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REASONABLE DOUBT AND PERMISSIVE INFERENCEs: THE VALUE OF COMPLEXITY

Charles R. Nesson*

Permissive inferences have long served to assist state and federal prosecutors by authorizing juries to infer an essential element of a crime from proof of some other fact commonly associated with it. Professor Nesson argues, however, that this type of presumption accomplishes the goals of its legislative authors by necessarily subverting those aspects of the criminal adjudication system that tend most to secure public respect for trial verdicts. To avoid this result, he proposes alternative ways of achieving the legitimate purposes behind permissive inferences, with particular emphasis on the pending revision of the Federal Criminal Code.

LEGISLATURES typically enact permissive inferences ¹ in order to assist prosecutors in proving criminal offenses when the prosecution’s best evidence on one of the elements is (a) wholly circumstantial and (b) not entirely convincing. Such statutory declarations have permitted the trier of fact to infer, for example, that a person intends to avoid payment for utility service if he tampers with the service meter; ² or that a person is operating a whiskey still if he is found present at the site; ³ or that certain narcotics found in a person’s possession were illegally imported and that the person knew them to be so.⁴

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¹ A permissive inference is a statement addressed to factfinders which says: “If you find the existence of fact A, then you may (but need not) infer the existence of fact B.” It is one species of the generic term “presumption,” which encompasses a variety of standardized inferential links between the existence of two facts (or sets of facts), called the predicate fact and the presumed fact. In the above example the predicate fact is “A,” and the presumed fact is “B.” See generally Ashford & Risinger, Presumptions, Assumptions, and Due Process in Criminal Cases: A Theoretical Overview, 79 Yale L.J. 165 (1969); Underwood, The Thumb on the Scales of Justice: Burdens of Persuasion in Criminal Cases, 86 Yale L.J. 1399 (1977).


Other examples include Cal. Penal Code § 476a(c) (West Supp. 1979) (nonpay-
Each such effort by the legislature to assist the prosecution, however, creates problems of constitutional dimension for the criminal justice system.

If the only evidence offered by the prosecution at trial is, for example, that the defendant was present at an illegal still, would a jury be warranted in finding beyond a reasonable doubt that the defendant was operating the still? On what basis would the jury make the inferential leap from "presence" to "operating," and how would a court on review rationalize that inference other than by an ipse dixit pronouncement?

Since due process requires that the prosecution in a criminal case prove each and every material element of a criminal offense beyond a reasonable doubt, it seems to follow that for each per-

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missive inference the courts would have to ask whether demonstration of the predicate fact could be reasonably understood to prove the fact to be inferred beyond reasonable doubt. But if the contexts which engender legislative declarations of permissive inferences are typified by weak circumstantial proof, then courts evaluating the legislative declaration will often find themselves pushed to the limit to justify the inference. Any serious analysis of the validity of a specific permissive inference necessarily depends on the meaning of reasonable doubt. Yet this marvellously useful concept has long resisted rigorous definition, and this resistance, in turn, frustrates attempts to analyze and justify specific inferences.

What the Supreme Court has done is to question whether legislatively declared permissive inferences need satisfy the reasonable doubt standard, or whether, because of their legislative

not include the nonexistence of a fact which if proven would constitute a statutory defense.

6 This approach has been adopted by several state courts, see, e.g., State v. Searle, 339 So. 2d 1194, 1205 (La. 1976); Commonwealth v. Turner, 456 Pa. 116, 121 n.3, 123, 317 A.2d 298, 300 n.3, 301 (1974), and by some federal courts, see, e.g., United States v. Johnson, 433 F.2d 1160, 1168 (D.C. Cir. 1970).

7 See generally 9 J. Wigmore, Evidence § 2497 (3d ed. 1940). Two examples Wigmore gives of definitions of reasonable doubt are:

[Reasonable doubt] is that state of the case, which, after the entire comparison and consideration of all the evidence, leaves the minds of jurors in that condition that they cannot say they feel an abiding conviction, to a moral certainty, of the truth of the charge. . . . The evidence must establish the truth of the fact to a reasonable and moral certainty,—a certainty that convinces and directs the understanding, and satisfies the reason and judgment. . . . This we take to be proof beyond a reasonable doubt.

Id. at 317–18 (quoting Commonwealth v. Webster, 59 Mass. (5 Cush.) 295, 320 (1850) (Shaw, C.J.).)

Proof 'beyond a reasonable doubt' is not beyond all possible or imaginary doubt, but such proof as precludes every reasonable hypothesis, except that which it tends to support.

9 J. Wigmore, supra, at 317 n.3 (quoting Commonwealth v. Costley, 118 Mass. 1, 24 (1875) (Gray, C.J.).).

Some have defined the concept in probabilistic terms: for example, proof beyond a reasonable doubt means "that the facts upon which guilt depends shall be established as almost certainly true." McBaine, Burden of Proof: Degrees of Belief, 32 Calif. L. Rev. 242, 258 (1944) (emphasis added).

The drafters of the Model Penal Code, though requiring proof "beyond a reasonable doubt" for all material elements, Model Penal Code § 1.12(1) (Proposed Official Draft 1962), made "[n]o effort to define it, "in the view that definition can add nothing helpful to the phrase." Id. § 1.13, Comment at 109 (Tent. Draft No. 4, 1955).

Dean Wigmore came to much the same conclusion, writing: "[W]hen anything more than a simple caution and a brief definition is given, the matter tends to become one of mere words, and the actual effect upon the jury, instead of being enlightenment, is likely to be rather confusion, or, at the least, a continued incomprehension." 9 J. Wigmore, supra, § 2497, at 318–19.
origins, they need only meet the less onerous "more probable than not" standard. But having posed this preliminary question in successive cases, the Court has always found the means to avoid answering it. According to the Court, each permissive inference which it has been called upon to evaluate has either been so weak and irrational as to fail even the less onerous standard or so strong as to pass the more stringent standard of reasonable doubt. The testing, intermediate situation has supposedly never arisen. As a result, attention has been diverted from the truly difficult questions which permissive inferences pose.

Analysis is further complicated by the fact that permissive inferences come in a variety of forms. Some permissive inferences bear directly on culpability. The inference from "presence" to "operating" an illegal still — the essence of the offense — is an example. For such permissive inferences one could well understand a requirement that the inference be strong enough to support a conclusion of guilt beyond a reasonable doubt. Indeed, any less rigorous evaluation would effectively enable the legislature to authorize convictions where guilt was not proved beyond reasonable doubt.

By contrast, other permissive inferences apparently bear only on jurisdiction and have little to do with culpability. The inference from possession of heroin to the conclusion that the heroin was imported is an example. Congress apparently included importation as an element of the federal offense not because it related to culpability, but because it provided a basis for regulating conduct traditionally left exclusively to the states' police power. It would not seem unreasonable to differentiate such nonessential elements, and inferences relating to them, from the elements and inferences bearing on culpability, and to accord the legislative branch greater leeway with the former.

To date, however, the Supreme Court has passed by opportunities to differentiate one element of a criminal offense from another in terms of the applicable standard of proof. Legislatures are accorded tremendous latitude in defining a crime, but this virtually unlimited authority over substantive definition of crimes is coupled with an uncompromising, almost formalistic insistence by the Court that "every fact necessary to constitute the crime,"

9 The history of the Court's refusal (or inability) to grapple with this issue is traced in Barnes v. United States, 412 U.S. 837, 841–43 (1973).
10 This perspective is pursued in detail in Fletcher, Two Kinds of Legal Rules: A Comparative Study of Burden-of-Persuasion Practices in Criminal Cases, 77 Yale L.J. 880 (1968). It can also be found in lucid, if terse, form in G. Fletcher, Rethinking the Criminal Law § 7.3.4 (1978).
however defined, be proven beyond a reasonable doubt. This insistence arguably reflects a fundamental judicial interest, distinct from those legislative concerns reflected in the definition of a particular crime, that the courts be seen as adjudicating the grounds for criminal liability only according to the most exacting and scrupulous standard. Thus, it does not follow that, because a legislature could choose either to include or to exclude a particular element in defining a crime, it could also choose the middle course of including it but authorizing its proof by a less demanding standard than that ordinarily employed in criminal cases.

In this Article, I argue that legislatively declared permissive inferences modify the procedural framework for adjudicating criminal cases in ways which erode its constitutional underpinnings. Part I explores the concept of reasonable doubt in order to provide a foundation for analyzing the problems posed by permissive inferences. It will demonstrate that the concept of reasonable doubt does not lend itself to being expressed in correlative probabilistic terms and, indeed, operates in an environment judicially structured to submerge probabilistic quantification in the factual complexity and uniqueness of specific cases.

Part II examines the approach the Supreme Court has taken toward permissive inferences against the background of the concept of reasonable doubt elaborated in Part I. It concludes (a) that the Supreme Court's attempt to frame the issues posed by permissive inferences in terms of the degree of correlation between predicate and conclusion is misconceived, and (b) that the analytic difficulties posed by permissive inferences stem from an inherent incompatibility between the way in which they frame the evidence for the jury on the one hand, and the nature of proof beyond reasonable doubt on the other.

Part III analyzes whether permissive inferences can be justified as mere burden-shifting devices which do not alter the ultimate necessity for proof beyond reasonable doubt. This in turn raises the question whether a burden can be thus shifted to a criminal defendant to come forward with some innocent explanation for an otherwise incriminating circumstance. This

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12 Cf. Silver v. New York Stock Exch., 373 U.S. 341 366 (1963) ("Experience teaches . . . that the affording of procedural safeguards, which by their nature serve to illuminate the underlying facts, in itself often operates to prevent erroneous decisions on the merits from occurring."); McNabb v. United States, 318 U.S. 332, 347 (1943) ("The history of liberty has largely been the history of observance of procedural safeguards.").
question, it will be shown, implicates two distinct constitutional rights, the fifth amendment right not to testify and the right to be presumed innocent until the prosecution has demonstrated guilt beyond reasonable doubt. Both of these rights are compromised by permissive inferences to a far greater degree than the Supreme Court has recognized.

Part IV proposes changes in the ways legislatures formulate and courts handle permissive inferences, and suggests particular improvements for the proposed new Federal Criminal Code \textsuperscript{13} now before Congress. These changes would provide alternative ways to effectuate the legislative purposes behind permissive inferences without impinging upon fundamental procedural values of the judicial structure for adjudicating crimes.

I. REASONABLE DOUBT AND CIRCUMSTANTIAL INFERENCE: THE VALUE OF COMPLEXITY AND IMPRECISION

The key problem with permissive inferences is that they isolate and abstract a single circumstance from the complex of circumstances presented in any given case, and, on proof of that isolated fact, authorize an inference of some other fact beyond reasonable doubt. Conviction is authorized by the permissive inference in all cases in which the predicate fact appears, even though the correlation between the predicate fact and the element to be inferred is less than perfect. Permissive inferences thus permit juries to avoid assessing the myriad facts which make specific cases unique. Analysis, as Supreme Court opinions demonstrate, is drawn to likelihoods.\textsuperscript{14} The thesis pursued here is that any structure which reduces criminal cases to a simplified assessment of what might be called the "chances of guilt" is fundamentally at odds with the concept of reasonable doubt, and hence to be discouraged as a mode of determining the ultimate question of guilt or innocence.

To illustrate this argument, consider the following hypothetical case. In an enclosed yard are twenty-five identically dressed prisoners and a prison guard. The sole witness is too far away to distinguish individual features. He sees the guard, recognizable by his uniform, trip and fall, apparently knocking himself out. The prisoners huddle and argue. One breaks away from the others and goes to a shed in the corner of the yard to hide. The other twenty-four set upon the fallen guard and kill him. After the killing, the hidden prisoner emerges from the shed and mixes with the other prisoners. When the authorities later enter the yard, they find the

\textsuperscript{13} S. 1437, 95th Cong., 2d Sess. (1978) [hereinafter cited as S. 1437].

\textsuperscript{14} See pp. 1206, 1207–08.
dead guard and the twenty-five prisoners. Given these facts, twenty-four of the twenty-five are guilty of murder.

Suppose that a murder indictment is brought against one of the prisoners—call him Prisoner 1. If the only evidence at trial is the testimony of our distant witness, it would seem that a verdict of acquittal must be directed for the defendant. The prosecution’s best case is purely statistical. Nothing distinguishes Prisoner 1 from the other twenty-four prisoners. The odds may be twenty-four in twenty-five that the defendant was one of the murderers, but there is no way, on this evidence, that a jury could form an “abiding conviction” that the defendant was guilty. A conclusion that Prisoner 1 was guilty, a court would say, could be based only on speculation, for there is no basis in the evidence for differentiating the defendant from the other prisoners.\(^\text{15}\)

But suppose the prosecution puts on Prisoner 2, who testifies that it was he who disassociated himself from the others and hid in the shed. If Prisoner 2 is to be believed, it follows that Prisoner 1 must have been one of the twenty-four who participated in the murder. The addition of this testimony would likely make the prosecutor’s case strong enough to withstand a directed verdict and go to the jury. This would be so, moreover, even if Prisoner 1 were to take the stand and assert that it was he, not 2, who hid in the shed. Since a jury could choose to credit the testimony of Prisoner 2 over that of Prisoner 1, they could conclude that Prisoner 1 was guilty. In refusing to direct a verdict of guilty, the trial judge would reason that matters of credibility are for the jury to determine, not for the judge.

The prosecution might also bolster its purely statistical case with additional circumstantial evidence against Prisoner 1. Suppose the prosecution offered evidence that Prisoner 1 had previously had a fight with the guard and had threatened to kill him if the chance ever arose. Then the case would depend, in addition to the numbers, on an evaluation of the significance of the defendant’s hostile feelings about the guard and the likelihood, given those feelings, that Prisoner 1 would have refused to participate in the killing. Once again, the case will go to the jury.

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\(^{15}\) Courts have found the difference between rational inference and speculation difficult to define. See Curley v. United States, 160 F.2d 229, 232-33 (D.C. Cir. 1947):

If [the judge] concludes that upon the evidence there must be such a doubt in a reasonable mind, he must grant the motion [for directed verdict of acquittal] . . . . In a given case, particularly one of circumstantial evidence, that determination may depend upon the difference between pure speculation and legitimate inference from proven facts. The task of the judge in such a case is not easy, for the rule of reason is frequently difficult to apply, but we know of no way to avoid that difficulty.

See also Borum v. United States, 380 F.2d 595 (D.C. Cir. 1967).
Why should it be that the high likelihood but starkly numerical case is thrown out of court 16 while the cases based on self-serving testimony or additional circumstantial evidence will be put to the jury? The question becomes truly puzzling when one considers that even a case in which the quantifiable likelihood of guilt was much lower — for example, where originally only two prisoners were in the yard — might be allowed to go to the jury as long as the prosecutor’s case was bolstered by additional circumstantial evidence or by other evidence distinguishing the defendant.

Why should evidence which generates a clearcut mathematical statement of the likelihood of guilt be considered insufficient, even when the probability of guilt is high, while other evidence of a testimonial or circumstantial nature is much more readily considered by the courts to be sufficient to sustain a prosecutor’s case? 17 Do we actually consider the jury to be accurate in assessing the credibility of witnesses and the strength of circumstantial evidence? Or are some risks of inaccurate verdicts more acceptable than others?

The generally articulated and popularly understood objective of the trial system is to determine the truth about a particular disputed event. But another, perhaps even paramount, objective of the trial system is to resolve the dispute. Generally speaking, these objectives are compatible, but not necessarily so. In an earlier time, trial by ordeal may have functioned effectively as a means of adjudication, not because it produced true results, but because the populace thought it did, and therefore respected its results. 18 From an instrumentalist viewpoint, authoritative resolution might even today seem to be the real goal, with ascertainment of the truth but a useful means to that end. 19

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16 This has long been acknowledged in civil cases, where a lower standard of proof obtains. See, e.g., Guenther v. Armstrong Rubber Co., 406 F.2d 1315, 1318 (3d Cir. 1969) (dictum); Smith v. Rapid Transit, Inc., 317 Mass. 469, 58 N.E.2d 754 (1945); Sargent v. Massachusetts Accident Co., 307 Mass. 246, 250, 29 N.E.2d 825, 827 (1940) (dictum).

17 Professors Hart and McNaughton posed, but did not resolve, the analogous problem in a civil context. Hart & McNaughton, Evidence and Inference in the Law, in Evidence and Inference 45, 52–53 (D. Lerner ed. 1958). See also Smith v. Rapid Transit, Inc., 317 Mass. 469, 58 N.E.2d 754 (1945). I intend to address this problem and the problem of inference and speculation in the civil context in a future article.


19 See Hart & McNaughton, supra note 17, at 52 (trials function as "society’s last line of defense in the indispensable effort to secure the peaceful settlement of social conflict"); O. Holmes, The Common Law 36 (Howe ed. 1963) ("If people would gratify the passion of revenge outside the law, if the law did not help them,
Our criminal justice system seeks to produce authoritative finality by inducing the general public to defer to jury verdicts. Each member of the observing public is made to understand that a group of persons like himself has carefully examined the evidence, observed and evaluated the witnesses, and decided that the defendant is guilty only if guilt is clear beyond reasonable doubt. The strategy of the system is to seek the observers' acceptance of the jury as a surrogate decisionmaker, trusted because it is understood to be an impartial, responsible, and representative body, operating in a fair and structured system and deciding according to an exceedingly strict standard of guilt.\(^{20}\)

The trial system presents the jurors with an array of facts, assertions, contradictions, and ambiguities, and then obtains a verdict difficult to disagree with because the secrecy of the jurors' deliberations and the general nature of the verdict make it hard to know precisely on what it was based.\(^{21}\)

The Prisoner's Case is uncongenial to this model because it lacks the ambiguities and complexity which facilitate public deference to a jury's verdict. The facts in the Prisoner's Case

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the law has no choice but to satisfy the craving itself, and thus avoid the greater evil of private retribution.\(^{3}\)).

\(^{20}\) Use of the reasonable-doubt standard is indispensable to command the respect and confidence of the community in applications of the criminal law. It is critical that the moral force of the criminal law not be diluted by a standard of proof that leaves people in doubt whether innocent men are being condemned. It is also important in our free society that every individual going about his ordinary affairs have confidence that his government cannot adjudge him guilty of a criminal offense without convincing a proper factfinder of his guilt with utmost certainty.

\(^{21}\) A similar perception of the criminal justice system is clearly discernible in the Supreme Court's recent treatment of the death penalty. In Furman v. Georgia, 408 U.S. 238 (1972), the Court majority seemed to agree that the key to determining whether a particular scheme of capital punishment is constitutional is whether an outside observer could discern the grounds on which some defendants were spared while others were executed. See id. at 245 (Douglas, J., concurring); id. at 276–77, 293–95 (Brennan, J., concurring); id. at 312–13 (White, J., concurring); id. at 364–66 (Marshall, J., concurring); id. at 400 (Burger, C.J., dissenting); Note, Discretion and the Constitutionality of the New Death Penalty Statutes, 87 Harv. L. Rev. 1690, 1693–94 (1974). Furman's supposed requirement of consistency of results has since been abandoned, however, in favor of one mandating wide discretion for trial sentencers; they now must be permitted to consider any pertinent factor offered by a defendant in mitigation. Lockett v. Ohio, 48 S.Ct. 2954, 2965 & n.12 (1978); see The Supreme Court, 1977 Term, 92 Harv. L. Rev. 57, 105–08 (1978). In other words, the Court has moved from a sentencing structure that would make it possible to verify independently the consistency of sentencing outcomes, to one that encourages the public simply to defer to the trial sentencer's judgment.
are simple, uncontested, and easily communicated. Their implications are clear. The general observer knows that the likelihood of Prisoner 1's innocence is one in twenty-five, and nothing presented to the jury puts it in any better position to judge. Moreover, while it may seem a "good bet" that Prisoner 1 is guilty, there is no basis for considering him more likely to be guilty than any other prisoner. No facts specific to the assessment of Prisoner 1's case permit a bridge from the general proposition that most persons in Prisoner 1's position are guilty to the specific conclusion that Prisoner 1 is guilty.

By contrast, when Prisoner 2 testifies that Prisoner 1 was among the killers, it becomes impossible to quantify the likelihood of Prisoner 1's guilt, since the likelihood depends on how one assesses the credibility of Prisoner 2. This assessment provides the basis for reasoning from the generalized statement of the odds of any prisoner being guilty to a specific conclusion about Prisoner 1's guilt. Evidence of threats by Prisoner 1 against the guard provides an equivalent bridge. The likelihood, again, would depend on how one assessed the significance of the threats, and this in turn could provide the essential link from the general to the specific. In the absence of supplementing testimony or circumstantial evidence of the threats, one cannot mistake the odds. Much as we may respect the intuitive or perceptive abilities of juries in grasping essential truth, we must admit that the coldly statistical case gives them no opportunity to exercise that perception or intuition. Thus, there will be nothing in their verdict which will justify deference to it.

Moreover, a guilty verdict in the coldly statistical case would explicitly quantify the concept of reasonable doubt. It would announce that the jury regarded a probability of twenty-four in twenty-five as sufficient to convict, and that the courts and the "law" likewise regard such likelihood of guilt sufficient. Yet such quantification seems to undercut a central feature of the concept of reasonable doubt, namely its utility in legitimating the imposition of criminal blame and punishment. The concept of reasonable doubt speaks to the psychological need to forestall continued worry about the validity of guilty verdicts. As long as the concept is left ambiguous, members of the observing public may assume that they share with jury members common notions of the kinds and degree of doubt that are unacceptable. This assumption is fostered by the cross section rules of jury selection, by the bias against special verdicts in criminal cases, and by the rules which generally discourage postverdict inquiry into

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the jurors’ reasoning processes. To the extent that the assumption exists of a shared concept of the necessary standard of proof, general acceptance of the judgments of guilt rendered by jurors under that standard will be facilitated.

Viewed in this light, it becomes clear that precise attempts to define the concept of reasonable doubt undercut its function. Each of us, in effect, has his own subjective sense of when a chance of innocence can be disregarded as de minimis, but our respective senses are surely different. If guilty verdicts, once rendered, continued to be questioned because of disagreement about the precise de minimis notion to apply, acceptability would be undermined, and the process of adjudication, to that extent, would have failed to accomplish one of its major objectives. Reasonable doubt defies exact definition precisely because it is a concept meant to encompass many different, individual views of how probable guilt must be (or how unlikely innocence must be) to warrant conviction. The closer reasonable doubt comes to explicit quantification, the more any notion of it being a shared concept will break down. It is, therefore, not surprising that the rules of the trial system prevent convictions from occurring in situations which lend themselves to quantification of the concept.


25 Professor Tribe also advises against the use of a quantified standard of guilt, writing:

[1]t may well be . . . that there is something intrinsically immoral about condemning a man as a criminal while telling oneself, “I believe that there is a chance of one in twenty that this defendant is innocent, but a 1/20 risk of sacrificing him erroneously is one I am willing to run in the interest of the public’s — and my own — safety.”


His concern, however, is not with the institutional costs incurred whenever the criminal process exposes itself to easy and obvious criticism, but rather with the way jurors do, and (morally) ought to, think. He argues that any quantification of guilt is a highly artificial model of a juror’s thought process — in reality, a juror would describe himself as being “completely sure,” or “as sure as possible.” And this, Professor Tribe tells us, is precisely the attitude we desire, since although juries will inevitably make mistakes, even when they believe themselves to be certain, “such unavoidable errors are in no sense intended.” Though errors must occur, we need not institutionally encourage or sanctify them by defining an “acceptable’ risk of error.” Tribe, _Trial by Mathematics, _supra, at 1374.

Cases in which resolution depends upon the assessment of the credibility of witnesses are particularly suited to adjudication by the jury process. Because of the secrecy surrounding the jury's deliberations, observers have difficulty learning what probability values (what likelihood of credibility) the jurors attached to the statements of the witnesses. Additionally, jurors are acknowledged to be in a better position than outsiders to observe and evaluate the demeanor and credibility of witnesses. Credibility issues tend, therefore, both to put the jurors in a better position than an outside observer to judge the case, and to insulate the jurors' precise standard of judgment from determination and criticism by outside observers. For these reasons, issues of credibility provide a basis for the outside observer to defer to a jury's verdict.

Ambiguous circumstantial evidence has much the same effect. In the variation of the Prisoner's Case in which evidence is presented of an earlier threat, a jury verdict of guilty makes no clear statement about probabilities. The jury's task of assessment is complex and ambiguous, involving a variety of circumstantial detail such as the content of the threat, how it was made, and the personality of the defendant. In one important respect, however, circumstantial inference differs from inference based on credibility. Since circumstantial evidence can often be described, recorded, understood, and judged by outside observers to a greater degree than can the evanescent qualities of witness demeanor, the jury's verdict, when based on circumstantial inference, will not be as well insulated from criticism as in credibility cases. This substantially contributes to the air of caution which always surrounds a case based solely on circumstantial evidence. Nevertheless, only by knowing what probability the jury attached to the possibility of the prisoner carrying out his threat could one translate the jury's verdict into a probability statement. And the assignment of any particular probability would be as subjective in this instance as it would be in assessment of witness credibility. Thus the assessment of the likelihood of guilt based on complex and ambiguous circumstantial data, like the assessment of the likelihood of guilt based on conflicting eyewitness testimony, will be insulated by the secrecy of jury deliberation, and by the generality of the verdict rendered under the reasonable doubt standard.

What emerges is that the process of criminal adjudication requires something more than a high probability of a defendant's guilt. A trial is intended to gather all available relevant information bearing on what happened. If, at the conclusion of the evidence, any uncertainty remains about whether the defendant committed the crime, it is unlikely ever to be resolved. It is the
function of the jury to produce an acceptable, albeit artificial, resolution of just such conflicts, and by its verdict to put to rest any lingering doubts. If the jury is to discharge this function successfully, the jurors must not only express their beliefs in the defendant’s guilt by their verdict, but also the evidence upon which the jurors deliberated must do more than establish a statistical probability of the defendant’s guilt: it must be sufficiently complex to prevent probabilistic quantification of guilt. Some uncertainty will almost always be present in criminal cases, but so long as the evidence prevents specific quantification of the degree of that uncertainty, an outside observer has no reasonable choice but to defer to the jury’s verdict. Against this background, let us now turn to the Supreme Court’s handling of permissive inferences.

II. The Traditional Approach

The modern line of Supreme Court cases began with Tot v. United States, a prosecution under a section of the Federal

27 My conclusion in no way rests on any supposed deficiencies in mathematical theories of evidence. Indeed, George Shafer has achieved a significant conceptual advance which relaxes the Bayesian requirement that probability statements assume that an event either did or did not occur, by incorporating a concept of uncertainty. That is, if bel(A) = x represents the statement that one’s belief in the likelihood of event A obtaining is x, then traditional probability requires that bel(A) + bel(not A) = 1. Shafer’s theory, on the other hand, merely requires that bel(A) + bel(not A) ≤ 1, with the result that one’s uncertainty equals the difference between unity and ((bel(A) + bel(not A))). This theory, which reduces to standard probability when one’s uncertainty is zero, clearly better models our intuitive perception of beliefs. See G. Shafer, A MATHEMATICAL THEORY OF EVIDENCE 22-25 (1976).

Mathematical models which force one to view a jury’s decision as a wager on a defendant’s guilt are clearly misconceived. When two wagerers bet, they share at least one assumption: that the future will produce information sufficient to resolve the uncertainty which forms the basis for the bet. This point is well made in L. Cohen, THE PROBABLE AND THE PROVABLE § 30 (1977), where Cohen concludes: “[T]o request a jurymen to envisage a wager on a past event, when, ex hypothesi, he normally knows all the relevant information obtainable, is to employ the concept of wager in a context to which it is hardly appropriate.” Professor Tribe attempts to rebut this argument by demonstrating that probability analysis applies not only to future occurrences, but to past events as well. Tribe, Trial by Mathematics, supra note 25, at 1344-46. The objection, however, is not that probabilities are relevant only to future happenings, but that implicit in any probabilistic bet is a potential for subsequent certainty, a potential certainly lacking in the adjudicatory process.

Nevertheless, mathematical theories of evidence do provide rigorous tools for thinking about our subjective assessments of the likelihood of past events — notwithstanding the impossibility of validating probability statements of guilt. The problem is that reduction of the complex facts of a specific case to a quantified statement would in turn invite quantification of the reasonable doubt standard by which guilt must be judged.

28 319 U.S. 463 (1943).
Firearms Act which made it unlawful for any person who had been convicted of a crime or was a fugitive from justice to receive a firearm in an interstate transaction.\textsuperscript{29} Congress perhaps need not have included the requirement of receipt in an interstate transaction in the statute. It might have been possible, as a means of regulating interstate commerce in firearms, to prohibit possession of \textit{all} firearms by persons who had been convicted of a crime of violence. In that event, federal jurisdiction could have been asserted on the basis of a congressional finding that broad regulation was necessary to control the interstate shipment of contraband firearms or the interstate movement of gunmen.\textsuperscript{30} But Congress chose instead to include this patently jurisdictional requirement as an element of the offense, and then sought to ease the prosecution’s task of proving it by declaring a permissive inference. The Act provided that “the possession of a firearm or ammunition by any such person shall be presumptive evidence that such firearm or ammunition was shipped or transported or received, as the case may be, by such person in violation of this Act.” \textsuperscript{31}

This provision was understood to embody two operational directions to the trial judge.\textsuperscript{32} First, it told him not to direct a verdict against the prosecution at the close of the government’s case if the prosecutor had introduced evidence of possession of a firearm by a fugitive or convicted felon, even though the prosecutor had introduced no direct evidence that the firearm had been obtained in an interstate transaction.\textsuperscript{33} Proof of the

\textsuperscript{29} Federal Firearms Act § 2(f), 52 Stat. 1250 (1938) (repealed 1968).

\textsuperscript{30} See pp. 1218–20 infra.

\textsuperscript{31} Federal Firearms Act § 2(f), 52 Stat. 1250 (1938) (repealed 1968).


\textsuperscript{33} In fact, the prosecution made no initial showing of interstate transportation, introducing only evidence of Tot’s possession of a .32 caliber Colt automatic pistol. After proving Tot’s prior conviction for a crime of violence, the prosecution rested, relying on the presumption to establish a prima facie violation of the Act. The defendant, a New Jersey resident, introduced testimony suggesting that he had owned the gun prior to the statute’s enactment, and the government rebutted with testimony that the gun was shipped by the Connecticut manufacturer to Illinois in 1919. The defendant then moved for a directed verdict, which was denied. United States v. Tot, 131 F.2d 261, 263, 267 (3d Cir. 1942), \textit{rev’d}, 319 U.S. 463 (1943).

Affirming the conviction, the circuit court held that interstate transportation had been presumptively proved since “[i]t is the duty of him against whom any presumption operates to produce evidence, not merely witnesses, and therefore he must satisfy the jury of the credibility of his witnesses.” \textit{Id.} at 267 (quoting Bohlen, \textit{The Effect of Rebuttable Presumptions of Law Upon the Burden of Proof}, 68 U. PA. L. REV. 307, 315 n.13 (1920)). The court continued: “Simply causing words to be uttered is not enough. . . . We think the most the defendant
latter fact was essential to a conviction, but the statute declared that proof of the predicate fact would be presumptive evidence of it. Second, it told the judge to instruct the jurors at the close of the evidence that they were authorized, but not required, to infer that the firearm had been obtained in an interstate transaction if they found that the defendant possessed the firearm and was a fugitive or convicted felon.

Tot successfully challenged his conviction in the Supreme Court on the ground that the particular permissive inference authorized by the statute was arbitrary and therefore unconstitutional. The Court recognized that a jury is often "permitted to infer one fact from the existence of another essential to guilt, if reason and experience support the inference," but held that was entitled to have was a fair submission of the question to the jury." *Id.* at 267–68.

34 Record at 41–43, Tot v. United States, 319 U.S. 463 (1943). The jury could not be told it was required to infer interstate transmittal from mere possession, since interstate transportation was defined by statute to be an element of the prima facie case, and "it is not within the province of a legislature to declare an individual guilty or presumptively guilty of a crime." McFarland v. American Sugar Ref. Co., 241 U.S. 79, 86 (1916), quoted with approval in Patterson v. New York, 432 U.S. 197, 210 (1977); accord, Davis v. United States, 160 U.S. 469 *passim* (1895); see 9 J. Wigmore, *supra* note 7, § 2495, at 312 n.12.

35 The court charged the jury regarding the presumption as follows:

Ordinarily there would be no presumption similar to the one in this case. The burden is on the United States, as I stated, to prove its case beyond a reasonable doubt. [But, there is a statutory presumption that possession implies interstate transportation.]

Does the testimony which has been offered on behalf of the defendant, if you find that he acquired the gun subsequent to June the 30th, 1938 [the date of the Act’s enactment], meet that presumption and cause you to have a reasonable doubt as to whether or not the gun was transported or shipped in interstate or foreign commerce? You are, as I have said and if I haven’t, I now say, the judges of the facts. . . .

This statute is drafted in the manner in which it is in order to meet a situation which would confront one attempting to prove transportation or shipment in interstate or foreign commerce by creating, as I have said, the presumption of transportation or shipment; and you must determine whether or not that presumption plus the other evidence which has been offered on behalf of the Government is sufficient to establish, beyond a reasonable doubt, that the defendant, subsequent to June the 30th, 1938, received Exhibit G–2, the gun, after it had been transported or shipped in interstate or foreign commerce. That is the question, ladies and gentlemen.

Record at 41–43, United States v. Tot, 319 U.S. 463 (1943).

Several commentators have suggested that juries need never be told of presumptions. See McCormick, *What Shall the Trial Judge Tell the Jury About Presumptions?*, 13 WASH. L. REV. 185, 185 (1938). The most that can be meant by such statements (e.g., "If the trial is properly conducted, the presumption will not be mentioned at all," Alpine Forwarding Co. v. Pennsylvania Ry., 60 F.2d 734, 736 (2d Cir. 1932) (L. Hand, J.)) is that the word "presumption" should not be used when instructing the jury, since it is fraught with connotations and will often confuse the jury. The effect of the presumption, whether it be to shift the burden of production or persuasion, or both, must still be communicated.

36 319 U.S. at 467.
the inference articulated by the firearm statute was irrational and arbitrary. 37 Tot thus established the so-called "rational connection" test: a legislature cannot constitutionally establish a permissive inference when there is no rational connection between the predicate fact and the fact to be inferred. Moreover, the Court held that it made no difference that Congress could have omitted the interstate-transaction element. 38 Congress had chosen to frame the statute as it did, and it was on that basis that the Court would judge it.

The Tot Court assumed that Congress could not constitutionally establish a mandatory inference bearing on an element in a criminal case. 39 The Court intimated, but did not hold, that a legislature could establish a permissive inference bearing on an element in a criminal case if a rational connection existed between the predicate fact and the fact to be inferred. 40 The Court did not address, and in Tot had no occasion to address, whether a legislative authorization to convict on the basis of a permissive inference which was merely rational would effectively alter the requirement of proof beyond reasonable doubt.

Implicit in the government's defense of the Tot statutory inference is the notion that Congress must have the power to give artificial strength to circumstantial cases. 41 But because the Court found that the permissive inference in Tot did not meet even a rationality standard, the issue was not further elaborated. That issue has been at the heart of permissive inference cases ever since: in judging a legislatively declared permissive inference, how strong must the connection be between the predicate fact and the conclusion inferred from it in order to sustain a conviction beyond reasonable doubt?

The Supreme Court should have confronted this question in United States v. Gainey. 42 Gainey was prosecuted for operating an illegal still. The evidence showed a rich circumstantial case against him. Federal agents observing the still before dawn saw Gainey and several companions drive up in a truck with the headlights off. Gainey got out carrying a flashlight, and started to run when he saw the officers. The others tried to drive the truck,

37 Id. at 467-68.
38 Id. at 472.
39 See note 34 supra.
40 319 U.S. at 467-68.
41 See Brief for the United States at 21, 26-27, 40-41, United States v. Delia, 319 U.S. 463 (1943).
42 380 U.S. 63 (1965), rev'g Barrett v. United States, 322 F.2d 292 (5th Cir. 1963).
which contained a full cylinder of butane gas similar to eight others found at the still.\textsuperscript{43}

There is no question that the evidence, if credited, was sufficient to warrant a finding beyond reasonable doubt that Gainey was operating the still.\textsuperscript{44} What is significant, however, is that the jurors could have disbelieved most of the evidence and still have returned a verdict of guilty merely on the basis of Gainey's presence at the site, for Congress had established the following permissive inference:

> Whenever . . . the defendant is shown to have been at the site or place where, and at the time when, the business of a distiller or rectifier was so engaged in or carried on, such presence of the defendant shall be deemed sufficient evidence to authorize conviction, unless the defendant explains such presence to the satisfaction of the jury (or of the court when tried without jury).\textsuperscript{45}

Much like the statute in \textit{Tot}, this statute had been understood to require the trial judge (a) not to direct a verdict for the defendant at the close of the prosecution's case so long as the prosecutor had offered proof of the defendant's presence at the still, and (b) to instruct the jurors at the close of all the evidence that if they were convinced that the defendant was present at the still, they were permitted to infer from his presence that he was operating the still.\textsuperscript{46}

Ironically, the strongest argument for the inadequacy of an inference based on mere presence appears in the trial judge's instructions in \textit{Gainey}. He made it clear that, if unconstrained by the statutory permissive inference, he would not consider a defendant's mere presence at a still an adequate basis for concluding that the defendant was operating it:

> I charge you that the presence of defendants at a still, if proved . . . would be a circumstance for you to consider along with all the other testimony in the case. Of course, the bare presence at a distillery and flight therefrom of an innocent man is not in and of itself enough to make him guilty. It is possible under the law for an innocent man to be present at a distillery, and

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\textsuperscript{43} 380 U.S. at 64 n.1; 322 F.2d at 294.
\textsuperscript{44} Insufficiency of evidence is not considered a constitutional issue; due process requires reversal only if there is no evidence to justify the conviction. See Thompson v. Louisville, 362 U.S. 190, 204 (1960). Justices Brennan, Stewart, and Marshall, however, wish to reconsider \textit{Thompson}. See Freeman v. Zahradnick, 429 U.S. \textbf{1111}, \textbf{1112-15} (1977) (Stewart, J., dissenting); \textit{id.} at \textbf{1120} (Marshall, J., dissenting).
\textsuperscript{45} 26 U.S.C. § 5601(b) (1976).
\textsuperscript{46} 380 U.S. at 68–71.
}
it is possible for him to run when about to be apprehended, and such an innocent man ought never to be convicted. . . .

The judge then suggested other circumstances which the jury should consider along with presence:

[P]resence at a distillery . . . is a circumstance to be considered along with all the other circumstances in the case in determining whether they were connected with the distillery or not. Did they have any equipment with them that was necessary at the distillery? What was the hour of the day that they were there? Did the officers see them do anything? Did they make any statements?

. . . Presence at a still, together with other circumstances in the case, if they are sufficient in your opinion to exclude every reasonable conclusion except that they were there connected with the distillery, in an illegal manner, . . . carrying on the business as charged . . ., would authorize you in finding the defendants guilty.

Having just explained why presence alone, wrenched out of its circumstantial context, would not be an adequate basis for conviction, the judge then met his obligation under the statutory presumption and gave the following instruction, which authorized the jury, based on presence alone, to infer beyond reasonable doubt that the defendant was operating the still:

[U]nder a statute enacted by Congress a few years back, when . . . the defendant is shown to have been at the site . . ., under the law such presence of the defendant shall be deemed sufficient evidence to authorize conviction, unless the defendant . . . explains such presence to the satisfaction of the jury.

This instruction tells the jurors in simple enough terms that if they are convinced that the defendant was at the site, then the law considers that fact alone sufficient to warrant a conclusion that the defendant was guilty of operating a still. In theory, then, the jurors could ignore or disbelieve all other facts in the case except proof of the defendant's presence, and yet properly return a guilty verdict. The instruction therefore poses the hard question inherent in criminal permissive inference cases: can Congress, consistent with the constitutional requirement that the elements of crimes be proven beyond reasonable doubt, authorize an inferential leap like that from the predicate fact of presence to the conclusion that the defendant was operating the still? That the jury may well have relied upon circumstances other

\[\text{380} \text{ U.S. at 69 (emphasis added).}\]

\[\text{Id.}\]

\[\text{Id. at 69-70.}\]
than mere presence does not insulate the instruction from attack if the route of inference which it authorizes is constitutionally unacceptable. If instructions permit two possible routes by which a jury can reach a guilty verdict, and one of those routes is defective, the case must be reversed.\footnote{50} Since the verdict is general, it is not possible to tell which route the jury followed, and thus each route must be acceptable.\footnote{51} For purposes of reviewing the challenged instruction in Gainey, the Court thus should have assumed that the jurors based their verdict solely on an inference from mere presence, as authorized by the instruction.

The Supreme Court upheld the permissive inference and approved the instructions which were given by the trial court, but did so only by avoiding the difficult questions posed by the jury instruction. First, the Court refused to view the case as framed by the two-routes rule. Instead, the Court stated that "[p]resence’ was one circumstance to be considered among many."\footnote{52} But since the objectionable aspect of the jury instruction was precisely that it authorized the jury to isolate the circumstance of mere presence from the many other circumstances and to convict on the basis of presence alone, the Court's statement is an unacceptable response to the problem posed. The Court also reasoned that the instruction was acceptable because the inference it authorized was permissive, not conclusive: the jurors were free to acquit if they felt that the government had not proved its case beyond a reasonable doubt.\footnote{53} This observation is true, but likewise fails to meet the objection to the instruction: the instruction as much as informed the jurors that they need not have a reasonable doubt that the defendant was operating the still if they were convinced beyond a reasonable doubt that he was present at the still site. That instruction does not become acceptable because the jury could ignore it. It


\footnote{51} A verdict in a criminal case must be set aside if it "is supportable on one ground, but not on another, and it is impossible to tell which ground the jury selected." Yates v. United States, 354 U.S. 298, 312 (1957); accord, Cramer v. United States, 325 U.S. 1, 36 n.45 (1945); Williams v. North Carolina, 317 U.S. 287, 292 (1942); Stromberg v. California, 283 U.S. 359, 367–68 (1931). But cf. Street v. New York, 394 U.S. 576, 611–12 (1969) (White, J., dissenting) (when statute creates multiple routes by which factfinder could have reached guilty verdict, but record clearly implicates one, only that one need withstand constitutional scrutiny). The Stromberg rule includes verdicts issued by a court sitting without a jury. Id. at 586.

\footnote{52} 380 U.S. at 70.

\footnote{53} Id.
should be considered acceptable only if, assuming that the instruction was followed and that as a result the jurors put aside any doubts they may have had, the inference which it authorized was valid when judged against the applicable standard of proof. Ultimately, the Gainey Court based its approval on a judgment that the permissive inference was rational, and then assumed that rationality was all that was required. The Court thus made no explicit attempt to harmonize the inference with the concept of reasonable doubt.

In United States v. Romano, decided the following Term, the Court dealt once again with a permissive inference based on presence at the site of an illegal still. In this instance, the statute authorized the jurors to infer that the person present at the still was in possession, custody, or control of it. The Court struck this inference down. Taking the two-routes rule as its point of departure, the Court first recognized that there was ample evidence in addition to the defendant’s presence to support the conviction for possession of the still, but then focused on the route to conviction authorized by the permissive inference.

Here, in addition to a standard instruction on reasonable doubt, the jury was told that the defendant’s presence at the still ‘shall be deemed sufficient evidence to authorize conviction.’ This latter instruction may have been given considerable weight by the jury; the jury may have disbelieved or disregarded the other evidence of possession and convicted these defendants on the evidence of presence alone. We thus agree . . . that the validity of the statutory inference in the disputed instruction must be faced and decided.

The Court distinguished Gainey on the grounds that presence at an operating still is sufficient evidence to prove the charge of operating or “carrying on” because anyone present at the site is “very likely,” “very probably,” connected with the illegal enterprise, while the inference from presence to possession or control is “‘arbitrary.’” The Court thus gave further currency to an evaluation of permissive inferences in terms of probability or likelihood, but, as in Gainey, did not consider how such an analytic framework would fit with the concept of proof beyond reasonable doubt.

That issue was finally articulated by Mr. Justice Harlan in

54 See id. at 66–68.
57 Id. at 138–39.
58 Id. at 140–41.
Leary v. United States. Leary dealt with the federal narcotics presumption authorizing jurors to infer from a defendant's possession of marijuana that the marijuana was illegally imported and that the defendant knew so. The Court concluded that while most marijuana was illegally imported, it was unclear whether even a majority of marijuana users "knew" their marijuana was imported. Therefore, the permissive inference from possession to knowledge failed the more-probable-than-not test derived from Tot and allowed the Court to avoid "the question whether a criminal presumption which passes muster when so judged must also satisfy the criminal 'reasonable doubt' standard."61

Turner v. United States dealt with federal narcotics presumptions for heroin and cocaine similar to the statutory inference struck down in Leary. The jury was instructed that it could infer, from proof that the defendant possessed heroin or cocaine, that the heroin or cocaine was illegally imported and that the defendant knew it to be. With respect to cocaine, the Court followed Leary's lead and invalidated the inference under the more-probable-than-not test.64 Based on its own survey of the facts about cocaine importation, the Court could not be sufficiently sure either that the cocaine Turner possessed came from abroad or that Turner must have known that it did. But with respect to heroin, the Court came to different conclusions. "To possess heroin is to possess imported heroin," since "little if any heroin is made in the United States"; thus, "Turner doubtless knew that the heroin he had came from abroad."66 These inferences, the Court concluded, satisfied even a reasonable doubt standard and therefore did not require resolution of the question of what minimum standard applied.67

In the first step of its analysis — the inference from possession to importation — the Court created one problem even as it attempted to solve another. The Court's solution to the problem of bridging the gap from aggregate likelihood to a conclusion in the specific case was to assert that the likelihood of heroin being imported was 100 percent. That solution is certainly logical, assuming the Court's facts about importation to be true. The manner in which those facts were introduced, however, is problem-

60 Id. at 32-37.
61 Id. at 36 n.64.
64 396 U.S. at 419.
65 Id. at 416.
66 Id.
67 Id. at 416-18.
atic. They were not in the record, had not been presented to the jury in any form, and were not of such a nature as to fall within common knowledge. This means that the jurors had been told that they could draw or not draw the inference of illegal importation (in accord with the permissive nature of the inference), but had no basis whatever for making the choice. The permissive inference was thus an invitation to arbitrariness.\(^{68}\)

The deficiencies of the Court's reasoning with respect to the inference from possession of heroin to knowledge of its illegal importation are even more fundamental. It simply does not follow that, because a fact is objectively true (e.g., that all heroin is imported), a person would "doubtless" know it to be true. The Court was "doubtless" in Turner only because it considered the fact of heroin possession in the actual context of the case. From Turner's possession of 275 bags of heroin, the Court inferred that he was a distributor, not a mere user, and therefore was "doubtless" aware that his heroin was imported.\(^{69}\) In considering this fact, the Court departed from the two-routes rule.

The Court has thus avoided answering the question Justice Harlan posed (but left unanswered) by compromising the integrity of its analysis in two ways. First, the Court has on some occasions simply refused to recognize that the instructions which embody permissive inferences authorize jurors to draw an inference from mere aggregate likelihood. No attempt is ever made by the Court to justify this approach or to distinguish cases in which it has applied the two-routes rule. Second, the Court has on other occasions found that the correlation between predicate and conclusion is perfect (e.g., heroin is illegally imported). Such a determination does meet the problem of reasoning from the aggregate to the specific case, but it does so at the cost of introducing factfinding techniques into criminal adjudication which are inconsistent with the accepted norm of asking jurors to make rational determinations based on the evidence before them.

### III. Lack of Satisfactory Explanation

It should be clear by this point that the concept of reasonable doubt is inconsistent with a procedure that permits an otherwise unassisted leap from aggregate likelihood to a conclusion of guilt in a specific case. There is, however, a frequent limitation on permissive inferences which, to some, has appeared to solve

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\(^{69}\) 396 U.S. at 416 & n.30.
the problem: the factfinder typically is only allowed to infer the requisite conclusion from the predicate fact if there is a lack of satisfactory explanation. In Gainey, for example, the jury was told that it was permitted to infer from the presence of the defendant at the still that he was operating the still, "unless the defendant . . . explains such presence to the satisfaction of the jury." The statute unsuccessfully challenged in Turner placed a similar qualification on the jury's authority to infer importation and knowledge from possession of heroin. If an inference can legitimately be drawn from a failure to explain a suggestive circumstance, that additional datum could bridge the gap between aggregate likelihood and a conclusion beyond reasonable doubt in the specific case. Moreover, if a defendant understands that an adverse inference will be drawn from the lack of a satisfactory explanation, the conclusion that there is no innocent explanation becomes more logical when he fails to offer one. Indeed, the statutory declaration of the permissive inference may be seen as notifying the defendant of the circumstances in which his passivity in defending will be counted against him. This, however, presents an obvious fifth amendment problem: is it constitutional to draw an inference against the defendant from his refusal to defend?

The fifth amendment is not a guarantee of acquittal. If the prosecution has offered proof which is sufficient to warrant a conclusion of guilt beyond reasonable doubt, a defendant may feel considerable pressure to take the stand and dispute the prosecution's case. Practically speaking, it may be his only chance for acquittal. The "compulsion" which the defendant feels in such a case is the natural consequence of the prosecution's presentation of a strong case, and clearly does not result in any violation of the fifth amendment.

But the situation created by permissive inferences is different. If proof of the predicate fact is sufficient to warrant a conclusion beyond reasonable doubt, then the case is no different from other cases in which the prosecution survives a motion for a directed verdict and puts to the defendant the


71 380 U.S. at 70.

72 396 U.S. at 406-07.

73 See U.S. Const. amend. V: "No person . . . shall be compelled in any criminal case to be a witness against himself . . . ." See Statutory Criminal Presumptions, supra note 70, at 174-77.

strategic choice of testifying or not. If, on the other hand, proof of the predicate fact alone is not sufficient to warrant a conclusion of guilt beyond reasonable doubt, then the permissive inference instruction, by requiring the defendant to put forward a satisfactory explanation, significantly changes the situation. Now it is not simply the force of the prosecution's proof which warrants a verdict and puts pressure on the defendant to testify. The defendant's decision not to explain himself becomes an essential part of the prosecution's case, and the pressure to testify now comes from the statutory inference which the jury is invited to draw from the lack of any satisfactory explanation.

This fifth amendment problem implicit in permissive inferences was first raised before the Supreme Court in 1925, in *Yee Hem v. United States.* The case involved a prosecution for concealing imported opium. The trial judge had instructed the jury in the terms typical of the federal narcotics presumption: whenever the defendant is shown to have possessed opium, "such possession shall be deemed sufficient evidence to authorize conviction [i.e., for the jury to find knowledge and importation] unless the defendant shall explain the possession to the satisfaction of the jury." Yee Hem challenged this permissive inference on the grounds that the "satisfactory explanation" clause made the permissive inference an unconstitutional burden on his right to remain silent.

The Supreme Court, by its own admission, "put aside" the question "with slight discussion." The permissive inference, said the Court, "compels nothing":

It leaves the accused entirely free to testify or not as he chooses. If the accused happens to be the only repository of the facts necessary to negative the presumption arising from his possession, that is a misfortune which the statute under review does not create but which is inherent in the case. The same situation might present itself if there were no statutory presumption and a *prima facie* case of concealment with knowledge of unlawful importation were made by the evidence. . . . [T]he constraint upon him to give testimony would arise there, as it arises here, simply from the force of circumstances and not from any form of compulsion forbidden by the Constitution.

There are two basic flaws in this reasoning. First, it ignores the question which this Article poses: can the prosecution be con-

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75 268 U.S. 178 (1925).
76 *Id.* at 182 (quoting Act of Feb. 9, 1909, ch. 100, § 2, 35 Stat. 614).
77 268 U.S. at 185.
78 *Id.*
sidered to have offered a prima facie case of knowledge and importation merely by proving possession? The Court in *Yee Hem* merely assumed an affirmative answer. Second, even if proof of mere possession could constitute a prima facie case, and thus constitutionally impel the defendant to explain his possession, it does not follow that the jury may be told that it can supplement the prosecution's case with an inference based on the defendant's silence. In *Griffin v. California*, the Court examined the difference between a conviction based on the strength of the prosecution's case and one based on the prosecution's case supplemented by an inference drawn from the defendant's decision not to testify, and held that neither prosecutor nor judge may urge the jury to draw an adverse inference from a defendant's silence.

The Court's language in the latter case is particularly germane here. The remarks of the prosecutor and the judge in *Griffin* were held to violate the privilege against self-incrimination because the California rule permitting comment upon the defendant's silence by the prosecutor was "in substance a rule of evidence that allows the State the privilege of tendering to the jury for its consideration the failure of the accused to testify." *Griffin* held that "when the court solemnizes the silence of the accused into evidence against him," the state is in practical effect exercising that compulsion which the fifth amendment forbids.

If one accepts the proposition that the aggregate likelihood presupposed by the permissive inference is not in itself enough to sustain a verdict beyond reasonable doubt, then any attempt to draw additional strength for the permissive inference from the defendant's lack of explanation means necessarily that the defendant's silence is functioning as an added piece of "evidence," "solemnized" by the statute and the jury instruction. *Griffin* thus suggests that permissive inferences must stand or fall on the strength of the inference to be drawn from the predicate

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The California constitution provided: "[I]n any criminal case, whether the defendant testifies or not, his failure to explain or to deny by his testimony any evidence or facts in the case against him may be commented upon by the court and by counsel, and be considered by the court or jury." Cal. Const. art. I, § 13, cl. 7 (1934, repealed 1974). The California Supreme Court had previously examined this provision in *People v. Modesto*, 62 Cal. 2d 436, 398 P.2d 753, 42 Cal. Rptr. 417 (1965) (Traynor, J.) (en banc), and had found it viable despite the United States Supreme Court's earlier holding in *Malloy v. Hogan*, 378 U.S. 1 (1964), applying the privilege against self-incrimination to the states through the fourteenth amendment.

80 380 U.S. at 613.

81 Id. at 614-15.
fact, unaided by any inference from the lack of satisfactory explanation.

The best defense of the "lack of satisfactory explanation" language against fifth amendment challenge is not to deny that an inference is being drawn from the lack of a satisfactory explanation, but to argue that the explanation could have come from witnesses other than the defendant, and therefore that no inference is being drawn from the defendant's failure to testify. This argument, however, conveniently glosses over the fact that the defendant is the obvious person from whom the jury would expect explanation, particularly so in cases involving issues of intent and knowledge, issues which permissive inferences often address. The "unless satisfactorily explained" instruction, however phrased, is thus likely to be understood by jurors as an invitation to draw an inference from the defendant's silence. This in itself might be considered enough to invalidate it.

But there is a more fundamental weakness in the argument: it assumes that it is constitutional to require a defendant to put on a defense. A defendant cannot be constitutionally required to come forward with a defense unless the prosecution has first met its burden of proof. As Wigmore long ago explained, the presumption of innocence is merely a corollary of the rule that the prosecution must adduce evidence and produce persuasion beyond reasonable doubt; and by reason of this rule, the accused "may remain inactive and secure, until the prosecution has taken up its burden and produced evidence and effected persuasion." The question, then, of whether any inference may

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82 In civil cases, it is well established that the factfinder may legitimately draw a negative inference from a party's failure to produce evidence or a witness reasonably expected to be favorable to that party. See, e.g., 2 E. Devitt & C. Blackmar, Federal Jury Practice and Instructions §§ 72.16–17 (3d ed. 1977).

The same rule applies in criminal cases to the prosecution. See, e.g., World Wide Automatic Archery, Inc. v. United States, 356 F.2d 834, 837 (9th Cir. 1966); 1 E. Devitt & C. Blackmar, supra, §§ 17.18–19. Further, there is some authority that it should also apply to the defense. Graves v. United States, 150 U.S. 118 (1893) (dictum); United States v. Zane, 495 F.2d 683 (2d Cir.) (missing witness instruction allowed against defendant when he failed to call codfendant who had pleaded guilty), cert. denied, 419 U.S. 925 (1974); 8 J. Wigmore, supra note 7, § 2273 (McNaughton rev. 1961); see C. McCormick, Handbook of the Law of Evidence § 272 (2d Cleary ed. 1972). But see 9 J. Wigmore, supra note 7, § 2511; Statutory Criminal Presumptions, supra note 70, at 177; Comment, Drawing an Inference From the Failure to Produce a Knowledgeable Witness: Evidentiary and Constitutional Considerations, 61 Calif. L. Rev. 1422, 1430–41 (1973).

83 E.g., Hammond v. United States, 127 F.2d 752 (D.C. Cir. 1942); cf. Fed. R. Crim. P. 29(a) (entry of judgment of acquittal after prosecution rests is proper if "evidence is insufficient to sustain a conviction").

84 9 J. Wigmore, supra note 7, § 2511, at 407.
be drawn from a defendant’s failure to provide a satisfactory explanation, even if he might be able to do so by calling witnesses other than himself, depends upon whether the prosecution has first discharged its burden of production. But if the analysis so far presented in this Article is credited, the proof of the predicate fact of a permissive inference cannot by itself meet that burden, and therefore cannot provide a constitutional basis for authorizing an inference to be drawn against the defendant who fails to come forward with a defense. If the prosecution can only overcome the presumption of innocence by meeting its burden of persuasion, then allowing the prosecution to discharge this burden by means of any inference based on the defendant’s failure to defend is inconsistent with the presumption of innocence.\(^85\)

There is, however, one situation in which drawing an inference from a lack of satisfactory explanation is appropriate. This occurs when the prosecution not only proves the suggestive predicate fact but also proves, **affirmatively**, that there is no satisfactory explanation for it.\(^86\) If there is affirmative evidence on the basis of which the jury can conclude that there is no innocent explanation for the suggestive predicate fact, then a verdict would be warranted beyond a reasonable doubt. Moreover, it would be perfectly acceptable in such circumstances to

\[^85\] It is a separate question whether, once the prosecution has met its burden of production and survived a motion for directed verdict, it would then be constitutionally permissible to comment on the defendant’s failure to provide evidence, other than his own testimony, which would innocently explain the prosecution’s case. Outside of the area of presumptions and permissive inferences, such comment is rare, and the question is unexplored. The so-called missing witness instruction, see note 82 supra, has been permitted against criminal defendants, see, e.g., United States v. Zane, 495 F.2d 683, 699 (2d Cir.), cert. denied, 419 U.S. 895 (1974), but the theoretical justification for its use is unclear. The more typical instruction is one which declares that the defendant has no obligation to call any witnesses or offer any evidence. See, e.g., 1 E. Devitt & C. Blackmar, supra note 82, § 11.14.

\[^86\] See notes 50, 51 supra.
instruct the jury that proof by the prosecution of the predicate fact, plus affirmative proof that there was no satisfactory explanation for the predicate fact would warrant a conclusion of guilt beyond reasonable doubt. The essential point is that the lack of a satisfactory explanation has been demonstrated by the prosecution as part of its case, and not by shifting a burden to the defendant.

Barnes v. United States, the most recent Supreme Court case upholding a permissive inference, provides an excellent illustration. Barnes was convicted of possessing United States Treasury checks stolen from the mails, knowing them to be stolen. The evidence against him showed that he had opened a checking account using the pseudonym "Clarence Smith" and had deposited four government checks, initially made out to four different payees, into the account. On each check the payee's name had been forged and endorsed to Clarence Smith. A handwriting expert testified that the defendant had made the endorsements. The four original payees testified that they had never received, endorsed, or authorized the endorsement of their checks. Barnes himself had made pretrial statements to a postal inspector explaining that he had received the checks from people who sold furniture for him door to door and that the checks had been signed in the payee's names when he received them. Barnes could not name the sales people, nor could he substantiate any furniture orders. These statements were introduced as part of the prosecution's case. Barnes did not testify at the trial.

Like Gainey, Barnes was a case in which rich circumstantial evidence warranted a finding of guilt. The issue on appeal was created by the trial judge's instruction to the jury that it was permitted to infer knowledge from the defendant's unexplained


\[88\] Another case involving permissive inferences is now pending in the Supreme Court. See County Court v. Allen, 568 F.2d 998 (2d Cir. 1977), cert. granted, 99 S.Ct. 75 (1978). Allen involves a New York statutory inference permitting the jury to infer that an illegal weapon found in an automobile is in the possession of any of its occupants. The defendant in Allen was convicted solely on the basis of his presence in the car in which such a weapon was found. 568 F.2d at 1000. The Second Circuit overturned the conviction after ruling that the statutory inference was "unconstitutional on its face." Id. at 999. Noting the similarity of the inference to that struck down in United States v. Romano, 382 U.S. 136 (1965), the court found the inference invalid under the "more likely than not" standard. Id. at 1007.

The Supreme Court this Term also has before it a case involving the familiar criminal presumption that a person intends the ordinary consequences of his voluntary acts. See Sandstrom v. Montana, 520 P.2d 106 (Mont. 1978), cert. granted, 99 S.Ct. 832 (1979).


\[90\] 412 U.S. at 838–39.
possession of recently stolen mail. The Supreme Court approved the instruction and upheld the conviction, emphasizing that the challenged instruction permitted the inference of knowledge (and guilt) only from "unexplained" possession of recently stolen property, and here the prosecution had offered ample evidence showing that there was no credible innocent explanation of Barnes' possession of the stolen checks.

Such a result is sound if, but only if, the instruction is clear that it is the prosecution's burden to show that there is no innocent explanation for the defendant's possession of the stolen checks. In fact, though, the use of the words "not satisfactorily explained" leaves unclear the question of who should do the explaining. Unless jurors are told otherwise, they may well think that the explanation should come from the defendant, since he is in the best position to provide it.

The failure of the instruction in Barnes to so inform the jurors was mitigated there by the prosecution's putting before the jury Barnes's attempted explanation, and demonstrating its inadequacy as part of its own case. But such instructions certainly need clarification, since there will doubtlessly be cases in which their prejudicial effect will be greater. Jurors should be told explicitly that the obligation of removing reasonable doubts about the existence of innocent explanations rests with the prosecution.

IV. ALTERNATIVES TO PERMISSIVE INFERENCES

The constructive approach to the problem of permissive inferences is to cease belaboring the question of how probable the link between predicate and conclusion must be. What must be altered is the analytical structure which presents that question — namely, the structure created by an instruction to the jury which theoretically isolates the specified predicate fact from the rest of the evidence and informs the jurors that the law authorizes them, on the basis of that fact alone, to infer guilt beyond reasonable doubt.

Permissive inferences fall into two classes. First are those which, like the inference of illegal importation drawn in Turner, are enacted solely to establish a basis for jurisdiction. Second, there are permissive inferences which, like the inference from

91 Id. at 838.
92 Id. at 845–46.
93 See R. Traynor, The Riddle of Harmless Error 74 (1970) ("If an instruction on a substantial issue is confusing to a reasonable juror, the judgment should be reversed."); Note, supra note 68, at 351–52.
94 See pp. 1224–25 infra.
presence at an illegal still in Gainey, ease the prosecution's burden of persuasion on some issue integrally related to the defendant's culpability. Both types of permissive inferences undercut the integrity of a jury's verdict. The first type authorizes juries to conclude things neither supported by evidence nor substantiated by common experience. By authorizing juries to "find" facts despite uncertainty, such inferences encourage arbitrariness, and thereby subvert the jury's role as a finder of fact demanding the most stringent level of proof. The second type of inference typically authorizes a conclusion which accords to some degree with common sense. Yet, to the extent such a permissive inference allows a jury to isolate one fact from the complex of circumstances presented in a case, it distinguishes one route which the jury might have taken in reaching its verdict and thereby exposes that verdict to needless criticism.

In this Part, I propose alternate ways in which legislatures can effectuate the purposes behind permissive inferences without compromising the integrity of jury verdicts. These proposals rest on two fundamental premises. First, legislatures should eliminate from the definition of crimes those elements not suited to jury determination. For those elements that remain, however, legislatures should respect the jury's peculiar ability to function as a sort of institutional "black box" into which a complex of relevant facts is placed and out of which comes an authoritative answer on the issue of guilt or innocence to which the general public will defer. Lawmakers should refrain from declaring any "acceptable" logical implications from particular predicates, thus leaving juries free to reach verdicts in ways known only to themselves.

A. Inferences Which Relate to Jurisdictional Elements

Congress has no plenary police power. Although it can criminalize conduct that occurs on federal lands, victimizes federal employees, or interferes with any legitimate exercise of federal authority, "[t]he definition and prosecution of local, intrastate crime are," presumably, "reserved to the States under

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95 See Note, supra note 68, at 350-51.
96 Congressional power to regulate and proscribe conduct on federal lands is explicitly granted. U.S. Const. art. IV, § 3, cl. 2 (in general); id. art. I, § 8, cl. 17 (District of Columbia). Additionally, Congress has power "[t]o make all Laws which shall be necessary and proper for carrying into Execution . . . all other Powers vested . . . in the Government of the United States." Id., art. I, § 8, cl. 18. See generally G. Gunther, John Marshall's Defense of McCulloch v. Maryland (1969).
the Ninth and Tenth Amendments." 97 Jurisdictional presumptions are employed when Congress attempts to expand federal criminal jurisdiction by "tying" crimes to one or more enumerated powers — most often, the power of Congress to regulate interstate commerce 98 or deliver the mail. 99

Traditionally, Congress incorporated into the definition of these crimes some element directly establishing federal jurisdiction. 100 The early criminal statutes only prohibited illicit behavior which used the mails, 101 caused persons or property to be transported across state lines, 102 or otherwise invaded an area clearly within congressional cognizance. 103 The result was to exclude most potentially culpable conduct from federal sanction, with the effect of causing verdicts to turn on such niceties as whether a defendant's admittedly fraudulent scheme was perpetrated door-to-door or through the mail. 104

In order to ease the prosecution's burden, Congress enacted presumptions permitting factfinders to infer a jurisdictional element from proof of culpable conduct. 105 In Turner, for example, proof of possession of a controlled substance permitted the jury to conclude it had been illegally imported, a fact sufficient to establish federal jurisdiction under the interstate commerce clause. As already noted, however, these jurisdictional permissive inferences produce the objectionably arbitrary result of asking jurors who have not been provided with any basis for judgment to evaluate the inference as part of their deliberations.

97 Perez v. United States, 402 U.S. 146, 158 (1971) (Stewart, J., dissenting). Congressional power to define and enforce some crimes is, however, explicitly granted in the Constitution. U.S. Const. art. I, § 8, cl. 6 (counterfeiting); id. art. I, § 8, cl. 10 (offenses on the high seas and against the "Law of Nations"); id. art. I, § 8, cl. 16 (the military); id. art III, § 3, cl. 2 (treason).
98 U.S. Const. art. I, § 8, cl. 3.
99 Id. art. I, § 8, cl. 7.
100 Such crimes are said to fall within the "auxiliary" jurisdiction of Congress, because the conduct made criminal is also generally criminal under concurrent state law. Schwartz, Reform of the Federal Criminal Laws: Issues, Tactics and Prospects, 1977 Duke L.J. 171, 186.
An obvious means of eliminating this problem would be for Congress to eliminate the inferred conclusion (in *Turner*, importation) as an element of the offense, and substitute in its place the predicate (in *Turner*, possession). This, however, would result in the definition of federal crimes having no self-evident tie with federal authority, and thus would force Congress to find another theory with which to justify such use of the police power.

The basis for such a theory already exists. Congressional power under the interstate commerce clause is now so broad as to extend to the purely intrastate behavior of members of a class whose activities in aggregate affect interstate commerce. In *Perez v. United States*, the Supreme Court applied this expansive interpretation of the commerce power to sustain the Consumer Credit Protection Act, which punishes extortionate credit transactions without requiring proof that a particular defendant's activity affects interstate commerce. *Perez* proceeded on the theory that Congress could rationally conclude that extortion is a national problem which affects interstate commerce. The Court, that is, treated the jurisdictional issue as befitting legislative, and not judicial, determination. The propriety of such a congressional finding is, of course, a judicial question, but is only subject to the "rational basis" test generally applied to determinations of legislative facts.

The Supreme Court has, to be sure, emphasized that absent an explicit declaration of a contrary congressional intent, it will interpret criminal statutes as maintaining the traditional balance between federal and state jurisdiction. With respect to each

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109 The difference between "legislative" facts and "adjudicative" facts was first examined in Davis, *An Approach to Problems of Evidence in the Administrative Process*, 55 Harv. L. Rev. 364, 404–07 (1942). As Professor Davis later noted: "The exceedingly practical difference between legislative and adjudicative facts is that . . . the tribunal's findings of adjudicative facts must be supported by evidence, but findings or assumptions of legislative facts need not be, frequently are not, and sometimes cannot be supported by evidence." 2 K. Davis, *Administrative Law Treatise* § 15.03 (1958); cf. Dennis v. United States, 341 U.S. 494, 547 (1951) ("in determining whether application of the statute to the defendants is within the constitutional powers of Congress, we are not limited to the facts found by the jury") (Frankfurter, J., concurring in the judgment).


criminal statute, then, there would still be questions whether Congress had adequately expressed an intent to exercise unusually expansive authority, and whether circumstances justified a congressional finding that a class of activity affects interstate commerce. But none of these questions detract from the preferability of the Perez approach to the alternative of employing esoteric permissive inferences on jurisdictional questions.

Moreover, recognizing that jurisdictional permissive inferences typically involve factual assessments appropriate for outright legislative determination would circumvent the Turner problem of instructing jurors on permissive inferences which can only be rationally justified by an expertise beyond the ken of a normal juror. In Turner, the Court upheld a statutory inference permitting the jury to conclude that heroin had been illegally imported upon proof of mere possession. This superficially arbitrary inference was sustained by the Court only after it accepted a legislative finding that almost no heroin is manufactured domestically; in effect, the Supreme Court took judicial notice of facts sufficient to sustain the defendant's conviction. Thus, if the legitimacy of the jurisdictional permissive inference were an issue properly decided case by case, the defendant would arguably have been denied his right to jury trial and "to be confronted with the witnesses against him." But here the question of the presence of congressional jurisdiction turns on correlations between two general sets of facts—not on judgments about any particular individual's conduct. It is, therefore, a question fundamentally different from the kinds of issues decided by a trial—issues such as "who did what, where, when, how, and with what motive or intent." By validating a finding of federal jurisdiction on the basis of facts not in evidence at trial, the Court

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113 396 U.S. at 408-18.
114 The propriety of relying on judicial notice in evaluating permissive inferences has been explicitly recognized. See, e.g., County Court v. Allen, 568 F.2d 908, 1006 (2d Cir. 1977), cert. granted, 99 S.Ct. 75 (1978).

Judicial notice in the federal courts is governed by Fed. R. Evid. 201, and is therefore appropriate for a reviewing court since notice may be taken "at any stage of the proceeding." Fed. R. Evid. 201(f). The rule only applies to adjudicative facts, Fed. R. Evid. 201(a), a term left undefined, although the advisory committee relied heavily on the work of Professor Davis, see note 109 supra; J. Moore, Federal Practice Rules Pamphlet (pt. 2), at 203-07 (1975).
115 U.S. Const. amend. VI; cf. Fed. R. Evid. 201(e) ("A party is entitled upon timely request to an opportunity to be heard as to the propriety of taking judicial notice and the tenor of the matter noticed. In the absence of prior notification, the request may be made after judicial notice has been taken.").
implicitly recognized that deciding whether or not congressional authority extends to the activities at issue in *Turner* is a question properly withheld from juries.\textsuperscript{117}

It may be that Congress will desire to extend criminal sanctions to behavior which cannot be fit within the *Perez* rationale. Simple theft, for example, is generally a wholly intrastate crime. Yet, the federal government would have a legitimate justification for federal jurisdiction if, for example, the stolen property is owned wholly or in part by the national government. Congress could not generally criminalize theft since not only is it less likely than not to involve interstate commerce, but it is easy to separate out those few cases which do fall within Congressional purview. In such cases, then, the prosecution will be forced to prove some federal nexus in each instance.

But it should not be too easily assumed that the finding of this jurisdictional element must be left to the jury, and can only rest on proof beyond reasonable doubt.\textsuperscript{118} The jurisdictional requirement is inserted not to protect the rights of defendants, but

\textsuperscript{117} A legislature is not capable of determining when one fact implies another fact beyond a reasonable doubt. All a legislature can do is compile statistics and state in general terms the likelihood of a correlation between two facts. A jury sits on one particular case, and, while knowledge of these statistics may be helpful, the determination as to reasonable doubt depends on the specific facts of the particular case.

*Statutory Criminal Presumptions, supra* note 70, at 172.

\textsuperscript{118} The Supreme Court has never delimited the occasions when a judge in a criminal case may properly remove an issue from the jury, and the lower courts are divided. *Compare* Gold v. United States, 378 F.2d 588, 592-93 (9th Cir. 1967) (court may take judicial notice in a criminal case), *with* United States v. Hayward, 420 F.2d 142, 144 (D.C. Cir. 1969) (court may not remove any essential element from jury). *See* Rosen v. United States, 161 U.S. 29, 42 (1896) (court may remove issue from jury if evidence is “clear and uncontradicted”); People v. Modesto, 59 Cal. 2d 722, 730, 382 P.2d 33, 38, 31 Cal. Rptr. 225, 230 (1963) (no material issue may be taken from jury); Howard v. State, 83 Nev. 53, 422 P.2d 548 (1967) (determination of defendant’s status as an habitual criminal may be made by judge alone, but subject to reasonable doubt standard of proof).

Similarly, the Supreme Court has never specified whether jurisdictional issues (including venue) need be proven beyond reasonable doubt, and again the lower courts are divided. *Compare* United States v. Powell, 498 F.2d 890, 891 (9th Cir.) (venue not an essential element of the offense and need only be proved by a preponderance of the evidence), *cert. denied*, 429 U.S. 866 (1974), *with* United States v. Buckhanon, 505 F.2d 1079, 1083 (8th Cir. 1974) (venue an essential part of government’s case, and must be established by adequate proof). *Cf.* United States v. Mendell, 447 F.2d 639, 641-42 (7th Cir. 1971) (judicial notice may be taken of commonly known facts bearing on venue); Lyons v. State, 250 Ark. 920, 467 S.W.2d 701 (1971) (statutory presumption of proper venue is constitutional); State v. McAllister, 468 S.W.2d 27, 29 (Mo. 1971) (venue not an essential element of the offense, but must be established at trial).
to ensure an appropriate balance between the federal and state governments.\textsuperscript{119} It is not at all clear why Congress may not specify that the court alone must determine whether jurisdiction is appropriate in each case, based only upon a preponderance of the evidence.\textsuperscript{120} Or, Congress could certainly continue its practice of making a jurisdictional element an integral part of the offense, which must therefore be found beyond a reasonable doubt. But in no event ought Congress to specify that jurisdiction is a material element of the crime and then “authorize” juries to infer its existence based upon facts which they never hear, and which, taken in isolation, leave a reasonable doubt as to the propriety of the conclusion.

In an attempt to take a “discriminating approach”\textsuperscript{121} to federal jurisdiction, the drafters of the proposed new Federal Criminal Code avoided the \textit{Perez} wholesale approach, instead including in the definition of each crime specified acts which the prosecution may use to justify federal jurisdiction. Their desire to effect “little significant expansion over present law”\textsuperscript{122} is reflected in their choice of traditional jurisdictional elements, like use of the mails\textsuperscript{123} and interstate transportation.\textsuperscript{124} The result is to continue the practice of requiring the prosecution to prove elements unrelated to culpability.\textsuperscript{125}

\textsuperscript{119} \textit{See generally} L. Tribe, \textit{American Constitutional Law} §§ 5-20 to -22 (1978).
\textsuperscript{120} \textit{Cf.}, e.g., Robinson \textit{v.} Paxton, 210 Ky. 575, 578, 276 S.W. 500, 502 (1925) (jurisdiction is for the court to determine); Gill \textit{v.} Sovereign Camp, W.O.W., 209 Mo. App. 63, 72, 236 S.W. 1073, 1076 (1922) (same). \textit{See also note 118 supra.}
\textsuperscript{121} \textit{Senate Committee on the Judiciary, Report to Accompany S. 1437, S. Rep. No. 95-605, 95th Cong., 1st Sess., at 7 (1977) [hereinafter cited as Report].}
\textsuperscript{122} \textit{Id.} at 8.
\textsuperscript{123} \textit{S. 1437, supra} note 13, § 1323 (tampering with a witness or informant); \textit{id.} § 1351 (bribery); \textit{id.} §§ 1611-1617 (assault offenses); \textit{id.} § 1843 (conducting a prostitution business).
\textsuperscript{124} \textit{Id.} § 1323 (tampering with a witness or informant); \textit{id.} § 1351 (bribery); \textit{id.} § 1621 (kidnapping); \textit{id.} § 1843 (conducting a prostitution business).
\textsuperscript{125} Although the proposed Code does specify that “[t]he existence of federal jurisdiction is not an element of the offense,” \textit{id.} § 201(c), and that it is to be determined by the Court, \textit{id.} at 312 (proposed \textit{Fed. R. Crim. P. 25.1(b)}), the drafters continue the current practice of specifying that “[t]he Government has the burden of proving the existence of federal jurisdiction . . . beyond reasonable doubt,” \textit{id.} This approach is particularly regrettable in light of the work of the National Commission on Reform of Federal Criminal Laws (the Brown Commission), which was created by \textit{Pub. L. 89-801, 80 Stat. 1516 (1966)}, to make a full and complete review and study of the statutory and case law of the United States which constitutes the federal system of criminal justice for the purpose of formulating and recommending to the Congress legislation which would improve the federal system of criminal justice. It shall be the further duty of the Commission to make recommendations for revision and recodification of the criminal laws of the United States,
B. Inferences Which Relate to Culpability

Permissive inferences which deal with elements of crimes affecting culpability are generally of the common sense variety. Their conceptual problems arise from instructions which inform jurors that if they find the predicate fact they are authorized to find the fact to be inferred beyond a reasonable doubt. Legislatures could avoid these problems by eliminating the fact to be inferred as an element of the offense and substituting the predicate fact in its place. This would entail a substantive change, however, in what the legislature meant to prescribe. In Gainey, for example, the crime would have been being present at the site of an illegal still rather than operating it. But the true objective of the statute as written was to express two distinct judgments: 128 (1) that operating an illegal still was to be subject to criminal sanctions; and (2) that being present at the site of such a still was highly probative of engaging in its operation. Even absent the use of permissive inferences, there is no reason why a legislature need sacrifice one such judgment in order to effectuate the other.

If the inference from predicate to presumed fact is rationally based, 127 nothing prevents a trial judge in a specific case from communicating its substance to the jurors, 128 so long as the

including the repeal of unnecessary or undesirable statutes and such changes in the penalty structure as the Commission may feel will better serve the ends of justice.

Id. § 3. The Commission's work product included three volumes of working papers, see note 103 supra, and a draft of a new federal criminal code, NATIONAL COMMISSION ON REFORM OF FEDERAL CRIMINAL LAWS, STUDY DRAFT OF A NEW FEDERAL CRIMINAL CODE (1970) [hereinafter cited as STUDY DRAFT]. These became the core of the first recent attempt at revision of the federal criminal code, S. 1, 93d Cong., 1st Sess. (1973). REPORT, supra note 127, at 10–15. The Commission recognized the jurisdictional issue posed in this Article and articulated the various alternatives. See STUDY DRAFT, supra, § 103(1).

126 See WORKING PAPERS, supra note 103, at 21.

127 Irrational permissive inferences bearing on culpability have no place in the criminal law in any form, and ought to be invalidated. See, e.g., United States v. Black, 512 F.2d 864 (9th Cir. 1975).

128 There is apparently no federal constitutional obstacle to judicial comment on the weight of evidence produced at trial, see United States v. Bernstein, 533 F.2d 775, 798 (2d Cir.), cert. denied, 429 U.S. 998 (1976); Mims v. United States, 375 F.2d 135, 148 (5th Cir. 1967), although reviewing courts have not hesitated to suggest that trial judges should limit their comments to an impartial summary, e.g., Gant v. United States, 506 F.2d 518 (8th Cir. 1974), cert. denied, 420 U.S. 1005 (1975); see J. MOORE, FEDERAL PRACTICE, RULES PAMPHLET (pt. 2), at 1504 (1975). Many states, though, have forbidden any judicial comment on the weight of the evidence, see, e.g., State v. Barnett, 111 Ariz. 391, 531 P.2d 148 (1975); State v. Powell, 220 Kan. 168, 551 P.2d 902 (1976) (dictum); Armstrong v. Commonwealth, 517 S.W.2d 233, 236 (Ky. 1974); State v. White, 329 So. 2d 738, 741
communication is properly framed. If put in terms that authorize a conviction based on a finding of the predicate fact alone, then the instruction is objectionable. But if framed in a manner which does not abstract the predicate fact from its overall circumstantial context, the instruction should be acceptable. An example would be an instruction which informed the jurors that evidence of Gainey's presence at the still was highly probative on the question whether he was operating the still and could, when considered together with other circumstantial evidence which the jurors might credit, warrant a finding of guilt beyond a reasonable doubt. Such formulations of permissive inferences would avoid any explicit authorization to draw a naked inference from predicate to conclusion, and yet would accomplish the legislature's objectives. Indeed, the suggested

(1976) (dictum); State v. Freeman, 280 N.C. 622, 626-27, 187 S.E.2d 59, 62-63 (1972), some by statutory declaration, see, e.g., Ariz. Const. art. 6, § 27. It is unclear whether these states would allow the judge to give a jury instruction expressing a legislative judgment that particular facts (e.g., presence at a still) are highly probative of criminal activity; that they allow instructions containing permissive inferences suggests that they would.

See pp. 1204-06 supra.

One commentator, sensitive to the problems posed by permissive inferences but nevertheless unwilling to forego the "may but need not convict" approach, would have had the trial judge in Gainey instruct the jury (1) that presence at the still was "prima facie evidence" of operation, to be considered "along with all other evidence in the case"; (2) that such "prima facie evidence" constitutes "proof of the case upon which a jury might find a verdict unless rebutted by other evidence in the case," yet it "is to be weighed together with the court's charge on reasonable doubt and the presumption of innocence"; (3) that, on the other hand, "[t]he bare presence at a distillery and flight therefrom of an innocent man is not in and of itself enough to make him guilty." Soules, Presumptions in Criminal Cases, 20 Baylor L. Rev. 277, 298 (1968).

The problem with this proposed instruction is the tension between the second and third propositions. The predicate fact ("prima facie evidence") is "proof of the case upon which a jury might find a verdict unless rebutted by other evidence in the case." Yet, that same evidence "is not in and of itself enough to make him guilty." Hence, if the prosecution establishes presence and little else, and the defendant puts on no defense, the jury is told: (1) that it may convict on the basis of unrebutted proof of presence, and (2) that proof does not imply guilt.

While other parts of the proposed instruction attempt to reconcile the two statements by encouraging the jury to look at all the evidence presented, that does not justify the improper instruction. The reference to "prima facie evidence" should be replaced by a statement that, although presence is not enough by itself to convict, it is of strong inferential value and should figure prominently in the jury's calculations.

The Brown Commission advocated the opposite position — surprisingly, to "promote the rationality of jury verdicts" — arguing that "the jury [ought to be] instructed that it may find the presumed fact 'on the basis of the presumption alone, since the law regards the facts as giving rise to the presumption as strong
change in the formulation of instructions could be accomplished by judicial interpretation of existing statutes.\textsuperscript{132}

The proposed new Federal Criminal Code makes no significant improvement over current law with respect to "common sense" permissive inferences. Admittedly, a few are discarded,\textsuperscript{133} but others are created,\textsuperscript{134} and most have been substantially retained.\textsuperscript{135} Additionally, the "unless satisfactorily explained" language is retained,\textsuperscript{136} suggesting a continued insensitivity to the principles underlying Griffin.\textsuperscript{137}

The problems created by the "unless satisfactorily explained" language can also be met by careful jury instructions. Under no circumstances should an instruction be subject to the interpretation that jurors can draw an inference from a defendant's failure to testify. Moreover, the instructions should not admit of an interpretation that the jurors can draw an inference adverse to the defendant from his failure to defend by calling other witnesses. A case in which no defense is offered should be judged solely on the strength of the prosecution's case unaided by any inference based on a decision not to defend. Both of these objectives can be achieved by their clear statement to the jury,\textsuperscript{138} and in cases in which there is no defense, by a further evidence of the fact presumed." Working Papers, supra note 103, at 24. This peculiar result can in part be explained by the Commission's belief that its treatment "emphasize[s] the nature of the legislative finding . . . ." Id. The Commission appears to be worried about permissive inferences such as the heroin importation inference in Turner, which can only be validated by information beyond common knowledge. As argued above, pp. 1218–21, these kinds of presumptions should be removed altogether from the jury's province, and therefore need not introduce a corrupting influence in the treatment of material elements of the crime.

\textsuperscript{132} United States v. Gainey, 380 U.S. 63 (1965), provides one example of judicial reinterpretation in this area. See id. at 68.

\textsuperscript{133} Compare 18 U.S.C. § 1201(b) (1976) with S. 1437, supra note 13, § 1621.

\textsuperscript{134} E.g., S. 1437, supra note 13, § 1414(b)(2) (purchase or sale of recently smuggled object at a price substantially below fair market value implies knowledge of the smuggling); id. § 1801 (sharing in proceeds from a racketeering syndicate of $5,000 or more in any 30-day period implies supervisory role).


\textsuperscript{136} E.g., S. 1437, supra note 13, § 1414(b)(1); id. § 1739(b)(1)(3).

\textsuperscript{137} In fact, the Brown Commission's deletion of this objectionable language "in order to avoid the self-incrimination problems" indicates that the drafters of the proposed Code knew of and yet rejected the teachings of Griffin. Working Papers, supra note 103, at 24 n.72.

\textsuperscript{138} See, e.g., 1 E. Devitt & C. Blackmar, supra note 82, § 17.14:

The law does not compel a defendant to take the witness stand and testify, and no presumption of guilt may be raised, and no inference of any kind may be drawn, from the failure of a defendant to testify.

As stated before, the law never imposes upon a defendant in a criminal case the burden or duty of calling any witnesses or producing any evidence.
instruction that in order to convict, the jurors must be convinced of the defendant's guilt beyond reasonable doubt by evidence affirmatively offered by the prosecution.\textsuperscript{139}

Without the "unless satisfactorily explained" language, there will arise in each case a question of how much evidence in addition to proof of the predicate fact is sufficient to supplement the naked inference.\textsuperscript{140} The analysis which leads to the conclusion that the jury instruction should not authorize the predicate fact to be considered out of its circumstantial context also provides the standard which trial judges should use in awarding a directed verdict: the additional evidence must suffice to differentiate the case from the aggregate of all cases in which the predicate fact appears, in a manner which permits a judgment about what happened in the specific case.

V. Conclusion

Central to the process of criminal adjudication is the establishment of repose in the face of the prospect of incarcerating another human being. We require sufficient assurance that the defendant is guilty to relieve us of continuing worry that an injustice has been done. The Supreme Court has rightly recognized the fundamental constitutional role of the concept of reasonable doubt in that process of criminal adjudication.

Yet the Court has failed thus far to take the further analytical step of asking how the reasonable doubt concept functions to accomplish that objective. Analysis of that question leads to the conclusion that any conceptualization of reasonable doubt in probabilistic form is inconsistent with the functional role the concept is designed to play. It suggests that the uniqueness and complexity of individual criminal cases contributes in an important way to the ability of the system to produce verdicts beyond reasonable doubt and that, however well-meaning may be legislative efforts to ease the prosecutor's task of obtaining convictions in certain categories of cases, legislative authorizations to find guilt by categories, rather than on the basis of a particular assessment of the facts of each case, are inconsistent with the concept of proof beyond reasonable doubt.

\textsuperscript{139} Elwert v. United States, 231 F.2d 928 (9th Cir. 1956) (by implication); see United States v. Sawyers, 423 F.2d 1335 (4th Cir. 1970). But see United States v. Parr, 516 F.2d 458 (5th Cir. 1975); United States v. Pugh, 509 F.2d 766 (8th Cir. 1975) (instruction that jury must find circumstantial evidence excluded every reasonable hypothesis except guilt properly refused when jury instructed on reasonable doubt).

\textsuperscript{140} This, however, is the same question which Gainey perpetuated by giving the trial court discretion to direct an acquittal even if the predicate fact is proven. See 380 U.S. at 68.