal texts, the judge must conform law to the evolution of the societal requirements and changing legal values (most important IA: teleological and from principle);
3. **Purposivism, legal pragmatism**, according to which, in interpreting legal texts, the judge must guarantee efficient legal solutions to controversies (IA chosen so as to ensure the most efficient decision).

Interpretive arguments in Italy

Sources of interpretative arguments

The practice of interpretation in the Italian legal system stems from **various sources**, including:

a. **interpretative provisions** governing interpretation itself;
b. jurisprudence of the **Court of Cassation**;
c. jurisprudence of the **Constitutional Court**;
d. jurisprudence of **supranational courts** such as the European Court of Justice and the European Court of Human Rights.

One of the most important sources of interpretative arguments in Italy are the articles of ***Preleggi***, provisions on law in general that regulate sources of law (art. 1-9) and the application of law (art. 10-16).

Article 12 of Preleggi

Article 12 of Preleggi deals with the "**Interpretation of the statutory law**" and consists of two paragraphs:

> "*In the application of the statutory law, no other sense can be attributed to it than that which is evident from the* ***proper meaning*** *of the words according to their* ***connection*** *and from the* ***intention*** *of the legislator*".
>
> "*If a dispute cannot be decided by a particular provision, regard shall be had to the provisions governing* ***similar cases*** *or matters of a similar nature; if the case still remains uncertain, it shall be decided according to the* ***general principles*** *of the legal order of the State*".

The first paragraph concerns the attribution of meaning to legal texts and is intended at orienting the interpreter in interpreting them, limiting, at the same time, the interpreter's discretion. At least three interpretative arguments can be found in this paragraph: the **literal** argument, the **systematic** argument and the **psychological** argument.
The second paragraph concerns gaps and is intended at orienting the interpreter in filling legal gaps: in this respect, the article cite the argument ***a simili*** and arguments **from principle** as the mandated integrative arguments.

Note that one cannot say that regulation of interpretation from Preleggi solve all/most/some interpretative **problems**, as these provisions on interpretation are also to be interpreted.

The literal argument

Maxim: An interpretation is justified if it attributes the **literal** (plain, grammatical, obvious, textual, immediate, clear, strict, adequate, current) **meaning** to the disposition.

The **primary function** of the literal argument (LA) is the constraint of the judge: LA is intended to prevent the provisions from being given a meaning other than the literal one, limiting the judge's ascription of normative meaning to legal texts.
In this perspective, LA is also central to legal certainty and protection of the expectations of the recipient of the law, who reasonably expect the law to be applied according to the wording of the legal texts. In some areas of law, especially those in which essential values are at stake (like liberty and property), it is vital to limit interpreters only to meanings of provisions that are linguistically possible (for the same reason, the prohibition of analogy in criminal law is part of most criminal codes).

How to determine literal meaning

But how do we ascertain these meanings? Literal meaning is usually determined in the following ways:
1. by **using dictionaries**, that record a series of linguistic usages in a given context, noting the words used and the meanings that speakers attribute to them;
2. by **making inferences about common usage**;
3. by **using one's own linguistic intuitions** (less commendable: at times judges argue with phrases such as "it is reasonable to assume that X means Y", without saying why it is reasonable".

Varieties of literal arguments

We can distinguish **four main variants** of the literal arguments, two distinguish according to a temporal criterion, the other rwo according to the type of language considered:
1. **original meaning**, which is the literal meaning at the moment of promulgation of the legal text;
2. **current ordinary meaning**, which is the literal meaning at the moment of the interpretation of the legal text;
3. **ordinary meaning**, which is the literal meaning based on ordinary language used by all speakers of that language;
4. **technical meaning**, which is the literal meaning based on the technical language (legal, technical or scientific).

Here are some examples of different variants of the literal arguments used to decide different cases.

***Commonwealth v. McCoy**, 962 A.2d 1160 (Pa. 2009)*

The law: "A person commits an offense if he knowingly, intentionally, or recklessly discharges a firearm from any location into an occupied structure."
The facts: James McCoy was inside the Old Country Buffet when he fired his gun.
The problem: "Whether, in ordinary English, "into" denotes the movement from outside to inside—or whether the movement of the bullet from the gun chamber in the area in which it first struck something would be sufficient for discharging "into an occupied structure"".
The decision: On appeal, McCoy was held not to have fired his gun "into" the restaurant (since he was already inside), and his conviction was overturned.

The Court of Appeal held that: "The **plain meaning** of "into" can be gleaned from its dictionary definition. The word "into" typically follows "a verb that carries the *idea of motion* ... to indicate a place or thing ... enterable or penetrable by or as if by a movement from the outside to the interior part." Webster's Third New International Dictionary 1184 (1986). It is also defined as describing action "*from the outside to the inside of*; toward and within." Webster's New Woeld Dictionary 738

(2d ed.1984). Based upon these definitions, in the context of spatial relations, the plain meaning of the term "into" requires that the original location is outside of the destination— one does not walk "into" a room one is already standing in; likewise, a gun is not fired "into" a building when the shooter is located inside the building. A projectile only travels "into" an occupied structure when the projectile begins its journey outside of the structure and either enters the structure through an opening or penetrates the outer wall."
There, the Court of Appeal used an **ordinary meaning argument**, concerning the literal, plain and ordinary definition of the expression "into". This is particularly important in this case since we are dealing with criminal law: in these cases, the interpretation according to the ordinary meaning of words must take prevalence over others.

***McBoyle v. United States**, 283 U.S. 25 (1931)*

The Law: "When used in this Act: (a) The term 'motor vehicle' shall include an automobile, automobile truck, automobile wagon, motorcycle, or any other self-propelled vehicle not designed for running on rails." "Whoever shall transport or cause to be transported in interstate or foreign commerce a motor vehicle, knowing the same to have been stolen, shall be punished by a fine of not more than $5,000, or by imprisonment of not more than five years, or both."
The Facts: Knowing at the time that it was stolen, McBoyle shipped an airplane from Illinois to Oklahoma. He was convicted of violating the National Motor Vehicle Theft Act, which covered self-propelled vehicles not designed for running on rails and prohibited them from being transported across state lines.
The problem: the meaning of the word "vehicle" in the phrase "any other self-propelled vehicle not designed for running on rails."

The majority opinion held that "No doubt etymologically it is possible to use the word to signify a conveyance working on land, water or air, and sometimes legislation extends the use in that direction" (authority of dictionary, **plain meaning**).
"But in everyday speech, "vehicle" calls up the picture of a thing moving on land ... the Government suggests, rather to enlarge than to restrict the definition, vehicle includes every contrivance capable of being used "as a means of transportation on land": here, the phrase under discussion calls up the popular picture" (**narrow ordinary meaning**).
"For, after including automobile truck, automobile wagon, and motor cycle, the words "any other self- propelled vehicle not designed for running on rails" still indicate that a vehicle in the popular sense – that is, a vehicle running on land – is the theme. It is a vehicle that runs, not something, not commonly called a vehicle, that flies...When a rule of conduct is laid down in words that evoke in the common mind only the picture of vehicles moving on land, the statute should not be extended to aircraft simply because it may seem to us that a similar policy applies, or upon the speculation that, if the legislature had thought of it, very likely broader words would have been used" (**argumentum *a contrario***).

***District of Columbia v. Heller**, 554 U.S. 570 (1980)*

The Law: "A well-regulated Militia, being necessary to the security of a free State (prefatory clause), the right of the people to keep and bear Arms, shall not be infringed (operative clause)."
The facts: A local law of the District of Columbia, the Firearms Control Regulations Act of 1975, banned residents from owning handguns, automatic firearms, or high-capacity semiautomatic firearms, and prohibited possession of unregistered firearms.

The problem: A lawsuit was brought by Dick Heller, a police officer. He applied for a registration certificate for a handgun that he wished to keep at home, but the district refused. Heller claimed that the law infringed the individual right "to keep and bear arms" protected by the Second Amendment.

The majority opinion: "The term "bear arms" is a familiar idiom; when used unadorned by any additional words, its meaning is "to serve as a soldier, do military service, fight. (Oxford English Dictionary 634, 2nd ed. 1989)": **ordinary meaning**.
It is derived from the Latin *arma ferre*, which, translated literally, means "to bear [*ferre*] war equipment [*arma*]." (Brief for Professors of Linguistics and English as Amici Curiae 19). One 18th-century dictionary defined "arms" as "weapons of offence, or armour of defence," (1 S. Johnson, A Dictionary of the English Language, 1755), and another contemporaneous source explained that "[b]y arms, we understand those instruments of offence generally made use of in war; such as firearms, swords, & c. By weapons, we more particularly mean instruments of other kinds (exclusive of firearms), made use of as offensive, on special occasions.": **original meaning**.
Had the Framers wished to expand the meaning of the phrase "bear arms" to encompass civilian possession and use, they could have done so by the addition of phrases such as "for the defense of themselves," as was done in the Pennsylvania and Vermont Declarations of Rights.": **counterfactual psychological argument**. "The unmodified use of "bear arms," by contrast, refers most naturally to a military purpose, as evidenced by its use in literally dozens of contemporary texts.": **original ordinary meaning**.

"We turn to the phrases "keep arms" and "bear arms." Johnson defined "keep" as, most relevantly, "[t]o retain; not to lose," and "[t]o have in custody." Webster defined it as "[t]o hold; to retain in one's power or possession." No party has apprised us of an idiomatic meaning of "keep Arms." Thus, the most natural reading of "keep Arms" in the Second Amendment is to "have weapons." [...] At the time of the founding, as now, to "bear" meant to "carry." See Johnson 161; Webster; 2 Oxford English Dictionary 20 (2d ed. 1989) (hereinafter Oxford). When used with "arms," however, the term has a meaning that refers to carrying for a particular purpose – confrontation.": **contemporary ordinary meaning**.

The argumentum a contrario

Maxim: The interpretation that does **not** give the provision a **broader meaning** than the literal one is justified.

The **primary function** of the AAC is still restraining: the *a contrario* argument dictates that the judge shouldn't go beyond the literal meaning of the provision, excluding extensive or analogical interpretative reasoning in case of gaps. This argument seeks again to protect the values of legal certainty and protection of expectations.

If the legislature provides that class C has right R (e.g., "All citizens older then 18 have the right to vote"), it must be inferred *a contrario* that members of non-C do not have right R (in the example, the right to vote is not conferred on minors).
Here are some examples of the *a contrario* argument.

Smith v. US *(1993)*
Dissenting opinion, Scalia: "Just as adding the direct object "a firearm" to the verb "use" narrows the meaning of that verb (it can no longer mean "partake of"), so also adding the modifier "in the offense of transferring, selling, or transporting firearms" to the phrase "use a firearm" expands the meaning of that phrase (it then includes, as it previously would not, nonweapon use). In Section 924(c)(1), the modifier "in the offense of transferring […]" is **not added** to the phrase "use a firearm;" therefore, the narrow meaning should be intended."

Majority opinion, O'Connor: "The words "use as a weapon" **appear nowhere in the statute**. Rather, § 924(c)(1)'s language sweeps broadly, punishing any "use" of a firearm, so long as the use is "during and in relation to" a drug-trafficking offense. Had Congress intended the narrow construction, petitioner urges, it could have so indicated."

Dobbs v. Jackson Women's Health Organization*, No. 19-1392, 597 U.S. (2022)*
The Law: No State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any State deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws.
The Facts: The state of Mississippi enacted a law to ban abortions after 15 weeks of pregnancy. Relying on earlier Supreme Court decisions (Roe v Wade, Casey) the Center for Reproductive Rights filed the case in March 2018 on behalf of Jackson Women's Health Organization—the last remaining abortion clinic in Mississippi—to challenge the state's ban on abortions after 15 weeks of pregnancy.
The problem: Does the 14th amendment denote the right to have an abortion?

The majority opinion, with an ***argumentum a contrario***, held that abortion is not a constitutional right as the Constitution "makes no reference to abortion" and that its substantive right was not "deeply rooted" in the country's history and tradition: for these reasons, the right to abortion did not fall under the category of substantive rights protected by the Due Process Clause of the 14th Amendment (on the basis of which the Court had decided *Roe v. Wade*).
The *a contrario* argument is used to justify a narrow interpretation of the 14th Amendment, that could not be interpreted broadly in the sense of including the right to abortion.

The psychological argument

Maxim: The interpretation which gives the provision the meaning corresponding to the **legislator's intention** is justified.

Are literal arguments enough?

The law: "The person driving or about to drive could be required to take a breathalyzer test." (Section 8(1) of the English Road Traffic Act)
The facts: Before being stopped by an officer the driver changed places with the codriver.

The law: "Anyone who turns in a coyote scalp shall be rewarded." (California Coyote Scalp Reward ordinance of 1891)
The facts: People were bringing coyote scalps from farms where coyotes were bred with the express purpose of delivering the scalp and getting the reward.

The law: "Stores are to be closed at 10 p.m. on any day of the week." (State of Alberta Law)
The facts: One store closed at 10 p.m. but reopened a few minutes later.

In these cases, it seems that the conclusions justified by the **literal argument** are contrary to common sense, reasonableness or justice: if a provision has multiple normative meanings according to different literal arguments (which happens especially when expressions are ambiguous, vague, "extravagantly" general or essentially contested), the literal argument is supplemented or replaced by **other arguments** capable of justifying different conclusions and thus allowing one norm to be selected as correct.

Church of the Holy Trinity v. United States*, 143 U.S. 457 (1892)*

The Law: The U.S. Alien Contract Labor Law prohibited the "the importation and migration of foreigners and aliens under contract or agreement to perform labor or service of any kind in the United States, its territories, and the District of Columbia".
The Facts: The Church of the Holy Trinity hired a clergyman from England to serve as its pastor. The Church was charged with violating the stated provision of the Alien Contract Labor Law, and a lower court ruled against the Church.
The Decision: The Supreme court ruled that the provision excludes "religious ministers" because of the "economic purpose of the regulation" as well as the need to "preserve and support religious practice".

The majority opinion held that: "It must be conceded that the act of the corporation is within the letter of this section, for the relation of rector to his church is one of service, and implies labor on the one side with compensation on the other. Not only are the general words "labor" and "service" both used, but also, as it were to guard against any narrow interpretation and emphasize a breadth of meaning, to them is added "of any kind"": **ordinary meaning**.
While there is great force to this reasoning, we cannot think Congress intended to denounce with penalties a transaction like that in the present case. It is a familiar rule that a thing may be within the letter of the statute and yet not within the statute because not within its spirit nor within the intention of its makers.": **psychological argument** of supposed intention of an **ideal** legislator.
"This is not the substitution of the will of the judge for that of the legislator, for frequently words of general meaning are used in a statute, words broad enough to include an act in question, and yet a consideration of the whole legislation, or of the circumstances surrounding its enactment, or of the absurd results which follow from giving such broad meaning to the words, makes it unreasonable to believe that the legislator intended to include the particular act.": **counterfactual systematic argument** and **psychological argument**.

Kinds of psychological arguments

The **variants** of the PA can be divided into two groups: those that depend on the ambiguity of the term "intention" and those that depend on the ambiguity of the term "legislator".

Based on the kind of intention, we can distinguish between:

1. **semantic psychological argument**, based on an intention relating to the meaning of the term used;

2. **teleological psychological argument**, based on an intention relating to the aim pursued by the legislator;
3. **systematic psychological argument**, based on an intention relating to the place of the legal content within the system.

Steelworkers v. Weber*, 443 U.S. 193 (1979)*

The Law: It shall be an unlawful employment practice for any employer […] to discriminate against any individual because of his race.

The facts: A private employer adopted an affirmative action plan to increase the number of black employees in one of its training programs.

The problem: Is the increase of black employees discriminating against other employees?

The majority opinion held that: "Congress' primary concern in enacting the prohibition against racial discrimination in Title VII of the Civil Rights Act of 1964 was with "the plight of the Negro in our economy.": **psychological argument**.

"Because of automation, the number of [...] jobs was rapidly decreasing. As a consequence, the relative position of the Negro worker [was] steadily worsening". "It plainly appears from the House Report accompanying the Civil Rights Act that Congress did not intend wholly to prohibit private and voluntary affirmative action efforts as one method of solving this problem. Given this legislative history, we cannot agree with the respondent that Congress intended to prohibit the private sector from taking effective steps to accomplish the goal that Congress designed Title VII to achieve.": **psychological argument**.

Based on what is meant by legislator (author) of the legal text, we can distinguish between:

1. the intentions of the **historical legislator**, i.e. the authority that has produced the text to be interpreted;
2. the (unrealized) intentions of the **current legislator**, i.e. the authority in office at the time of the argument;
3. the intentions of the **rational legislator**, i.e. the legislator that chooses the most suitable means for the chosen ends (avoiding gaps, antinomies and waste of resources);
4. the intentions of the **just legislator**, i.e. the legislator that guarantees that justice be done in the concrete case (avoiding that the rule identified by interpretation generates unreasonable, absurd or materially unjust consequences).

Note that only the first variant indicates a real person or group of persons. All the others refer to nonexistent states of affairs in which we consciously appeal to situations and qualities that are not present in our world: we call these arguments counterfactuals.

Counterfactual arguments from intention

Counterfactuals are conditional statements that imagine a state of affairs alternative to this world and derive a certain consequent from it (e.g., if we were porn actors, we would not teach legal argumentation).

We can find counterfactual interpretative claims are common in law as well.

To appeal to the intentions of the **present legislator** when this is in fact dealing with something else is to make a counterfactual claim: if the present legislator were dealing with this matter, it would regulate it in a certain way.

Even more clearly, it is counterfactual to appeal to the **ideal legislator** (whether understood as a rational legislator or as a just one), which by definition does not exist and is precisely an ideal construction: if the ideal legislator were to deal with this matter, it would regulate it in a certain way.
The **weakness** of these arguments is that, depending on how the alternative scenario is represented, very different consequences can be drawn for the cases in question.
Here are some examples of counterfactual reasoning.

Section 924's language and structure establish that exchanging a firearm for drugs may constitute "use" within 924(c)(1)'s meaning. Smith's handling of his gun falls squarely within the everyday meaning and dictionary definitions of "use." **Had Congress intended** 924(c)(1) to require proof that the defendant not only used his firearm but used it in a specific manner – as a weapon – it could have so indicated in the statute. However, Congress did not. *Smith v. US*

It would have been a simple matter in enacting the statute to insert, as descriptive words, airplanes, aircraft, or flying machines. **If they had been in the legislative mind**, the language would not have been expressed in such uncertainty as "any other self-propelled vehicle not designed for running on rails." *McBoyle v. US*

Had the Framers wished to expand the meaning of the phrase "bear arms" to encompass civilian possession and use, they could have done so by the addition of phrases such as "for the defense of themselves," as was done in the Pennsylvania and Vermont Declarations of Rights. *District of Columbia v. Heller*

Problems with psychological arguments

There are some **problems** with the psychological argument.
First of all, there is an *ontological problem*: **who is the legislator**? One thing is the monarch as individual legislator (to whom mental states such as intentions can obviously be imputed), another thing is the parliament as collective legislator: can parliament be said to have such intentions, or are they not rather the sum of the intentions of its members? State of minds can be many and varied, all the more so if the process to adopt a legislative act is long and involves many bodies and actors.

Then, an *epistemological problem* has to be addressed: **what are the relevant intensions**? We cannot observe them directly, but only infer (mostly abductively) from the legislator's words and behavior. In other words, we only have indirect access to those intentions through their external manifestations: in this regard, the normative text will not help us much, since we resort to the PA when the LA is not sufficient; we can then look to other documents, such as preparatory works or possible declarations and the way the legislator behaved during discussion and deliberation.

Lastly, there is a *problem of abstraction*: **at what level of abstraction should the intention be sought**? Should the interpreter go into the details of the intention or reconstruct the intention in its most abstract spirit? For example, the authorities who introduced the equal protection clause (14th Amendment, Section 1) into the American Constitution considered it to be compatible with racial segregation: when determining its content, should reference also be made to this intention or only to the more abstract idea of legal equality?

Problems with counterfactuals

If the PA comes with all these problems, why not just use counterfactuals?
There are three major **problems** with appeals to counterfactual intentions as well:

a. firstly, they risk being the projection of the interpreters' desiderata when for some reason they wish to depart from the intentions of the historical legislator;
b. secondly, they are difficult to control, as it is difficult to say what would happen in scenarios other than those given;
c. thirdly, when PA takes the form of counterfactuals, it moves away from a strict observance of the principle of separation of powers.

Normative external justification and interpretative arguments (II)

The teleological argument

Maxim: the interpretation that gives the provision the meaning that achieves the **purpose of the regulation**, i.e. the meaning in conformity with the rationale of it, is justified.

For those with an **instrumental conception** of law (that is, for those who conceive of law as a tool for achieving political, social and economic ends), this is an argument of great importance, since it is of primary importance to interpret its provisions in view of their purpose (that is, the objective or the aim that the provision has).
In some legal system, this type of argument is central: for example, Directives of European law are regulatory instruments in which the purposes of regulation are expressly stated, so that the provisions of the directives themselves must be read in light of said purposes and domestic law of the states must be interpreted in accordance of those purposes; some Statutes contain *Preambulas* that expressly state their purpose (e.g., "This statute is enacted for the purpose of protecting public health").

One of the advantages of the teleological argument is that it can **surpass the difficulties** of both literal argument (given the problems of the LA seen before) and psychological argument (reconstructing the legislator's intentions can be difficult: if, on the other hand, the purpose of the regulation is sufficiently clear, teleological interpretation acquires considerable force).

Kinds of teleological argument

A number of variants of the TA are also distinguishable:

1. the **subjective** teleological argument, which consists in interpreting the provision in the light of purpose that the lawmaker (very similar to the teleological variety of the PA);
2. the **intersubjective** teleological argument, which consists of interpreting the provision in the light of the purpose it has (acquired) in the social context (important when the provision is dated and the task of the judge is to adapt the provision to the present circumstances in order to cope with new social problems and protect expectations reasonably formed);
3. the **objective** teleological argument, which consists in interpreting the provision in the light of its alleged objective purpose (most problematic: strictly speaking, "objective" purposes do not exist, since law, being essentially a human artefact, will have the purposes conferred on it by those who create or use it).

***Witold Litwa v. Poland**, (Application no. 26629/95)*

The Law: Everyone has the right to liberty and security of person. No one shall be deprived of his liberty save in the following cases and in accordance with a procedure prescribed by law: e) the lawful detention of persons for the prevention of the spreading of infectious diseases, of persons of unsound mind, alcoholics or drug addicts or vagrants.

The Facts: Witold Litwa was drunk when he was arrested and kept in detention for 7 hours. He claimed that the detention is unlawful and arbitrary.

The problem: Should anybody who is drunk be considered an alcoholic (Litwa was indeed dunk but not an alcoholic)?

ECHR opinion held that: "The Court observes that the word "alcoholics", in its common usage, denotes persons who are addicted to alcohol. On the other hand, in Article 5 § 1 of the Convention this term is found in a context that includes a reference to several other categories of individuals, that is, persons spreading infectious diseases, persons of unsound mind, drug addicts and vagrants...": **literal meaning**.

This *ratio legis* indicates how the term "alcoholics" should be understood in the light of the object and purpose of Article 5 § 1 (e) of the Convention. It indicates that the object and purpose of this provision cannot be interpreted as only allowing the detention of "alcoholics" in the limited sense of persons in a clinical state of "alcoholism". The Court considers that, under Article 5 § 1 (e) of the Convention, persons who are not medically diagnosed as "alcoholics", but whose conduct and behaviour under the influence of alcohol pose a threat to public order or themselves, can be taken into custody for the protection of the public or their own interests, such as their health or personal safety.": **teleological argument**.

Problems of teleological interpretation

The use of TA also generates significant problems.

First of all, there is a problem in **identifying the purposes**: when purposes are not expressly stated, their abduction becomes problematic and susceptible to interpretive abuse; a missing indication of the purposes by the legislator may lead to the manipulative intervention of the interpreters who ascribe to the legal text the purposes they personally prefer.

Secondly, how do we determine whether the purposes are **relevant or not**? One must consider that usually our ends are means to further ends. Let us assume that certain criminal punishments are a means to reduce theft: reducing theft is not an end in itself, it is a means to enable the peaceful enjoyment of property and so on. Thus, when considering a provision, it seems correct to distinguish between the immediate purpose and the further purpose of the law, and consider, as the limit of this dynamics, what one might call its ultimate purpose, which cannot be disregarded, notwithstanding it vagueness and remoteness.

Lastly, admitting that a correct identification of purposes takes place, the pursuits of different **purposes may conflict** with each other within the same legal system. What are the criteria for resolving conflicts between purposes? Similar to what is true of conflicts between principles, there are normally no predefined teleological hierarchies to which the interpreter can resort in order to understand which one is most correct to interpret and apply the law. The interpreter, then, cannot escape the difficult task of weighing what is at stake and assessing what is most important in the instant case (not in judge's personal opinion, but from the perspective of the system and the complex plurality of purposes, principles and values it configures).

The systematic argument

Maxim: The interpretation that attributes to the statutory provision the meaning inferred from **its place within the legal system** is justified.

Provisions exist in combination with other provisions, whose set of meanings constitute a normative system of a legal type. This fact justifies a systematic interpretation of provisions, i.e. reading them within the systematic framework to which they belong.
In order to frame a provision and its meaning in the relevant legal system, it is essential to identify the regulatory context and the relevant co-text:

a. the **context** is the scope of the system in which the provision is placed;
b. the **co-text** is the remainder of the normative act to which the provision belongs, or the remainder of the provision to which an expression or term to be interpreted belongs.

Kinds of systematic arguments

Different interpretative characterizations of the legal system correspond to different types of systematic argumentation. Here is a list of them, namely arguments from:

- **Words connection**: the interpretation that gives the normative provision the meaning of its words in their connection is justified (that is, it is the canon that requires to read a portion of text together with his co-text).
  For example, in the three phrases “It is forbidden to sit near the bank”, “The bank has the right to deny credit”, “The bank should be emptied from personal data” the word “bank” has three completely different meanings.
- **Combined regulation**: the interpretation that combines rules or parts of rules so as to derive a (more) complete legal regulation to be applied to the case is justified.
  For example, Constitution art. 48 states that “All citizens of age are voters”, but in order to fully determine the conditions under which one is a voter, one needs a rule setting the conditions under which one is a citizen and a rule setting the conditions under which one comes of age (Law n. 91, 1992 regulates the conditions to become a citizen and Civil code art. 2: “Citizens of age are those with more than 18 years”).
- ***Sedes materiae***: the interpretation that attributes to the provision the meaning inferred from its place within the discourse of the legislator (articles, chapters, titles, etc.) is justified.
  For example, art. 147 of the Civil Code obliges both spouses to “maintain, instruct, educate and morally assist their children”: does the term “children” in the provision also refer to children born from unmarried couples living together? The *sedes materiae* argument justifies an answer in the negative: the provision is indeed contained in Book I, Chapter IV of the Civil Code, the title of which is “Of the rights and duties arising out of marriage”.
- **Terminological consistency and inconsistency**: the interpretation that attributes the same meaning to the same term or linguistic expression (and attributes different meanings to different terms or expressions), or different meanings in different normative contexts, is justified.
  For example, when in *Holy Trinity* the expression “labour or service” is discussed, it is justified to attribute different meanings to the two terms: it is not justified assume that the latter term is a synonym for the former, or a mere variation used by the legislator for aesthetic purposes; if the legislators added “service” to “labour”, they must have done so with the intention of meaning something other than “labour”.

- **Doctrinal (or dogmatic) constructions**: the interpretation deriving from concepts or conceptual distinctions proposed by legal doctrine and applicable to the case is justified.
  For example, “One who threatens another person will be fined or sentenced to jail time”, but doctrinal construction distinguishes between serious threat and conditional threat, and claims that only serious threats are punishable.
- **Logical consistency**: the interpretation of the provision that avoids the generation of antinomies (i.e. contradictions) in the legal system is justified.
  Note that logical consistency ≠ criteria for resolving antinomies: the latter apply when the interpretation of provisions results in an antinomy, but the interpretive directive of consistency serves to avoid antinomies where it is possible to read a provision in a way that does not generate antinomies.
  For example, given the statements “Citizens shall pay the full fee” and “Students shall pay 50% of the fee”, one has to interpret to avoid the antinomy.
- **Coherence**: the interpretation that gives the provision the meaning that makes it (most) coherent with the system, and possibly avoids gaps, is justified.
- **Defeasibility**: in the instant case, the interpretation that takes into account the relevant, albeit unexpressed, exceptions to be derived from other rules of the system is justified.

Obviously, the list of possible unexpressed exceptions is open: to avoid this leading to an interpretive anarchy where everyone adds the exceptions they prefer into the normative content, it is important to note that the unexpressed exception must be derivable from other norms in the system (e.g. norms that protect certain values or confer certain rights).
For example, the general rule is the obligation to stop at traffic lights; however, this is a defeasible rule because numerous exceptions, even if unexpressed, can justify its disapplication (ambulances, police cars, car with women in labour…).

Immigrant political parties

The Law: All citizens have the right to freely associate in political parties in order to contribute by democratic methods to determine national policy. (Art. 49 Italian Constitution)
The Facts: A group of immigrants to Italy tried to form a party.
The problem: Does the term “citizen” include immigrants in this Article?

The placement of this term in an article of the Constitution is a sign that the legislator intended its meaning to be retrievable from the other provisions of this text. In this perspective, its meaning can be drawn from the article that governs the inviolable human rights (Article 2): “The Republic recognizes and guarantees the inviolable human rights, be it as an individual or in social groups expressing their personality, and it ensures the performance of the unalterable duty to political, economic, and social solidarity.”: ***sedes materiae* argument** (Art. 49 interpreted on the basis of its position in the Constitution) and **combined regulation** (of Art. 2 and Art. 49).
Following these arguments, the interpreter can establish that the right of political association is a human right, and then claim that inviolable rights are guaranteed not only to citizens (in the meaning of legally recognized subjects of a state) but to human beings in general.

***Scarlet v. Sabam**, ECHR 2012*

The Law: The President of the Tribunal de première instance [...] shall determine the existence of any infringement of a copyright or related right and shall order that it be brought to an end. He may

also issue an injunction against intermediaries whose services are used by a third party to infringe a copyright or related right.
The Facts: Belgian judge could order an internet service provider to filter all communications in order to identify unlawful downloads of copyrights materials.
The problem: ?

ECHR opinion held that: "As paragraphs 62 to 68 of the judgment in Case C-275/06 Promusicae [2008] ECR I-271 make clear, the protection of the fundamental right to property, which includes the rights linked to intellectual property, must be balanced against the protection of other fundamental rights.": **argument from precedent**.
"Accordingly, such an injunction would result in a serious infringement of the freedom of the ISP concerned to conduct its business since it would require that ISP to install a complicated, costly, permanent computer system at its own expense, which would also be contrary to the conditions laid down in Article 3(1) of Directive 2004/48, which requires that measures to ensure the respect of intellectual-property rights should not be unnecessarily complicated or costly.": **combined regulation**.
"Moreover, the effects of that injunction would not be limited to the ISP concerned, as the contested filtering system may also infringe the fundamental rights of that ISP's customers, namely their right to protection of their personal data and their freedom to receive or impart information, which are rights safeguarded by Articles 8 and 11 of the Charter respectively.": **combined regulation**.
"In the light of the foregoing, the answer to the questions submitted is that Directives 2000/31, 2001/29, 2004/48, 95/46 and 2002/58, read together and construed in the light of the requirements stemming from the protection of the applicable fundamental rights, must be interpreted as precluding an injunction made against an ISP which requires it to install the contested filtering system."

The argument from principle

Maxim: The interpretation that gives the provision the meaning **consistent with the principles** of the system is justified.
From the maxim, it is obvious that arguments from principle and systematic arguments are **connected**, but the use of principles has assumed such importance in legal systems as to justify a separated discussion of the arguments.

Kinds of principles

The principles that can be invoked in interpretation can be grouped into four categories:

1. **general principles**, that can be derived from parts of the system where they are applied (e.g., principle of legitimate expectations which presides over many rules of private law, for which it provides explanation and justification);
2. **decisional principles**, that can be derived from the decisions of courts;
3. **c**onstitutional principles, that are contained in constitutional texts (irrespective of whether they are explicit or implicit);
4. **supranational principles**, that can be derived from the supranational legal sources (ECHR, EU Law, etc.).

***Riggs v. Palmer**, 115 N.Y. 506 (1889)*

The Law: Everyone is allowed to inherit property according to the wishes of the testator.

The Facts: Francis Palmer left most of his estate to Elmer Palmer by testament. Elmer Palmer killed Francis Palmer.

The problem: Can Elmer Palmer inherit the estate (given that, according to the article, everyone is allowed to inherit property but, according to a principle, one should not be allowed to benefit from one's wrongdoings)?

The majority opinion held that: "The purpose of those statutes was to enable testators to dispose of their estates to the objects of their bounty at death, and to carry into effect their final wishes legally expressed; and in considering and giving effect to them this purpose must be kept in view.": **teleological argument**.

"It was the intention of the lawmakers that the donees in a will should have the property given to them.": **psychological argument**.

"But it never could have been their intention that a donee who murdered the testator to make the will operative should have any benefit under it.": **counterfactual**.

"If such a case had been present to their minds, and it had been supposed necessary to make some provision of law to meet it, it cannot be doubted that they would have provided for it. Besides, all laws as well as all contracts may be controlled in their operation and effect by general, fundamental maxims of the common law. No one shall be permitted to profit by his own fraud, or to take advantage of his own wrong, or to fund any claim upon his own iniquity, or to acquire property by his own crime": **argument from principle**.

"These maxims are dictated by public policy, have their foundation in universal law administered [*512] in all civilized countries, and have nowhere been superseded by statutes. They were applied in the decision of the case of the New York Mutual Life Insurance Company v. Armstrong (117 U. S. 591)": **argument from precedent**.

***Pickstone v. Freemans**, plc [1989] AC 66*

The Law: Female employees a) shall receive equal pay for work in the same position or ... c) work of equal value when the position is not the same.

The Facts: Pickstone was employed as a warehouse operative and was paid the same as male warehouse operatives. However, she claimed that the work of the warehouse operatives was of equal value to that done by male warehouse checkers who were paid £1.22 per week more than she was.

The problem: There were only female warehouse operatives, as it was considered a female job. Pickstone could not compare her pay to male warehouse operatives, but rather only to warehouse checkers (who were only males).

The majority opinion held that: "Paragraph (c), expressly and unambiguously, does not apply where the woman is employed on work to which [...] paragraph (a) [...] applies.": **literal argument**.

"The principle of equal pay for men and women doing equal work is intended to avoid discrimination on the ground of sex, not to have effect on disputed differentials unrelated to sex.": **teleological argument**.

"In my view Mr. Pannick's submission, in support of the first of these two interpretations of article 119, is correct. Article 119 enshrines a broad, general principle: equal pay for equal work.": **argument from principle**.

"The equal pay directive makes clear that in this context equal work embraces work of equal value as well as work which is the same. I can see no justification for implying into this general principle, whereunder equal work includes both these categories, a rigid and inflexible limitation, to the effect that, although a woman is entitled to compare herself with a man doing work of equal value, she is only so entitled if and so long as no man is doing the same work as herself, and that whenever and for so long as there is a man doing the same work the woman cannot make that comparison, even if the difference in pay is attributable solely to grounds of sex. It makes the presence per se of one man doing the same work, which in some cases might be wholly fortuitous or even, possibly, a situation contrived by an unscrupulous employer, a decisive factor, regardless of all the other circumstances of the case.": **argument from principle** (explanation).

Constitutional principles

Constitutional interpretation entails some modes of legal reasoning that go beyond the standard syllogistic reasoning in internal justification.
With reference to the Italian Constitutional Court, three techniques of constitutional argumentation can be distinguished:

1. **compliant interpretation**, consisting in the interpretation of legislative provisions in the light of constitutional principles;
2. **the reasonableness test**, which is the comparative examination of two rules in light of article 3 of the Italian Constitution;
3. **balancing**, consisting in a comparison between two constitutional principles that are at stake in the case in question.

***Vavřička and Others v. the Czech Republic**, (2021)*

The Law: Everyone has the right to respect for his private and family life, his home and his correspondence. There shall be no interference by a public authority with the exercise of this right except such as is in accordance with the law and is necessary in a democratic society in the interests [...] protection of health or morals, or for the protection of the rights and freedoms of others.

The Facts: Polish citizens not wanting to vaccinate children against 9 common illnesses were prevented from sending children to kindergarten.

The Problem: Interference between the right to physical integrity and the need to be vaccinated in order to prevent the spread of diseases and, more generally, to pursue the aim of protecting public health (need for balancing).

The ECHR opinion held that: "The Court agrees, it being well established that a person's physical integrity forms part of their "private life" within the meaning of this provision of the Convention. […] The Court has established in its case-law that compulsory vaccination, as an involuntary medical intervention, represents an interference with the right to respect for private life within the meaning of Article 8 of the Convention.": **argument from precedent**.
"Whether the interference was "in accordance with the law", pursued one or more of the legitimate aims specified therein, and to that end was "necessary in a democratic society".

Legitimate aim: […] the objective of the relevant legislation is to protect against diseases which may pose a serious risk to health.
Necessity in a democratic society:

a. General principles and margin of appreciation: […] matters of healthcare policy are in principle within the margin of appreciation of the domestic authorities, who are best placed to assess priorities.
b. Pressing social need: the vaccination duty represents the answer of the domestic authorities to the pressing social need to protect individual and public health against the diseases in question and to guard against any downward trend in the rate of vaccination among children.
c. Relevant and sufficient reasons: there is an obligation on States to place the best interests of the child, and also those of children as a group, at the centre. Every child is protected against serious diseases. This is achieved by children receiving the full schedule of vaccinations during their early years.
d. Proportionality: The Court would further observe that, while not underestimating the educational opportunity foregone by the child applicants, they were not deprived of all possibility of personal, social, and intellectual development, even at the cost of additional, and perhaps considerable, effort and expense on the part of their parents. The Court considers that the measures complained of by the applicants, assessed in the context of the domestic system, stand in a reasonable relationship of proportionality to the legitimate aims pursued by the respondent State through the vaccination duty.

Arguments form precedent

Decisional principles are not formulated in the abstract, but they are the result of generalizations that always start from concrete cases: the source of a decisional principle is thus a **precedent** (i.e. the earlier decision by a court on a case with similar aspects to the case under consideration) or a series of judicial precedents.
The way decisional principles are developed from precedents and the function attributed to them, however, vary considerably between legal systems: in order to understand the different roles that decisional principles play in legal argumentation, we will distinguish particularly how they are used in common law and civil law systems.

Precedents in common law

In common law jurisdictions, precedents constitute a **source of law**, legal texts that are interpreted to arrive at legal norms that are valid in a jurisdiction: when deciding, the judge does not merely formulate the particular, concrete rule that provides the solution to the case, but they also identify a decisional principle that binds subsequent decisions of cases falling within the scope of that principle.

Previous judicial cases contain the ***ratio decidendi*** (that is the legal reasons, or purpose, of the judgement), which constitute the principle that is used to decide new cases. Sometimes the *ratio* is explicitly indicated, sometimes it remains implicit.

The precedent constraint may operate "**vertically**", when lower courts are bound to apply the decisional principles formulated by higher courts in all concrete cases falling within the scope of those principles, or "**horizontally**" when the same court, and any peer court, are required to apply their previously formulated principles in future cases.

The obligation to follow a precedent as a source of law generates **argumentative burdens** on the courts, that may, under certain conditions, disapply or overrule a precedent. It may disapply it if it shows, in argumentation, that the case under consideration does not fall within the scope of the holding because it has relevant different characteristics (distinguishing); it may also refuse a precedent and construct a new one (overruling) if, by offering arguments to this end, the court points out that the precedent applied up to that point is no longer suitable due to the change in social, political, institutional conditions.

Moreover, precedent can bind subsequent court decisions with varying degrees of strength: in this respect, a distinction is made between persuasive precedents, binding precedents in a weak sense and binding precedents in a strong sense.
Persuasive precedents are used by lawyers or prosecutors, who often refer to similar solutions previously adopted in order to strengthen their arguments, but are never sufficient to justify a decision nor the court is ever forced to follow them.
Binding precedents in the weak sense express decisional principles that the judge is obliged to take into account in resolving the dispute, although the decision may then be based on other rules or principles: this means, on the one hand, that the decisional principle may be disapplied here without the need for overruling and, on the other hand, that the decision is not justified if the precedent is not considered in the reasoning of the judgment (thus easily risking to be appealed, annulled or overturned).
Binding precedents in the strong sense express decisional principles that the court is obliged to apply: a court is not authorized to depart from or disapply the holding of a precedent except on the basis of distinguishing or overruling.

Dobbs v. Jackson Women's Health Organization*, No. 19-1392, 597 U.S.*
The Law: No State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any State deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws.
The Facts: The state of Mississippi enacted a law to ban abortions after 15 weeks of pregnancy. Relying on earlier Supreme Court decisions (Roe v Wade, Casey) the Center for Reproductive Rights filed the case in March 2018 on behalf of Jackson Women's Health Organization—the last remaining abortion clinic in Mississippi—to challenge the state's ban on abortions after 15 weeks of pregnancy.
The problem: Does the 14th Amendment include a right to abortion?

Among the other arguments (see above, Ch. *The argumentum a contrario*), the Supreme Courts also took into consideration a case (*Washington v. Glucksberg, 521 U. S. 702, 721 (1997)*) using an **argument from precedent**, when stating that "That provision has been held to guarantee some rights that are not mentioned in the Constitution, but any such right must be "deeply rooted in this Nation's history and tradition" and "implicit in the concept of ordered liberty."".

Precedents in civil law

In civil law jurisdictions, precedents are **not a source of law**: under Art. 101 of the Italian Constitution, for example, "Judges are bound only by statutory law", thus a binding principle obligation in the strong sense would be unconstitutional.
However, precedents do have an important role in civil law systems as well.

The civil law judge, unlike the common law judge, does not start from the solution of a concrete case in order to subsequently formulate, by means of a generalization, a norm that serves for future decisions; instead, he moves from a provision in order to derive, through interpretation, a general and abstract norm that expresses the meaning of that provision. In civil law systems, therefore, the constraint of precedent concerns the **interpretation of normative provisions**.

In civil law systems it is usually excluded that a single judgment has the value of a precedent, while there is a tendency to attribute such value to a plurality of decisions, relating to different concrete cases, that apply the same decisional principle: we speak in this sense of "**settled case law**" or "**interpretative orientation**" of case law, or "**living law**".

Since, for the constitutional reasons mentioned above, decisional principles are not binding in a formal sense, any judge is always **free to depart** from the interpretive orientation of other courts.
The precedents of higher courts do, however, exercise a ***de facto*** or **informal** constraint over the decisions of lower courts: a judge who departs from the established interpretation of a legal provision will in all likelihood see their ruling reversed and/or remanded, unless they provide compelling and convincing arguments to change this orientation; for reasons of expediency and efficiency of decision-making, the judge thus tends to conform their interpretation to that of the higher courts.
Note that in recent decades procedural rules to strengthen the precedent constraint have been progressively introduced in civil law systems, without, however, transforming it into a formal constraint: through the adoption of Italian **Law No. 69/2009**, the legislator introduced a provision that binds trial courts to conform to the consolidated interpretative orientation of the Supreme Court of Cassation (providing, at the same time, for the inadmissibility of an appeal to the Supreme Court of Cassation if the judge has decided taking into account the constant orientation of the supreme judges). Despite not introducing the formal constraint of precedent, these legislative provisions do, however, impose on judges wishing to depart from the precedents of higher courts argumentative burdens similar to those that characterize common law systems.

The argumentum a simili

Maxim: the analogical integration of the law that **extends** a rule from regulated cases to non-regulated cases, having a **relevant similarity** with the former, is justified.

The *argumentum a simili* is an **integrative argument**: it presupposes a gap determined via prior argumentation and leads to filling the gap by identifying similarities and differences between regulated and non-regulated cases.
Its **purpose** is therefore to extend the regulation of one or more regulated cases to other unregulated cases that share one or more relevant properties.

How does one determine the relevant properties? The relevant property is such in the light of the ***ratio legis*** (i.e. the purpose of the law): it is the property that has induced the legislator, in order to achieve a certain purpose, to give the regulated case (*source*) a certain legal regulation, which is extended by analogy to the unregulated case (*target*) since the property that is relevant in the light of the *ratio legis* is also to be found there.
In this sense, AAS depends on TA.

AAS cannot be used in all areas of the law: art. 14 Preleggi provides for the **prohibition** of analogical application in criminal and exceptional rules (but only *in malam partem*).

Adams v. New Jersey Steamboat Co. *(1896)*

The Facts: The plaintiff sought compensation for theft suffered in the cabin of a steamboat.
The problem: The law regulated the liability of inns that have an obligation to compensate under strict liability rules and the liability of train companies which don't have an obligation to compensate.

The plaintiff resorted to an **analogical argument**: since there was a legal gap and there was a similarity between inn and steamboat (given the similarity between room and cabin), the rules provided for theft in the former (strict liability of the operator) should be extended to the latter.
But the defendant's argument was also based on analogy: since there was a gap and there was a similarity between train and steamboat (given that both are means of transport), the rules on theft in the former (non- liability of the operator in the absence of a proof of negligence) had to be extended to the latter.

The majority opinion held that "The relations that exist between a steamboat company and its passengers, who have procured staterooms for their comfort during the journey, differ in no essential respect from those that exist between the innkeeper and his guests. The passenger procures and pays for his room for the same reasons that a guest at an inn does. There are the same opportunities for fraud and plunder on the part of the carrier that was originally supposed to furnish a temptation to the landlord to violate his duty to the guest.
A steamer carrying passengers upon the water, and furnishing them with rooms and entertainment, is, for all practical purposes, a floating inn, and hence the duties which the proprietors owe to the passengers in their charge ought to be the same. No good reason is apparent for relaxing the rigid rule of the common law which applies as between innkeeper and guest, since the same considerations of public policy apply to both relations."

The court found that the relevant similarity was with the inn by identifying as **relevant common property** the fact that the transaction between customer and merchant concerns a reserved space (room or cabin) to which only the operator has legitimate access in addition to the customer. The **rationale** behind the regulation of inn theft consists in the protection of the legitimate expectations of customers, who leave their property in the room assigned to them trusting that no third party has access to it; this is also the case with the assignment of a cabin on a steam- boat.

Problems of analogy

Like the other arguments, AAS is not free from problems.
What are gaps? Analogy depends on the existence of gaps, and gaps are not found as such, but depend on interpretations of existing rules through interpretative arguments and, therefore, on the discretion of judges.

How does one determine the *ratio legis*? In determining the *ratio legis*, the interpreter uses teleological interpretation, giving way to problems associated with this kind of argument when the purpose is not expressly stated by the legislator.

What is the relationship between analogy and *argumentum a contrario*? Once a gap has been identified, both argumentative paths are possible: AAS that fills the gap by virtue of a ratio, or the (weak) AAC that excludes analogical integration and concludes for an integration to the contrary. The application of one argument or another depends on whether it is possible to correctly identify similarities between cases in terms of *ratio* (often subject to dispute).

What is the relationship between analogy and broad interpretation? The problem here is that the latter is not explicitly prohibited and, in fact, the case law often uses it to extend a sanctioning regime beyond the cases that fall under a standard literal interpretation. The advantage of this argument is that there is no need to go so far as to say that there is a gap: it suffices to interpret the relevant provision broadly to regulate the case at hand; but some note that it is used precisely in those cases where one could say that there is a gap and where, then, one would incur the prohibition of analogical application of criminal law; even more critically, one could say that recourse to broad interpretation is nothing more than a subterfuge for doing what Art. 14 of the "Preleggi" prohibits.

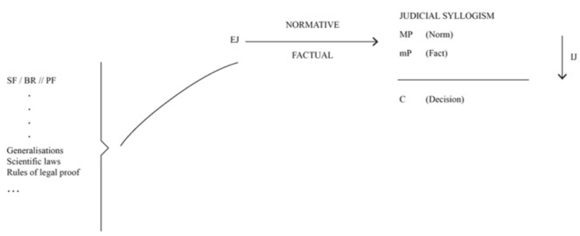
Factual external justification

Factual external justification

Factual external justification is the justification of the minor premise of the judicial syllogism. It involves giving reasons for considering the representation of the legally relevant fact to be true, or at least supported by the evidence (reasons in favor) / to be false, or at least unsupported by the evidence (reasons against).

Factual EJ is offered by **probatory arguments**, which consist in drawing evidential conclusions from empirical evidence or from other factual information presented at trial or in the proceedings, such as (non-exhaustive list):

a. rules of legal proof (e.g., two-witness rule);
b. arguments from documentary evidence;
c. arguments from real evidence (objects);
d. arguments from testimony (lay testimony or expert testimony);
e. arguments from expert evidence (scientific evidence in particular);
f. arguments from statistical evidence.



Evidence and truth

We said that evidence is a reason for considering the representation of the legally relevant fact to be true. But **what does "truth" mean** here?

Truth does not mean consistency, as it is more than just absence of contradictions; it is not coherence, as something is not true just because there is a coherent relationship between that statement and the set of statements to which it belongs (even a fairytale can be coherent); it is not credibility, as even a carefully constructed lie can be credible and credibility might depend on biases; it is not provability, as evidence is only the tool we have for knowing what is true (a claim could be true even if there is no evidence to support it) and, moreover, evidence could be tampered with.

Truth depends on reality: there is truth when there is **correspondence** between a **statement** (or claim) and the **fact** about which the statement is (e.g., the statement "Otto stole the car" is true if and only if Otto stole the car).
The problem is that judges almost never have direct access to the primary fact: they have not witnessed it and have no direct knowledge of it. They can only reconstruct it or represent it by means of **evidence** and evidential inferences: judges are able to determine only a procedural truth (the truth established at the outcome of a trial), and not the material truth (the truth in the correspondentist sense, regardless of the trial and its outcome). The goal of the process is that the procedural truth coincides with the material one, but sometimes the two can differ from each other: this divergence is a pathological situation and may be due to mistakes made by factfinders (e.g. because of biases), false testimonies, unfulfilled criteria for admission of evidence, and so on.

Evidence and proof

Notice that there is an important distinction also between evidence and proof.
Evidence is anything that can be used to prove a fact (documents, pictures, physical objects, testimonies, etc.). **Proof** is the positive outcome of the process: if the evidence is sufficient with respect to the applicable standard of proof, there is proof of the fact; otherwise, there is no proof.

Standards of proof

But what are these **standards of proof**? Standards of proof are thresholds for justifying a factual claim. There are three major standards of proof, due to the fact that there are different types of trials with different goods at stake:

1. in **civil cases**, the standard is that of "**preponderance of evidence**" (or "more probable than not"), that is, in quantitative terms a probability of > 50%;
2. in **serious civil cases**, the standard is that of "**clear and convincing evidence**", that is, in quantitative terms, a probability of around ≥ 70% or ≥ 75% ;
3. in **criminal cases**, the standard is that of "**beyond a reasonable doubt**", that is, in quantitative terms, a probability of around ≥ 90% or ≥ 95%.

Arguments on facts

The basic problem in evidential reasoning is that it is an inference that has to do with a form of **factual uncertainty**, due to the incompleteness of the available information. To deal with this difficulty, we proceed to analyse the inferential links between secondary facts, certain "bridge rules" and the primary fact.

The theoretical framework needed for the analysis of probatory items include:

1. the ***factum probans,*** which is a secondary fact used to prove a primary fact;
2. the **bridge rule**, which is an empirical (generalization out of experience) or legal (presumptions) rule that justifies the inference from one fact to another;
3. the ***factum probandum***, which is a primary fact that must be proved.

Therefore, the typical structure of the evidential reasoning is ***Factum probans* / Bridge-rule // *Factum probandum***: the secondary fact (*factum probans*) is the minor premise of evidential inferences, the bridge-rule is the major premise of evidential inferences, and the primary fact (*factum probandum*) is the conclusion of such inference; the *factum probandum* then becomes the minor premise of the judicial syllogism.

To rephrase the point, focusing on the sources of probatory arguments, the typical structure of the evidential inference can be seen as **E / BR // H**, where:
1. **E** is the **evidence**, namely any item that allows the construction of arguments on the facts of the case (e.g., Otto possesses the stolen car);
2. **BR** is the **brige-rule**, namely any generalization or rule that establishes inferential connections between evidence and hypotheses (e.g., If x committed a theft, then x possesses the stolen goods);
3. **H** is the **hypothesis**, namely the fact that must be proved (e.g., Otto stole the car).

The evidence and the hypothesis are linked by a probatory argument.

The model of Justified Abduction

Note that the logical structure of the inference is **abductive**: it is an inference that formulates an explanatory hypothesis. The fact that Otto possesses the car is explained by the fact that Otto stole it: as a hypothetical inference, it does not guarantee the correctness of its conclusion (it could be false although the premises are true); but this inference draws a conclusion that is judged to be probable (in quantitative terms), or plausible (in qualitative terms).

Of course, the more evidence there is, the stronger the hypothesis is. But even the strongest abduction remains a **formal fallacy** from a logical point of view; if, however, it is reasonable to assume the hypothesis, the abduction is not a material fallacy.
The **material fallacy** an abduction may incur in is that of presenting weak evidence as strong (e.g., take as strong evidence the testimonial statement of an unreliable person) or conversely presenting as weak evidence that in fact it is strong.

What strategy, on the other hand, is correct when one wants to demolish the opponent's argument? For sure, inference by ***modus tollens***, which is a deductive way to deny abduction. Starting from the denial of the secondary fact (evidence), it leads by inference to deny the primary fact: an example of *modus tollens* is providing an alibi (If Brutus had committed such violence in Milan on such a day at such a time, he would have been in Milan also shortly afterwards / It turns out that shortly afterwards Brutus was in Rome // Brutus did not commit such violence).

Therefore, even if it lacks deductive validity, abduction on the *factum probandum* is **justified** when it meets the applicable **standard of proof**, that is when, on the basis of the evidence:
1. in civil cases, it provides the more/most plausible hypothesis, or the more/most probable one among the others;
2. in criminal cases, it provides the only reasonable hypothesis, or the hypothesis that satisfies the required probabilistic threshold.

***Cruzan v. Director, Missouri Department of Health**, 497 U.S. 261 (1990)*
The facts: Missouri legislation required "clear and convincing evidence" that the comatose patient would have wished to discontinue medical treatment, and Nancy Cruzan had not expressed her wishes in this respect prior to losing consciousness.

The syllogistic reconstruction of the case starts from the considerations we made above: there is a major premise which represents the general law, and a minor premise representing the facts of the case. Then there is the conclusion, intended as a legal consequence due to the internal justification of the premises. For the purpose of the exam, we should consider if the conclusion is internally and externally justified, explaining the reasons of our conclusion according to the theories we studied. It is also appropriate to explain which standard of proof is present about the facts. The syllogism will be:

1. **Major premise**: Treatment of comatose patients shall be discontinued if and only if there is clear and convincing evidence that so they wished
2. **Minor premise**: There is no clear and convincing evidence that Nancy Cruzan wished to discontinue her treatment
3. **Conclusion**: Cruzan's treatment shall not be discontinued

The conclusion is internally justified (as it is a syllogism and then it logically follows the premises: we may also put it with the formal models we examined); as to the minor premise, we do not know Cruzan's wishes in the relevant respect, for she expressed none – for sure, the standard of proof is not met (the decision is then not externally justified, and this case could be defined as a serious one: it requires clear and convincing evidence, that we do not have).

***Morris v. Vining**, Court of Appeal of Louisiana, Second Circuit (1950)*

The Law: Common law rules and principles on ownership.
The Facts: Disputed ownership of two cows; several witnesses testified for the parties and appeared to have been in good faith; evidence "finely balanced", a "stalemate" situation.
The Problem: Balance of probability.

Decision of the District Judge: "The testimony was so finely balanced, there was really no way to actually determine which side had the preponderance of evidence"; "stalemate" and decision to give one cow each.
Decision of the Court of Appeal: Defendant wins, on the preponderance standard: "We are constrained to apply the long established principle of law that a plaintiff is required to prove his case by a reasonable preponderance of the evidence. [...] It therefore follows that there must be judgment for the defendant."

Bayes' Theorem

The uncertainty in evidence evaluation cannot be eliminated, but it can be measured trough **probability**.
It is important to note that probability is not a static concept, as in practice it is often necessary to reassess probabilities, given newly acquired information: for this purpose, a standard result is given by **Bayes' theorem**, that unfortunately (for us and for every sane person in the world) can be applied also in law and specifies how to update initial beliefs in the light of new data.

The traditional version

Bayes' Theorem helps in assessing the conditional probability of H given E. One formulation of the theorem goes as follows:

$$P(H|E)=\frac{P(E|H)P(H)}{P(E)}$$

Where:
- **P(H|E)** stands for the <u>*a posteriori* probability of H</u>;
- **P(H)** stands for the <u>*a priori* probability of H</u>;
- **P(E|H)** stands for the <u>likelihood of E given H</u>, namely the probability of finding a certain piece of evidence if the hypothesis is true;
- **P(E)** is the <u>*a priori* probability of E</u>.

The odds version

Since legal professionals are concerned that the use of Bayes requires to assign prior probabilities, an equivalent formulation of Bayes (called the **odds version** of Bayes) enables us to interpret the value of evidence E without having to consider the prior probability of H.
Specifically, this version of Bayes tells us that <u>the posterior odds of H are the prior odds of H times the likelihood ratio</u>:

$$\frac{P(H|E)}{P(not\ H|E)}=\frac{P(H)}{P(not\ H)}\times\frac{P(E|H)}{P(E|not\ H)}$$

The **likelihood ratio** (LR) is <u>P(E|H)</u>, that is the probability of finding E given H (H = "the defendant did it"), <u>divided by P(E|not H)</u>, that is the probability of finding E given the negation H (not H = "someone else did it" = P(E|H) – 1). In other words, it shows how likely it is to find that piece of evidence if H is true, compared to how likely it is to find that piece of evidence if H is false:

$$\frac{P(E|H)}{P(E|not\ H)}$$

The LR measures the degree to which particular evidence is capable of discriminating between competing propositions put forward by parties at trial: in other words, it measures the change produced by the evidence in one's beliefs in favor of one proposition as opposed to another.

The LR is also an important and meaningful measure of the **probative value** of evidence:
a. if LR > 1, then E results in an <u>increased</u> posterior probability of H;
b. If LR < 1, then E results in a <u>decreased</u> posterior probability of H;
c. if LR = 1, then E leaves the posterior probability of H <u>unchanged</u> (E is irrelevant).

The likelihood ratio can be used by experts only when there is **scientific evidence** (DNA traces, fingerprints, blood traces…), as only scientific experts are able to put values in the formula. On the other side, many scholars and forensic scientists claim that expert witnesses should only determine likelihoods: priors and posteriors are for the factfinders.

The "Prosecutor's fallacy"

The **prosecutor's fallacy** consists in taking the two probabilities <u>P(H|E)</u> as <u>P(E|H)</u>, or in taking the very law value of P(E|not H) as proof of guilt: prosecutor misapplies conditional probability,

neglecting the prior odds (i.e. the odds before the evidence) of the defendant being innocent and considering only the probability that the evidence would occur if the defendant were innocent (a much smaller number).
In fact, one must compare P(E|not H) with P(E|H) and consider priors too.
An important example of the "prosecutor's fallacy" is the case **People v. Collins** (1968), that was characterized by two errors:

a. it failed to consider dependence between components of the evidence (that would make the probabilities different);
b. it incorrectly equated the (very low) probability that a random defendant has certain traits with the chance that the defendant is guilty ("prosecutor's fallacy").

US Federal Rules of Evidence (FRE)

There are no legal systems that positively mandate the application of the theorem: there may be cases where judges try to apply it, but it is not compulsory. However, there are some rules (like the rules in the Federal system of the US) that seem to suggest something of that sort.

The **US Federal Rules of Evidence** are a set of positive rules enacted in 1975 which act as an evidentiary codebook necessary to establish the phases of the factfinding process. Some of the most relevant rules are:

- rule **401(a)**, or Test for Relevant Evidence, which states that <u>evidence is relevant</u> if "it has any tendency to make a fact more or less probable than it would be without the evidence" = evidence is relevant <u>if P(H|E) ≠ P(H)</u>;
- rule **402**, that provides for the <u>general admissibility</u> of relevant evidence (whereas irrelevant evidence is inadmissible);
- rules **403** and following, which set some <u>exclusions</u> of relevant evidence for prejudice, confusion, waste of time, or others.

Problems with Bayes' theorem

The Bayes' Theorem also comes with some problems.
Even when reliable likelihoods are given, how to determine the **prior probability**? Different methods for determining the prior may produce different prior probabilities, that in turn, given the evidence, may produce different posterior probabilities: considering the standards of proof, the selection of method for determining the prior decides the outcome of the case.
Other problems involved are: how to determine the so-called **reference class**? How to determine **likelihoods** in cases of non-expert evidence: how to estimate, for instance, the likelihoods that a lay witness makes a given statement E if H is true and if H is false? Moreover, factfinders and especially jurors (maybe – but only maybe – judges may have less problems understanding Bayes) are not AI but **humans** with very standard educational background, and they are not supposed to know Bayes (sane and normal people usually do not care about him).
These issues are the reason why the Bayes Theorem has a very limited use in legal factfinding.

Relative Plausibility Theory

The Bayes' theorem works mathematically speaking, but its application in legal fact-finding is, as said, highly controversial. A major critic of the application of the theorem in legal cases is Ron Allen,

according to whom factfinders' decision should be based on the **relative plausibility** of the version of the events put forward by the parties.
Specifically, in **civil cases** (given the preponderance standard) the most plausible account of the evidence must prevail, whereas in **criminal cases** the prosecution prevails if it has a plausible account and the defence has none (e.g., if it is plausible that Otto stole the car and he has not a plausible explanation that he possesses the car lawfully, he will be surely condemned).

Second part: Economic Analysis of Law

What is Law & Economics?

Non-market decisions can also be analysed from an economic perspective. The economic approach to law assumes that rational individuals view the threat of legal sanctions as implicit prices for certain kinds of behaviour. This price can be set to guide behaviour in a socially desirable direction. In the Holmes' theory the "bad man" is a rational calculator who seek to stretch the limits of law and will break it without remorse if the perceived gain exceeds the cost: "*If you want to know the law and nothing else, you must look at it as a bad man, who cares only for the material consequences which such knowledge enables him to predict*".

Positive and normative analysis

Economic analysis of the law comes in two varieties, positive analysis and normative analysis.
Positive analysis:
- seeks to explain how people respond to the threat of legal sanctions;
- asserts that legal rules tend to reflect economic reasoning;
- states that efficiency is reflected in the law.

This assertion has somewhat controversial among traditional legal theorists who view the law as justice.
Normative analysis asks how the law can be improved to better achieve the goal of efficiency. Efficiency is a goal that the law should reflect, and that legal rules should be changed when they fail to achieve it. Efficiency is a social value that the law should promote.

The Varieties of Efficiency

Pareto Efficiency

Consider a society consisting of two individuals and a fixed level of goods and services to be distributed between them. The allocation that we call pareto efficient satisfy 2 definitions:
- **Pareto superiority**: Allocation A is said to be Pareto superior to B if both individuals are at least as well off under A as compared to B and at least one is strictly better off.
- **Pareto efficiency**: A is said to be efficient if there exists no other allocation that is pareto superior to it.

Any changes consistent with Pareto superiority should be consensual, meaning that all individuals should agree to them.
There are **unappealing features** of Pareto efficiency:
1. it does **not** necessarily lead to a unique allocation. In fact, an infinite number of allocations may satisfy the definition;
2. Pareto efficient points (there are many) are **noncomparable** with each other because it becomes a subjective decision;
3. Pareto efficiency depends on the **initial allocation** or **starting point**. Moving from the area of superior points compared with the first allocation we find points that are worst off for one kind of person and better off for another;
4. Pareto optimality permits very unequal distributions of income.

There is also a non-technical definition which is: "*An allocation of resources is Pareto superior when it makes someone better off and no one worse off, according to their preferences. It is Pareto Optimal or efficient when it is impossible to make someone better off and no one worse off, according to their preferences*"
As seen, Pareto Efficiency does not apply to allocations with "losers". So, we must take a look at Kaldor-Hicks Efficiency.

Kaldor-Hicks Efficiency

If gainer is made sufficiently better off by the move that he would be able to fully compensate the loser and still realize a net gain. So, the Kaldor-Hicks criterion requires the comparison of the benefits to the "gainers" with the costs to the "losers" and, when the winners gain more than the losers lose, the move is efficient. Is it every time possible and legal? Probably not because it misses the compensation. In fact, the difference with Pareto efficiency is the difference between actual and potential compensation. If compensation is actual, a Kaldor-Hicks efficient move becomes a Pareto superior move. Thus, implied consent for the use of K-H criterion replaces actual consent under Pareto because we hope that those who lose from one policy will benefit from others and that on net, everyone will gain aggregate wealth is increased. See the intervention for the pollution: externality and then a market failure.

Coase Theorem

Roland Coase has been a very important scholar, a great figure. Coase was the founding father of the modern approach of Economic Analysis of Law.
We should start making clear what an externality is, since Coase's work starts with the concept of externality.
An **externality** is the **positive or negative effect** of a **certain economic activity** made by another person, and this person doesn't suffer a cost or receive a benefit for the effects of his action. Pollution is an example of a negative externality.
Another example is the sequent: You play the piano in your apartment, which produces noise in a certain sense. If your neighbour loves music, it's a positive externality. If your neighbour or another person hates music, it's a negative externality. The same thing can be a positive or negative externality depending on one's preferences. But there's an area of actions on which there's no discussion (e.g.: pollution is intrinsically a negative externality).
There is an important approach to externalities developed by **Pigou**. It **imposes taxes on those who generate negative externalities**. They're an incentive to reduce the use of a certain input. The taxes payments can be used, for example, to compensate certain people or for the benefit of the whole society.
Coase sees the problem from a different perspective and says that, economically speaking, the problem has a reciprocal nature and to support the explanation we are going to use an example: a factory is a problem for the residents in the area, who are affected by the smoke produced. But the fact that those people lived there is a problem for the economic activity. The ones cause a negative externality to the other. The problem is reciprocal. So, we must stop thinking in terms of causation, as a unidirectional issue (activity and externality as a consequence).
Let us see some examples:
Sturges v Bridgman (1879). This is a case decided by an English court. It is one of the examples that Coase makes in his articles. There are two guys: one is a doctor the other a confectioner. They lived

in the same area, they are neighbours and there is an externality, the noise produced by the confectioner. The doctor would like to be free from the noise. However, the (economic) problem is reciprocal in Coase's sense: the presence of the doctor is a problem for the confectioner and vice versa. The presence of the doctor is a sort of threat to the confectioner (and in fact he acts as a plaintiff in the trial). We consider social cost as the difference between the value of two economic activities when they do not interfere with one another and when they do. The reciprocal nature of the problem falls from the fact of interference. The value of the two when they interfere become lower. That's the measure of social cost. Thus, there is a loss. Suppose that the Doctor, in absence of the confectioner, with the visits he may get 100 (money) and the confectioner, without the doctor, gets 100. This is S0 (world 0). The total wealth is 200. But this is not the real world, in the real world there's interference. Suppose that the doctor must stop sometimes because of the noise, so he's able to visit less patients and he gets less money (80). The total wealth of S1 is 180. The social cost is 20 in S1, in S0 is none. The confectioner has used the mortar from more than 20 years, but the plaintiff is the doctor, who asks for an injunction. In the end they decided in favour of the plaintiff: the intuition is that this is a negative externality, it's produced by the defendant and so the plaintiff has right. As we can intuit, Coase think that this solution doesn't consider the social costs generated in this scenario. Suppose that doctor suits the confectioner and he's given an injunction, it's limited to one mortar (of the two). If the problem is fixed, the doctor will get 100, while the confectioner will get 50 (one of the two mortar is unused). The total wealth is 150, the social cost 50. This is a bad decision, in terms of economics (it's the effective decision of the judge). Coase: when decisions are made like these, they generate a bad economic outcome. What's the appropriate economic solution? The optimal solution is to let the confectioner to continue his activity but obliging him to compensate the plaintiff (20). So S3: 100 doctor (80+20) and 80 confectioner (100-20). The confectioner will be better off with respect to S2, which is the actual decision of the Court. If the two are rational in a bargain, they will reach a decision like S3.

The Assignment for Coase is the following: regardless of how the law assigns resources or allocates resources and rights, if the economic agents are **rational** and **transactions costs** are zero or very low those economic agents will reach an **optimal state of affairs through private bargains**. This is the shocking part for lawyers, it makes the law completely irrelevant: we can distribute resources and rights in every manner, and it wouldn't change anything. So, is the law economically irrelevant? No. Because people sometimes don't want or are not able to bargain, they're not always rational and **transaction costs are never 0**. Transaction costs are very heavy, so they affect a certain transaction (if you want an ice cream and you walk 2km to reach an Ice-cream shop, this is a transaction cost: you're losing time). The law is not irrelevant in the real world, because transaction has real positive costs. We cannot be sure that people are able to bargain and reach the optimal situation. Suppose that in our example, the transaction costs of the compensation agreement are 10 the confectioner would be willing to pay (he ends up with 70, which is better than 50). If they're 60, the benefit of the agreement will be lower than the cost of the transaction: it wouldn't make sense. The magnitude of transaction costs is very important in the real world. There are some normative ideas extracted by different scholars that contrast with Coase.

- Normative 1. If the property rights are allocated in a certain way, transactions costs will be low. If the allocation is made in way which is unclear, complex and people don't understand, that will arise the cost of transaction.
- Normative 2. Use standards instead of inflexible rules. Let's give to judges, standards, guidelines so judges can decide disputes like this with a margin of discretion.

An economic model of tort law

Rules of tort law are designed to give parties engaged in **risky activities** an **incentive** to undertake all reasonable means of minimizing the cost arising from those risks.
Costs of accidents consists of:

- **damages** suffered by victims;
- **cost of precautions**;
- **administrative costs**.

Tort law is the area of common law concerned with **accidental injuries**.
Risk is a necessary by-product of many socially beneficial activities. We should nevertheless take all cost-justified steps to minimize the resulting cost. We should invest in risk reduction to the point where saving an additional dollar in accidental losses can be achieved only by spending more than one dollar in precaution. It concerns private remedy, the right of accident victims to sue injurers for damages under tort law.

The **social functions** of tort law are the following:

1. optimal deterrence of risks;
2. compensation for the victims' injuries.

The victim must file a lawsuit against the injurer and must prove that the defendant is legally responsible and therefore must pay a compensation by demonstrating **damages** and **causation**, meaning that the **defendant's action** was **cause-in-fact of the damages**. It is established by using the **but-for test**: "but for the defendant's action, the plaintiff would not have sustained any harm". It was also proximate cause.

There are some **problems**:

1. If there are two or more causes that simultaneously produce a harm that would have caused acting separately?
2. If there are two or more injurers whom actions wouldn't cause any harm if each acted separately?
3. Even in the single-injurer case, there are extremely remote causes?[2]

In addition to proving cause-in-fact, the plaintiff must also prove proximate, or legal, cause. The connection between the injurer's action and the harm cannot be too remote. The usual test for proximate cause is the **reasonable foresight test**, based on the argument that a reasonable person would not have foreseen. <u>If the consequences of a wrongful act could be foreseen by a reasonable person, then it is not too remote</u>. There are many **liability rules** to verdict if someone is liable or not and which is the consequence:

- **no liability**: says that the victim should bear all these costs herself;
- **strict liability**, that shifts liability from the victim to the injurer once causation is established. It imposes all the damages to the injurer;
- **negligence**, that shifts liability from the victim to the injurer only if the injurer is found to be at fault or negligent. It is based on the idea that injurers owe potential victims a legal duty.

[2] See *Palasgraf v. Long Island R.R.* (1928).

The model of precaution

The economic analysis of tort law is based on the idea that **legal rules** for assigning **liability** are designed to **minimize the total costs associated with risky activities**.

Unilateral care model

Assuming that:

- **x** = dollar investment in precaution spent by the injurer;
- **p(x)** = probability of an accident;
- **D(x)** = dollar losses (damages) suffered by the victim.

Both p(x) and D(x) are decreasing in x because greater precaution reduces both the probability and severity of an accident and so, expected damages, given by p(x)*D(x), are also decreasing in x. The problem is how to choose x to minimize the costs of precaution plus expected damages:
minimize x + p(x)D(x).
The cost-minimizing level of care, labelled **x***.
Below x*, an extra dollar of care reduces the victim's expected damages by more than one dollar, so total costs are reduced. However, beyond x*, an extra dollar of care reduces expected damages by less than one dollar, so total costs rise. The optimum occurs when the marginal values are equal.

- Suppose the liability rule is strict liability the injurer will choose the socially optimal care level x* because the threat of liability forces him to internalize the victims' expected damages.
- Suppose the rule is negligence, the injurer is judged by the court to have met the "due care standard" (the level of care that a **reasonable person** would undertake). If he does he avoid all liability (he pay just X (cost of precaution)) otherwise he is fully liable (he pays the social costs (x+ p(x)D(x))).

Bilateral care model

It would be more realistic if victims must take care as well as injurers do to reduce the likelihood and severity of an accident. So, we assume that:

- **y** = dollar investment in care by the victim;
- **p (x, y)** = probability of an accident;
- **D (x, y)** = damages suffered by the victim in the event of an accident.

It is intuitional that expected damages, p (x, y) * D (x, y), are decreasing in both x and y.
Now we want to minimize x+y+p (x, y) D (x, y) so we have to choose both x and y:

- **under no liability**, the injurer bears none of the victim's damages and therefore, as in the unilateral care model, invests in no care; that is, x = 0. Since the victim knows that x = 0, she will probably choose more than y* in order to "compensate";
- **under strict liability**, the victim is fully compensated so choose zero precautions and Y=0; Injurer will probably exceed x* in order to compensate.

This shows that in the bilateral care model, both no liability and strict liability **fail**.
There are some **solutions**:

1. both parties must face full responsibility for the damages at the margin to have the proper incentives. Otherwise, there is a moral hazard problem that results in too little precaution by the party not facing liability;
2. to assess the full amount of the victim's damages on the injured, but then not award the injurer's payment to the victim. Actual liability rules cannot be structured in this way. Any amount of

money that the injurer pays must be awarded to the victim. But if it would not be like that it would be a good choice.

It is not efficient also **under negligence** where the injurer can avoid liability by meeting the due standard of care. So, the victim expects to bear her own losses:

1. the injurer has just to reach the threshold;
2. it imposes actual liability on the victim.

Thus, the compensatory and deterrence functions of tort law may be incompatible after all.

Hand rule

The duty to provide against resulting injuries is a function of 3 variables:

- damages' probability (**P**);
- gravity of the resulting injury (**L**);
- burden of adequate precautions (**B**).

There is liability **if and only if B< PL**, which is exactly the range over which **x<x***.

The reasonable person standard

In reality, injurers will have different costs of care. The cost-minimizing level of care will naturally be individual-specific. But law sets a single standard applicable to most people. It is based on a reasonable person. But a single standard will not minimize overall accident costs when injurers differ in their marginal costs of care. There are three **types of inefficiency**:

- the due standard is lower than what their individualized standard would be, or $x^* < x_j^*$. These individuals will have no incentive to increase their actual care above x^*;
- cost of care that is slightly above average will increase their care level up to the due standard;
- they find it too costly to raise their care level up to x^*. Instead, they choose x_j^* and are judged negligent. For these injurers, the negligence rule is equivalent to strict liability.

There are different **kinds of negligence**:

- **simple negligence**: if injurer is negligent, he must <u>compensate the victim</u>;
- **contributory negligence**: this is a form of negligence that is <u>applied to victims</u>. It is a defence for the injurers because even though he admits his negligence he can still try to avoid liability by proving that the victim failed to meet her due standard. She must use common and ordinary caution to be in the right:
  1. if the victim choices are not negligent, the injurer can still avoid liability by meeting his own due standard;
  2. If both are negligent the victim is liable;
  3. If the injurer is negligent but the victim is not the injurer is liable;
  4. If both meet their own standard the victim is still liable;
- **comparative negligence**: liability rules we have seen so far are the "all-or-nothing" rules. Comparative negligence <u>divides the damages </u>between the <u>injurer and victim</u> in <u>**proportion** to their relative **fault**</u>. The principal reason for using it is a dissatisfaction with the all-or-nothing rules, especially in case where slightly negligent victims are barred from recovering against grossly negligent injurers (problem found in the contributory negligence). If $x < x^*$ and $y < y^*$, both parties are negligent, so they share liability in proportion to their fault. In the case of shared liability, suppose that the injurer bears a fraction "s" of the damages, and the victim bears the remaining fraction $1 - s$, where s depends positively on the degree of injurer negligence and negatively on the degree of victim negligence. If we constrain $s = 1$, then the injurer bears full

liability when both parties are negligent, as is true under simple negligence. In contrast, if we set s = 0, then the victim bears full liability when both parties are negligent, as under negligence with contributory negligence. In this way we have demonstrated that comparative negligence leads to an efficient equilibrium and is "fairer" suggests that it is superior to either of the all-or-nothing negligence rules. But there are two reasons against:

1. when both parties choose due care, the victim bears her own liability as under the other negligence rules;
2. it has the drawback that it is probably costlier to administer than the other negligence rules because it requires the court to apportion damages based on relative fault. In many cases this will be a difficult task. But there are also other reasons in favour:

a. injurers and victims are risk-adverse;
b. there is uncertainty about the due standard of care;
c. injurers differ in their costs of care;
d. the case of sequential care accidents.

Punitive damages

Compensatory damages are aimed solely at compensating victims' losses.
There are cases where the injurer's actions are seen as **intentional** or **reckless**, the court may also award **punitive damages** that are intended to punish the injurer for some perceived wrongdoing, as well as to deter future injurers from engaging in similar actions.
Injurers may sometimes be able to escape liability for damages that they caused, since:

- victims may have difficulty in identifying or proving the specific causes of injuries;
- cost of litigation may prevent some victims from suing to collect damages.

Injurers may sometimes take conscious steps to conceal their identity.
So, the injurers don't expect to face all the damages they cause and take too little care. Courts can resolve this problem: an injurer expects to face liability for only a fraction **α** of the damages he causes. Since his expected liability is less than the full damages he causes, $p(x)D(x)$, the injurer will take less than efficient care and the lower is α, the lower will be his care choice. Courts can add a punitive damage "**R**" to the compensatory damage of $D(x)$. Incentives for efficient care are achieved when the injurer's expected liability equals the full expected damages of the victims; that is, when $p(x)\alpha[D(x) + R] = p(x)D(x)$.
Anyway, Courts do not pay systematic attention to the probability of escaping liability, even though this is the central element. Sometimes punitive damages awards tend to be "erratic and arbitrary". So, someone has thought to cap them. The usual argument in favour of caps is that they limit incentives to file frivolous claims, thereby saving on administrative costs.
There are two **counterarguments**:

- **theoretical argument** is that arbitrarily set caps on punitive damages may inhibit the deterrence function of punitive damages;
- **empirical argument** against caps is that punitive damages are not frequently awarded, and when they are, they are often overturned or reduced on appeal.

A valid contract

Contracts law provides the legal means by which people enforce promises to one another. People who make promises often wish to break them so the question is "what sorts of promises should be legally enforceable?" Most promises involve some kind of exchange, which are fundamentally an

economic activity. The economics of contract law is concerned with promoting **efficient exchange**, by which we mean the movement of goods and services from lower to higher-valuing users. When a potential increase in value exists, it can be realized by means of a market exchange. A contract is a **legal agreement**, explicit or not, between the parties to a transaction that allows either party to go to court to enlist the power of the state to enforce the other's promise. A frequent dispute would insurge where one party wants to complete the contract according to the original terms and the other party want to alter them. If both parties become unhappy, a dispute does not arise. Then, the fact that the change is **unforeseen** is important, because if it were foreseen, then the terms of the contract could have been structured to account for the change. In addition, it could happen that the parties will choose not to account for some foreseeable contingencies because the likelihood of such circumstances is so remote that it is not worth incurring the costs of preparing for them: incomplete contracts do not provide for all possible contingencies, so courts provide the missing terms in transactions involving that kind of contracts to maximize the gains from trade.
The invisible hand theorem says that competitive markets maximize the gains from trade. this is an ideal world that many of the doctrines of contract law try to replicate in actual contracting environment (it is the goal). It is also called a **competitive market**, whose characterizing conditions are:

- **parties are rational**: this involves maximization of utility subject to a budget constraint;
- **no externalities** that can lead to market failures;
- **no monopolies**;
- **perfect information**: both parties must be fully informed;
- **zero transaction costs**: they would reduce the benefit from transaction.

Elements of a valid contract

Contracts constitute a bargain that must arise out of a mutual agreement between the two parties who expect to realize some benefit from the transaction. Three elements must be present:

- **offer**: one party has made an offer;
- **acceptance**: the other party has accepted the offer. When this happen there is a meeting of minds;
- **consideration**: it is the legal term used to describe the promisor's return promise. Both expect to receive a benefit.[3]

Reasons for invalidating contracts

1. **Mental incapacity or incompetence**: courts will not enforce contracts made by parties judged to be mentally incompetent or otherwise unable to exercise rational judgment, this situation may arise temporarily, permanently or because the party is too young.
   The legal burden of proving mental incapacity or incompetence is placed on the party alleging it as a reason for voiding a contract.
2. **Coercion or duress**: Courts will invalidate contracts that a party signed under duress or as a result of coercion because it violates the requirement of voluntariness. About changes: if someone want to change a contract, he/she needs to support it with a new "consideration". The only way to enforce the contract, without a new consideration, is to have a genuine motivation that justified the request and not an opportunistic one.
3. **Mistake and duty to disclose private information**: the contract doctrine of mistake refers to situations in which the parties formed a contract based on mistaken beliefs:

[3] Courts will inquire only about the presence of consideration but not about its adequacy

- **mutual mistake**: there is no meeting of minds and courts will not enforce it;
- **unilateral mistake**: only one of the parties is mistaken about some aspects of the contract.

The beliefs of the parties are unobservable, the court will have no way of knowing which is true. For this reason, the distinction between mutual and unilateral is <u>not helpful</u> in deciding such cases. What rule enhances the efficiency of contracting in the presence of asymmetry information?

Rules in presence of asymmetry information

1. **Casually acquired information**: the information about, for example, the cow's type emerges casually. In this case the decision of the court to enforce or not the contract is irrelevant because it does not affect the expected value of the transaction.
2. **Deliberately acquired but purely distributive information**: the buyer prior to entering in the contract has made an investment for knowing an additional information about the object of the contract. The seller does not know whether the buyer has made it or not. Supposing that the information will be public in the future:
   - if the court <u>enforces</u> the contract without need of disclosure of the private information, the buyer will increase his personal net gain but simply redistributing the gains and not increasing the social value which is the same but in addiction there is a loss because of the investment that the society doesn't need because they independently will know the famous information;
   - if the court <u>invalidates</u> the contract, the buyer will no longer have an incentive to invest because if he tries to purchase the object using the gained privileged position the seller will simply reclaim the object when the information becomes public.
     The latter point is desirable from a social perspective because the buyer's investment to learn the information produces no social benefits (purely distributive). Finally, courts should require disclosure of deliberately acquired private information.
3. **Deliberately acquired but socially valuable information**: assume that the information will never become public without any investment. If the court doesn't enforce contracts based on private information gained from an investment the buyer would have any reason to invest. Then, the investment of the buyer could alter the Destin of the object and the buyer's gain coincides with a social gain, which is what makes the information socially valuable.

Finally, courts should not require disclosure of deliberately acquired private information.

The efficient breach models

Let **V** be the **value** of good to the buyer; let **C** be the variable **cost** of production for the seller.
The **role of breach remedies** will be <u>to align the breaching parties' costs and benefits with those of society</u>. Suppose that in preparation for performance of the contract, the buyer makes a reliance investment of R and let D be the court-imposed damage payment that the seller must pay to the buyer in the event of breach, the seller will breach if D=V-P, where P is the set price and the C is higher than V.

Expectation damages

The most popular measure of damages is expectation damage, which is defined to be an amount of money that leaves the promisee as well off as if the contract had been performed. It leaves the **promisee indifferent between breach and performance**. This establishes that the expectation damages measure gives sellers exactly the right incentives for efficient breach. Expectation damages fully compensates the buyer for her losses because of a breach, the seller is forced to internalize those losses and therefore makes the socially correct breach decision.

Reliance damages

They are defined to be an amount of money that leaves the **promisee as well off as if the contract had never been made**. The reference point is their precontract status rather than their post-performance status. It is not necessarily about precontractual liability (it could be, and D would be equal to R and the seller breaches too often under reliance damages if P+R<V) but surely about the status before the performance.

Incentive for efficient reliance

The **reliance investments** are made prior to the contract **to enhance the buyer's value of performance**. We suppose that V is increasing in R. If performance of the contract was certain, efficient level of reliance would maximize V(R)-R. If there is no certainty it would maximize q*V(R)-R where q is the probability that the contract will have low costs for the seller, so it won't be breached. The full payment of the damages (expectation damages) creates a moral hazard problem for the buyer because he will overinvest in reliance (he knows *a priori* that he will be compensated). We could try to define a negligence-type rule for breach of contract that sets a threshold for efficient reliance. Such a rule would require sellers to pay full damages for breach if the buyer invested in the efficient level of reliance and no damages if the buyer "overrelied".

The Hadley v. Baxendale rule

Damages for breach of contract will be limited to a reasonable level. Damages will be limited to the losses that result from a reasonable level. Suppose the plaintiff (the buyer) invested (R) more than threshold fixed, he/she won't receive the exceeding part but just the difference of the threshold minus the price. Under the limited expectation damage measure, the buyer invests in the efficient level of reliance.

Unavoidably high reliance

Buyers may have unavoidably high reliance, perhaps because they underestimated the likelihood of breach or simply because there is some variation in the value of performance across the buyers. If the plaintiffs failed to communicate their higher-than-normal value of performance, then the damages would be limited to the injury which would arise generally. In this way, **limiting damages encourage communication between the parties prior to contracting**. This latter concept will prevent buyers from over relying by limiting the damages amount that buyers would lose if they had invested efficiently.

Mitigation Damages

The general principle is that contractors have a duty to take any reasonable efforts to mitigate the damages from breach. It could be made after the breaching declaration or prior to the contract (**anticipatory mitigation**).

Impossibility and related excuses

A promisor is excused by breaching the contract when there is:

1. **impossibility**: performance is no longer physically possible;

2. **frustration of purpose**: performance is physically possible, but the purpose of the contract is no longer obtainable;
3. **commercial impracticability**: the cost of performance has become so high that performance would be economically burdensome. But the UCC says that defendants cannot invoke the defence if they have assumed the risk of the cost increase either directly (inserted explicitly in the contract) or indirectly (presumed by behaviour).

In these cases, courts would allow breaches without penalty.

Efficient risk sharing

If contract spells out the allocation of a particular risk, then courts should enforce that allocation since the parties were presumably in the best position to assign the risk optimally. But what if a contract is silent about a specific risk?

The general rule is to assign the risk to the superior risk bearer:

- a party can be the superior risk bearer if she/he is in the best position to **prevent** the risk;
- a party can be the superior risk bearer if the prevention is impossible, and she/he can insure against it at a lowest cost.

Specific performance

Money damages is by far the most common form of court-imposed remedy for breach, but in cases where money damages are thought to provide inadequate compensation (e.g.: contracts involving land or unique goods) the court will order **specific performance**. The court will order the promisor to perform the contract as written. Under expectation damages, the court sets the price that the seller must pay to breach the original deal; the original buyer can only accept the damages. In contrast, specific performance allows the original buyer to participate in setting the terms of the breach by bargaining with the seller over the price of buyout. When breach is efficient, bargaining between the original contractors can yield the same result. One criticism of specific performance is that transaction costs may inhibit the sort of renegotiation that needs to take place to achieve the efficient disposition of the contract. Such costs are not required under money damages because the court sets the terms of breach. But on the other hand, there are the litigation costs involved in court determination of the correct number of damages. The choice depends on a comparison of these costs:

- by a **damage** remedy: the costs involved in determining damages for the first buyer may be quite high;
- **under specific performance**: litigation costs will be lower because of the absence of factual issues.

Subjective value and efficient breach

In some cases, specific performance may also result in more **efficient** breach decisions. The measure of damages is based on the market value of the repairs rather than the value of the injured. Everyone has their price which is called subjective value, and economic exchange, voluntary or not, should respect it. Remedies for breach should account for subjective value otherwise there will be too many breaches. The problem is that subjective value is unobservable to the court and the court cannot simply ask the injured how much they value performance because they would have an incentive to overstate it. Specific performance overcomes this problem by placing the breach decision back to the parties, where they hopefully resolve it through negotiation.

The value of consent

The final argument in favour of specific performance is not based on efficiency but instead on **fairness**. Sometimes both remedies achieve the efficient outcome but differ in distribution of the net gains. The advantage of specific performance is that it does not allow the "seller" to earn from his breach, which is a legally wrong.

Self-enforcing contracts

Some contracts provide their own remedies for breach:

1. **Liquidated damages**: there are several reasons why the parties to a contract might want to specify their own damage remedy:
   - they may wish to avoid the litigation costs that are involved in;
   - the courts may have difficulties in measuring the loss from breach, especially if it includes subjective value;
   - the parties may want to structure damages to share the risk of breach in an optimal way.

   Courts should enforce liquidated damage clauses because they reflect the wishes of the parties at the time of contracting but courts also refuse to enforce damages that appear to be excessive, called penalty clauses. Liquidated damages are specified by the parties at the time the contract is made. They just form an expected value of the loss from a breach. The actual loss may turn out to be higher or lower. In the latter case, the specified damage amount could appear excessive. Courts do not enforce damages that are unreasonably high at the time of contracting.
2. **Product warranties**: these are guarantees that a product will perform as advertised, backed by a promise of full or partial compensation for the costs of product failure:
   - **express warranties** are explicit guarantees made by the producer and thus represent a form of self-imposed remedy for breach;
   - **implied warranties** are imposed by a court after the fact.

Rationality or irrationality?

Discussing about contracts and contract law, conventional law and economics assume economic agents to be rational. This assumption makes it easier to explain theories. Behavioural law and economics challenges that assumption explaining that people are irrational. Daniel Kahneman (better known for the S1 and S2 theory) and Amos Tversky say that Empirical studies show systematic deviations from the conventional Rational Choice Theory picture, since in some cases it is natural to make decisions using heuristics (mental shortcut commonly used to simplify problems and avoid cognitive overload), which sometimes can generate biases, i.e. to feel or show inclination or prejudice for or against someone or something

Let see some systematic **biases**:

- **framing effect**, i.e. we are affected by the way the problem is presented: 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**, i.e. we are affected by the received information (conclusion information/after the fact happen) and we probably change the estimate of the *ex-ante* probability. This is also called a Systematic overvaluation. Once people know how things went, they tend to estimate the relevant event as more predictable than it really was. It can also have a legal effect and for this reason evidence of the subsequent measures (after the fact happened) is not admissible to

prove *negligence*; *culpable conduct*; *a defect in a product or its design*; *a need for a warning or instruction*. This because it will probably affect the judge decision about determining the *ex-ante* probability of the fact and so affect his/her decision;
- **anchoring effect**: given points of reference, it will cause adjustment of decisions (expressed result decision). If anchors are good, it will help otherwise it will create confusion and leads to mistakes.

The nature of property rights

Property rights are a creation of society: they delineate boundaries between what individuals can and cannot do with assets under their control. Lawyers and economists concord viewing the ownership like a **bundle of rights** which more precisely consists in:
- **use of the asset**;
- **exclude others from using the asset**;
- **dispose of the asset**.

The law enforces these rights but only up to the point where they become externalities, then the law will limit these rights to avoid externalities. An externality exists when a decision maker does not internalize the full cost or benefit of his activity. Externalities exist when property rights are not completely defined, and it leads to **inefficiencies** of both exchange and production:
- **exchange** efficiency requires that resources end up with the party who values them the most and well-defined property rights promote this outcome. Thus, people are reluctant to buy property they believe to be stolen (miss of trust);
- people will invest resources to **produce** goods only if they have the exclusive rights to sell what they make. The philosopher Locke once said: "*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*".

Property law consents to reduce the costs of protection of goods, encourage production and market exchanges which are not easy in the state of nature that for Holmes is "*solitary, poore, nasty, brutish, and short*".

How to obtain the ownership of fugitive resources?

- **First possession**: it is a self-explain rule. It is also called "*finders keepers*" or "*first come, first served*". It may cause some inefficiencies, like a wasteful race to acquire exclusive use or excessive depletion of an open-access resource (tragedy of commons).
- **Tied ownership**: owner of surface has exclusive right on fugitive property on it or under it.

Enforcement of property rights

After the antique state of nature (see Holmes), when first property rights first emerge, they are often protected by private threat of violence. But nowadays the government protect those rights and has a monopoly of the legal use of force. But in the absence of governments private enforcement is the only option. Well, the result is often a world in which the violation of rights "leads to feuds and to an endless series of acts of retaliation". Thus, individuals are likely to form associations in which members pledge to protect one another's rights. This has two **consequences**:
1. exploitation of economic scale;

2. competing association may become entangled in turf wars.

The latter point let think that, once again, violence is the ultimate arbiter, and a domain association may emerge. There arises something very resembling a minimal state or group of states. But the transition to a real state requires that the dominant association acquire the monopoly of force (the risk of abuse exist and due to avoid it democratic states therefore usually take additional steps to include creation of constitution to limit that power).

Consensual transfer of property

- **Recording system**: it is the most common in the US. It is based on the maintenance of a public record of all consensual transfers of a piece of property. Prospective buyers can consult this record for evidence that the current possessor has legitimate title, but the record itself does not establish title. This, because of errors of omissions in the record, or differences in lawyers' interpretations, there may remain a residual risk of claim. It awards title to the claimant (if he wins) and monetary compensation to the possessor.
- **Registration System**, also called Torres system: a landowner registers her property with the government at time of purchase, at which point there is a judicial inquiry into the status of the title. If no outstanding claim is found, the government issues a certificate that is good against most future claims. It awards title to the possessor and monetary compensation to the claimant.

As Oliver Wendell Holmes said, possession and subjective value are inextricably linked, and subjective value likely grows over time as the possessor occupies the land. This because of the **endowment effect** which explain that people are loss adverse and tend to conserve what they have because unconsciously they increase its value (subjective value). If someone is not occupying the land it is reasonable to suppose that he has little or no subjective value and he will value, the land at roughly its market value. So, possessor will strictly prefer the title system (registration) on the other hand the claimant will most likely be indifferent between the two options. Conclusions:

- someone could say that if compensation is adjusted to account for subjective value the possessor should be indifferent. The problem is the difficulty in measuring subjective value;
- although the recording system initially awards title to the claimant, the former possessor could be able to repurchase it from him.

Land title system in the US

Following the great Chicago Fire of 1871, which destroyed the public land records, 21 States adopted the title system instead of the recording one. Janczyk found a substantial savings in transfer costs under the Torres System which justified the one-time registration cost. Schick and Plotkin undertook a similar cost comparison but arrived at a less favourable assessment of the advantages of Torrens. Torrens system clears title to land for which the risk of a claim is high, as when records are poor, incomplete, or lost. Thus, when both systems coexist, we would expect owners of high-risk properties to choose the registration system event though the transaction costs are higher. The studies demonstrated that if someone could decide which system to use, land values in the sample were higher under Torrens system then under the recording one. The reason is that:

An efficient system will protect title up to the point where the marginal benefit of increased security of ownership equals the marginal cost. Assuming that:

- the parcel in question is worth **V** in the absence of ownership risk;
- **p(c)** represents the probability that the current owner will retain title;
- **c** is the cost devoted to ensuring title;

p is increasing in c. The owner problem is to maximize the expected value of property, given by p(c)*V-c. Thus, owners of more valuable property will incur a higher cost and in return obtain a greater security of ownership compared to owners of less valuable property.

Limited and divided ownership

Leasing

A lease involves a voluntary agreement to divide ownership over time, such as when a landlord temporarily transfers possession of his land to a tenant farmer. The ability of owners to transfer partial interests in their property potentially creates economic gains from specialization. The division of ownership, however, creates incentives for inefficient behaviour by both parties:

- the tenant will have little incentives to make improvements or repairs;
- the landlord will have no incentive to invest in maintenance that primarily benefits the tenant.

Firstly, we need to clarify if a lease is a contract or a conveyance. In the Middle Ages, it was viewed as a conveyance of an interest in the land, whereby the tenant acquired the rights of use and exclusion in return for a promise to pay rent and if the tenant failed to pay the rent the landlord could not enter the property or evict the tenant. He could only sue for recovery of the rent.

Modern leases are interpreted as contracts rather than conveyance since:

- courts have found an implied warranty of habitability in leases;
- the obligation to pay the rent is dependent on landlords' fulfilment of this warranty obligation.

In conclusion, tenant can withhold rent if a landlord fails to invest in reasonable maintenance of the property, but symmetrically, the landlord can evict a tenant for failure to pay rent. This evolution in the law makes sense given the changing function of land leases: from agricultural use to urban use. Considering the lease as a contract it is possible to insert a tenant's duty to invest in reasonable maintenance of the property and also to refrain from inflicting damage or otherwise altering the nature of the reversion. The law has also imposed an implied warranty of habitability to the landlord.

Mitigation in leases: when the tenant is absent (for any reason) or breach the contract, according to the mitigation rule, the landlord can relet the lend because he gets it as intention to abandon. Mitigation prevents property from being left idle when the original tenant abandon or breach. Subsequently, if the tenant proves that an amount of the loss (caused by his breach) could be reasonably avoided by reletting the land, he doesn't have the duty to pay that part but just the difference. Reasons against: maybe the tenant is in a better position to find a replacement tenant; tenant absence is not always a sign that she has truly abandoned the property.

Sharecropping

It represents a contractual response to the problems associated with divided ownership of farmland. The landlord and the tenant physically divide the crops rather than dividing the revenue from their sale. Cheung argued that such contracts were a way to share the risk of uncertain crop yields. Two alternatives:

- **fixed rent**: the tenant pays the landlord a fixed rent and retains the residual revenue from selling the crops. The tenant bears all the risk from fluctuations;
- **fixed wage**: the landlord pays the tenant a fixed wage and retains the residual revenue. The landlord bears all the risk.

Sharecropping contract will elicit some effort from both.

Private versus group ownership

In situation of common, or group, ownership several individuals simultaneously hold ownership rights. The problem with a group ownership is that individual owners have an incentive to overuse the property because they do not internalize the cost that their use imposes on other owners (**tragedy of commons**). It can also offer some advantages over individual ownership. The social object of an ownership regime for property is to minimize the costs of inducing people to do the right thing with the earth's surface.

There are some **benefits** of **private ownership**. It equates the private and social returns to actions taken within the boundaries of the owned property. According to the Coase theorem it would be the same with a group ownership, but it doesn't consider the costs of negotiating and enforcing agreements among owners to prevent inefficiencies.

There are also some **costs** of **private ownership**, like the cost of erecting and policing boundaries between neighbour parcels. Furthermore, an owner on their own property may impose externalities on their neighbourhood. In this case, the solutions could be to avoid the externalities applying technologies (such as fence in the cattle case) or to consolidate the neighbour lands.

The optimal solution is the less expensive.

On the other hand, there are some **reasons in favour** of **public ownership**:

- group ownership spreads the risks across the owners;
- it protected less able members of the community from the severe risks associated with settlement in a remote and hostile location;
- egalitarianism or equal sharing of output.

Reason against:

- the absence of material incentives increases the need for pervasive controls against shirking,
- tragedy of commons (if there is no limit to the consume of resources).

A possible **solution** could be to combine private property with public welfare system that redistributes wealth. This mixed system will be more efficient for large groups.

Public goods

A public good is a good that, once provided, can be consumed by everyone, even those who have not contributed to its production. They are non-rival. A private ownership of public goods will result in underproduction because the producer will not be able to capture the full consumption benefits. For this reason, government usually takes on the task of providing them and coerce the community to contribute by means of taxation.

Anticommons problem

A problem of open-access resources (i.e. no one can be excluded) is that they may be overused. On the other extreme, a piece of property with multiple owners, each of whom can exclude all of the others from use, could result in an underuse of the property. A solution adopted by some common law countries, is to give the right to each co-owner to unilaterally request for the physical partition of the land into separate individually owned parcels. It could result in excessive fragmentation so State partition statutes gave courts the discretion to choose between physical partition and sale of the undivided parcel. The forced sale leaves to the nonconsenting owners just the market value of their shares and not the subjective value which is not observable. Because of the existence of scale economies is more relevant for small parcels, the partition in kind should be used for large parcels and try to avoid splitting of small parcels forcing the sale.

Intellectual Property

Intellectual property has the characteristics of a public good. Once created, it can be reused without diminishing its quantity. Idea should be freely available to the public. But this presumes the existence of the idea. But in the real world its creation is costly to produce. So, a common ownership possibly inhibits creation of those ideas in the first place. There is the need for incentives to invest in producing them.

Patents and trade secrets

The patent system **prevents non-payers from using inventors' ideas**. It awards exclusive property rights in ideas to inventors.
This system, on the other hand, creates a monopoly leaded by the inventor who will have incentives to restrict output, depriving society of the full benefits. The monopolist restricts output and raises price relative to the competitive outcome (technically he has no rival). Despite the welfare loss from the patent, it may still be better than the competitive outcome, which would result in no invention at all because the competitive price would not cover the initial cost of creatin the idea.
Anyway, it is possible to improve on the monopoly outcome by imposing a time limit on the patent (20 years in most countries). That time should balance the incentives for creating an idea and the social loss by monopoly.
Patent races problem: individuals or firms may simultaneously be seeking the same idea, and the patent is awarded to the first one who demonstrate its usefulness. This patent race results in overinvestment in research and development. It provides a further reason to shorten the patent's life. Someone could respond claiming that this kind of race hasten the development of new technologies.
Reward versus patent: the prospect of the reward provides the incentive for innovation likely the patent, but the invention would immediately become public property.

- Advantage: eliminate the deadweight loss from monopoly.
- Disadvantage: the government lack the information necessary to set the appropriate reward, leading to inefficient investment incentives.

Thus, this system doesn't appear to offer a clear advantage over patent system.
Trade secret, there are both:

- Advantages and characteristics: inventors do not need to reveal the nature of the invention, as he must when seeking a patent application; secrete is theoretically of unlimited duration.
- Disadvantages: trade secret law offers less protection than a patent. Competitors can legally appropriate the idea by means of independent discovery or reverse engineering. In this way the duration of the secret is effectively limited.

Conclusions: trade secretes will be most useful to inventors whose ideas will take longer than the legal length of a patent to discover.
They offer a lesser degree of protection.

Copyright

Copyright law provides **legal protection to writing, music, artistic works, and other creations**. It is of a limited duration, the life of the creator plus 70 years. It does not preclude independent

discovery, only copies (the probability the unintentional duplication is remote). Copyright protects the expression of an idea, rather than the idea itself.
Fair use allows limited copying for certain purposes:
- for educational use;
- for review.

This is because it involves asking whether, in a world of zero transaction costs, the copyright holder would have consented to the use in question.

Trademarks

This law protects **symbols, phrases, any other distinct signs that uniquely identify a product or service**. There are two kinds of protection:
1. the protection only requires the owner to be the first to use it commercially. The protection may be limited to the geographic region of use;
2. wider protection requires the owner to register the trademark with the federal government.

What about **duration**? Its protection endures for as long as the owner uses it. The owner must periodically renew the registration. Trademarks have also an **economic function**: they help lower consumer search costs by making it easier for buyers to distinguish between high quality products and low ones. Moreover, owners of trademarks must have an incentive to invest in product quality as a way of maintaining the commercial value of trademark.
In case of infringement, the law provides some **remedies**:
- **injunctive relief against infringers**: this protection can cause an inefficiency when a prospective user of intellectual property would need to bargain with several right holders. It can be seen with the same logic of Anticommons problem;
- **damages for lost profits due to the infringement**: there is a claim versus the counterfactual argument that suppose that the gain would be the same without the violation. The activity of determining the exact amount of profit loss is difficult. How can you know how much you would have earned without the infringement. Maybe there would be no difference. This is because people won't buy the original product because of the high price.

Involuntary Transfers and Regulation of Property

An important economic function of property rights is **to control externalities** and **to internalize externalities.**
According to the **Pigouvian** view, the government:
1. first identifies the cause of the externality;
2. then, imposes a tax "on the factory" equal to the external harm;
3. the factory thereby internalizes the harm and operates at the efficient level.

The government eliminates the externality by assigning property rights in a particular way. It gives the people harmed by the externality to be free from that harm by essentially requiring the "factory" to purchase the right to harm if it wishes to continue operating.
Let's see a Coase example to explain it as well as possible:
There are a farmer and a rancher who occupy adjoining parcels of land, resulting in crop damage from straying cattle. The marginal social cost of additional cattle does not coincide with the rancher's private marginal cost because it includes the damage suffered by the farmer in the form of lost crops. The marginal social cost is equal to the marginal private cost plus the external damage.

The social optimal occurs when the marginal social cost are equal to the marginal benefit of the rancher. The Pigovian solution involves imposing a tax on the rancher to force him to internalize the external harm. If the tax is on a per-cow basis, the tax should equal the amount of the harm caused by each additional cow. The rancher will choose the socially optimal herd size because the profit-maximizing outcome now coincides with the social optimum. The tax forces the rancher to account for its full social costs, its incentive effect is identical to that of strict liability in torts. The only function of the tax in this case is to provide incentives for the rancher and the farmer is totally passive. But there is also a difference: in strict liability damages paid by the injurer would have to be given to the farmer. It is a self-explain advantage respect to the strict liability: a Pigovian tax where the revenue is not paid to the farmer would induce both parties to behave efficiently. On the contrary, under strict liability the rancher is going to absorb all the damages and cost of prevention (there is no incentive for the farmer to avoid damages because it will be directly compensated).
According to the **Coasian perspective**, Pigovian solution to the straying cattle problem is equivalent to awarding the farmer right to be free from straying cattle and requiring the rancher to purchase that right by compensating the farmer for his crop damage (not directly to the farmer but internalizing the farmer's loss and reaching the optimal herd size). This assignment conforms to most people's common-sense notions of causation because, after all, it is the rancher who is physically causing the harm to the farmer, so he should pay. But now, suppose the rancher initially holds a right to allow his cattle to stray freely. The reason that the herd size may not end up being too large in this case is that there is room for bargaining between the two. The last cow yields a return of zero to the rancher (marginal cost are equal to the marginal benefit of the rancher) but imposes a cost to the farmer. The farmer would therefore be willing to offer up to this amount to the rancher if he agreed to reduce his herd by one, while the rancher would accept any amount greater than zero to do so. This transaction is mutually beneficial because the farmer places a higher value on the last cow than does the rancher. With the same logic the parties will continue bargaining to reduce the rancher's herd so long as the farmer values the last cow more than the rancher. According to the **Coase theorem**, when property rights are well defined (both parties know the initial assignment) 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). The two assumptions of Pigouvian view are:

- that there is a unique cause of the harm;
- that the government intervention is needed to produce an efficient outcome.

And the Coase perspective offer ideas against them:

- both parties are simultaneously causes of the harm in the sense that the presence of both farming and ranching are necessary for crop damage to occur. Externality is reciprocal;
- assigning rights to either party will result in an efficient allocation without intervention of the government, provided that the parties can bargain.

The Coase theorem shows that when transaction costs are low, even the presence of externalities need not preclude an efficient outcome.
Assignment of rights and distribution of wealth: In both cases (of assigned rights), the herd size ended up being the same, but the distribution of wealth favoured the party who held initial right. We recognize that the property right in this case is valued by both parties. The rancher values to allow his cattle to stray and the farmer values the right to prevent straying cattle. Whoever receives the right first is better off. In other words, courts can assign property rights to achieve a desired distribution of wealth without sacrificing efficiency.

The role of transaction costs

Most real-world externality settings do not have low transaction costs, which suggests that the Coase theorem, like the perfectly competitive market, represents an important benchmark but has little practical relevance. The Coase theorem has some practical significance. However, many externalities involve large numbers of individuals, in which case the assumption of low costs is not likely to be satisfied. When transaction costs are present, the assignment of property rights will matter because some assignments will involve lower transaction costs than other.

Corollary #1: when transaction costs are high, the assignment of property rights matters for efficiency. Specifically, rights should be assigned to the party that values them most.

Loss aversion and endowment effect

There is another effect that can prevent the exchange of property rights even when transactions are costless. It is the endowment effect that is sometimes attributed to loss aversion. Even when transaction costs are low, the assignment of property rights may affect the ultimate allocation of resources by increasing the minimum amount that the party receiving the right would be willing to accept in return for it. So, the ultimate allocation of resources will not be independent of the initial assignment of rights.

Property rules and liability rules

The two basic enforcement rules that Calabresi and Melamed identify are:

- **Property rules**: the price for acquiring the right is set by the parties through bargaining. Property rules are enforced by law or by court orders called injunctions.
- **Liability rules**: the right is purchased without the holder's consent. Acquirer is willing to pay compensation for the holder's loss. The transaction is therefore non-consensual, and the price is set by the court after the fact rather than by bargaining.

Some examples of the two rules:

An example of liability rule is strict liability in tort law where injurers are responsible for all losses suffered by the victim for having taken her right to be free from an accident. Another example of liability rule is the expectation damages. Under this remedy a promisor is free to breach a contract without first obtaining the promisee's consent, provided that he pays for the promisee's losses.

Specific performance is an order by the court that the promisor must perform the contract as written. It is an example of property rule protection.

An assumption that can be made is that whether consent was always required, transaction costs would sometimes prevent otherwise beneficial exchanges from occurring.

Corollary #2: to enforce rights, use property rules when transaction costs are low, and liability rules when transaction costs are high. Some reasons in favour of property rules:

- when transaction costs are low, the enforcement rule should not matter for efficiency because of the subjective value. If transaction costs are low but due to the subjective value property rule would not be efficient, it does not matter. It is better to apply an enforcement rule instead of a liability rule;
- the administrative costs, sometimes, are likely to be high.

Trespass and nuisance

Trespass and nuisance are the primary common law doctrines designed to protect a property owner's right to exclude other users, which is one of the three fundamental rights associated with ownership.

Trespass is an invasion of the plaintiff's interest in the exclusive possession of his land. It includes squatting on another 's land and boundary encroachment. A victim of it has the right to seek an injunction against the trespass; She can exclude any unwanted invasions. Thus, the right to exclude invasions is protected by a property rule. It tends to involve low transaction costs.
Nuisance is an interference with the plaintiff use and enjoyment of his land. It includes pollution, foul odours, noises, etc. The victim cannot bring legal action unless the harm is substantial. The demonstration of substantial harm entitles the victim only to damages, a liability rule. Sometimes, the victim can seek an injunction against the harmful activity but such a remedy relief from a nuisance is available only if the plaintiff can satisfy a cost-benefit test (the amount of the harm done outweighs the benefits served by the conduct). It tends to involve high transaction costs (typically, the cause of pollution is not just one person).

Zoning and other land use control

Initially, the primary purpose of zoning was to segregate different land uses to minimize the spillover effects arising from dissimilar uses but entails high administrative costs, thereby limiting its effectiveness. Other form of zoning such as a "minimum lot size requirements" are not aimed at internalizing externalities so much as preventing free riding in the consumption of local public goods. "Land use covenants" are explicit limitations on what a landowner can do with his or her land. They are observed in condominiums and are aimed at internalizing neighbourhood externalities and at preventing free riding in the maintenance of common areas. Those restriction are attached to the property and not to the property owner. It avoids the need for parties to renegotiate them with each transfer of ownership.

Government acquisition and regulation of property under eminent domain

The eminent domain clause

The fifth Amendment to the US constitution contains a clause, referred to as the eminent domain, or takings, clause, which says: "*Nor shall private property be taken for public use, without just compensation*". The limits are twofold: the property must be put to **public use** and the **government** must **pay** just **compensation**. Landowners do not have the right to refuse a sale to the government as they normally do if the buyer is a private party. Eminent domain is a form of liability rule, but the question is how broadly the government should be able to use this power.

Public goods

Their benefits are **available to all consumers**, including those who have not contributed to the cost of provision. An example is the national defence. The market will generally underprovide public goods. Thus, the government usually provides them and uses its powers of taxation to coerce consumers to contribute to their cost. Provision of public goods is therefore justified as a response to market failure on the demand side of the market.

Land assembly

Some large-scale goods require the assembly of several contiguous parcels of land whose ownership is dispersed. If any single owner refuses to sell, the cost of completing the project would increase greatly. This knowledge confers significant monopoly power on individual owners, who can hold out for prices well in excess of their true valuations.

The means-end distinction

There are different approaches to define a public good:

- **ends approach**: it concerns the use to which the land will be put. It justifies the use of eminent domain because the good is public;
- **means approach**: it concerns the method by which the land is acquired. It does not justify the use of eminent domain otherwise there is an assembly problem. Public goods require tax financing to overcome free riders but do not require forced sale of the needed land unless assembly is necessary. Once the funds for a project are raised, there is no reason to allow government to use eminent domain to obtain the resources necessary to produce the good, absent an assembly problem. It should be required to buy them on the market just as a private security company must.

TABLE 7.2 **Categories Implied by the Means-Ends Distinction**

		Assembly Problem?	
		No	*Yes*
Public good?	No	(I) No tax financing No forced sales	(II) No tax financing Forced sales
	Yes	(III) Tax financing No forced sales	(IV) Tax financing Forced sales

The meaning of just compensation

Eminent domain is a liability rule that requires payment of just compensation following a taking. US courts have interpreted this to mean fair market value. However, market value almost certainly undercompensates landowners because it fails to account for their subjective value. Market value is an objective measure that is relatively easy to observe. By undervaluing land in private use, it potentially leads to excessive public acquisition. For this reason, in some cases the land is valued up to the 150% of the market value.

- **Case study-The assassin's bequest**: after a crime, the personal possessions' market value of the injurer could increase enormously because it can become a famous case. So, it could be an incentive to commit such crimes. For this reason, the US supreme court has said that the proper measure is the value prior to the taking threat.
- **Eminent domain and land use incentives**: how does the risk of a taking, and the nature of the compensation rule, affect the decisions of a landowner to invest in developing his land? Blume and colleagues say that one way to induce landowners to invest efficiently in the face of a takings risk is to pay no compensation at all!

Regulatory takings

Government regulations **restrict the use of property**. For example, zoning ordinances, environmental laws, safety regulations limit, etc.

Occasionally, a regulation is **so restrictive** as to cause a substantial **reduction in the value** of the regulated property. How to understand if there is right to compensation? There are different thoughts and **doctrines**:

- **physical invasion test**: government actions that involve a physical invasion of private property are compensable, no matter how minor the invasion;

- **the noxious doctrine**: according to the judge Brandeis, restriction imposed to protect the public health, safety or morals from dangers is not a taking. The restriction here in question is merely the prohibition of a noxious case;
- **the diminution of value test**: in Holmes' perspective, a general rule of not paying compensation would, "*given the natural tendency of human nature*", result in overreaching by the government until "*at last private property*" disappear. So, if regulation goes too far it will be recognized as a taking: the impact of the regulation on the landowner matters;
- **the nuisance exception**: it allows the government to prohibit private activities judged to be socially harmful. It therefore echoes the noxious use doctrine but goes beyond it to provide a standard by which to judge what constitutes a noxious use. The state can avoid paying compensation showing that regulation prevented an action by the "developer", who is the private actor in a case, which would constitute a nuisance under the state's prevailing common law.

Once the regulator (the state) learns the externality that the private is willing to cause, it is efficient to prohibit development if the external cost is positive and exceeds the loss to the landowner; **Externality >** $\mathbf{V_a}$ (value to the private in case of development) **-** $\mathbf{V_b}$ (value to the private in case of regulation).

The general transaction structures

Economic analyse can provide a unifying theory of law that emphasizes the law role. The power of this approach is its ability to identify commonalities across different fields of law. Without using any example, we can say that each combination of "assigned right" and "enforcement rule" can achieve the efficient allocation of resources. Aggregate wealth was invariant across the cases as required by the Coase theorem, but distribution of wealth varied depending on the initial assignment of rights. Clearly one actor is better off when receives the right first.
Let's see the farmer-rancher example:

TABLE 7.4 **The General Transaction Structure**

		Assignment	
		Rancher	*Farmer*
Enforcement rule	Property rule	(I) Rancher is free to impose harm	(II) Farmer can seek an injunction against harm
	Liability rule	(III) Rancher can seek damages for cost of reducing harm	(IV) Farmer can seek damages for harm suffered

The Pigovian approach to externalities corresponds to combination (IV), where the producer of the externality is viewed as the cause of the harm, and the recipient is entitled to compensation. Combination II adopts the same assignment of rights but protects it with a property rule. Thus, a victim of harm can obtain injunctive relief, as under the law of trespass. Combinations (I) and (III) represent an assignment of rights to the producer of the external cost. Under combination (I), the producer's right is protected by a property rule. This combination fits the common-law doctrine of coming to the nuisance, under which pre-existing land uses are protected against suits filed by encroaching newcomers. Combination (III) corresponds to an assignment of rights to the producer of the external harm, protected by a liability rule.

DISCLAIMER!
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