# Presumptions, Legal Argumentation, and Defeasibility

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ABSTRACT
In this paper, I propose to differentiate two types of presumptions in law and in legal argumentation. On the one hand, the so-called *hominis* presumptions, that is, those made by people when they make factual inferences and, on the other, the presumptions established by legal norms (legal presumptions). In order to emphasize the differences between them, I will use these two expressions respectively: "it is presumable" and "it must (shall) be presumed". Next, once the notion of legal presumption has been properly clarified, I will try to show that the distinction between rules and principles is applicable to presumption norms (to legal presumptions). Consequently, I will distinguish between norms of presumption that are rules (presumption rules) and norms of presumption that are principles (presumption principles). Finally, I will focus on the defeasibility of presumptive reasoning and how cognitive sciences can help detecting material fallacies.

KEYWORDS
*Hominis* presumptions, legal presumptions, presumption-rules, presumption-principles, absolute presumptions, *iuris et de iure* presumptions

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# Presumptions, Legal Argumentation, and Defeasibility

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1. *On the Nature of Presumptions: From "it is presumable" to "it must (shall) be presumed"* – 2. *"It is presumable". The hominis presumptions* – 3. *"It must (shall) be presumed". The norms of presumptions (legal presumptions)* – 4. *Presumption-rules and presumption-principles* – 5. *In the core of defeasible reasoning. The problem of the iuris et de iure presumptions* – 6. *What can cognitive sciences contribute to the argumentative use of presumptions?*

## 1. *On the Nature of Presumptions: From "it is presumable" to "it must (shall) be presumed"*

In general terms, the verb "to presume" means to assume or believe something because there are indications, signs or clues for doing so. According to this, the presumptions generally show the following three elements: a) one or some base facts (the indications, signs or clues), b) a presumed fact (what is suspected or believed) and c) a connection between these two kinds of facts.

It is clear that presumptions play an important role in our argumentations. Taking the aforementioned elements, it is easy to show how the argument works. Let us take the Toulmin's scheme of arguments (TOULMIN 1958). This scheme is a structure made up of *a claim* (a particular statement that one is seeking to defend), *grounds* or *data* (one or a number of particular statements which support the claim), *a warrant* (a general statement whose acceptance entitles passing from grounds to the claim) and *a backing* (general information related to the field in which one is seeking to argue). So, by using this scheme, the argumentative use of presumptions can be reconstructed in a completely natural way. The particular statement which expresses the particular *presumed fact* (what is suspected or believed) constitutes the claim. The statements which express the *base facts*, (the indications, signs or clues) constitute the grounds or data. The *general statement of presumption* constitutes the warrant whose acceptance justifies the acceptance of the presumed fact (the claim) supported by the acceptance of the base facts (the grounds or data). And, finally, the general information which supports the acceptance of the warrant constitutes the backing of the argument.

The argumentative role played by presumptions is unquestionable. Nobody doubts it. However, if we focus our attention on the generic statement of presumption (the *warrant*) it seems clear that we can find examples that appear to be propositions and others which appear to be norms. Indeed, while it is true that in some occasions the generic statements of presumption (the warrants) can be ambiguous, it is also true that there are typical (paradigmatic) ways to express these two alternatives. For example, while the use of the expression "it is presumable" generally serves to express the propositional nature of a statement of presumption, the expression "it must (shall) be presumed" is used to express its normative nature. In this way, while a statement of the type "if P (generic base fact) then Q (presumed generic fact) is presumable" appears to be a propositional statement; the form "if P (generic base fact) then Q (presumed generic fact) must (shall) be presumed" seems to be a normative statement (a norm).

In this paper, I propose to differentiate these two types of presumptions in law and in legal argumentation. On the one hand, the so-called *hominis* presumptions, that is, those made by people when they make factual inferences and, on the other, the presumptions established by legal norms (legal presumptions). In order to emphasize the differences between them, I will use these two expressions respectively: "it is presumable" and "it must (shall) be presumed" (AGUILÓ REGLA 2018)[1]. Then, once the notion of legal presumption has been properly clarified, I will try to show that

[1] «In the *presumptio juris* the law says the inference must be made -the *homo* has no discretion, he involuntarily

the distinction between rules and principles is applicable to presumption norms (to legal presumptions). Consequently, I will distinguish between norms of presumption that are rules (presumption rules) and norms of presumption that are principles (presumption principles). Finally, I will focus on the defeasibility of presumptive reasoning and how cognitive sciences can help detecting material fallacies.

## 2. *"It is presumable". The hominis presumptions*

2.1. Let us consider the following story as a starting point. A father hires the services of a private detective to find his son, because 15 years ago he left home leaving a goodbye note in which he said they would never see him again. After some time, the detective meets with the father to inform him about his investigations. The dialogue begins with this question:

- Did you find my son?
- No, but I regret to inform you that your son has died. He lived in Australia. Three months ago, he participated in a regatta and the ship sank in a place where the depths are abysmal. The rescue services did not find survivors or corpses. The crew members disappeared with the ship.

The detective concluded his report with these words: "Your son is dead and to continue investigating under these circumstances would be to scam you".

This story illustrates a presumption. The detective and the father presume the death of the son, they do not have any direct proof or evidence. It is easy to make explicit the three elements above mentioned.

a) A presumed fact: the death of the son.
b) One or more base facts: the sinking of the ship and the disappearance of the son.
c) A connection between both kinds of facts. Between the base fact and the presumed fact there is a statement of presumption; that is to say, a general statement whose acceptance authorizes the passage from some facts to other.

2.2. This type of presumptions belongs to theoretical reasoning (they are propositional in nature). They may, however, be part of practical reasoning. To be a fragment of practical reasoning does not change their theoretical nature at all. Presumptions share this trait with all factual inferences: they can take part of practical reasoning and do not leave therefore the propositional and/or theoretical realm of truth.

2.3. The truth judgments involved in *hominis* presumptions are always empirical and they have a probabilistic content. The general statement of presumption is accepted because it is considered to be well founded (that is, expressing a regularity, normality or high probability of truth). Then the primary function of this statement is to approximate us to the truth in a material sense. Therefore, sticking to what this statement establishes is the safest option.

2.4. The "security" of sticking to the general statement of presumption is a matter of probability. In this sense, presumptive reasoning shares the idea of defeasibility with all

makes the inference; while in the *presumptio hominis* the law says the inference may be made -the homo has a discretion, he voluntarily makes the inference» (FISK 1925, 22).

probabilistic reasoning. If new information appears, the conclusion can be rejected without rejecting any of the premises on which the presumption was based.

2.5. In the Law these presumptions are known as *hominis* presumptions (presumptions made by people). They share with all factual inferences the two properties just highlighted (their propositional nature and their defeasibility). So, does the phrase "it is presumable" (typical of *hominis* presumptions) contribute something different from the phrase "it is probable" (typical of factual inferences)?

2.6. "It is presumable" should be reserved for those cases in which the evidence (the basic facts, the evidentiary facts, etc.) is sufficient to consider a fact as proven (not only probable); and, as a consequence of this, "it is presumed" transfers the burden of proof (or of argumentation) to whoever intends to deny the conclusion, the "presumed fact". In any factual inference, the occurrence of some events is an indication of (a reason to believe in) the occurrence of other events. In *hominis* presumptions this is also the case, but there is an additional component: although they are materially defeasible, they are pragmatically conclusive. In other words: these presumptions not only serve the function of giving reasons to believe that certain events have occurred (true in the material sense); but also give reasons to consider certain facts as proven (true in a dialectical, pragmatic or procedural sense). For this reason, "it is presumed" fulfills the generic function of approaching the material truth and the specific function of establishing a pragmatic, dialectical or procedural truth, transferring the burden of proof to whoever intends to deny the occurrence of the presumed fact by proving an alternative version of facts. In this sense, the general statement of presumption is also a rule of presumption, a rule of the burden of proof and/or argumentation[2].

2.7. There are three ways to oppose the conclusion. a) Denying the empirical foundations of the general statement of presumption; that is, to challenge its warrant role (to *challenge* the presumption). b) Accepting the general statement of presumption (that is, to accept that it expresses a regularity with a high probability of truth), but denying the occurrence of the base facts; that is, to *block* the presumption. c) Accepting both the general statement of presumption and the occurrence of the basic facts, but rejecting the conclusion (i.e. "the son is alive"). Here we would speak either of *excepting* the warrant (the general statement of presumption), or of *defeating* the presumption.

Only in cases b) and c) (when the general statement of presumption is accepted as a sure way to get the truth), it is acceptable that this statement also operates as a rule of presumption (it operates in dialectical terms as a rule for the distribution of the burden of proof and/or argumentation). In case a), the rejection of the general statement of presumption in material terms also implies its rejection as a rule of presumption in procedural or dialectical terms (AGUILÓ REGLA 2018).

## 3. *"It must (shall) be presumed". The norms of presumptions (legal presumptions)*

3.1. Let us take another starting point. Let us consider any of the legal norms of our legal systems that establish the presumption of paternity with respect to children born during the marriage.

There is no doubt: they are legal norms, norms of presumption. Now we find the same elements that we saw in the previous type.

[2] The specific function of the speech act of "presuming" is none other than reversing the burden of proof and/or argumentation (WALTON 1993).

a) A presumed fact: "X is the father of Y".
b) Some basic facts: "Y is the son of X's wife and was born during the marriage".
c) A connection between them; that is, a presumption statement that is normatively imposed (what I will call a "presumption rule" from now on).

There is no doubt that we could equally apply Toulmin's scheme of arguments. But at this point the interesting question is another one: Does the normative imposition of the presumption change its "nature"?

3.2. To properly understand the nature of presumption rules, a practical role must be assumed. Here I am going to refer to the role of the judge and the role of the legislator.

3.3. For the judge, a rule of presumption is just another valid legal rule. What does it force him to do? It is clear that the one bound by the rule of presumption is someone called to act in some way, not someone called to believe in something. Thus, the primary function of the rules of presumptions is not to establish any material truth, but a procedural truth (in the sense of a truth in the process). Accepting and applying a rule of presumption does not require the belief in the occurrence of any fact, but to consider it proven under certain circumstances. In other words, presumption rules acquire their meaning in a context of institutional decision, within a decision-making process. In this sense, the rules of presumption (by establishing procedural truths) benefit (facilitate the claim of) one party and harm (make difficult the claim of) the other party. The rules of presumption, therefore, always incorporate an element of partiality or (formal) inequality between the parties: they break the egalitarian principle that constitutes the process. Two questions immediately arise: Is it justified to establish such an obvious inequality between procedural parties? What relationship do the rules of presumption maintain with truth in the material sense?

3.4. To answer these questions let us now consider the role of the legislator. Let us see a catalog of reasons with which the legislator could justify the establishment of a rule of presumption.

a) Reasons of procedural economy linked to the probability of the truth of the presumed fact under certain conditions. That is, what underlies an "it must be presumed" is the acceptance by the legislator of an "it is presumable".
b) Reasons of procedural fairness aimed at restoring the balance between the parties due to the extraordinary difficulty involved in proving some facts.
c) Reasons of procedural caution linked to the unequal gravity of the legal consequences for the parties. To minimize the risk of greater damage, a procedural truth is established and the proof is placed on the party that assumes the lesser risk[3].
d) Institutional reasons aimed at stabilizing expectations and legal situations. A rule of presumption may respond more to the claim of establishing an institutional regularity or normality in the future, than to try to account for an already existing regularity.

Although this catalog of reasons could be expanded, it is enough to show that it makes sense to dictate presumption rules even when there is no an "it is presumable" in its justification; and that the relationship between an "it must be presumed" (normative) and "it is presumable" (theoretical) is contingent.

[3] The partiality of a norm of presumption can be justified in various ways: by probabilistic considerations (Q is more/less frequent than −Q in case of P), for evaluative considerations (the consequences of assuming Q in P are more/less serious than those of presuming −Q) and procedural considerations (it is more/less easy to produce proves in favor of Q than of −Q, in case of P) (MENDONCA 1998, following ULLMAN-MARGALIT 1983).

3.5. The rules of presumption establish a procedural truth (a truth in the process)[4]. They constitute, therefore, points of departure and arrival in a decision-making process. Due to its normative nature, the presumption *cannot be challenged* by denying its empirical foundations, denying that it brings us closer to the material truth. The warrant of this presumption is a legal norm whose validity and applicability do not depend on it.

But the procedural truths established by the rules of presumption can always be defeated. There are two ways to oppose the presumed fact: one, to *block* the presumption by showing the falsity of the base fact(s); another, to *defeat* the presumption showing the falsity of the presumed fact or providing clues or reasons to believe in its falsity.

## 4. *Presumption-rules and presumption-principles*

4.1. The norms of presumption establish a procedural truth and its content to the judge is always the same: to take a fact as proven. In this sense, all presumption norms have a more institutional than substantive meaning: the truths they establish are materially defeasible, but pragmatically conclusive. The central notion is therefore procedural (institutional) truth, not material (substantive) truth. However, sometimes the duty to take a fact for granted is subject to a condition, while in others it is not. This allows us to distinguish within the presumption norms between presumption-rules and presumption-principles (AGUILÓ REGLA 2006 and 2018).

4.2. The presumption-rules are norms of presumption that respond to the typical conditional structure of the legal rules.

4.2.1. According to them, the duty of the judge to assume the procedural truth is subject to one condition: the proof of the basic fact established by the rule. If the base fact is not proven, then the duty to assume the presumed fact does not arise.

4.2.2. The judge's reasoning is strictly a subsumption: the particular facts proven by the party are subsumed in the generic case (base fact) provided by the presumption-rule. The falsity of the basic fact supposes the *blocking* of the application of the legal consequence foreseen by the presumption-rule (that is, the duty to assume the procedural truth).

4.2.3. The legal consequences generically established by the presumption-rules can be *defeated* in a particular case: the procedural truth is defeatable by the material truth.

4.3. The presumption-principles are norms of presumption that respond to the typical categorical structure of the legal principles[5].

[4] Laudan discusses what the presumption of innocence requires and what instructions jurors receive (and should receive) in criminal trials in the United States. He does not use the distinction between material truth and procedural truth that we have used here. Rather, he opposes "material" to "probatory" and projects them onto the innocent/guilty pair. The combination produces four pairs, and he insists on the asymmetry between innocence and guilt: (i) Material innocence: the defendant in a process is materially innocent only in the event that he did not commit the crime. (ii) Probatory innocence: the defendant is probatorily innocent if the accusation fails because does not satisfy the standard of criminal proof (not guilty). (iii) Material guilt: the defendant actually committed the crime. (iv) Probatory guilt: the accusation against the defendant satisfies or exceeds the standard of proof. The asymmetry consists in the fact that while evidentiary guilt supports the affirmation of material guilt (the law assumes that if guilt has been proven then one is really guilty), probatory innocence does not guarantee the inference about material innocence (LAUDAN 2005).

[5] In structural terms, a good way to characterize legal principles as opposed to legal rules is by attending to von Wright's notion of categorical norm. Considering the notion of condition of application of a norm («the condition

4.3.1. Here, the duty of the judge is not subject to the proof of any base fact. The same thing happens with legal principles in general: they operate whenever they are relevant. This means that a presumption-principle displays its effectiveness whenever it is relevant.

4.3.2. Since these presumptions are not subject to any conditions, they cannot be blocked. They can only be defeated.

4.3.3. The presumptions of innocence, good faith, constitutionality of statutes, legality of administrative acts, etc., are considered procedural principles: they define the process and translate into burdens of proof and/or argumentation for who alleges guilt, bad faith, unconstitutionality or illegality. In this sense, the presumptions-principle play a much more shaping institutional role of the process than the one played by the presumptions-rule.

## 5. *In the core of defeasible reasoning. The problem of the iuris et de iure presumptions*

5.1. In accordance with what has been said, all presumptions, no matter whether they are *hominis* or legal, are at the core of the idea of defeasible reasoning.

5.2. *Hominis* presumptions are defeasible both if viewed from the perspective of the genre to which they belong (evidence inferences), and by the specific difference that characterizes them (the reversal of the burden of proof).

5.2.1. *Hominis* presumptions share with evidentiary inferences the property of being inductive inferences and, therefore, of being defeasible. In particular, in the presumptions *hominis* it is perfectly possible to continue accepting the validity of the warrant of the presumption, the truth of the occurrence of the basic fact and, nevertheless, reject the truth of the presumed fact by showing its falsity or weakening its credibility.

5.2.2. If we look at what they contribute beyond the idea of evidentiary inference, then the question is also clear: reversing the burden of proof means admitting the possibility of defeating the presumption through new evidence.

5.3. The same thing happens with the norms of presumptions (legal presumptions), and it makes no difference whether they are rule-presumptions or principle-presumptions: in both cases, legal reasoning is defeasible. The norm of presumption remains valid even if the presumption is defeated in a particular case; that is, even if the presumed fact is shown to be false.

5.3.1. Presumptions-rules can be both *blocked* (showing the falsity of the base fact) and *defeated* (showing the falsity of the presumed fact).

which must be satisfied if there is to be an opportunity for doing the thing which is the content of a given norm, will be called a *condition of application* of the norm») von Wright considers that norms can be divided into *categorical* and *hypothetical*. «We shall call a norm categorical if its condition of application is the condition which must be satisfied if there is going to be an opportunity for doing the thing which is its content, *and no further condition*. We shall call a norm hypothetical if its condition of application is the condition which must be satisfied if there is going to be an opportunity for doing the thing which is its content, *and some further condition*. If a norm is categorical its condition of application is given with its content. From knowing its content, we know which its condition of application is. For this reason, special mention of the condition is not necessary in a formulation of the norm» (VON WRIGHT 1963, 73-75).

5.3.2. Presumptions-principle can be only defeated, not blocked.

5.4. Despite this, many jurists speak of indefeasible legal presumptions. This is the case of the so-called *iuris et de iure* presumptions or *absolute* presumptions. These jurists maintain that they are indefeasible presumptions because, they say, no evidence is admitted against the presumed fact. These presumptions, they say, can be blocked, but not defeated.

5.4.1. Let's consider an example. Let us imagine a rule that establishes that "sexual relations between an adult and a minor are always non-consensual and constitute sexual abuse". This norm can be blocked by denying some of the basic facts (there were no sexual relations, the accused person was not an adult when the sexual relations took place, or the supposed abused person was not a minor at the time of the sexual relations). But if it is not blocked, it is not possible to prove that the relations were consensual because the proof of that is prohibited. Many legal scholars would argue that this rule establishes an indefeasible presumption: the absence of consent is presumed and evidence to show that there was consent is prohibited.

5.4.2. In my opinion, this is a mistake. This type of rules does not force to presume any procedural truth. It only obliges to apply the legal consequences derived from the occurrence of certain facts (the base facts of the crime). Treating these rules as norms of presumption is a mistake that brings with it a lot of conceptual problems. The idea of an indefeasible presumption is clearly contradictory, paradoxical.

5.4.3. The purpose of this type of rule is, rather, to eliminate all traces of presumptive reasoning. Therefore, in conceptual terms, this type of norms must be opposed to (instead of being confused with) norms of presumption (SCHAUER 2009). In my opinion, the idea of a rule of presumption *iuris et de iure* (absolute presumption) is an error in theoretical terms.

## 6. *What can cognitive sciences contribute to the argumentative use of presumptions?*

6.1. Detecting material fallacies. A central theme of legal argumentation is the validity of the arguments. In Alicante, following a scheme proposed by M. Atienza, we usually distinguish among formal, material, and pragmatic validity (ATIENZA 2013, 110-117). Formal validity refers to the fact that the argument complies with the rules of inference, that is, with the requirements linked to internal justification of the argument. Material validity assumes that the argument satisfies certain methodological requirements for obtaining the premises, that is, linked to the so-called external justification of the argument. And pragmatic validity refers to compliance with certain rules of fair play in the dialectical interaction between the subjects who debate; if the rules are followed, the agreement or the victory reached will be valid.

In this sense, fallacies are always the violation of rules: of rules of inference in formal fallacies; of methodological rules in material fallacies; and rules of fair play in pragmatic fallacies.

As we have seen, presumptions always establish an argumentative connection between facts, between the base facts and the presumed fact. In presumptions *hominis* the connection between these facts is strictly cognitive and in the rules of presumption this is also the case in some of them. This connection between facts may or may not be justified. The justified use of presumptions can be seen as heuristics and the unjustified uses, as biases. In this sense, cognitive sciences can clearly contribute to the detection of material fallacies.

6.2. Justified presumptions as heuristics and unjustified presumptions as biases.

> «Heuristics are cognitive shortcuts, or rules of thumb, by which people generate judgments and make decisions without having to consider all the relevant information, relying instead on a limited set of cues that aid their decision making. Such heuristics arise due to the fact that we have limited cognitive and motivational recourses and that we need to use them efficiently to reach everyday decisions. Although such heuristics are generally adaptive and contribute to our daily life, the reliance on a limited part of the relevant information sometimes results in systemic and predictable biases that lead to sub-optimal decisions» (PEER & GAMLIEL 2013, 114, following KAHNEMAN et al. 1999 and KAHNEMAN 2011).

If in this paragraph we were to replace the word "heuristics" with the word presumptions, we would obtain a coherent paragraph that would provide us with an approximate explanation of the genesis and functionality of all those presumptions whose foundation is found in a theoretical "it is presumable". And, naturally, the risk of biases helps to explain why presumptive reasoning can always be defeated.

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