Legal vs. Quantified Definitions of Standards of Proof*

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Three laboratory experiments were conducted to compare legal (unquantified) definitions of three standards of proof ("preponderance of the evidence," "clear and convincing evidence," and "beyond a reasonable doubt") with quantified definitions, in which the standards of proof were expressed in probability terms (51%, 71%, and 91% probability of truth). In the first experiment, the quantified definitions had their intended effect—verdicts favoring the plaintiffs decreased as the standard of proof became stricter—but the legal definitions did not have their intended effect. These results were replicated in the second experiment; in addition, jury instructions that combined the two types of definitions (legal and quantified) did not have their intended effect. Results of the third experiment suggest that some legal definitions may be able to communicate their intended difficulty level when they appear in a comparative context.

INTRODUCTION

Candor suggests that, to a degree, efforts to analyze what lay jurors understand concerning the differences among these three (standards of proof) or the nuances of a judge’s instructions on the law may well be largely an academic exercise; there are no directly relevant empirical studies ... We probably can assume no more than that the difference between a preponderance of the evidence and proof beyond a reasonable doubt probably is better understood than either of them in relation to the intermediate standard of clear and convincing evidence. Nonetheless, even if the particular standard-of-proof catchwords do not always make a great difference in a particular case, adopting a "standard of proof is more than

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In cases involving individual rights, whether criminal or civil, "[t]he standard of proof [at a minimum] reflects the value society places on individual liberty." (Addington v. Texas, 1979, pp. 424, 425) (citations omitted).

In our legal system, parties initiating lawsuits carry what is called the burden of proof (Cleary, 1972); they must prove whatever facts are necessary to establish their legal claims. Thus, in civil suits plaintiffs must show that the facts favor their version of the case in order to obtain favorable verdicts. Similarly, in criminal trials the prosecution must present evidence showing that the defendants committed certain acts, in order to obtain convictions. If the trier of fact—the judge or the jury—is not satisfied with the plaintiffs' evidence, then the plaintiffs must lose (while "plaintiff" typically refers only to the party initiating a civil suit, we shall use it in this article to indicate the initiating party of any action, civil or criminal).

Factual determinations in court must sometimes be based on very limited evidence. The trier of fact has no generally available procedure by which to suspend judgment pending additional evidence, however desirable or valuable such evidence would be. At the end of the trial, the trier of fact must render a final and definitive decision regarding the facts in dispute, based on the evidence presented at trial (a jury may deadlock, but this would require another trial). Two important and related points follow from this necessity to reach a verdict. First, the factfinder can never be absolutely certain of the facts in dispute. As Justice Harlan noted in In re Winship (1970), "All the factfinder can acquire is a belief of what probably happened" (p. 370). The second point, which follows from the first, is that the trier of fact will sometimes make erroneous decisions. Such errors fall into two categories. First, plaintiffs may prevail when the true facts actually warrant a determination for defendants (false positives). Second, defendants may prevail when the true facts actually favor plaintiffs (false negatives).

This much is the same for any case, civil or criminal, that is tried in court. What differs from case to case is the degree to which the trier of fact must be satisfied that the necessary facts have been established. This degree of satisfaction is called the standard of proof and takes three basic forms: (a) "preponderance of the evidence," the standard used in most civil cases; (b) "beyond a reasonable doubt," the standard used in criminal trials; and (c) "clear and convincing evidence," an intermediate standard. It is the purpose of the standards of proof to instruct the trier of fact as to the expected level of confidence in the factual determination and to allocate between plaintiffs and defendants the risks of erroneous decision making (In re Winship, 1970).

The lowest standard of proof, "preponderance of the evidence," asks whether the existence of a fact is more probable than its nonexistence. Thus, the standard requires a plaintiff to establish the probability of the disputed facts by something over 50% (McCauliff, 1982; Simon, 1969). The legal system assumes that this standard divides the risk of erroneous decisions in roughly equal fashion between plaintiffs and defendants (Addington v. Texas, 1979; Kaplan, 1968). This assumed equal allocation of error is used exclusively in civil cases, since society's