

# On Legal Interpretation and Second-Order Proof Rules

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## **Abstract**

This paper puts forward three critiques of Pardo's second-order proof rules thesis. The first criticism states that these rules are not suitable to guide the interpretation of standards of proof rules because they confuse matters of legal interpretation with matters of epistemology. The second criticism states that second-order proof rules are affected by the same indeterminacy problems they are designed to resolve, thereby rendering them unsuitable for the task they are purposely designed for. The third criticism renders Pardo's proposal redundant. A reconceptualization of second-order proof rules is offered.

**Keywords:** Evidence. Law. Standards of Proof. Legal Rules. Legal Interpretation. Legal Indeterminacy.

## **Resumen**

Este artículo presenta tres críticas a la teoría de las reglas probatorias de segundo orden propuesta por Pardo. La primera crítica apunta a que estas reglas no son útiles para la interpretación de los estándares de prueba dado que confunden dos operaciones de distinta naturaleza: interpretativas y epistemológicas. La segunda crítica expresa que las reglas probatorias de segundo orden no pueden lograr su cometido debido a que les aquejan los mismos problemas de indeterminación imputadas a las reglas de primer orden. La tercera crítica sostiene estas reglas son redundantes. Una reconstrucción de las reglas probatorias de segundo orden es ofrecida.

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**Palabras claves:** Prueba. Derecho. Estándares de prueba. Normas jurídicas. Interpretación jurídica. Indeterminación jurídica.

## 1. Introduction

The standard view of evidential reasoning regarding questions of fact in law has been one dominated by an epistemology-based discourse<sup>1</sup>. However, one of the challenges that this account has not been able to resolve concerns the notion of *sufficient evidence*. It seems at face value, that *sufficiency* does not belong to the same level of discourse that is usually employed by these theorists. Nonetheless, it is at the core of evidential reasoning because only when we have sufficient evidence is the fact-finder legitimized by law to declare disputed questions of fact as proven.

The question *when do we have sufficient evidence for declaring a fact as proven?* is one that is located at the crossroads between legal interpretation and epistemic reasoning. The traditional way of approaching this problem has been the following: since the nature of our knowledge is mostly inferential it is imperative to establish a degree of *probability* in order to settle when a fact has been proven. The majority of legal systems have entrusted this task to legal rules labeled as *standards of proof*. In criminal law, perhaps the most famous and widely accepted standard of proof is *beyond a reasonable doubt*. In civil law it varies, but the most typical are *preponderance of evidence* and *clear and convincing evidence*.

The literature on standards of proof has usually portrayed these as cardinal probabilities (Allen 1991: 381; 2017: 139) such as,  $p > 90\%$  in criminal law, and  $p > 50\%$  and  $p > 75\%$  respectively in civil law. In plain terms, if we have a 90% of probability (or more) that some fact obtains then we can state that this particular fact has been proven in criminal law. This view, *i. e.*, understanding probabilities in the mathematical sense, has been labeled *the conventional view* (Allen 1994: 604).

The *conventional view* has been targeted as an impracticable notion and thus, rendered unfit to deal with problems of evidentiary sufficiency<sup>2</sup>. In response, some scholars have developed models for evidential reasoning based on explanation and holistic-reasoning approach according to which the account that best explains the evidence is the one likely to be true (Allen and Pardo 2008: 223).

However, in order to declare a fact as proven the evidence presented in trial must meet the requirements prescribed by the standard of proof rule. The problem is that the current understanding of standards of proof is unsatisfactory

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<sup>1</sup> As Haack so starkly claimed «law is up to its neck in epistemology» (Haack 2014: 28). See Taruffo 1992; Damaška 1997; Twining [1990] 2006; Laudan 2006; Ferrer 2007; Ho 2008; Haack 2014; Amaya 2015, among others. For an overview of the main tenets of this approach see Reyes 2017: 319-323.

<sup>2</sup> See § 4.

to determine what are the conditions that the evidence should meet. It is not clear what reasonable doubt, clear and convincing evidence or preponderance of evidence means. These formulas suffer from ambiguity and thus they do not provide either the level of evidentiary sufficiency required by the legal system to declare a fact as proven or the criteria to determine it<sup>3</sup>.

Scholarship has ascribed two central goals to the rules of evidence: minimization of error and allocation of error (Stein 2005: 12-3; Pardo 2009: 1083).

Pardo's *second-order proof rules* paper (2009) proposes a solution to this problem. He claims that second-order proof rules will help to constrain and guide the interpretation of the standards of proof rules (first-order proof rules).

In this paper I will focus on Pardo's proposal of second-order proof rules as a method to address the issue of ambiguity of the standards of proof. I raise three challenges to this thesis to show that it fails to solve the problems of ambiguity: first, it confuses statements of proof with statements of fact and thus it tries to solve problems of ambiguity of legal norms with epistemological criteria; second, it ignores the indeterminacy of law which raises challenges to his rule-based approach, and third second-order proof rules are redundant<sup>4</sup>.

I will not argue in favor or against the explanatory approach endorsed by Pardo nor I will favor or advance alternative approaches. My interest focuses solely on the methodological path adopted by Pardo in order to put its solution to use, vis-à-vis, adding new rules to the legal system. I want to flesh out some issues involved when we try to solve problems of legal interpretation through legal rules.

In section 2 I distinguish statement of proof from statements of fact. Section 3 addresses the topic of error in law. Section 4 analyzes probabilistic and explanatory based-accounts of evidential reasoning. Section 5 explores Pardo's views on the current understanding of standards of proof and his second-order proof rules thesis. Section 6 criticizes his proposal. Section 7 offers a reconceptualization of second-order proof rules. Section 8 contains concluding remarks.

## 2. Between Interpretation and Epistemology

I propose the following distinction: *statements of proof* and *statement of fact*<sup>5</sup>.

I claim these two types of statements are the *quaestio facti*. On one side, statements of proof can be formulated as "*p* has been proved". On the other side, statements of fact can be formulated as "*p*" that describes states of affairs "*n<sub>1</sub>, n<sub>2</sub>, n<sub>3</sub>, ... n<sub>x</sub>*" such as "*A shot B*".

*Statements of proof* are the result of the *interpretation* and *application* of the standard of proof rule in a particular case. In order to claim that *p has been proven* the fact-finder needs to evaluate if the evidence adduced by the party

<sup>3</sup> These rules suffer also from vagueness. However, I shall leave this for a later stage.

<sup>4</sup> See § 6.

<sup>5</sup> Similar distinctions can be found in Ferrer 2002; Dei Vecchi 2014; Vázquez 2015.

advancing the claim has met the requirements established by the particular standard of proof, *i. e.*, beyond all reasonable doubt, clear and convincing evidence, preponderance of evidence, etc. This is a matter of legal interpretation.

For their part, *statements of fact* are descriptive assertions of particular states of affairs that are said to obtain. They can be subjected to truth/falsity judgments. A statement of fact will be true if what it describes obtains, and false otherwise. Assessing the truth or falsity of the proposition contained in the statement of fact is a matter of epistemology.

Both types of statements concern the *quaestio facti*. In other words, the decision about facts in law is the result of the combination of these two types of statements. In this way, they are related. However, methodologically speaking, they are of different nature and so the problems that arise when analyzing issues of fact-finding in law.

Problems regarding standards of proof are issues of legal interpretation. As such, they are not concerned neither with the truth-value of the statements of fact nor their epistemological quality.

As it will be addressed further this distinction is key to explain why Pardo's thesis is not suitable for its purposes<sup>6</sup>. I claim that he confuses both types of statements. This confusion leads him to give epistemic-based solutions to issues of interpretation of legal statements. A direct consequence of this approach is overlooking the indeterminacy of law. Legal indeterminacy is key to understand how ambiguity and vagueness operate when interpreting legal statements vis-à-vis standard of proof rules.

### 3. Error in the Law

A normative principle that guides fact-finding is accuracy in verdicts (Stein 2005: 12; Pardo 2013: 556). This is a reflection of the shared intuition that if statements of fact are declared proven is because its propositional content obtains<sup>7</sup>. However, given the inferential nature of our knowledge, uncertainty and fallibility are notions that pervade decisions about facts in law. Error in fact-finding is always possible. It is of two kinds *a*) false positives, *i. e.*, hypotheses declared proven being false and *b*) false negatives, *i. e.*, hypotheses declared not-proven being true.

These errors have to do with *statements of fact*. The way that law deals with this issue is twofold. On one side, it seeks to *minimize* the rate of error by establishing mechanisms aiming at the best epistemic outcome. On the other side,

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<sup>6</sup> See § 6.

<sup>7</sup> On a more fundamental level it rests on the assumption that when our institutions apply legal coercion it is because they are legitimized to do so. One aspect of this legitimacy is the factual grounds that supports the decision in the sense that if some court convicts someone it is because (s)he actually engaged in some conduct that the legal system deemed punishable.

it focuses on which error is *acceptable/tolerable* from society's perspective. The canonical example given by the literature comes from criminal law: to convict an innocent person or acquit a guilty person. Since the possibility of error is unavoidable, we need to decide which kind of error we are going to tolerate. The nature of this decision is either political or moral (Reyes 2012: 238; Stein 2005: 133). In this sense «(d)ifferent proof rules express different policy preferences with regard to error allocation and error minimization» (Pardo 2009: 1088). Ho goes further, he claims that «(e)pistemic and moral norms [...] are implicit or explicit in many legal rules regulating fact-finding» (Ho 2008: 71).

Once the decision about which errors will be tolerated has been made, the next step is to implement mechanisms that ensure that whenever an erroneous decision has been made, the error incurred is the one that we deem tolerable. These mechanisms are legal rules known as standards of proof<sup>8</sup>.

Standards of proof allocate the *tolerable* type of error by setting a *decisional threshold* that once reached will allow the fact-finder to issue a statement of proof (Reyes 2015: 22). This means that a system will be more tolerant with particular types of error and less tolerant with others (Accatino 2010: 134). For example, the legal system can accordingly reduce the rate of wrongful convictions by increasing the number of wrongful acquittals (Stein 2005: 172). If the threshold is high then it will be harder to prove the claims advanced by the parties, conversely, if the threshold is low then it will be easier. The first case will increase false negatives and reduce false positives. The second case will increase false positives and reduce false negatives.

#### 4. Probabilities and Explanations: Context

The standard of proof establishes the level of sufficient evidence required by a legal system to declare a fact proven. But this is not the only function it performs. Standards of proof have intra-procedural and extra-procedural functions too. The first category encompasses the following 1) allocation of error, 2) it establishes the level of sufficiency and 3) it is a requirement for the justification of the decision, *i. e.*, we can only determine that a fact has been proven if the decision-maker is able to justify that the standard of proof was met.

The second category has to do with the validity/legitimation of the decision from the perspective of the legal system. The fact-finder can issue a statement of proof only if the standard was met. Therefore, her decision will be legally valid independently of the truth/falsity of the proposition contained in the *statement of fact* (Reyes 2015: 23-24). In law, proof and truth are not conceptually related. It is possible to declare facts proven even though they did not obtain. In other words, it is possible to have a legally valid and justified decision regardless of

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<sup>8</sup> Stein goes further and claims that allocation of error is pervasive in fact finding, thus all evidence law rules have to allocate error (Stein 2005: 132).

false positives and negatives. For this to happen the decision-maker must be in a position to perform a *statement of proof*. This is the core of the extra-procedural function: triers of fact can perform legally valid and justified decisions if they have applied the standard of proof rule<sup>9</sup>.

How do we know the level of sufficiency? The *conventional view* has understood sufficiency in *probabilistic* terms. The notion of probability used by them is the mathematical one. The primary concern of the advocates of such view was to discuss and develop «mathematical formulations of such matters as the probative value of courtroom evidence and the burden of persuasion, and it asks which such formulations (if any) best further our understanding of the rules of evidence and how jurors or jurist should apply these rules» (Kaye 1988: 161). They saw that mathematical-based reasoning was a method to prevent subjective impressions of fact-finders to meddle with evaluation of evidence<sup>10</sup>.

The interest in probabilistic reasoning was sparked «in large part by the Californian case *People v Collins* where an erroneous attempt was made to use statistical reasoning to resolve problems of evidence [...] [Scholars argued] that the mistake in *Collins* was not the attempt to use mathematical probability to resolve problems of fact but the failure to utilize Bayes' theorem to do so» (Jackson 1996: 311)<sup>11</sup>.

Through Bayes' theorem, it is possible to calculate the probability of a particular event and allows updating beliefs in light of new evidence<sup>12</sup>.

In civil cases the standard of proof is conceived to be  $p > 0.5$  (preponderance of evidence) or  $p > 0.75$  (clear and convincing evidence) meanwhile in criminal cases it is  $p > 0.9$  (beyond all reasonable doubt)<sup>13</sup>. If the evidence presented in a trial surpasses those limits then the fact-finder will be legally obliged to declare a fact as proven.

A different conception of probabilistic-based reasoning can be found in the works of Laurence Jonathan Cohen, who in 1977 published *The Probable and the Provable*. In the book he questioned the applicability of mathematical probabilities to operations of evidentiary assessment in legal settings. Cohen identified

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<sup>9</sup> This, of course, assumes that the interpretation and application of the standard of proof rule are not at odds with standards of interpretative correctness of particular legal systems. Furthermore, even the possibility of having a *correct* interpretation of legal rules is a matter of debate. This discussion is beyond the scope of the paper and I will not go into it here.

<sup>10</sup> Some proponents of this model went further as to say «insofar as it is important to approach the truth of what occurred on a particular occasion, orthodox probability theory (not just Bayes' theorem) offers the only correct way to do so» (Robertson and Vignaux 1991: 642).

<sup>11</sup> The Bayesian formula and its effects on evidential reasoning has been largely debated by evidence scholars.

<sup>12</sup> According to Allen, these probabilities are of relative frequency, «(w)hen the fact finder determines the probability of some element to be .6, this means that the element will be true six out of 10 times in the set of similar cases» (Allen 1991: 376). This view is called *frequentism*. This interpretation of the meaning of probabilities is rather problematic for non-repeatable events such as the ones that we deal in courts. A different take on this issue is to interpret probabilities express degrees of beliefs (credence).

<sup>13</sup> See Larroucau 2012: 800-804.

two paradoxes that a mathematical-based approach gives rise to: the conjunction paradox and the gatecrasher paradox.

The first paradox results from the application of the “conjunction principle”. The paradox states that with every fact proven independently there is less probability that the overall case is proved: if the standard of proof in a civil case is  $> 0.5$  this means that the judge can only declare a fact as proven if the probability of that fact is higher than 0.5.

Let us say that in a particular case there are facts A and B. Both of them separately have a probability of 0.6. Since the probability of two facts occurring in a given case is equal to the mathematical product of their individual probabilities, the probability ascribed to those facts will be:  $0.6 \times 0.6 = 0.36$ . If the standard of proof is  $> 0.5$  then the facts of the case cannot be declared as proven, and therefore the plaintiff will lose the lawsuit (Cohen 1977: 58-60).

The second paradox results from the application of the “complementational principle”. This principle states that on a scale of 0 to 1 the cumulative value of both the occurrence of a fact and its non-occurrence must be 1. Cohen criticized the effects of this principle in a thought-experiment he called the *gatecrasher's paradox*: Suppose that 1,000 people attend a rodeo of whom only 499 paid the admission and 501 did not. The owner of the rodeo, not knowing who was a trespasser and who was a paying attendee, decides to sue all 1,000 of those who attended. According to the complementational principle, the probability in each case that the defendant was a gatecrasher is  $> 0.5$ . Therefore the plaintiff should win every single case (Cohen 1977: 74-75).

The mathematical approach to probabilistic reasoning in evidence law has been subjected to several criticisms by contemporary authors who approach evidential reasoning from an explanatory standpoint (Amaya 2015: 82-89; Pardo 2013: 574-596; Allen 1991: 373-422)<sup>14</sup>.

Theories of evidential reasoning revolving around the concepts of coherence and explanation were developed as competing accounts to the probability-based model. These new models rest «on a holistic' view of legal inference, according to which the mass of evidence and its probative force must be assessed as a whole» (Amaya 2015: 79)<sup>15</sup>.

Coherence plays a key role in the holistic approach. Holism and coherence are closely connected through the notion of intelligibility, «(c)oherece conveys a specific good, the value of which is undeniable. What is incoherent is unintel-

<sup>14</sup> These critiques are not exclusive of scholars endorsing explanatory theories of evidential reasoning. For critiques coming from a different approach see Stein 1996: 339-342; Stein 2011: 199-260.

<sup>15</sup> Although I will not analyze the atomism/holism debate it can be said that probabilistic-based models adopted an *atomistic view* of evaluating evidence (Accatino 2014:18-9), «by starting with a number of individual items of evidence and then considering what effect these have on a particular hypothesis [...] both rest on the empiricist assumption that there are at bottom basic items of evidence from which inferences can be made» (Jackson 1996: 315). Atomism aims at «the construction and criticism of arguments about evidence, involves logical analysis of the relations between individuated propositions based on evidence» (Twining 2006: 309).

ligible, because it is self-contradictory, fragmented, disjointed. What is coherent is intelligible, makes sense, is well expressed, with all its bits hanging together» (Raz 1992: 276).

According to these explanatory theories, the *conventional view* can be subjected to at least three objections that makes it unfit as a model for evidential reasoning: 1) the natural way of reasoning objection, 2) the computational objection and 3) decision-making objection. The first objection states the following:

«In many instances the fascination with algorithms reduces to a belief that juridical decision making can be reduced to procedural methods that are independent of substantive knowledge [...]. Juridical decision making requires vast substantive knowledge that [...] does not and cannot reduce to procedural methods, at least not the ‘procedural method’ of Bayes’ theorem» (Allen 1997: 345).

These mathematically based methods would not truthfully depicting how people actually reason.

The second objection claims that it is doubtful, to say the least, that judges/jurors can actually perform the mathematical operation that the Bayesian approach entails in the context of a trial facing both time and material constraints.

The third objection claims that: Even if judges/jurors were able to reason and perform these mathematical operations, this is not reflected in the every-day activity of the courts. Judges do not justify their decisions in a mathematical fashion.

These objections flesh out the difficulties that application of mathematical probabilities to evidential reasoning entails. However, since the latter is prescriptive in nature, *i. e.*, how the fact-finder *should* reason, it is difficult to see why it is relevant to establish that fact-finders do not reason in mathematical terms or that the *actual* practice of decision-makers it is not based in this approach. Nonetheless the objections presented above, albeit they do not attack the normative principle of *accuracy in verdicts*, they do suggest that practical problems related to our reasoning capabilities would deprive the *conventional view* of its overall usefulness as a method for taking decisions, even though not necessarily as a normative ideal as such.

The objections mentioned above aim in general at criticizing the role of mathematical-probabilistic operations in evidential reasoning. However, Pardo has advanced a set of objections specifically aimed at the standards of proof. He calls them *the failures of first-order proof rules* (Pardo 2009: 1091). In his view, the contemporary understanding of the preponderance of evidence, clear and convincing evidence and beyond a reasonable doubt rules prevents them from achieving their putative goals, *i. e.*, error minimization and error allocation. Instead of getting rid of these first-order proof rules, he calls for *second-order proof rules* that would guide and constrain the application of first-order proof rules (Pardo 2009: 1100).

In the following section I reconstruct and analyze both the *pars destruens* and the *pars construens* of Pardo’s position. I claim that his objections albeit well-di-

rected fail to provide a suitable solution to the problem addressed. This failure rests on two arguments: 1) Pardo does not distinguish statement of proof from statement of facts and hence he confuses problems of legal interpretation with problems of epistemology. 2) He does not take into account the indeterminacy of law.

## 5. The Failure of First-Order Proof Rules and the Rise of Second-Order Proof Rules

Standards of proof express different policy preferences regarding minimization and allocation of error. Hence

«the decision rule in civil cases of a “preponderance of evidence” reflects the preference for treating plaintiffs and defendants roughly equally with regard to error allocation [...]. This further reflects the view that the importance or cost of an error against one side is roughly equivalent to an error against the other side [...]. The proof rule in criminal law of “beyond a reasonable doubt” (BARD) reflects a preference for protecting criminal defendants with regard to the risk of error [...]. This asymmetry expresses, and is justified by, the belief that the importance or cost of a false conviction is much greater than a false acquittal.

A third decision rule is proof by “clear and convincing evidence”. This rule requires an “intermediate standard of proof” between the preponderance rule and the BARD rule [...]. This decision rule applies in civil cases in which errors going against defendants are considered to be more important or costly than errors favoring defendants» (Pardo 2009: 1088-1090).

According to Pardo first-order proof rules fail to accomplish their goals because of the terms in which they are formulated. Their semantic content is not clear and therefore the fact-finder is not in a position to identify the threshold that a particular standard prescribes. For instance «(t)he phrase “preponderance of evidence” is ambiguous. The word “preponderance” refers to a superiority of some kind, but it may refer to a superiority of weight, power, importance, strength, or quantity» (Pardo 2009: 1091). These categories not only refer to different, seemingly unrelated, things but also *prima facie* besides “quantity”, terms such as “importance”, “strength”, “power”, “weight” require further interpretation by the fact-finder.

There are no clear criteria for a judge or jurors to choose among the array of alternatives presented beforehand. This, in turn, creates the risk of affecting the level of sufficiency established by the standard of proof in the sense that it would vary in accordance with the sense given by the fact-finder. It seems, *prima facie*, that preponderance of evidence as quantity of evidence entails a different threshold, if any, than preponderance of evidence as power/strength and so on.

Furthermore, following Pardo the prevailing view of the preponderance of evidence rule «requires the jury to be “persuaded that the points to be proved

are more probably so than not”» (Pardo 2009: 1092). Here, he claims, the problem of ambiguity can be found again. This formula

«calls for a comparison of some kind, but it is not clear exactly what is to be compared. It might mean the likelihood of the plaintiff’s factual allegations versus the negation of those allegations, or it might mean the likelihood of the plaintiff’s allegations versus the likelihood of the defendant’s alternative allegations. The first interpretation appears to better fit the instructions, but it fails with regard to the goals of error minimization and allocation. If the plaintiff must prove that some fact, *X*, is more probable than its negation, *not-X*, then the plaintiff should have to show not only the probability of every other possible state of the world in which *X* is not true. This would mean that in order to prevail, plaintiffs would have to disprove (or demonstrate the low likelihood of) each of the virtually limitless number of ways the world could have been at the relevant time» (Pardo 2009: 1093).

Following Pardo an alternative reading could be: if we understand the formula *more probable than not* as referring to the likelihood of the plaintiff’s allegations versus the likelihood of the defendant’s alternative allegations then it seems plausible for the standard to comply with its goals. Hence «(f)inding for plaintiffs when their allegations are more likely true will, other things being equal, minimize errors. Moreover, finding for plaintiffs under these circumstances allocates the risk of error evenly- going against whichever party fails to offer the more likely allegation (which *ex ante* may be either plaintiff or defendant)» (Pardo 2009: 1094). However, this interpretation is contingent upon the defendant presenting alternative allegations. Still it does not say anything about the case in which the defendant’s strategy entails the negation of the plaintiff’s claims. In the end we encounter the same problem that we had before: multiplicity of meanings entail different evidentiary thresholds.

Similar objections can be raised against the beyond a reasonable doubt (BARD) rule. The formula BARD is also ambiguous. As Laudan points out, several meanings have been ascribed to the BARD rule: moral certainty as opposed to mathematical certainty; that security of belief appropriate to important decisions in one’s life; that sort of a doubt that would make a prudent person hesitate to act; that abiding conviction of guilt; as a doubt for which a reason could be given; high probability (Laudan 2006: 33-44).

The different conceptions of BARD do not develop an underlying idea and they all represent different evidentiary thresholds. However the recurrent feature of all these notions, except *prima facie* “high probability”, is that they revolve around the state of mind of the fact-finder, *i. e.*, doubt, conviction, belief, etc. (Reyes 2012: 241-2).

This subjective approach to the BARD rule renders it useless as a standard of proof. It is not possible to determine the evidentiary threshold because it will depend on the state of mind of the fact-finder. Since «any connection can exist between subjective beliefs of decision-makers and the truth, these interpretations of the rule cannot perform the rule’s error-allocation function based on a

rational assessment of the evidence» (Pardo 2009: 1095). Following Laudan, if the decision about facts is dependent upon the state of mind of the fact-finder then «we are not in the presence of a standard of proof but an excuse, a weak pretext to convict or acquit» (Laudan 2005: 106).

According to Pardo «(a)s an intermediate decision rule between the preponderance and BARD rules, the clear-and-convincing-evidence rule exhibits the difficulties of both» (Pardo 2009: 1096). It is intended that this standard establish a higher threshold than preponderance of evidence rule but lower than the one established by the BARD rule. Pardo claims that the common understanding of this rule as a “high probability” suffers from a subjectivist understanding in the sense that

«the proof rule directs decision-makers to focus on their subjective beliefs rather than on features of the evidence. A juror could believe a fact to be “highly probably” true for completely irrational reasons. A rule that turns solely on beliefs of decision-makers is not likely to foster the rule’s normative goals» (Pardo 2009: 1097).

For Pardo the pervasive ambiguity of standards of proof rules renders them useless as decisional rules that prescribe the sufficiency level of evidence that the fact-finder must assess in order to declare a fact as proven.

Conceived in this fashion these standards of proof do not fulfill any of the intra-procedural functions: they neither allocate error, nor establish the level of evidentiary sufficiency necessary to declare a fact as proven. Moreover, if the decisions about facts in law are taken according subjective standards, the justification of such decisions becomes a futile effort.

However, this is not the case of the extra-procedural function that these rules perform. If the fact-finder issues a statement of proof based on a particular standard of proof, whatever its content, then her decision will still be legally valid regardless the fact that responds to subjective criteria. The extra-procedural function *shields* the fact-finder’s decision despite the fact that the intra-procedural functions have not been performed by the standard of proof rule (Reyes 2015: 29-31).

If this is the case, should we get rid off standard of proof rules? Pardo’s answer is “no”. Despite his acknowledgment of the problems that these rules have, he still thinks that they are of use. In order to render them useful he proposes the development of *second-order proof rules* that will guide and constrain the application and interpretation of *first-order proof rules*, *i. e.*, the standards of proof rules.

How ought these rules be formulated? «Second-order proof rules may be constructed based on *probabilistic* or *explanatory* criteria» (Pardo 2009: 1099). He dismisses the probabilistic approach because it faces several challenges that make it unfit to serve its guiding purposes<sup>16</sup>.

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<sup>16</sup> See § 4.

He endorses a explanatory based account of these second-order rules according to which «(u)nder an explanatory account of decision rules, propositions are considered proven, or not, based on how well they explain the evidence and events under dispute» (Pardo 2009: 1102). The process that the fact-finder should follow is one of generation and selection of explanations.

Pardo relies on the “Relative Plausibility” theory developed by Ronald Allen in which evidence is «the result of the interaction of the intelligence and knowledge of the fact-finder with the sum of the observations generated during trial» (Allen 1994: 630).

Allen claims that the nature of proof is explanatory as opposed to probabilistic. Support for this assertion can be found if one analyzes the structure of proof: «(t)he general structure of proof at trial instantiates the classic two-stage explanation-based inferential process of explanation generation an acceptance. At first stage, potential explanations are generated; at second, an inference is made to one of the potential explanations on explanatory grounds» (Allen 2014: 216). Thus proof in the legal setting is a form of inference to the best explanation (Allen 2008: 325).

The type of inference involved in the juridical proof process, following Allen and Pardo, is, mostly, of the non-demonstrative inductive inference kind<sup>17</sup>. These inferences are, generally, abductive in nature, making them apt to explain the given premises (Allen and Pardo 2008: 227-8)<sup>18</sup>.

The “Relative Plausibility Theory” endorses the two-step explanation generating process presented above. The first step aims to generate «potential explanations of the evidence and then selecting the best explanation from the list of potential ones as an actual explanation or as the truth» (Allen and Pardo 2008: 229)<sup>19</sup>. The second step is to choose among the list of potential explanations. There are several criteria guiding the choice among competing explanations, «(t)hese criteria include: consistency, simplicity, coherence with background beliefs, consilience (the extent to which many and different kinds of facts are explained), and the absence of *ad hoc* premises» (Pardo 2009: 1103). For Pardo the criteria provided by the second-order proof rules are epistemic in nature.

However, explanations «do not explain evidence in its entirety; explanations explain aspects of evidence. Explanations rarely explain why A; they explain why A rather than B» (Allen and Pardo 2008: 232). The parties advance possible stories and then the fact-finder decides which one is the most plausible. In this account, *plausible* «may mean “more likely” but this does not mean comparative plausibility reduces to probability. Rather, what is “plausible” is a function of the

<sup>17</sup> This means that even if the premises are true, the truth of the conclusion cannot be conclusively demonstrated.

<sup>18</sup> In the context of juridical proof these premises take the form of the narratives advanced by the parties in their writings, *i. e.*, lawsuits, replies, and so on.

<sup>19</sup> According to Allen what counts as a possible explanation is given by the context. In the legal context «substantive law determines what conduct triggers liability and hence what potential explanations to look for» (Allen and Pardo 2008: 229).

explanation, its coherence, consistency, coverage, consilience, and how it fits into the background knowledge possessed by the fact finder» (Allen 2008: 325-326).

Having laid out the core notions of Pardo's proposal I will address the interplay between first and second-order proof rules that he proposes.

The relation between first and second-order proof rules is the following:

«First-Order Rule: A fact must be proven by a preponderance of evidence.

Second-Order Rule: A fact is proven by a preponderance of evidence when the best explanation of the evidence and events in dispute includes this fact.

[...] Deciding based on explanatory criteria will, other things being equal, minimize errors and allocate the risk of error roughly evenly between the parties by directing the decision-maker to compare the contrasting explanations that favor each side» (Pardo 2009: 1104).

Another example of this relation,

«First-Order Rule: A fact must be proven by clear and convincing evidence.

Second-Order Rule: A fact is proven by clear and convincing evidence when the explanation of the evidence and events in dispute that includes this fact is clearly and convincingly better than explanations that do not.

Because the quality of an explanation is an indication of its likely truth this second-order rule requires better proof than under the preponderance rule by requiring not only that the best explanation favor the party with the burden of proof, but that this explanation be clearly and convincingly better than the opposing party's» (Pardo 2009: 1104-5).

In criminal cases the second-order rule that provides the criteria for the application of BARD is the following:

«First-Order Rule: A fact must be proven beyond a reasonable doubt.

Second-Order Rule: A fact is proven beyond a reasonable doubt when there is a plausible explanation of the evidence and events in dispute that includes this fact and no plausible explanation that does not include this fact.

[...] The rule requires that the government first provide a plausible explanation consistent with the defendant's guilt and then warrants a conviction unless there is a plausible explanation consistent with innocence» (Pardo 2009: 1105).

The thesis advanced by Pardo presents a rule-based solution for the ambiguity that affects contemporary standards of proof rules. With the second-order rules approach he seeks to guide and constrain the fact-finder's reasoning process when assessing evidence. The explanatory nature of these rules allows the fact-finder to engage in an epistemic-based exercise in which, through the use of epistemic criteria, it will be able to select the explanation that better fits the available evidence. Hence, the explanation that best resists this epistemic test will be the one that, in turn, has reached the evidentiary threshold set by the standard of proof, *i. e.*, the first-order rule.

I agree with Pardo in his critique of standard of proof rules, but I do not agree with the solution he suggests.

In the following section I will address the *failure* of second-order proof rules. I claim that the confusion between statements of proof and statements of fact, and the effects of the indeterminacy of law in legal interpretation are two main challenges that Pardo's proposal fails to overcome.

## 6. The Failure of Second-Order Proof Rules

Pardo's proposal is of no use for resolving the issues of ambiguity of standards of proof. This is so because although indeterminacy is a problem of interpretation of legal rules, it is treated as if it were a problem about epistemic access to knowledge of past events, *i. e.*, the propositional content of statements of fact. In other words by not distinguishing *statements of proof* from *statements of fact* it confuses *reducing* the indeterminacy of language with *knowing* something about the world.

This confusion aggravates the problem that Pardo wants to tackle, in the sense that second-order rules must also be interpreted in order to be useful for the interpretation/application of the first-order rules.

In this section I will address the problems of second-order *qua* legal rules that they need to be interpreted.

Ambiguity appears when the fact-finder needs to apply the standard of proof in order to establish if the evidence adduced by one party is sufficient to support her claim. This presupposes the interpretation of the particular standard of proof. If application presupposes interpretation then only after interpretation has occurred will the fact-finder be able to issue a statement of proof. Hence, determination of evidentiary sufficiency is prior to the selection of explanation.

Furthermore, notice that the content of the selected explanation, *i. e.*, the one that passed the epistemic test, is a statement of fact that describes a specific state of affairs. It says nothing about the evidentiary threshold established by the standard of proof. In turn, the standards of proof say nothing about both the content of an explanation or which explanation is the best, *i. e.*, its epistemic quality. They only prescribe the level of evidentiary sufficiency required by the legal system to issue the statement of proof.

Pardo fails to deliver because he does not distinguish between statements of proof and statements of fact. He proposes epistemic criteria to interpret standard of proof rules<sup>20</sup>. This means that with these criteria the fact-finder will be able to identify the evidentiary threshold of the standard and, in particular cases, if it was met. If the standard of proof is ambiguous there is a possibility of different levels of evidentiary sufficiency contained within the same rule. If this is the case, it is not clear how epistemic criteria can guide the fact-finder in order to

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<sup>20</sup> See § 5.

decide which meaning she would ascribe to the standard of proof. Bear in mind that Pardo provides this set as a way to help the fact-finder identify the best explanation from an array of competing explanations and not as an interpretative tool for legal rules.

Even if we concede that the statement of proof/statement of fact distinction has no impact on evidential reasoning, Pardo's proposal is affected by a more fundamental problem. It does not take into account the effects of indeterminacy of law in legal interpretation.

The different meanings of preponderance of evidence, clear and convincing evidence and BARD are manifestations of legal indeterminacy. Following Leiter law is rationally indeterminate when the class of legal reasons<sup>21</sup> is insufficient to justify only one outcome in a particular case (Leiter 1995: 481). This has at least four implications: First, a legal rule has more than one meaning. Second, at least more than one meaning can be applied in a given case. Third, a case can have more than one outcome. Fourth, it is possible that those outcomes are incompatible with each other<sup>22</sup>.

Indeterminacy of law can also be of two types. Following Guastini legal indeterminacy can refer to 1) indeterminacy of the legal system as such and 2) indeterminacy of any particular rule. In the first type, law is indeterminate in the sense that it is not determinate what rules are expressed by legal sources. Here, indeterminacy depends upon *ambiguity*. In the second type, law is indeterminate in the sense that is indeterminate which cases fall under the scope of a particular legal rule. Here, indeterminacy depends upon *vagueness* (Guastini 2012: 36).

In turn, these types of indeterminacy affect two types of interpretation: 1) text-oriented interpretation or interpretation *in abstracto* and 2) fact-oriented interpretation or *in concreto*. The first type consists in identifying the possible meanings of a source of law, *i. e.*, legal rules, with no reference to a particular case. The second type consists in subsuming a particular case under the scope of a rule previously identified *in abstracto* (Guastini 2012: 28-29). Ambiguity affects the first type of interpretation, vagueness the second type.

Whenever interpretation of legal rules is required, the interpreter will face challenges of indeterminacy of law. In the particular case of the standards of proof rules the interplay between the assessment of evidence and the eviden-

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<sup>21</sup> Leiter identifies four components within the class of legal reasons: 1) Legitimate sources of law, 2) legitimate interpretative operations that can be performed on the sources in order to generate rules of law, 3) legitimate interpretative operations that can be performed on the facts of record in order to generate facts of legal significance, and 4) legitimate rational operations that can be performed on facts and rules of law (Leiter 1995: 481). Along this thesis Leiter advances the thesis of causal indeterminacy. Law is causally indeterminate if «the Class is insufficient to cause the judge to reach only one outcome in that case» (Leiter 1995: 482). According to Leiter the causal indeterminacy thesis follows necessarily from the rational indeterminacy thesis. I will not address this topic, however to see arguments against it see Núñez Vaquero 2011: 444-447; Reyes (Forthcoming).

<sup>22</sup> Also, it is possible to argue it has one meaning but the meaning is vague. However, vagueness is a feature that the interpreter will encounter *after* her decision about the meaning ascribed to the legal rule that will decide the particular case.

tiary threshold established by the standard will require the interpretation of the latter. This interpretative activity encompasses both *in abstracto* and *in concreto* types of interpretation. Hence, the possibility of both ambiguity and vagueness is always present. Interpretation seeks to reduce indeterminacy by forcing the interpreter to choose a specific meaning of a legal rule that will decide the case. Also, interpretation reduces indeterminacy by establishing categorically if a case falls or not under the scope of the rule previously interpreted *in abstracto*.

For this, the interpreter, who is also the fact-finder, has at her disposal several tools for interpreting legal statutes<sup>23</sup>. However, there are no meta-rules that help to guide the decision of the interpreter to choose a particular interpretative technique, and thus the selection of an interpretative technique rests upon a discretionary choice of the interpreter (Guastini 2005: 139-140). Bear in mind that depending on the interpretative technique used the end-result could be different. This is how law is rationally indeterminate. Hence, the same standard of proof can contain different levels of sufficiency.

Pardo's solution to this problem is to introduce second-order proof rules that will help to guide and constrain the interpretation of the first-order proof rules. The problem with this proposal is that since second-order proof rules are rules themselves they also need to be interpreted. This leaves us in the same situation as before. Second-order proof rules are also indeterminate.

If the problem is to determine the meaning of *clear and convincing evidence* and we have a second-order proof rule that states "a fact is proven by clear and convincing evidence when the explanation of the evidence and events in dispute that includes this fact is clearly and convincingly better than explanations that do not" the fact-finder will require to interpret this secondary rule in order to identify what "clearly and convincingly better" means. This operation aims at dealing with the indeterminacy of the second-order proof rule. Only after attributing a meaning to the second-order proof rule can we interpret the first-order proof rules: both are indeterminate.

Second-order rules fail in reducing the ambiguity of first-order rules. This is so because they themselves are indeterminate and thus in need of interpretation. If we follow Pardo's strategy then we must also have third-order proof rules and fourth-order proof rules, and so on. This would lead to a case of *infinite regress*. Pardo addresses the issue of *n*-order rules only in the case that these improve the way in which we pursue the goals of the first-order rules, «they would be welcome extensions» (Pardo 2009: 1113). However, if the solution for reducing indeterminacy (in the sense of ambiguity) of a rule is another indeterminate rule then the *n*-rule situation renders Pardo's thesis unfit for the task in hand.

Second-order rules are not suitable tools to address indeterminacy of first-order proof rules.

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<sup>23</sup> What is commonly referred to as the *legal method*. I will develop this further in § 7.

## 7. Second-Order Proof Rules: Revisited

In modern legal systems, it is often common to find interpretative directives such as the plain meaning of the text; the history of the legislation; the intention of the legislator; systematic interpretation, teleological interpretation and so on. These techniques of interpretation with some technics of reasoning (analogical reasoning, deductive reasoning, etc.) and techniques of argumentation (*a fortiori*; *a pari*; *a maiori ad minus*; *a minori ad maius*, etc.) are known, in a broad sense, as the *legal method* (Spaak 2007) or *interpretative code* (Chiassoni 2016: 99-113).

Since Pardo presupposes two epistemic goals in evidence law, *i. e.*, minimization of errors and allocation of error, these second-order proof rules could be understood as *specific* interpretative directives aimed at the interpretation of standards of proof rules that better aligns decision about the proof of facts with these ends (Pardo 2009: 1110).

However, if this is the case then it is possible to raise another objection: are not second-order proof rules *redundant*?

Having in mind the two epistemic goals mentioned above, why are second-order proof rules to be preferred over other interpretative directives? Epistemic goals defended by Pardo do not seem to be contrary to the “traditional” interpretive directives such as systematic interpretation and/or teleological interpretation. One can argue that Pardo’s second-order proof rules are *implied* in interpretative directives such as teleological interpretation. If so then it seems that Pardo’s proposal of explanatory criteria of interpretation is a specification of the teleological interpretative directive: a normative claim that teleological interpretation *ought* to be understood in an explanatory fashion. Of course, due to issues of ambiguity, it is possible to defend that the teleological directive contains several different meanings other than the ones endorsed by Pardo.

If second-order rules are already contained in some other interpretative directives then these rules are *redundant*: it is possible to achieve the same result without adding new rules to the legal system.

Furthermore, even if we understand second-order proof rules as specific interpretative directives for standards of proof, this approach does not solve issues of indeterminacy, nor does it address the n-rule objection<sup>24</sup>.

Yet, a possible way to avoid the redundancy objection could be reconstructing Pardo’s rules not as some sort of *autonomous* second-order proof rules but as *how* the interpretation of first-order proof rules by applying some teleological interpretative directive *ought* to be done. Following Spaak «(t)he *teleological* approach asks the judge to interpret a statutory provision so as to carry out its *purpose*. The idea is to think of the interpretation, P\*, of a provision, P, as *means* to an *ends*» (Spaak 2007: 49). In this case P\* *ought* to be understood as Pardo’s second-order proof rules proposal.

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<sup>24</sup> See § 6.

This seems to be the most sensible strategy to save Pardo's thesis. This approach opens several other directions of discussion. I will not develop them but however, I will identify, at least, three. First, questions regarding the nature of the interpretative act: '*is it interpretation of legal rules or creation of legal rules?*' (Guastini 2013: 44-50) Second, questions regarding the justification of the interpretation of first-order proof rules: «*is Pardo's proposal logically entailed in the first-order proof rules? Or is its justification to be found elsewhere?*» (Caracciolo 2013: 15-20). Third, questions of *application* of the interpretation of first-order proof rules: This approach operates only when dealing with interpretation *in abstracto*. Hence, it says nothing about interpretation *in concreto*. The interpreter would still need to deal with problems of vagueness.

## 8. Conclusion

In my view Pardo fails to deliver a viable solution to the problem of indeterminacy of standard of proof rules. Three criticisms were raised: the legal interpretation/epistemology confusion, the indeterminacy criticism, and the redundancy critique.

The first objection has to do with confusion between statements of proof and statements of fact. The former has to do with determining the level of sufficient evidence. This is a matter of legal interpretation. In other words, by interpreting standard of proof rules we can only aim at establishing the evidentiary threshold prescribed by the legal system. It does not say anything about the epistemic quality of the decision about facts in law. However, on Pardo's thesis, second-order proof rules aims at determining the best explanation for a set of evidence. This is a matter of epistemology. From this point of view, second-order proof rules do not provide guidance for determining the threshold established by the standard of proof but they aim to select the best explanation. As I have claimed this is the result of Pardo confusing matters of interpretation with matters of epistemology.

The second criticism states that second-order proof rules are not suitable to resolve the indeterminacy of the standards of proof rules because they are indeterminate in themselves. If we accept Pardo's proposal then we will be in a situation of *infinite regress* in which x-order proof rules will be needed.

The third objection claims if we are to understand second-order proof rules as specific interpretative directives for standard of proof rules, then we need to face the argument that these rules are not only indeterminate but also redundant.

However, it is possible to reconstruct Pardo's proposal in a way that second-order proof rules are not rules in themselves but the *meaning* of first-order proof rules. In other words, how we *ought* to interpret first-order proof rules when applying a teleological interpretative directive. If this is the case it is possible to reduce ambiguity. However, we would still need to face problems of vagueness when deciding if the means of proof at hand reaches the evidentiary threshold set by the interpreted standard of proof. But that is another issue.

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