EVIDENCE

CASES AND MATERIALS

TENTH EDITION

JACK B. WEINSTEIN
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SCOTT BREWER
DANIEL S. MEDWED

UNIVERSITY CASEBOOK SERIES®

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TENTH EDITION

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PREFACE

I

This edition of our casebook traces its lineage back 125 years to James Bradley Thayer's Select Cases on Evidence at the Common Law, with notes, published in 1892. In 1900 came the second edition of his casebook, which had such vitality that it was still used by teachers in 1924–1925 and later. In 1925 Professor John M. Maguire, by special arrangement with the Thayer family, published a revision of the 1900 casebook. In 1934 Professor Edmund M. Morgan, together with Maguire, took over leadership of the series with what was referred to as the first edition; they also were authors of the second and third editions. The fourth edition was by Morgan, Maguire and Jack B. Weinstein. The fifth and sixth were by Maguire, Weinstein, James H. Chadbourn and John H. Mansfield. The seventh, eighth and ninth editions were by Weinstein. Mansfield, Norman Abrams and Margaret A. Berger.

While our goal has been to bring this tenth edition into the 21st century, we are sensitive to the legacy with which we have been entrusted and have tried to be faithful stewards and to remain true to its approach and standards of excellence. Responsibility for this new edition is wholly our own.

Our colleague, Peter Tillers, was intended to be a co-author of this new edition but to our great sadness, with his untimely passing, that was not to be. We wish to acknowledge his contributions through his stimulating ideas, comments and suggestions.

We wish to dedicate this volume to Margaret A. Berger and John H. Mansfield, collaborators on multiple previous editions, wonderful friends and colleagues who are no longer with us.

II

This edition is a thorough revision and updating of the 1997 edition, but, of course, like previous editions, it also continues to reflect significant inputs of our predecessors. The volume, of course, takes into account important intervening changes in the law through new judicial decisions, statutes and, most important, by application of the Federal Rules of Evidence and evidence rules variations in the states. A glance at almost any section of this volume will reveal a wealth of new cases and secondary materials and notes that have been expanded and enriched. More specific changes, innovations and additions are described below.

Overall, we have tried, without sacrificing quality or rigor, to make the book more user-friendly through new stage-setting introductory notes at the beginning of many of the sections. The tenth edition is lengthier than the previous edition, too long perhaps to treat in its entirety in detail in a single course. The commercial advantages of a shorter book have not convinced us that detailed treatment of related procedural, substantive, tactical, scientific, technological, psychological and sociological aspects should not be included. The philosophy of the book, through previous editions and to which we adhere, has been to provide a comprehensive and rich menu of topics and materials of this subject from which the instructor or the student can select those topics of most concern to them.

We have avoided extensive cutting of some cases, for example, Supreme Court decisions on constitutional rights (such as those involving the right of confrontation in the Hearsay chapter) and on burdens of proof and presumptions, in order to avoid

oversimplifying the problem and so that the student might better see the evolution of the doctrine and the inter-relationships of the cases. Substantive omissions in the text of cases are indicated by ellipses; some of the citations and many footnotes have also been omitted. The student should appreciate the fact that in many instances the entire case has not been reproduced so that if he or she wishes to study the matter in more detail, the original publication should be checked.

It is expected that the teacher will require the student to obtain an up-to-date statutory and rule supplement, such as the one which the co-authors of this volume produce, which contains the federal and California evidence codifications, the Uniform Rules, and excerpts from the Model Rules of Professional Conduct. This combination of casebook and supplement has numerous advantages: 1) Each of these important bodies of rules should be studied as a whole, to better understand its organization and connecting principles. 2) Having codifications in one place, such as the Federal Rules, the California Code and the Uniform Rules, guides the student to interesting comparisons and by this means facilitates an understanding of the different policy and legal approaches used in the several codes. 3) Including in the course some examination of the Model Rules of Professional Conduct allows attention to professional issues: Ethics, procedure and substance frequently encountered in evidence cases. 4) It enables the student to refer to the provisions without the inconvenience of constantly turning to the back of the book to consult an appendix.

III

The organization of the chapter topics in the 1997 edition (which included changes from the eighth edition) has been retained for this tenth edition, with the addition of a new Chapter 2, Advanced Reasoning about Evidence. No clear case has been made for a pedagogically sounder order of topics. In a number of instances, the order of subjects within a chapter has been changed; many of these changes are explained below. Although the present organization suits the tastes and teaching approach of the co-authors, some instructors may find it desirable to order the chapters or the topics within a chapter in accordance with a teaching sequence of their own choosing.

A selection of important changes and innovative materials, chapter by chapter, follows:

Chapter 1 collects a variety of materials dealing with relevancy that are basic to an understanding of any case; relevancy provides the framework of any rational system of proof. The chapter also stresses problems of probability that underlie determination of facts, how people think and decide issues of fact; how they integrate their own experience, information provided to them regarding the events in question, information derived from experts and other relevant sources. Some cases have been removed and others added, for example, the substitution of Butcher v. Kentucky (a modern DNA case) for State v. Rolls (a blood-typing case).

The most substantial change in this chapter is the addition of new material on the Logocratic Method, a system of formal analytics of reasoning with evidence which can compared with the Michael and Adler system which in previous editions of the casebook was described and illustrated with examples. The Michael and Adler system was written in the 1930's, long before substantial advances had occurred in the theory of argumentation. The new material describes the method and shows its application and explanatory and analytical power. The method itself and its utility

are anchored to very concrete examples: Knapp v. State (1907), a brief case which deals with logical relevance in a manner that is illuminating, and a few other cases are used to illustrate some aspects of the method, including Old Chief and a Seventh Circuit case, Sherrod v. Berry, which, as a Federal Rules case, provides an instructive comparison to Knapp's common law analysis. Chapter 2 provides more in depth and advanced material on the Logocratic Method

The evidence issues related to Real Proof in Chapter 3 have evolved significantly since the ninth edition because of the rapid rate of change in scientific and technological developments. Changes in this chapter include an augmented discussion of voice and hair comparisons; a new discussion of problems with the visual detection of "blood" evidence; a more extensive note on the involuntary administration of psychotropic drugs to make a defendant competent for trial; new material about the admissibility of digital photos/recordings and videos taken on smartphones as well as the implications for authentication issues of electronic "signatures"; and notes about applying the best evidence rule to electronically recorded data and textual material.

In Chapter 4, Testimonial Evidence, we have retained the extensive introductory materials from the field of psychology on the centrality, nature and weakness of proof coming from the testimony of witnesses. The material on the competency of witnesses in this chapter highlights how the system of testimonial evidence has evolved from many categorical rules of disqualification to more individualized determinations of whether a witness can contribute something to the issues in the case. Also included are treatments of some doctrines that supplement general rules of admissibility—doctrines that are also designed to help ensure the reliability of evidence.

Thus, material on the constitutional compulsory process doctrine is presented here: It serves to protect the right of criminal defendants to offer evidence in their defense, and in some contexts, the doctrine involves a determination that is at least in part based on whether the category of evidence in question meets a requisite standard of reliability. Also, somewhat surprisingly, an old rule of categorical disqualification, the Deadman Rule, continues to merit discussion since it still exists in a minority of states, including some of the largest (e.g. New York and California) and is the source of multiple judicial decisions each year. Rules requiring corroboration of certain categories of evidence, another type of mechanism intended to help ensure the reliability of evidence, are also treated in this section. Worth special mention is the inclusion of the Massachusetts decision in In re McDonough: Where the judge rules that a prospective witness may not testify because of testimonial incapacity, and that person raises claims, inter alia, under the Americans with Disabilities Act, does she have standing to seek judicial review of the judge's ruling?

Included in the Competency of Witnesses section are some of the book's numerous notes addressing issues relating to the child witness, with special attention to cases involving child sexual abuse. A number of such notes were added to the prior edition in response to increased public concern about that subject resulting from the higher incidence of reporting, prosecuting or litigating of such cases. The notes in this and later chapters address a variety of issues, for example, the testimonial capacities and competency of child victims to testify; the use of outside-the-courtroom videoed live testimony to protect the victim from being in the

same room with the accused perpetrator; the use of deposition videos of the victim at trial; the constitutionality of legislating a hearsay exception for statements of the child victim, and how similar sexual conduct evidence is handled.

The section on credibility has been updated, and more detail is provided. Some changes have been made in the ordering of the topics in this section. An example is that the material on impeaching one's own witness section has been moved to a position toward the end of the chapter because it is believed that it is useful first to be familiar with the different methods of impeachment before addressing own-witness issues.

Chapter 5 on Hearsay begins with a fictional Dialogue (and a note on Guantanamo-related proceedings) which focus attention on the choice between having a detailed system of exceptions to the prohibition against hearsay versus a case by case judge's-determination-of-reliability. A number of new principal cases have been added to the chapter, including the implied hearsay, Maryland case of Stoddard v. State. Some changes have been made in the order in which the hearsay exceptions are taken up, and introductions have been added to the sections to facilitate understanding and comparison of the various exceptions.

One of the important decisions made in organizing Chapter 5 was how to incorporate the substantial changes in constitutional confrontation doctrine that had occurred since the previous edition. The choice made was to have a separate section at the end of the chapter presenting Crawford v. Washington and its U.S. Supreme Court confrontation progeny. Additionally, early in the chapter a statement of the Crawford doctrine is set forth that helps to foreshadow the implications of Crawford for, and the relevance to, various hearsay exceptions at appropriate points in the chapter. Also, pre-Crawford constitutional case law continues to be referenced in the chapter where Crawford did not have the effect of overruling or undermining that prior law.

Chapter 6 which deals with Circumstantial Evidence continues exploration of problems to which the student was introduced in Chapters One and Two. Here will be found revised and updated materials on the much-litigated subject of character/propensity evidence, introduced for substantive purposes rather than for its bearing on credibility. New Fed.R.Evid. 413–15, dealing with a defendant's prior acts in sexual cases, as well as Fed.R.Evid. 412, the rape shield provision, are discussed. The debate over the admissibility of evidence of subsequent repairs in product liability cases and its resolution in amended Fed.R.Evid. 407 is noted. The emphasis of the chapter has been tweaked to focus more on Rule 404(b). The competing arguments for and against admission of propensity evidence in sexual assault cases, a highly charged issue in the context of some notorious sexual assault cases, are treated here.

It is worth noting how the subject matter of chapter 7, Expert Evidence has burgeoned—the fact that prior to the previous edition, the book did not contain a separate chapter on this topic. Major changes have taken place in the law governing expert evidence since the previous edition of the casebook. Accordingly, there is much new material reflected in, and based upon the Daubert and post-Daubert cases such as Kumho Tire and Joiner. In this, as well as other chapters of the book, we have also opted to retain a number of the older cases because they present interesting issues and are familiar to teachers of evidence.

Because so much of the material in this chapter is new in this edition, a significant amount of reorganizing and categorizing has been undertaken in order to give coherent structure to the notes after cases; new sections have also been created and labelled with headings. The device of marking sections indicating Before-Daubert and After- has been used. The hearsay problem involved in issues related to the basis for expert opinion testimony (Fed.R.Evid. 703) is treated, and is also addressed in section 14 of Chapter 5, through the Supreme Court's decision in Williams v. Illinois.

Much of this book focuses on the admissibility of evidence, for instance, whether hearsay statements may be admitted or a topic is appropriate for expert testimony. But Chapter 8 focuses on key procedural considerations that affect evidentiary issues in the litigation process—namely, the system of evidence rules and institutions that orchestrate the fact-proving and fact-finding process through the use of burdens of proof, production, and persuasion as well as through presumptions. In this edition, this material is examined through the lens of the logic of fact-finding developed in detail in the first two chapters of the volume.

In Chapter 9, Judicial Notice, there is a discussion of how restrictions of the judicial role may respond in part to theoretical and in part to practical limitations on the ability of judges to make findings of fact necessary for responsible legislative judgments. From a pedagogical point of view, we find it useful to put this material late in the course, because much of it is quite sophisticated and requires an understanding of the problems and limitations of proof through ordinary techniques. The material on judicial notice of law is limited, but sufficient so that the topic can be covered in this course if it is not taken up in courses in Civil Procedure or Conflicts.

Changes and updating that have been made include the insertion of source material and notes related to technological advances and judicial notice, especially with respect to (1) the hazards of judicially noticing online information and (2) the pros and cons of the judicial preference to notice information from government websites rather than private ones. A note has been added in the adjudicative facts section raising the issue about whether, in certain circumstances, judicial notice can infringe upon a criminal defendant's right to jury trial by removing certain questions from the factfinder.

The material on Privileges in Chapter 10 has been brought up-to-date and augmented with many new cases. Questions are raised why, as is suggested by many scholars, privileges are disfavored and whether the privilege is truly a "hindrance" or "blockade" to the fact-finding mission and, if so, whether that is justified.

The section on the privilege against self-incrimination traces in detail the doctrines governing the claim of the privilege by a witness or one to whom a subpoena duces tecum has been issued. This section also deals with the privilege of the criminal defendant but does not directly address the privilege of the criminal suspect outside of a courtroom setting. Thus, as in previous editions, Miranda v. Arizona and its progeny are not treated here, except in limited contexts such as in connection with admissions by silence after warnings. The assumption is that the Miranda doctrine is being given detailed coverage in the Criminal Procedure course.

As in other instances, account has also been taken of the new dimensions for some privilege issues arising out of technological, scientific and societal developments since the previous edition: Thus compulsory DNA collection laws pose

additional questions for the application of the privilege against self-incrimination, and private papers stored in electronic form present a new context for issues relating to subpoenaed documents. The note regarding the application of the spousal adverse testimony privilege to same-sex marriages has been updated and bolstered; similarly, information has been added regarding unmarried co-inhabitants. In connection with the "dangerous patient" exception to the psychotherapist-patient privilege, a note has been added about a possible application of a similar duty to warn school administrators in light of the spate of school shootings in recent years. A note has been added dealing with the enactment of Federal Rule 502 and, in particular, Federal Rule 502(b), which addresses the inadvertent disclosure of confidential attorney-client communications. Boston College's Belfast Project, and the forced disclosure of information about Sinn Fein leader Gerry Adams, also provided an interesting context for consideration of the scholar's privilege.

The book easily accommodates a three to six unit course and also advanced seminars. Alternative suggested syllabi providing page assignments that can be used in Evidence courses of varying length will be made available to instructors who plan to use the book for their courses. The comprehensiveness and currency of the book also makes it usable for many years as a basic one volume treatise and desk book for those who used the book as students, for practitioners and for judges and scholars of the law of Evidence.

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UNIVERSITY CASEBOOK SERIES®

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TENTH EDITION

PROLOGUE

Every lawyer should be versed in the subject of evidence. We vigorously endorse this claim despite what might well seem like contrary evidence—the fact that the frequency of courtroom trials is decreasing so much that extensive training to prepare for them hardly seems worth the effort. Civil trials have long since become the exception rather than the rule, with the great majority of cases being settled, albeit often with extensive discovery and depositions having taken place. Even the incidence of criminal trials seems to be dramatically decreasing. See Benjamin Weiser, Trial by Jury, a Hallowed American Right, Is Vanishing, N.Y. Times, Aug. 8, 2016, http://www.nytimes.com/2016/08/08/nyregion/jury-trials-vanish-and-justice-is-served-behind-closed-doors.html?_r=0. Weiser reports that the number of criminal trials in several new york federal courthouses has been reduced by one half during the past decade. In the Southern District of New York, for example, only 50 trials took place in 2015, the lowest number since 2004, with judges lamenting this trend.

If trials are truly becoming almost a thing of the past, and, accordingly, courses that are geared to courtroom practice—knowing what objections to make and when, and the like—may seem less relevant and appropriate for the preparation of students for the practice of law, why do we maintain that Evidence remains a vital subject? What implications does the diminishment of trials and training for trials have for the course on Evidence and Evidence casebooks?

The exercise in analysis, an understanding of the theory and policies underwriting the reasons for the various evidentiary doctrines, and the development of the ability to think creatively about evidence issues, all of which would be needed were cases to go to trial, are also essential to the daily work of lawyers even in the absence of trials. To be equipped to deal with the kinds of matters that arise in the practice of law requires in-depth understanding of, and how to deal with, facts involved in the matter under consideration. Often the issues and requisite analyses in a situation involving lawyers representing clients are quite complex, and they require familiarity with and understanding of scientific, technological, economic, social, or political underpinnings of litigation. To a significant extent, this observation applies no matter the nature of the practice, whether private, personal injury, commercial, corporate, class action or criminal practice, or dealing with government agencies.

Training in Evidence for addressing any of these kinds of matters requires a comprehensive approach that blends theoretical and practical concerns and contains, for example, materials on new developments in scientific evidence, while also applying new insights from fields such as logic and probability. It requires a course, and teaching materials, that provides a deep, broadly applicable foundation in the process of "finding" and reasoning about the facts that are vital parts of legal analysis.

It is also the case that while fewer formal trials are occurring, other types of hearings and proceedings—arbitration, mediation, hearings before administrative agencies, as well as foreign, international tribunals, and military proceedings—still take place, some, possibly at an increased frequency. So formal and informal proceedings still play a role in the handling of disputes, just with fewer traditional trials before state or federal judges.

Thus, it is useful to know and understand the rules of evidence for at least two reasons. One may, in fact, end up in a formal or informal proceeding. But it is also the case that being familiar with the rules at a deeper level provides guidance for the kinds of issues that need to be addressed and the values that need to be applied in dealing with issues of fact even when the matter never reaches the stage of a proceeding.

Settlement negotiations take place, we may say, *in the shadow of litigation*—that is, with an awareness of the potentials and operations of litigation. Even when matters are settled before proceedings occur, legal counsel needs to prepare as if proceedings may occur, since one never can be sure that the matter will settle. And even were there a high degree of certainty that negotiation would lead to settlement, it is crucial that counsel take into account the kinds of issues that may arise, both factual and legal, in order to engage in a fully-informed negotiation. A full understanding of the facts and how they bear on and may be used in the matter is needed.

Indeed, further, standard legal advice also is and ought to be given in the shadow of litigation. Lawyers engage in functions and provide advice and counsel in many different contexts in which disputes may not (yet) have arisen, and the lawyer's task is to try to avoid disputes and anticipate, if they were to arise, how best to protect the interests of his or her client. Thus, knowledge and understanding of facts in light of the potential evidentiary issues is also an important foundation for drafting contracts or negotiating deals or advising clients on policy and actions to be taken based upon the likelihood of future events, including litigation.

Whatever the context in which lawyers function, there will always be a need to assess the facts or evaluate the evidence. The particular context will determine the standards and whether particular evidentiary doctrines are relevant. Lawyers should always try to be familiar with alternate ways for dealing with the matters at hand as well as with cutting edge developments where scientific or other bodies of learning are relevant.

The raison d'etre for, and the primary strength of, the course in Evidence these days, more than any other in the law school curriculum, should be to provide the foundation for fact-oriented legal analysis that takes account of the prospect of litigation, even though actual litigation may be unlikely to take place. A broad-gauge, comprehensive approach to the subject of Evidence will best prepare students for their post-law school professional careers and enable them to guide their clients through the often rough waters that are the stuff of the modern practice of law.

CHAPTER 1

RELEVANCY AND RELATED PROBLEMS

1. INTRODUCTION

SELECT CASES ON EVIDENCE AT THE COMMON LAW,
JAMES BRADLEY THAYER (1892)

What is our law of evidence? It is a set of rules which has to do with judicial investigations into questions of fact. . . . These rules relate to the mode of ascertaining an unknown, and generally a disputed, matter of fact, in courts of justice. But they do not regulate the process of reasoning and argument. This may go on after all the "evidence" is in, or when all the facts are admitted except such as are deducible by reasoning from these admitted facts. . . . But when one offers "evidence," in the sense of the word which is now under consideration, he offers to prove, otherwise than by mere reasoning from what is already known, a matter of fact to be used as a basis of inference to another matter of fact; as when I offer the testimony of A. to prove the fact in issue,—for even direct testimony, to be believed or disbelieved, according as we trust the witness, is but a basis of inference,—or to prove an evidential fact from which, by a process of reasoning, the fact in issue may be made out; and as when I present to the senses of the tribunal a visible object which may furnish a ground of inference. In giving evidence we are furnishing to a tribunal a new basis for reasoning. This is not saying that we do not have to reason in order to ascertain this basis; it is merely saying that reasoning alone will not, or at least does not, supply it. The new element which is added is what we call the evidence.

A. THE RELEVANCY RULES AND DOCTRINES: LOGICAL, CONDITIONAL, AND PRAGMATIC RELEVANCY

The concept of relevancy is basic to the law of evidence. It provides the framework on which any rational system of proof is constructed. This is reflected in the four most important provisions of the Federal Rules of Evidence, set out here because they are the capstones of the Rules.

Rule 401

TEST FOR RELEVANT EVIDENCE

Evidence is relevant if:

(a) it has any tendency to make a fact more or less probable than it would be without the evidence; and

(b) the fact is of consequence in determining the action.

Rule 402

GENERAL ADMISSIBILITY OF RELEVANT EVIDENCE

Relevant evidence is admissible unless any of the following provides otherwise:

- the United States Constitution;
- a federal statute;
- these rules; or
- other rules prescribed by the Supreme Court.

Irrelevant evidence is not admissible.

Rule 403

EXCLUDING RELEVANT EVIDENCE FOR PREJUDICE, CONFUSION, WASTE OF TIME, OR OTHER REASONS

The court may exclude relevant evidence if its probative value is substantially outweighed by a danger of one or more of the following: unfair prejudice, confusing the issues, misleading the jury, undue delay, wasting time, or needlessly presenting cumulative evidence.

Rule 104(a) & (b)

PRELIMINARY QUESTIONS

(a) In General. The court must decide any preliminary question about whether a witness is qualified, a privilege exists, or evidence is admissible. In so deciding, the court is not bound by evidence rules, except those on privilege.

(b) Relevance That Depends on a Fact. When the relevance of evidence depends on whether a fact exists, proof must be introduced sufficient to support a finding that the fact does exist. The court may admit the proposed evidence on the condition that the proof be introduced later.

Federal Rule of Evidence ("Fed.R.Evid.") 401 governs what the Fed.R.Evid. refer to as "relevancy," while Fed.R.Evid. 104(a) and (b) govern what those rules refer to as "relevance that depends on a fact." Evidence analysts commonly refer to the relevance rule of Fed.R.Evid. 401 as "logical relevancy," the relevance rules of 104(a) and (b) as "conditional relevancy," and the relevance rule of Fed.R.Evid. 403 as "pragmatic relevancy."

The basic rule of logical relevancy (Fed.R.Evid. 401) is that anything proffered to the mind of the trier (the trier's combination of senses and reason) that may change his or her evaluation of the probabilities that a "fact that is of consequence to the determination of the action" is true, is logically relevant and admissible unless excluded under the many rules studied in this course. Note that the common law referred to propositions that are "material," meaning, propositions that are pertinent to the litigation, as determined by the substantive laws that govern and guide the litigation. Fed.R.Evid. 401 refers to material propositions as facts that are "of consequence to the determination of the action," and thus it combines the two common law concepts of logical relevancy and materiality.

Even the most superficial reading of Rules 401 and 104(a) and (b), and the above summary of those rules, suggests the critical importance in litigation of determining the meaning of the phrases "fact that is of consequence to the determination of the action" (common law's material propositions) and "When the relevance of evidence depends on whether a fact exists." See also, e.g., Cal.Evid.Code §§ 140, 190, 210, 235,

350, 351, 400–06. Phrases that evidence analysts use with the same meaning as the phrase in Fed.R.Evid. 401 "fact that is of consequence to the determination of the action" are "ultimate facts," "operative facts" and "material propositions of fact." In the notes in this section, we will generally use the last phrase, which is somewhat more precise.

When the trier is a jury guided by a trial judge, Fed.R.Evid. 104(a) and (b) offer and require an explicit division of labor between the judge and the jury. When the trial judge deems certain facts to be "conditioned" on other facts, evidence as to those conditioned facts are given to the minds of the jurors to ascertain. (The Advisory Committee Note to Fed.R.Evid. 104 offers this example: "[W]hen a spoken statement is relied upon to prove notice to X, it is without probative value unless X heard it." In this example, the relevancy of fact of the spoken statement to X is conditioned on whether X heard the statement. As we shall see, the effort in the Rules to achieve this division of labor is somewhat troubled.)

Every judicial trial is controlled by the questions of fact made material by applicable rules of substantive law. In accord with Fed.R.Evid. 401 and 104 (and, of course, many other of the Fed.R.Evid. that might come into play, such as rules for hearsay or lay and expert witness testimony), for example, the trier must determine, for the purposes of the litigation, whether the following material propositions of fact have been established with the degree of probability that rules of applicable substantive law require:

- (1) the defendant killed X and (2) intended to do so (substantive criminal law)
- the defendant (1) issued a prospectus and (2) knew it contained false statements (substantive securities regulation law)
- Y was (1) driving at 60 miles per hour when (2) his car hit the plaintiff (substantive tort law)
- (1) the substance carried by the defendant (2) was cocaine, (3) was known by him to be cocaine and (4) was intended by him to be distributed (substantive criminal law)
- the food (1) sold by the defendant to the plaintiff (2) caused the plaintiff to (3) become ill (substantive tort law)

These examples are obviously simplifications of the deeply complex fact-finding that would be required by the substantive laws that would determine what facts are material.

If the factfinder (judge, or jury guided by judge) finds that all the material propositions of fact that substantive law requires to be found in order to bring into play a rule of law are sufficiently proven, then certain legal consequences will follow—e.g., a defendant may be subject to certain criminal penalties or to damages in tort. As will become more apparent from the materials that follow, what will be relevant may well depend upon how the rule of law is formulated—i.e., what is the precise material proposition of fact.

Sprint v. Mendelsohn

Supreme Court of the United States, 2008.
552 U.S. 379, 128 S.Ct. 1140, 170 L.Ed.2d 1.

■ JUSTICE THOMAS delivered the opinion of the Court.

We note that, had the District Court applied a *per se* rule excluding the evidence, the Court of Appeals would have been correct to conclude that it had abused its discretion. Relevance and prejudice under Rules 401 and 403 are determined in the context of the facts and arguments in a particular case, and thus are generally not amenable to broad *per se* rules. See Advisory Committee's Notes on Fed. Rule Evid. 401, 28 U.S.C.App., p. 864 ("Relevancy is not an inherent characteristic of any item of evidence but exists only as a relation between an item of evidence and a matter properly provable in the case"). But, as we have discussed, there is no basis in the record for concluding that the District Court applied a blanket rule.

. . .

The question whether evidence of discrimination by other supervisors is relevant in an individual ADEA case is fact based and depends on many factors, including how closely related the evidence is to the plaintiff's circumstances and theory of the case. Applying Rule 403 to determine if evidence is prejudicial also requires a fact-intensive, context-specific inquiry. Because Rules 401 and 403 do not make such evidence *per se* admissible or *per se* inadmissible, and because the inquiry required by those Rules is within the province of the District Court in the first instance, we vacate the judgment of the Court of Appeals and remand the case with instructions to have the District Court clarify the basis for its evidentiary ruling under the applicable Rules.

It is so ordered.

NOTE

Notice the *Sprint* Court's emphasis on the fact-intensive and case-relative inquiry that a judge must make in applying Fed.R.Evid. 401 and 403. This same idea is reflected in the fact that—as the *Sprint* case also reveals—the standard of review of an appellate court for evidentiary holdings by a trial court is "abuse of discretion." This is the most deferential standard possible for appellate court review of a trial court, and the use of this standard reflects a division of labor between trial and appellate courts regarding the application of evidence rules. That division is based on the policy judgment that trial courts are best situated to make the kinds of fact-intensive judgements that so many rules of evidence require, since they actually see the witnesses, assess demeanor, and in other ways encounter the "hot record" that a litigated case generates, while an appellate court has access only to the cold record. Notice that the opinion also promotes deference to a district court by an appellate court in an additional way, by not presuming an erroneous evidentiary ruling by a district court when that court's ruling was ambiguous.

B. REASONING WITH RELEVANCY RULES

(1) CONSTRUCTING A CHAIN OF INFERENCES TO APPLY THE RELEVANCE RULES

In determining admissibility, trial judges must shrewdly weigh the propriety of admitting evidence offered to build the bases for inferences designed to convince the trier that a material proposition of fact is probably true or untrue. To some extent the judges are guided by rules resulting from frequent recurrence of particular problems. To a large extent, however, they do not have these guides and must resort to practical common sense and their understanding of how the world inside and outside the courtroom operates.

Determinative factors for applying Fed.R.Evid. 403 may be suggested in a series of questions: (1) Is the offered evidence logically relevant? (2) Will its presentation consume much time? (3) Will it befog the trier by confusing the issues? (4) Will it unfairly surprise the opponent? (5) Will it tend to excite the emotions of the trier to the undue prejudice of the opponent? (6) Are there considerations of so-called public policy which reception of the evidence would offend or tend to offend? (7) Is the value of the evidence upon any issue of the case sufficient to substantially outweigh disadvantages perceived under questions (2)–(6) inclusive? (As we shall see later in this Chapter, in *Old Chief v. United States*, 519 U.S. 172 (1997), the Supreme Court articulated a complex and perhaps counter-intuitive analysis for a trial judge to use when applying Fed.R.Evid. 403.)

The last question as to relative help and hindrance cannot be answered well without exact scrutiny of the process of inference. Whenever an item of evidence is offered as tending circumstantially—that is, inferentially—to establish a proposition the truth of which is at issue in a case, it is essential to articulate honestly and fully the inference or series of inferences invited. *Each specific step of reasoning must invariably match a premise, usually unarticulated, which the judge judicially notices.* (We expand this vital point and offer a more detailed examination of this inference process in Chapter 2 on the Logocratic Method of analysis of evidence rules and arguments. We explore the doctrine of judicial notice in Chapter 9.)

Consider this example (borrowed from E. Morgan, Basic Problems of Evidence 185–88 (1961)). Suppose D is being prosecuted for the murder of H. At trial, the prosecutor proffers as evidence a love letter that—she claims—D wrote to H's wife W. Does it pass the test of logical relevance in Fed.R.Evid. 401? (Other rules in the Fed.R.Evid. are also pertinent to the admissibility of the letter, such as rules on authentication in Fed.R.Evid. Article IX and rules on hearsay in Article VIII. This book covers those rules in later chapters.) The contested material proposition to which, the prosecutor claims, the letter is logically relevant is:

D is the person who killed H.

To evaluate this proffer under Fed.R.Evid. 401, on what inferential series might the judge rely? The series might run from (1) the expression in the letter to (2) D's love of W to (3) D's desire for exclusive possession of W to (4) D's wish to get rid of H to (5) D's plan to get rid of H to (6) D's execution of the plan by killing H. More specifically, we may represent the inferences on which the judge might rely in this way:

(1–2) A man who writes a love letter to a woman probably does love her.

(2–3) A man who loves a woman probably desires her for himself alone.

(3–4) A man who who desires the exclusive possession of a married woman probably wishes to get rid of her husband.

(4–5) A man who wishes to get rid of the husband of the woman he loves probably plans to do so.

(5–6) A man who plans to get rid of the husband of the woman he loves probably does so by killing him.

Obviously the value of item (1) as probative of conclusion (6) becomes increasingly attenuated as the number and dubiousness of the intervening inferences increases. Application of premise (1–2) to item (1) cannot produce more than little confidence of intermediate conclusion (2)—as the addition of the qualifying term "probably" in (1–2) indicates. And so on down the line. This type of reasoning is progressively attenuative. Here it fractionizes at five successive points, since there are five steps in the inference that the judge might construct to consider whether the letter is logically relevant to the material proposition. And the hypothesis that the killing was done by the man who wrote the letter bears a probabilistic relation to each step of the line of inference that the judge constructs to assess the logical relevance of the letter to the defendant's guilt. Though it is tricky to precisely and accurately state what exactly that probabilistic relation is, we may fairly say that the probabilities of each step are not very high, and that, taken together, the probability of the several steps is even more attenuated.

Despite this attenuation of probabilities and the resulting attenuated probative force of many proffered items of evidence, the judge often concludes that the proffered item is logically relevant to the hypothesis for which the proponent offers it because there is enough weight to justify consideration by the trier and admits the evidence (of course, under Fed.R.Evid. 402, not all logically relevant evidence is admissible). At the same time, though, he may also be forced to conclude, if he conscientiously follows through the attenuation, that the item of evidence standing alone would not sustain a finding of the ultimate conclusion desired. When this is so, and the burden of persuasion is upon the party offering the evidence, that party must undertake an accumulative process by collecting and presenting other items of evidence tending toward the conclusion through other supporting lines of proof. In Morgan's case of the love letter offered to prove murder, such other items might be:

(a) threats by D against H's life

(b) purchase of a pistol and ammunition by D

(c) procurement by D of a key to the front door of H's house

(d) D's presence in the neighborhood of the house shortly before and after the killing

(e) the finding of D's hat in the house immediately after the killing.

See discussion and illustrations in O'Hara and Osterburg, An Introduction to Criminalistics 666–79 (1949).

Plainly enough it is the presence of more or less incalculable human factors that makes particularly substantial the lack of certitude in the hypothetical situations mentioned above. Human beings may resist temptation instead of yielding to it, may

speak or write jocosely although with the appearance of seriousness, or may have interests, intentions, or motives not readily perceptible to others. Higher degrees of certitude are readily and properly obtainable when the variability of human impulse and action is removed. Thus if reliable observers of the commission of a crime agree that the guilty person was baldheaded, one-eyed, lacking two fingers on his right hand, of albino complexion, club-footed, and afflicted with a nervous tick and an impediment of speech, the police may feel just confidence of having the right man if they pick up near the time and place of the crime a person with this entire distinctive collection of characteristics. And, to prove presence at some time of a particular person in a room, the finding on walls and furniture of finger prints exactly agreeing with his may be even more convincing. See generally, James, Relevancy, Probability and the Law, 29 Cal. L. Rev. 689 (1941).

(2) THE INFERENTIAL PROBLEMS WITH CONDITIONAL RELEVANCY

As noted above, the concept of Conditional Relevancy is embodied in Federal Rule 104(b). It was designed to deal with the division of functions between judge and jury, rather than the probabilistic relation between evidence and material propositions and the assessment of the probable truth of the latter that are the subjects of Fed.R.Evid. 401 and 403.

Scholars have repeatedly and cogently challenged the logical (and mathematical) coherence of the division of labor between judge and jury that Fed.R.Evid. 104(a) and (b) contemplate. Among others, two very insightful articles on the conceptual problems with Fed.R.Evid. 104(a) and (b) are Vaughn C. Ball, The Myth of Conditional Relevancy, 14 Ga. L. Rev. 435 (1980) and Ronald J. Allen, The Myth of Conditional Relevancy, 25 Loy. L.A. L. Rev. 871 (1992) (same title as Ball, op. cit.). Professor Allen summarizes the critiques that Vaughn Ball and he offer as follows:

> As the Advisory Committee note indicates, Professor Morgan was the intellectual source for the conditional relevancy concept, and he, like the Advisory Committee, explicated the concept through examples:
>
> > It often happens that upon an issue as to the existence of fact C, a combination of facts A and B will be highly relevant, but that either without the other will have no significance. For example, if M is charged with having caused the death of X, the fact that X carried life insurance in favor of M is entirely irrelevant unless M knew of it. Or if P sues D for breach of contract, and offers evidence of an oral offer made to X and acceptance thereof by X in behalf of D, the offer and acceptance are irrelevant unless X's authority to act for D also exists.
>
> Ball demonstrated that both of these comments are logically false save, in his view, only one uninteresting case. The proof is breathtaking in its simplicity: in any case comprising more than a single element, evidence of one element is relevant so long as the probability of no other element is 0.0. Consider the contract hypothetical, and assume that there are two "facts." The first is offer and acceptance, and the second is authority. The received wisdom says evidence of offer and acceptance is conditionally relevant upon proof of authority, but of course the reverse is also true. Evidence of authority is conditionally relevant upon proof of offer and acceptance. In

> fact, neither is conditionally relevant upon the other, unless the probability of one of them is 0.0. Assume that the probability of authority is not 0.0. In that case, any evidence that affects the probability of offer and acceptance obviously may affect the outcome of the case. By making the probability of offer and acceptance higher or lower, the probability of which one of the parties will ultimately prevail is changed, which obviously means the evidence is relevant. Holding the probability of authority constant, if the probability of offer and acceptance increases, then the probability of finding a valid contract increases, and the reverse is true as well. Consequently, evidence of offer and acceptance is in no fashion dependent upon evidence of authority, and thus the received wisdom on conditional relevancy is wrong.
>
> The only qualification that Professor Ball felt it necessary to express to his thesis occurs if the probability of any element is 0.0. In that case, evidence on other elements is conditionally relevant on proof of the element whose probability is 0.0. Why? Because proof of offer and acceptance is of no consequence whatsoever if the probability of authority is 0.0. If the probability of authority is 0.0, a directed verdict of no contract must be entered, no matter what the evidence of offer and acceptance is. This is, to be sure, a case of conditional relevancy, but it is also a case in which the concept is insignificant because the judge will always direct a verdict for insufficiency of evidence. Thus, the only case in which the doctrine of conditional relevancy can operate is, ironically, a case in which it is of no consequence.
>
> . . .
>
> No evidence is simply relevant in its own right. Evidence is relevant only because there is an intermediate premise or set of premises that connects the evidence to some proposition involved in the litigation.16 But if determining the relevance of evidence always requires relying on some intermediate premise, no distinction can be drawn between relevancy and conditional relevancy.

Allen, Op. Cit. 872–73, 877 (footnotes omitted).

2. EVIDENT VIRTUE: CONCEPTS AND PROCEDURES OF THE LOGOCRATIC METHOD

A. THE TERM 'LOGOCRATIC'[1] AND THE BASIC UTILITY OF THE LOGOCRATIC METHOD FOR THE EVIDENCE ANALYST

We here introduce a method of analysis of evidence rules, principles, and institutions that many students of evidence (including law students, lawyers, and judges, in the U.S. and Europe) have found useful. The method is called the "Logocratic Method," a systematic, precise method for assessing the virtues (and

[1] In this Chapter we follow a convention among philosophers of using single-quotation marks to name a word or phrase placed within matching marks. Thus, for example, 'Harvard' is the name of a university (here, the word 'Harvard' is *mentioned*), while Harvard is a university (here, the word 'Harvard' is *used*). Double quotation marks used to mark a quotation of what some person or group has said or might say are used in the standard way.

vices) of arguments, whether one's own or others', including those of judges and lawyers and moot court competitors. (The Greek term λογοζ [*logos*] means, among other meanings, 'argument' and the term κρατοζ [*kratos*] means 'strength'—compare the word 'democracy', the strength of the *demos*.) The Logocratic Method takes *virtue* seriously—the virtues of arguments of the kind that judges, lawyers, law students, and other legal analysts make. An argument's strength can be one of its virtues, weakness, one of its vices. Because the rules of relevance introduced above are so fundamentally a part, overtly or covertly, of arguments in evidence law, this Relevance chapter is an appropriate place to introduce this rigorous method for assessing the virtues of evidentiary arguments.

We will in this and some other chapters use this method to help explain and analyze cases and the evidence rules and arguments that those cases deploy. Chapter 2, new to this (tenth) edition, is wholly devoted to a more detailed look at the Logocratic Method and its application to the analysis of evidence rules, arguments, and doctrines. Whether or not one learns the details (and logic) of this method of evaluating and creating evidentiary arguments, the framework of the Logocratic Method also provides a system of explanation of the nature of arguments with evidence that is independently valuable for the evidence student, evidence jurist, and lawyer for the clarity of understanding it can bring.

Although the Logocratic Method is applicable to any type of argument, we present it here with a focus on the Logocratic framework for assessing the virtuous strengths and vicious (characterized by or pertaining to vice) weaknesses of *evidentiary legal arguments*, arguments offered in litigation in which evidentiary propositions are proffered to support hypotheses. The focus is on American law, but the Logocratic analysis offered here can be (and has been) applied to handle evidentiary arguments in other systems of litigation.

For any legal system that aspires to have an adjudicative fact-finding process that is sufficiently reliable to meet the requirements of justice (see Fed.R.Evid. 102: "These rules should be construed so as to administer every proceeding fairly, eliminate unjustifiable expense and delay, and promote the development of evidence law, to the end of ascertaining the truth and securing a just determination."), we may fashion an analogue for the Socratic maxim "the unexamined life is not worth living": *the unexamined evidentiary argument is not worth believing*. The Logocratic Method seeks to help the evidence analyst pursue that Socratic mission, tailored to the rules and institutions of evidence law.

B. USING KNAPP V. STATE TO SHOW THE LOGOCRATIC METHOD AT WORK

To help explain the motivation for and operation of the Logocratic Method, and the reason for including a presentation of it in this book and Chapter, we present an analysis of a deeply illuminating case from the Supreme Court of Indiana, *Knapp v. State*, 79 N.E. 1076 (Ind. 1907). We shall use the example of *Knapp* to present and explain basic features of the Logocratic Method that are of perhaps greatest and most immediate use to the evidence analyst, especially the idea that *evidence is argument* and thus that the evaluation of evidential claims necessarily involves evaluations of the virtuous strengths and vicious weaknesses of arguments.

In *Knapp*, the defendant Knapp had been convicted of first-degree murder for killing a local marshal. In the portion of the opinion that interests us, the court considers the defendant's claim that it was an error for the trial judge to have admitted testimony by one of the prosecution's witnesses, because the testimony was not *logically relevant* (under the state version of the rules for logical relevance—compare Fed.R.Evid. 401, quoted above). Here is the relevant portion of the opinion:

Knapp v. State

Supreme Court of Indiana, 1907.
168 Ind. 153, 79 N.E. 1076.

■ GILLETT, J.

Appellant appeals from a judgment in the above-entitled cause, under which he stands convicted of murder in the first degree. Error is assigned on the overruling of a motion for new trial.

Appellant, as a witness in his own behalf, offered testimony tending to show a killing in self-defense. He afterwards testified, presumably for the purpose of showing that he had reason to fear the deceased, that before the killing he had heard that the deceased, who was the marshal of Hagerstown, had clubbed and seriously injured an old man in arresting him, and that he died a short time afterwards. On appellant being asked, on cross-examination, who told him this, he answered: "Some people around Hagerstown there. I can't say as to who it was now." The state was permitted, on rebuttal, to prove by a physician, over the objection and exception of the defense, that the old man died of senility and alcoholism, and that there were no bruises or marks on his person. Counsel for appellant contend that it was error to admit this testimony; that the question was as to whether he had, in fact, heard the story, and not as to its truth or falsity. While it is laid down in the books that there must be an open and visible connection between the fact under inquiry and the evidence by which it is sought to be established, yet the connection thus required is in the logical processes only, for to require an actual connection between the two facts would be to exclude all presumptive evidence. Best on Evidence (Morgan's Ed.) § 90. Within settled rules, the competency of testimony depends largely upon its tendency to persuade the judgment. 1 Bentham, Rationale Judicial Ev., 71, et seq.; Chicago, etc., R. Co. v. Pritchard (Ind. Sup.) 79 N. E. 508. As said by Wharton: "Relevancy is that which conduces to the proof of a pertinent hypothesis." 1 Wharton, Ev. § 20. In Stevenson v. Stuart, 11 Pa. 307, it was said: "The competency of a collateral fact to be used as the basis of legitimate argument is not to be determined by the conclusiveness of the inferences it may afford in reference to the litigated fact. It is enough if these may tend in a slight degree to elucidate the inquiry, or to assist, though remotely, to a determination probably founded in truth." See, also, Trull v. True, 33 Me. 367; State v. Burpee, 65 Vt. 1, 25 Atl. 964, 19 L. R. A. 145, 36 Am. St. Rep. 775; Brown v. Clark, 14 Pa. 469; Wells v. Fairbank, 5 Tex. 582; Holmes v. Goldsmith, 147 U. S. 150, 13 Sup. Ct. 288, 37 L. Ed. 118.

We are of opinion that the testimony referred to was competent. While appellant's counsel are correct in their assertion that the question was whether appellant had heard a story to the effect that the deceased had offered serious violence to the old man, yet it does not follow that the testimony complained of did not tend to negative the claim of appellant as to what he had heard. One of the first

principles of human nature is the impulse to speak the truth. "This principle," says Dr. Reid, whom Professor Greenleaf quotes at length in his work on Evidence (volume 1, § 7n), "has a powerful operation, even in the greatest liars; for where they lie once they speak truth 100 times." Truth speaking preponderating, it follows that to show that there was no basis in fact for the statement appellant claims to have heard had a tendency to make it less probable that his testimony on this point was true. Indeed, since this court has not, in cases where self-defense is asserted as a justification for homicide, confined the evidence concerning the deceased to character evidence, we do not perceive how, without the possibility of a gross perversion of right, the state could be denied the opportunity to meet in the manner indicated the evidence of the defendant as to what he had heard, where he, cunningly perhaps, denies that he can remember who gave him the information. The fact proved by the state tended to discredit appellant, since it showed that somewhere between the fact and the testimony there was a person who was not a truth speaker, and, appellant being unable to point to his informant, it must at least be said that the testimony complained of had a tendency to render his claim as to what he had heard less probable. . . .

C. WHAT EXACTLY IS EVIDENCE?

(1) OPENING QUESTIONS ABOUT THE NATURE OF EVIDENCE

The **proponent** of an item of evidence is the person proffering the evidence and seeking to have it admitted for consideration by the fact-finder. The **opponent** of an item of evidence is the person seeking to exclude the opposing party's proffered evidence from consideration by the fact-finder. In *Knapp* the prosecutor was the proponent and defendant Knapp was the opponent. The disputed item of evidence was testimonial evidence by a physician regarding how an old man (who apparently had been identified in the trial proceedings) had died. The prosecutor proffered this testimony in the context of defendant Knapp's argument for self-defense, in which the defendant claimed that he had heard—from whom, he could not say—that his victim (the marshal whom he had shot and killed) had beaten this old man to death. The prosecutor sought to have the physician testify that the old man had died from senility and alcoholism and that there were no bruises or marks on his person when he died. The evidence was deemed relevant, and admissible, by the trial judge, and that ruling was on appeal in the *Knapp* case.

So one disputed item of evidence in *Knapp* was testimonial evidence by the prosecution witness. But what exactly is evidence? As a philosopher might put this question, what is the *ontology* of evidence—what kind of entity is it? Is it a *thing*, an object like a knife or a fingerprint or a blood sample or a bloody glove? Is it an *action*, such as running away from the scene of a crime (see, e.g., Allen v. United States, 164 U.S. 492, 499 (1896) (flight by the accused is competent evidence having a tendency to establish guilt))? Is it all of these, none of these? Here we can learn from *Knapp*. Consider this passage from the opinion:

> The state was permitted, on rebuttal, to prove by a physician, over the objection and exception of the defense, that the old man died of senility and

> alcoholism, and that there were no bruises or marks on his person. Counsel for appellant contend that it was error to admit this testimony.

Clearly the prosecutor sought to use the physician's testimony as evidence. How is it that the physician's testimony could be *evidence* at all? What might *Knapp* teach us as we seek to answer this question?

When evidence enters the process of *reasoning*—it is *propositional* and *argumental*. The *Knapp* prosecutor calls the physician as a witness to provide testimonial evidence that is in a condensed form of *argument*. We can fairly represent this argument, in the abbreviated form in which it likely occurs to the prosecutor and judge, as follows:

evidentiary proposition ε:	*the physician testified that* the old man died of senility and alcoholism and that there were no bruises or marks on his person when he died
hypothesis h:	the old man died of senility and alcoholism and there were no bruises or marks on his person when he died

The prosecutor claimed (in effect) that the evidentiary proposition ε *provides a good reason for the factfinder to infer* that the conclusion, hypothesis h, is true (or sufficiently likely to be true to be believed). This simple example illustrates something deep and important about the concept of evidence itself, namely, ***evidence is argument.*** Thus we may frame the **argument conception of evidence.**

(2) ARGUMENT, AND THE ARGUMENT CONCEPTION OF EVIDENCE

Two basic claims comprise the argument conception of evidence. First, all argument consists of sets of propositions that stand in a particular relation. Second, all evidence is argument.

Let's consider the first claim. In explaining the concept of "relevancy" in evidence law—the subject of this chapter—jurist George F. James, says:

> Relevancy, as the word itself indicates, is not an inherent characteristic of any item of evidence but exists as a relation between an item of evidence and a proposition sought to be proved.

James, Probability and the Law, 29 Cal. L. Rev. 689 (1941). Following James (and slightly adapting his point for our purposes), we will find it useful to speak about evidence as a *relation* between two kinds of propositions:

> (i) an *evidentiary proposition*, which we will label 'ε_i' (the subscript 'i' indicates some number in a series, because not infrequently more than one item of evidence will be at issue in evidence litigation)
>
> and
>
> (ii) a *hypothesis proposition* ('hypothesis' for short) for which evidentiary propositions are offered, which we will label 'h_i'

In order to make arguments about evidence we must, as it were, *convert objects and events into propositions*. Thus, one might say:

(1) "The knife found at the scene of the crime that had the defendant's fingerprints on it is evidence that the defendant stabbed the victim."

Proposition (1) suggests that there is a *relation* between an *object* (the knife with the defendant's fingerprints on it) and a proposition (the defendant stabbed the victim), namely, that the *object* is related to the *proposition* by being evidence for the truth of the proposition. James, in the quotation above, speaks this way. There's nothing wrong with that way of speaking. But when judges and lawyers claim that some object (e.g., a knife with fingerprints) or an action or event (e.g., a person's running away when police come to his house) is evidence for some proposition (the person whose fingerprints were on the knife committed the stabbing; the person who ran from the police was guilty of the crime whose culprit the police were seeking), those judges and lawyers are actually "propositionalizing" the object or action or event. That is, they are claiming that *the fact that* the knife found at the scene of the crime had the defendant's fingerprints on it is evidence for the hypothesis that the defendant committed the stabbing. And *facts* are propositions.

Thus, we would represent proposition (1), in our Logocratic framework, as

ε_1 The knife found at the scene of the crime had the defendant's fingerprints on it

h_1 The defendant committed the crime

In *Knapp*, the contested item of evidence was testimony. The prosecutor offered the testimony of the doctor (evidentiary proposition ε_1) as evidence that what the doctor stated (hypothesis h_1) was true.

Let's now bring in a definition of the term 'argument' that can help us deepen our observation that evidence is argumental. An argument is a *relation* between two sets of propositions. One set is called 'premises'. We may label the whole set of premise propositions 'E' and we may label each individual premise $\varepsilon_1, \varepsilon_2, \varepsilon_3, \ldots \varepsilon_n$. The other set is called 'conclusions'. We may label the whole set of conclusion propositions 'H', and we may label each individual conclusion $h_1, h_2, h_3, \ldots h_n$. The relation that the premise-set E stands in toward the conclusion-set H is the relation *is offered to, or can be taken to, provide warrant for*. We can describe the type of support that premises are offered to provide for conclusions in two ways. One is that the premises provide *inferential support* for the conclusion. Here we say that if the premises are true (or otherwise warranted), they provide support for *inferring the conclusion*. Another way to describe this support is that the premises provide *epistemic support* for the conclusion. Here we say that if the premises are *believed*, they provide support for *believing* the conclusion.

There is thus a deep conceptual connection between the concept of evidence and the concept of argument. There is what we may call a chiasmic relation[2] between evidence and argument: just as all evidence involves argument, so also all argument involves evidence. For logic itself is the study of the different modes of logical inference that different kinds of arguments display, and an argument's *mode of*

[2] Chiasmus is a trope with the pattern

A B
B A

as in the quip, "In every generation there are both more neurons and new morons." If one connects with a straight line the A term (phoneme "mor-) with the B term (phoneme "new") the result is an "X" shape, Greek letter Chi, hence "chiasmus," "X-ness."

logical inference (or, synonymously, its *logical form*) is *the evidential relation between the argument's premises and its conclusion*.[3]

Let's use *Knapp* to illustrate this relation of evidence and logic. One of Justice Gillett's arguments may be fairly represented as an application of the rule for logical relevance (in a style not uncommon for common law writing of the time, the Justice presents a few different versions of the rule for relevance, of which this is one; compare Fed.R.Evid. 401, quoted above):

ε_1 "Relevancy is that which conduces to the proof of a pertinent hypothesis."

ε_2 Testimony by prosecution witness physician "conduces to the proof of a pertinent hypothesis"

therefore

h: Testimony by prosecution witness physician is relevant.

In the Logocratic Method we label the premises of an argument with '$\varepsilon_1, \varepsilon_2, \ldots \varepsilon_n$' precisely to let the symbol 'ε' mark the fact that *the premises of any argument are evidence for the conclusion of the argument*. Why? Because, as we have defined 'argument', the premises of an argument provide inferential (or epistemic) support for the conclusion. If one believes that premises ε_1 and ε_2 are true (or otherwise warranted), then one has good reason to infer (or to believe) the conclusion h is true (or otherwise warranted) as well.

D. ARGUMENTS AND RULES IN THEIR NATURAL (NON-FORMAL) HABITATS: THE ENTHYMEME

Logocratic analysis is designed to handle a familiar problem in the evaluation of non-formal legal arguments ("non-formal" in the sense that judges, lawyers, and other legal arguers most often do not present their arguments, and the rules on which their arguments are based, with the arguments' and rules' full logical structure made explicit): they are most often *enthymematic*. Generally, an enthymeme is a *sentence* (including rules) or a *set of sentences* (the set may have one or more members) whose *logical structure* is not *explicit*.[4] More specifically, we may say that an *enthymeme* is any rule or argument whose logical form is not explicit in its "natural habitat"—that is, in its original mode of presentation, for example, in a judicial opinion, a lawyer's brief, a regulation, or a statute.

We identify two types of enthymeme, the *rule-enthymeme* and the *argument-enthymeme*. *Knapp* again provides illustrations of both types.

(1) RULE ENTHYMEME IN *KNAPP*

Recall that one version of the rule for relevancy that Justice Gillett offered was in this passage:

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[3] See also B. Skyrms, Choice & Chance 4 (1966) ("Logic is the study of the strength of the evidential link between the premises and conclusions of arguments.").

[4] We distinguish *sentences*, which are grammatical units in natural languages like English, French, Urdu, and Sanskrit, from *propositions*, which are abstract entities. Thus, the Latin *sentence* 'Gallia est omnis divisa in partes tres', is translated by the English *sentence* 'All Gaul is divided into three parts', but it could also be translated into the French sentence 'Tout Gaule est divisée en trois parties', and so on. The sentences in all those languages are natural language versions of the same *proposition*.

> As said by Wharton: "Relevancy is that which conduces to the proof of a pertinent hypothesis."

Clearly the justice is intending to quote, endorse, and apply this rule to his case. But, from a logical point of view, a rule has a *conditional* structure, either that of a *monoconditional* (usually referred to more simply as a "conditional"), as in

> If [such and such] then [so and so]

or as a *biconditional*, as in

> [such and such] if and only if [so and so]

In his written opinion, Justice Gillett does not explicitly present the rule for relevance in a way that makes its logical structure explicit. (Nor, by the way, do legal rules tend to appear with their logical form explicit, even in statutes and regulations.[5] Such rules have a canonical form—that is, a fixed form of words—but this canonical form is distinct from *logical form*.) We can, however, make a fair *interpretive* judgment in this context, and *represent* the rule Justice Gillett states in in a way that makes its logical form explicit. Using a simple logical tool (from the grammar of what is called "propositional deductive logic"), we might represent the rule in this way:

> evidence is relevant **if and only if** evidence conduces to the proof of a pertinent hypothesis

We have reason in context to interpret Justice Gillett's statement of the rule as a biconditional, because he seems to offer a *definition* of relevance (note his phrasing suggesting identity, "Relevancy *is that which* conduces to the proof of a pertinent hypothesis"), and the logical form of definition is that of a biconditional, as in "A person is a bachelor if and only if the person is an unmarried adult male."[6]

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[5] It is interesting to note that the most recent version of the Fed.R.Evid. contains a great many changes from the previous versions of the rules that the rule drafters call "merely stylistic." Many of those stylistic changes are actually changes that make clearer the logical structures of the rules. Compare, e.g., the current version of Fed.R.Evid. 401 ("Evidence is relevant if: (a) it has any tendency to make a fact more or less probable than it would be without the evidence; and (b) the fact is of consequence in determining the action.") with the previous version ("Relevant evidence" means evidence having any tendency to make the existence of any fact that is of consequence to the determination of the action more probable or less probable than it would be without the evidence.)

[6] Here is further explanation of the distinction between monoconditionals and biconditionals. All rules (legal, logical, and otherwise) have a conditional structure, and some are best represented as monoconditionals, others as biconditionals. Compare, for example, ε_1 and ε_2:

ε_1 if the evidence is admissible, then the evidence is logically relevant.

[See FRE 401 and FRE 402, especially the sentence 'Irrelevant evidence is not admissible.']

In jurisdictions governed by the FRE, proposition ε_1 is true, while in the same jurisdictions proposition ε_2 (the so-called converse of ε_1) is false:

ε_2 if the evidence is logically relevant, then the evidence is admissible.

[See, e.g., FRE 403]

Both ε_1 and ε_2 are conditionals. If they were both true, then the biconditional ε_3 would be true:

ε_3 the evidence is logically relevant if and only if the evidence is admissible.

Contrast the falsity of ε_3 with the truth of ε_4, the example from the text to this note:

ε_4 a person is a bachelor if and only if the person is an unmarried adult male.

It is very helpful for the legal analyst to note that sometimes a judge or lawyer states a rule-enthymeme that seems to have the structure of a conditional, but in the context in which the rule is stated is best represented as a biconditional. This is part of a larger phenomenon in the logic of legal argument referred to as the "sole sufficient condition rule," which is a rule of *interpretation* (and whose legal counterpart is the rule of interpretation *expressio unius est exclusio alterius*). Putting the sole sufficient condition rule in formal logical terms, for any two propositions α and β, if α is a sufficient condition for β

To move from the rule-enthymeme to the fair formal representation of the rule in a way that makes explicit its logical form is to *rulify* the rule. Whether or not they think in these "Logocratic" terms ('enthymeme', 'rulification', etc.), *lawyers and judges who manipulate legal rules in arguments must identify the logical elements and logical structure of legal rules in order to apply those rules to fact patterns, whether actual or hypothetical*. The Logocratic Method makes explicit, conscious, and deliberative the manipulations and understandings of rules and arguments that legal analysts already have, to some extent, but with the hope and expectation that making these moves explicit can enhance both understanding of and skill at manipulating rules and arguments, in evidence and in law (and life) more generally.

(2) ARGUMENT-ENTHYMEME IN *KNAPP*, AND ITS "*ARGUFICATION*"

The other type of enthymeme that is the focus of Logocratic analysis is the *argument-enthymeme*, which is any argument whose logical form is not explicit in its original mode of presentation (in, for example, a lawyer's brief, a judge's opinion, a scholar's article). In *Knapp*, the argument-enthymeme applies the rule on logical relevance and concludes that, under this rule, the prosecution witness's testimony is relevant. We may fairly identify the argument-enthymeme as the entire second and third paragraphs of the opinion as quoted above. To "argufy" this argument-enthymeme is *to give a fair formal representation* in a way that makes explicit its logical form. Argufication is a process of *representation and interpretation* of the argument-enthymeme. The criteria used to give a fair formal representation are quite familiar to legal analysts. They are: (i) intent of the arguer, (ii) a principle of interpretive charity, and (iii) a hybrid of (i) supplemented by (ii).

A fair formal representation of Justice Gillett's argument-enthymeme regarding the logical relevance of the prosecution witness's testimonial evidence is as follows:

proposition (type and #)	**Proposition**	**Justification for this step in the argument**
Premise ε_1	Evidence is relevant **if and only if** evidence conduces to the proof of a pertinent hypothesis.	Given as authoritative rule of law
Premise ε_2	The defendant's claim that he heard that the victim (of the defendant's shooting) had beaten the old man to death is pertinent to the defendant's affirmative defense of self-defense.	Given in the defendant's brief
Premise ε_3	It is unlikely that people speak falsehoods.	Justice Gillett cites a treatise for this

and α is the sole sufficient condition for β, then α is also a necessary condition for β. This in turn means that while a rule-enthymeme might initially seem to be fairly formally represented as the conditional 'If α then β', it actually, in context, is best represented as the biconditional 'α if and only if β'. See Robert E. Rodes and Howard Pospesel, Premises and Conclusions: Premises and Conclusions for Legal Analysis 235–39 (1997). For discussion of the importance of this point for understanding the logic of legal argument, see Brewer, Exemplary Reasoning: Semantics, Pragmatics, and the Rational Force of Legal Argument By Analogy, 109 Harv. L. Rev. 923, nn. 215, 263 (1996); Brewer, On the Possibility of Necessity in Legal Argument: A Dilemma for Holmes and Dewey, 34 J. Marshall L. Rev. 9, nn. 18, 32 (2000).

		proposition about the relation between people's assertions and the truth or falsity of those assertions
Premise ε_4	According to the prosecutor's witness's testimony, what the defendant claims to have heard (about how the old man died) is false.	Justice Gillett's observation about what the defendant claims to have heard and what the prosecutor's witness testifies
Conclusion h_1	The prosecutor's witness's testimony, if true or otherwise warranted, reduces the likelihood that the claim that the defendant makes (ε_2) is true.	Inference from propositions ε_3 and ε_4
Conclusion h_2	The prosecutor's witness's testimony conduces to the proof of a pertinent hypothesis.	Inference from propositions ε_1 and h_1
Conclusion h_3	The prosecutor's witness's testimony is relevant.	Inference from propositions ε_1 and h_2

(3) ENTHYMEME OF SPECIAL IMPORTANCE FOR EVIDENCE ANALYSTS: EVIDENTIARY ENTHYMEMES AND *UNDERLYING EVIDENTIAL CLAIMS*

We have discussed rule-enthymemes and argument-enthymemes, illustrating each from the *Knapp* case. One special type of argument-enthymeme is worth special treatment, because it has been found to be of great value for Evidence analysts who use the Logocratic Method. It is called the *evidentiary enthymeme*.

We may introduce this concept by observing that reasoners with evidence (whether legal doctrinal evidence or evidence in one of the innumerable other domains in which reasoning with evidence occurs) very often single out one item of "evidence" (and use that term) that is offered for and claimed to be linked to one specified hypothesis. Thus, reasoners with evidence might speak and reason about cloudy skies as evidence that it is likely to rain, about a statement in a newspaper as evidence for the truth of one or more propositions in the newspaper (this is a type of testimony), about the evidence of smoke as an indication of fire, about the evidence of a frown on a friend's face as evidence of the friend's disapproval or unhappiness. The reasons for this selective focus in evidentiary claims are likely related to the context in which an evidentiary judgment is made and reported.[7]

[7] Computer scientist John R. Josephson argues for a claim that is closely related to the one we offer in the text:

> When we conclude that data D is explained by hypothesis H, we say more than just that H is a cause of D in the case at hand. We conclude that among all the vast causal ancestry of D we will assign responsibility to H. Commonly, our reasons for focusing on H are pragmatic and connected rather directly with goals of producing, preventing, or repairing D. We blame the heart attack on the blood clot in the coronary artery or on the high-fat diet, depending on our interests. We can blame the disease on the invading organism, on the weakened immune system that permitted

As these examples indicate, we seem to tend to frame evidence as a relation between two individual propositions, one evidentiary proposition ('it is cloudy out') and one hypothesis proposition ('it is likely to rain'). It is not inaccurate to frame evidence this way, but it is importantly incomplete. And we can explain the incompleteness by asking—as we did of the *Knapp* prosecutor's testimonial evidence (see discussion above, pages 12–14—what do we think actually constitutes the *evidence* for the hypothesis in these and other instances of evidence and hypothesis?

The answer is twofold. First, we believe that the first proposition ('it is cloudy out') stands in the relation *is evidence for* the second proposition ('it is likely to rain'). But we have also observed that this relation "is evidence for" is a relation of *argument*, since an argument is defined as a premise set and a conclusion set such that the former stands in the relation *is offered to provide support for* to the latter.

Here is another way to think about the examples just presented. Each of these pairs of propositions is an *argument*, which we might represent in this way:

Argument 1	
premise ε_1	the sky is cloudy
[therefore]	
conclusion h_1	it will (or might) rain
Argument 2	
premise ε_2	the newspaper states P [some proposition]
[therefore]	
conclusion h_2	P is true
Argument 3	
premise ε_3	there is smoke
[therefore]	
conclusion h_3	somewhere in the vicinity of the smoke, there is fire
Argument 4	
premise ε_4	my friend is frowning
[therefore]	
conclusion h_4	my friend disapproves [or is unhappy, etc.]

---

the invasion, or on the wound that provided the route of entry into the body. I suggest that it comes down to this: the things that will satisfy us as accounting for D will depend on what we are trying to account for about D, and why we are interested in accounting for it; but the only things that count as candidates are plausible parts of the causal ancestry of D according to a desired type of causation.

John R. Josephson, Smart Inductive Generalizations are Abductions, in Abduction and Induction Essays on their Relation and Integration (P. Flach and A. Kakas eds., 2000) (emphases added).

Each of these pairs is what we may call an *underlying evidential claim*, and we have represented four such claims:

Underlying evidential claim that corresponds to Argument 1

The fact that the sky is cloudy is evidence that it will (or might) rain

Underlying evidential claim that corresponds to Argument 2

The fact that the newspaper states P is evidence that P is true

Underlying evidential claim that corresponds to Argument 3

The fact that there is smoke is evidence that somewhere in the vicinity of the smoke, there is fire

Underlying evidential claim that corresponds to Argument 4

The fact that my friend is frowning is evidence that my friend disapproves [or is unhappy, etc.]

As suggested above, we tend to frame statements about evidence in these relatively simple individual underlying evidential propositions, which are themselves, we may now observe, *a type of enthymeme*. More specifically, they are *argument-enthymemes*. This brings us to our second main point. What makes these argument-*enthymemes*, and not complete arguments, is that we usually judge that the evidentiary proposition (ε_1, ε_2, ε_3, ε_4 in the examples above) *is evidence for the hypothesis* (h_1, h_2, h_3, h_4 in the examples above, respectively) by virtue of additional propositions we have not explicitly stated, but which operate in the background of our reasoning (or, if we are not the proponents of the evidence, which the proponent of the evidence invites us to supply). Thus, in each of the four simple evidentiary enthymemes above, something like the following additional premises will very likely operate in the reasoning that is used or invited by the proponent of the evidence to help make the simpler evidentiary proposition provide evidential, argumental support for the conclusion.

Argument 1—argument-enthymeme "argufied" by supplying likely unstated but assumed premise, labeled here "ε_0"

ε_0 cloudiness is (likely) a sign of rain

ε_1 the sky is cloudy

h_1 it is likely to rain

Argument 2—argument-enthymeme "argufied" by supplying likely unstated but assumed premise, labeled here "ε_0"

ε_0 articles in this newspaper [or perhaps, articles by this reporter] are reliable

ε_2 the newspaper states P [some proposition]

h_2 P is likely true

Argument 3—argument-enthymeme "argufied" by supplying likely unstated but assumed premise, labeled here "ε_0"

ε_0 smoke is a sign of fire in the vicinity of the smoke

ε_3 there is smoke

h_3 somewhere in the vicinity of the smoke, there is fire

Argument 4—argument-enthymeme "argufied" by supplying likely unstated but assumed premise, labeled here "ε_0"

ε_0 a frown is a sign of disapproval [or unhappiness, etc.]

ε_4 my friend is frowning

h_4 my friend likely disapproves [or is unhappy, etc.]

It is hard to overstate the ubiquity of the operation of unstated premises in our informal reasonings about evidence,[8] whether we ourselves are the proponents of evidence and are the ones who frame an evidentiary claim, or we are instead evaluators of evidential claims made by proponents other than ourselves, in which case we are invited to supply the unstated premises. Indeed, we may frame a proposition central to the Logocratic analysis of evidentiary claims and evidentiary arguments: *Every assertion that some evidentiary propositions $\varepsilon_1 \ldots \varepsilon_n$ support some hypotheses propositions $h_1 \ldots h_n$ relies on argument, either explicit* (this is *non-enthymematic evidence*) or *implicit* (this is *enthymematic evidence*).

Consider some additional examples of evidentiary enthymemes and the assumed or invited unstated propositions that operate to enable the explicit evidentiary proposition to provide evidential, argumental support for the hypothesis:

Solomonic evidentiary wisdom[9]

ε_0 [Only?] the natural mother of a baby would refuse to sacrifice the baby's life instead of giving up possession of the baby

ε_1 woman A chooses not to have baby cut in two in a custody battle

h woman A is the natural mother

***Union Paint and Varnish Co. v. Dean*, 137 A. 469 (R.I. 1927)[10]**

ε_0 paint cans of the same brand, bought from the same store six months earlier, will likely have the same qualities of fitness

ε_1 paint can A, bought six months earlier from the store, had defective paint

h_1 paint can B (unopened), bought six months later, from the same store, had defective paint

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[8] A trenchant note in the Advisory Committee Note for FRE 201 makes this same basic point:

> [E]very case involves the use of hundreds or thousands of non-evidence facts. When a witness in an automobile accident case says "car," everyone, judge and jury included, furnishes, from non-evidence sources within himself, the supplementing information that the "car" is an automobile, not a railroad car, that it is self-propelled, probably by an internal combustion engine, that it may be assumed to have four wheels with pneumatic rubber tires, and so on. The judicial process cannot construct every case from scratch, like Descartes creating a world based on the postulate Cogito, ergo sum.

[9] See Old Testament, 1 Kings 3:16–28. For an interesting assessment of this evidentiary enthymeme, see LaRue, Solomon's Judgment: a Short Essay on Proof, 3 Law, Probability and Risk 13 (2004).

[10] This example is discussed in Chapter 6, below, and in James, Relevancy, Probability and the Law, 29 Cal. L. Rev. 689, 692 (1941).

Morgan's Love Letter

ε_0 A person who loves the wife of another man has some motive to kill the other man[11]

ε_1 X wrote Y's wife a love letter

h_1 X killed Y

Sherrod v. Berry, 856 F. 2d 802 (7th Cir. 1988)

ε_{0-1} A person who suddenly reaches into his coat while sitting in his car with two policemen pointing guns at the car is likely to have a weapon in his coat

ε_{0-2} A person who has no weapon is unlikely to reach suddenly into his coat while sitting in his car with two policemen pointing guns at the car

ε_1 The search of the deceased (shot by the officer while the deceased was in the deceased's car) revealed that he had no weapon

h_1 The officer "acted reasonably in the circumstances," namely, in self-defense

The last listed case, *Sherrod v. Berry*, is especially noteworthy for its illustration of the ways in which judges reason with evidentiary enthymemes. It also makes for a very interesting comparison and contrast to the reasoning of the judge in *Knapp*—central to the judges' arguments in both cases was the rule of logical relevance.

Sherrod was a § 1983 action brought by the father of a person shot and killed by a policeman while that policeman and his partner had weapons pointed at the victim and the other car car passenger. The defendant policeman argued that he behaved reasonably in the circumstances because, according to his testimony, the victim reached suddenly into his coat. This put the officer in reasonable fear for his life, so he shot and killed the person who allegedly reached into his coat. There are several detailed opinions in this en banc case, on appeal from a district court holding in favor of the § 1983-plaintiff. In Logocratic terms, the several opinions are in a *dialectical competition* of arguments, each of which has the logical form of an *inference to the best legal explanation*, which in turn relies in a deductive application of both Fed.R.Evid. 401 or 403, or both. See discussion in Chapter 2, section 1(D)(3). Of great interest for our discussion in this section is that the majority seems to have fashioned and argued one version of an unstated generalization in order to apply Fed.R.Evid. 401, while a dissenting judge's opinion fashions and argues for another, also while applying Fed.R.Evid. 401. The majority's version is this:

ε_{0-1} A person who suddenly reaches into his coat while sitting in his car with two policemen pointing guns at the car is likely to have a weapon in his coat

This judge's argument concludes that evidence that the person sitting in his car, whom the policeman shot and killed, in fact had no weapon had no *logical relevance* in the case, because the issue was whether the policeman acted with "objective reasonableness under the circumstances." Even if the person in custody had no

[11] This example is from is from E. Morgan, Basic Problems of Evidence 185–88 (1961). Morgan himself represents the argufied evidentiary enthymeme into a more complex series of linked arguments. See discussion in Brewer, Logocratic Method and the Analysis of Arguments in Evidence, Logocratic Method and the Analysis of Arguments in Evidence, 10 Law, Probability and Risk, 175, 198–201 (2011).

weapon, the officer still acted "objectively reasonably" in the face of the victim's sudden reach into his jacket.

A dissenting opinion instead constructs and supplies a different proposition to complete the evidentiary enthymeme:

ε_{0-2} A person who has no weapon is unlikely to reach suddenly into his coat while sitting in his car with two policemen pointing guns at the car

This judge argued that in the face of the § 1983-plaintiff's lawyer's challenge *to the officer's claim that the victim did make a sudden move into his coat*, the fact that he did not in fact have a weapon made it less likely *that the officer was telling the truth*, and that therefore evidence that the victim did not have a weapon was relevant under Fed.R.Evid. 401.

How would you complete the evidentiary enthymeme? Would you supply the version endorsed by the majority, or the version endorsed by the dissent? How would you decide which to choose, or would you fashion yet a different proposition to complete the enthymeme? Also, compare the reasoning of *Knapp* and the majority in *Sherrod*. Are they consistent in the way they supply premises for their respective evidentiary enthymemes?

3. RELEVANCY: ADDITIONAL ISSUES, EXAMPLES, AND METHODS OF ANALYSIS

People v. Adamson

Supreme Court of California, 1946.
27 Cal.2d 478, 165 P.2d 3, aff'd, 332 U.S. 46 (1947).

■ TRAYNOR, JUSTICE.

The body of Stella Blauvelt, a widow 64 years of age, was found on the floor of her Los Angeles apartment on July 25, 1944. The evidence indicated that she died on the afternoon of the preceding day. The body was found with the face upward covered with two bloodstained pillows. A lamp cord was wrapped tightly around the neck three times and tied in a knot. The medical testimony was that death was caused by strangulation. Bruises on the face and hands indicated that the deceased had been severely beaten before her death.

The defendant does not contend that the evidence does not justify a finding that murder in the first degree had been committed. Pen.Code, § 189. The sole contention of fact that he makes is that the evidence is not sufficient to identify him as the perpetrator. The strongest circumstance tending to so identify the defendant was the finding of six fingerprints, each identified by expert testimony as that of the defendant, spread over the surface of the inner door to the garbage compartment of the kitchen of the deceased's apartment. See Wigmore, Evidence, 3d Ed., 389. After the murder, this door was found unhinged, leaning against the kitchen sink. Counsel for defendant questioned witnesses as to the possibility of defendant's fingerprints being forged, but the record does not indicate that any evidence to that effect was uncovered. The theory of the prosecution was that the murderer gained his entrance through the garbage compartment, found the inner door thereof latched from the kitchen side, and forced the door from its hinges. It was established that defendant could have entered through the garbage compartment by having a man about his

size do so. The fact that the key to the apartment could not be found after search and the testimony of a neighboring tenant as to sounds heard indicate that the murderer left the apartment through the door thereof and made his exit from the building down a rear stairway.

The tops of three women's stockings identified as having been taken from defendant's room were admitted in evidence. One of the stocking tops was found on a dresser, the other two in a drawer of the dresser among other articles of apparel. The stocking parts were not all of the same color. At the end of each part, away from what was formerly the top of the stocking, a knot or knots were tied. When the body of the deceased was found, it did not have on any shoes or stockings. There was evidence that on the day of the murder deceased had been wearing stockings. The lower part of a silk stocking with the top part torn off was found lying on the floor under the body. No part of the other stocking was found. There were other stockings in the apartment, some hanging in the kitchen and some in drawers in a dressing alcove, but no other parts of stockings were found. None of the stocking tops from defendant's room matched with the bottom part of the stocking found under the body.

In reply to questions by the police, defendant denied that he resided or had ever been at the apartment house identified by testimony as his residence. At different times he gave two other addresses as his residence. When shown a picture of the murdered victim, he refused to look at it, stating that he did not like to look at dead people.

The theory of the prosecution was that the motive of the murder was burglary. Testimony revealed that the deceased was in the habit of wearing rings with large-sized diamonds and that she was wearing them on the day of the murder. The rings were not on the body and search has failed to uncover them. A witness, positively identifying the defendant, testified that at some time between the 10th and 14th of August, 1944, she overheard defendant ask an unidentified person whether he was interested in buying a diamond ring.

From the foregoing evidence a reasonable jury could conclude that beyond a reasonable doubt defendant committed the murder and burglary. See People v. Ramirez, 113 Cal.App. 204, 298 P. 60; 2 Wigmore, supra, 389. Testimony that the screws were still in the hinges of the door when it was found and that fragments of wood that appeared to have come from the screw holes were clinging to them, indicating a forced removal, served to discount the possibilities that at some previous date the door had been taken from the apartment for some unknown reason and at that time handled by the defendant, or that defendant had handled the door during some earlier visit to the deceased's apartment. Testimony to the effect that the garbage pail was not in its customary place when found after the murder further tended to substantiate the prosecution's theory as to time and mode of entrance.

Defendant contends that error was committed in the admission of the testimony of part of a conversation in which he asked an unidentified person whether the latter was interested in purchasing a diamond ring. Conceding that this evidence, though hearsay, was admissible in so far as the hearsay rule is concerned as an admission . . . defendant contends that it was irrelevant. The rule is well settled that a witness may testify to part of a conversation if that is all that he heard and it appears to be intelligible. . . .

People v. Rabalete, 28 Cal.App.2d 480, 485, 82 P.2d 707, 709, is not contrary to this rule. The fragment of the sentence there held inadmissible, "242 to show," was held to create merely a suspicion of the meaning of the entire sentence. People v. Jacquaino, 63 Cal.App.2d 390, 393, 394, 146 P.2d 697. The part of the conversation here admitted, however, in view of the evidence indicating that the motive of the murderer was the theft of diamonds, tended to identify defendant as the perpetrator.

To be admissible, evidence must tend to prove a material issue in the light of human experience. See 1 Wigmore, 407 [(3rd ed.)]. The stocking tops found in defendant's room were relevant to identify defendant because their presence on his dresser and in a drawer thereof among other articles of wearing apparel with a knot or knots tied in the end away from what was formerly the top of the stocking indicates that defendant had some use for women's stocking tops. This interest in women's stocking tops is a circumstance that tends to identify defendant as the person who removed the stockings from the victim and took away the top of one and the whole of the other. Although the presence of the stocking tops in defendant's room was not by itself sufficient to identify defendant as the criminal, it constituted a logical link in the chain of evidence. . . . Evidence that tends to throw light on a fact in dispute may be admitted. The weight to be given such evidence will be determined by the jury. . . . Codification of this rule as applied to demonstrative evidence is found in section 1954 of the Code of Civil Procedure: "Whenever an object, cognizable by the senses, has such a relation to the fact in dispute as to afford reasonable grounds of belief respecting it, or to make an item in the sum of the evidence, such object may be exhibited to the jury. . . . The admission of such evidence must be regulated by the sound discretion of the court."

It is contended that the admission of the stocking tops deprived defendant of a fair trial and therefore denied him due process of law. Defendant states that their admission could serve no purpose except to create prejudice against him as a Negro by the implication of a fetish or sexual degeneracy. No implication of either was made by the prosecutor in his brief treatment of the evidence in oral argument. Moreover, except in rare cases of abuse, demonstrative evidence that tends to prove a material issue or clarify the circumstances of the crime is admissible despite its prejudicial tendency. . . .

The prosecuting attorney commented repeatedly on the failure of the defendant to take the stand. [The analysis approving these comments is omitted. On this point the case has been overruled. See, e.g., Carter v. Kentucky, 450 U.S. 288 (1981).]

There has been much criticism of the present state of the law, which places a defendant who has been convicted of prior crimes in the dilemma of having to choose between not taking the stand to explain or deny the evidence against him thereby risking unfavorable inferences, and taking the stand and having his prior crimes disclosed to the jury on cross-examination. . . . In the present case defendant admitted two prior felony convictions for which he served terms of imprisonment in the Missouri state prison. The fact of the commission of these crimes was not offered or introduced into evidence and would have been inadmissible under the general rule with respect to prior crimes. . . . Had defendant taken the stand, however, the commission of these crimes could have been revealed to the jury on cross-examination to impeach his testimony. . . . Since fear of this result is a plausible explanation of his failure to take the stand to deny or explain evidence against him . . . the inference of the credibility and unfavorable tenor of such evidence that arises

from this failure is definitely weakened by this rule of impeachment. This weakness, however, could not be revealed to the jury by counsel or court without prejudicing the defendant through the revelation of past crimes.

A major part of the testimony and of the prosecutor's oral argument concerned the presence of six of defendant's fingerprints on the garbage compartment door. Fingerprints are the strongest evidence of identity of a person and under the circumstances of the present case they were alone sufficient to identify the defendant as the criminal. . . .

The judgments and the order denying a new trial are affirmed.

NOTES

1. Assume that one possible meaning of the presumption of innocence is that the trial starts with an assumption that the probability that defendant in the main case committed the crime charged is less than the probability of "beyond a reasonable doubt"—whatever one might intuitively think that probability is. How would your assessment of probabilities be changed by considering individually and collectively proof respecting the silence of defendant, his attempt, if that is what it was, to sell jewelry belonging to the deceased, the stockings evidence, the fingerprint evidence, his criminal record, and other evidence?

What assumptions are you making in coming to these conclusions and how much of your private, individually acquired knowledge are you using? Is your analysis affected by the knowledge that in some areas of the country it was rather common for dockworkers and some kinds of laborers to wear women's stocking tops over their hair? Probably most middle class persons likely to be on a jury would not be aware of this fact. Should this fact affect admissibility? Are experts useful in this connection?

Since so much of the evaluation of evidence depends upon varying hypotheses applied by triers with different backgrounds and views of life, fact finding differences among jurors and between judge and jury are to be expected. The court's function is, in the usual simple case, only to decide whether a reasonable person might have his or her assessment of the probabilities of a material proposition changed by the piece of evidence sought to be admitted. If it may affect that evaluation it is relevant and, subject to certain other rules, admissible. See United States v. Schipani, 293 F.Supp. 156 (E.D.N.Y. 1968), aff'd, 414 F.2d 1262 (2d Cir. 1969), cert. denied, 397 U.S. 922 (1970). Cf. Trautman, Logical or Legal Relevancy—A Conflict of Theory, 5 Vand. L. Rev. 385, 390 (1951). See also People v. Thompson, 300 N.W.2d 645, 646 (Mich. App. 1980):

> Defendant . . . submits that it was error for the trial court to allow the prosecutor, over objection, to question him concerning his use of aliases. One panel of this Court has characterized the use of an alias as "highly probative" of a witness's credibility. . . . We disagree. The utilization of assumed names is very common among certain cultures in American society. While there are undoubtedly instances where aliases are used to deceive, it is also likely that an assumed name is being used for entirely innocent reasons and therefore should not be deemed especially probative of a person's credibility. Furthermore, a defendant may be highly prejudiced by the jury's learning that he has used aliases. This could be a particular problem in cases where the defendant and the jurors come from different cultures. If the utilization of assumed names is unknown among the jurors' backgrounds, they may place undue emphasis on defendant's employment of an alias.

Note the large degree of judicial "knowledge" about how people act inside and outside the courtroom involved in cases such as this. See the discussion of judicial notice, chapter 9, infra.

Compare with *Thompson*, People v. Dietrich, 274 N.W.2d 472, 481–482 (Mich. App. 1978). In a first degree murder case the defendant took the stand and was cross-examined on the use of aliases before and after the crime. Collecting supporting cases, the court held:

> We think that the witness's use of an alias is highly probative of the witness's credibility. In this case, the introduction into evidence of defendant's use of aliases was not highly inflammatory or prejudicial to the defendant. . . . The trial judge did not err in allowing this testimony into evidence for impeachment purposes.

How is this evidence relevant to whether he is telling the truth on the witness stand? Would knowledge of the general practice in the defendant's environment be helpful? Would the "prejudices" or "assumptions" of a middle class jury or panel of judges be significant? How could counsel for defendant "neutralize" this evidence or convince the judge to exclude, perhaps under Rule 403?

Is the fact-finding skill of the court trying a case without a jury, or ruling on admissibility, or deciding the facts necessary to application of the Sentencing Guidelines greater than that of juries? Why? See, e.g. United States v. Shonubi, 895 F.Supp. 460 (E.D.N.Y. 1995), reversed in the light of greater "quality" of evidence required in guideline sentencing, 103 F.3d 1085 (2d Cir. 1997), where the trial court relied on the court's experience in trying many drug cases to conclude that a smuggler who conceals drugs in his intestines will tend to swallow as much as possible. How can that judgment be confirmed or disputed? In *Shonubi* the court utilized its own knowledge of the drug trade, demeanor of the defendant, inferences from discussion as to character, assumptions about criminals' behaviors generally, and expert testimony and statistical analysis of other smugglers' activities. Id. at 523–24. The factual findings of the court resulted in a sentence many years longer than would have resulted had the court failed to make these findings. Under these circumstances is it fair to apply in sentencing, as many courts do, a burden of proof of a mere preponderance rather than a beyond a reasonable doubt standard? See id. at 470–72. In *United States v. Watts*, 519 U.S. 148 (1997), the Supreme Court acknowledged "a divergence of opinion among the Circuits as to whether, in extreme circumstances, relevant conduct that would dramatically increase the sentence must be based on clear and convincing evidence." What is the role of the appellate court? The Second Circuit provides protection against the hard rules of the Guidelines enhancing imprisonment for unconvicted relevant conduct by increasing burdens of proof. See United States v. Gigante, 94 F.3d 53, 56–57 (2d Cir. 1996). It also requires "specific evidence"—drug records, admissions, or live testimony of drug quantities. United States v. Shonubi, 103 F.3d 1085 (2d Cir.1997). See note immediately before the main case, supra. Is manipulation of the fact-finding process to circumvent "bad" substantive law of sentencing appropriate? See the criticism of the Second Circuit standard in United States v. Shonubi, 962 F.Supp. 370 (E.D.N.Y. 1997) (on second remand).

Compare with the reference in the main case to the "interest of the defendant in stocking tops," United States v. Truong Dinh Hung, 629 F.2d 908 (4th Cir. 1980), cert. denied, 454 U.S. 1144 (1982) (espionage prosecution where defendant was accused of transmitting classified information to the North Vietnamese during the 1977 Paris negotiations. Defendant claimed he merely had a benign scholarly interest in the classified cables he had obtained. There was no error in admitting several items found in

defendant's apartment such as classification codes, lists of "spooks" in the state department and handwritten notes on espionage and counter-espionage).

In United States v. Zimeri-Safie, 585 F.2d 1318, 1321–22 (5th Cir. 1978), defendant was charged with knowingly receiving and possessing a firearm while being an alien illegally or unlawfully in the United States, and knowingly making a false statement as to the legality of his alien status with the intent to deceive a firearms dealer. After defendant's visa had expired, the Bureau of Alcohol, Tobacco and Firearms searched defendant's apartment and seized from the apartment a book entitled "The Paper Trap" which described methods of acquiring false identification, one of those ways being the use of names taken from tombstones. At the same time, the agent also seized defendant's address book which contained the names of persons buried in a local cemetery. In upholding the lower court's admission of the evidence the court said:

> Zimeri's possession of the manual on deception and a notebook indicating he had taken the first step to make use of the manual's information, though falling short of proving he had a knowing intent to deceive one year earlier, does similarly tend to make it more probable that Zimeri realized at the time of his firearm purchases that he was an illegal alien.

2. The concept of "foundation" is important to the law of evidence. The term "foundation" refers to any fact or event that a rule of evidence requires to be proven in order for an item of evidence to be admitted or excluded. On one plausible understanding of the concept of foundation, rules of evidence themselves specify the foundation required for a trial judge to conclude that the requirements of the rule are met. The Fed.R.Evid. do not use the term "foundation." The phrase "preliminary questions" in Fed.R.Evid. 104 captures some, but not all, of the concept of foundation. As noted above, Fed.R.Evid. 104(a) gives to the trial judge the task of answering "preliminary question[s] about whether a witness is qualified, a privilege exists, or evidence is admissible." Here is an abstract example. The foundation for Fed.R.Evid. 401 is a showing that that some item of evidence, call it "ε," is logically relevant (a necessary condition to the *admissibility* of evidence, under Fed.R.Evid. 402) to some hypothesis, call it "h," which is met only if the proponent of ε offered for h lays the foundation by showing that ε would change (increase or decrease) the probability of h. The Fed.R.Evid. also give foundational questions of admissibility to juries, as for example Fed.R.Evid. 602 (see Chapters 4 and 5) gives to the jury the task of determining the "foundation" for admission of testimony, namely, whether a proffered witness has "personal knowledge" of the events to which she would testify. (Fed.R.Evid. 602 may be understood as one of the special applications of the Fed.R.Evid. 104(b) rule on conditional relevance.) There is foundation not only for the admission, but also for the exclusion of evidence. For example, confidentiality is part of the foundation for invoking a privilege (see Chapter 10), and, if the judge decides the privilege attaches (and that the proponent establishes the foundation for confidentiality), the evidence is excluded.

What foundation should be laid before the evidence described in the *Adamson* case is introduced? For example, what would be needed to introduce the stocking tops and bottom? Would the proof needed to place this evidence before the jury have probabilities of truth associated with it? Would it enhance or attenuate the probabilities you assigned in answering questions posed in the previous note?

3. In United States v. Bear Ribs, 722 F.2d 420 (8th Cir. 1983), the defendant was convicted of assault with intent to commit rape. The victim was found unclothed. Defendant denied having taken off her clothes as part of his assault. The Eighth Circuit held that the trial judge properly excluded evidence that the victim, when intoxicated,

routinely undressed and publicly exposed herself since no one testified to seeing the victim in a nude or semi-nude condition prior to the incident.

Compare Wood v. Alaska, 957 F.2d 1544 (9th Cir. 1992). Defendant was convicted of sexual assault. The victim was a former Penthouse Pet and pornographic movie actress, and defendant had sought to admit evidence that she showed nude photographs and described her pornographic acting experiences to him to establish that they had a prior sexual relationship. Affirming, the Ninth Circuit allowed that the evidence was probative, but exclusion was not an abuse of discretion because of the possibility that a jury might be improperly swayed against her on grounds of "perceived immorality."

Note that subsequent to *Wood*, in the Violent Crime Control and Law Enforcement Act of 1994, P.L. No. 103–322, Rule 412 of the Federal Rules of Evidence was amended by Congress, according to the Committee Notes, "to expand the protection afforded alleged victims of sexual misconduct."

Does this amendment leave unchanged the trial court's power or decision in *Wood*? How? Should it have? See Rule 403.

For cases dealing with the possession of burglar's tools, see Annot., Admissibility, in prosecution for burglary, of evidence that defendant, after alleged burglary, was in possession of burglarious tools and implements, 143 A.L.R. 1199 (1943). What does the admission of such tools and instruments prove? See State v. Toney, 537 S.W.2d 586 (Mo. App. 1976) (holding that, where .38 caliber weapon had been used in crime, admission of bandoliers carrying the same caliber ammunition, found in defendant's apartment, was admissible even though bandoliers had not been worn during the crime).

4. In analyzing relevancy, probative force, probabilities, and prejudice, some scholars have found the terminology of Professors Jerome Michael and Mortimer Adler useful in differentiating between the real world where events actually occurred or did not occur and the world of the courtroom where we deal in propositions of fact about the real world and probabilities that these propositions represent the truth. (This is a method of analysis that complements the Logocratic Method, introduced above. Both can be powerful analytical tools for the evidence student and jurist. and readers are invited to consider and add both analytical tools to their conceptual toolkits.) Using the terminology set out below and the analysis it suggests, diagram the various steps and lines of proof leading to the material propositions in *People v. Adamson*.

Proposition	— Declarative sentence used to express our actual or potential knowledge about a thing or event.
Material proposition	— Statement about a matter of fact which is a specific example falling within the general class which is one of the elements of the applicable rule of law.
Immediate proposition	— Statement of knowledge of things and events as they appear to our senses.
Demonstrable proposition	— Statement of knowledge achieved inferentially.
Evidence	— Perceptive objects—e.g., persons, things and events presented to the senses of the tribunal; all evidence must be perceived through senses.

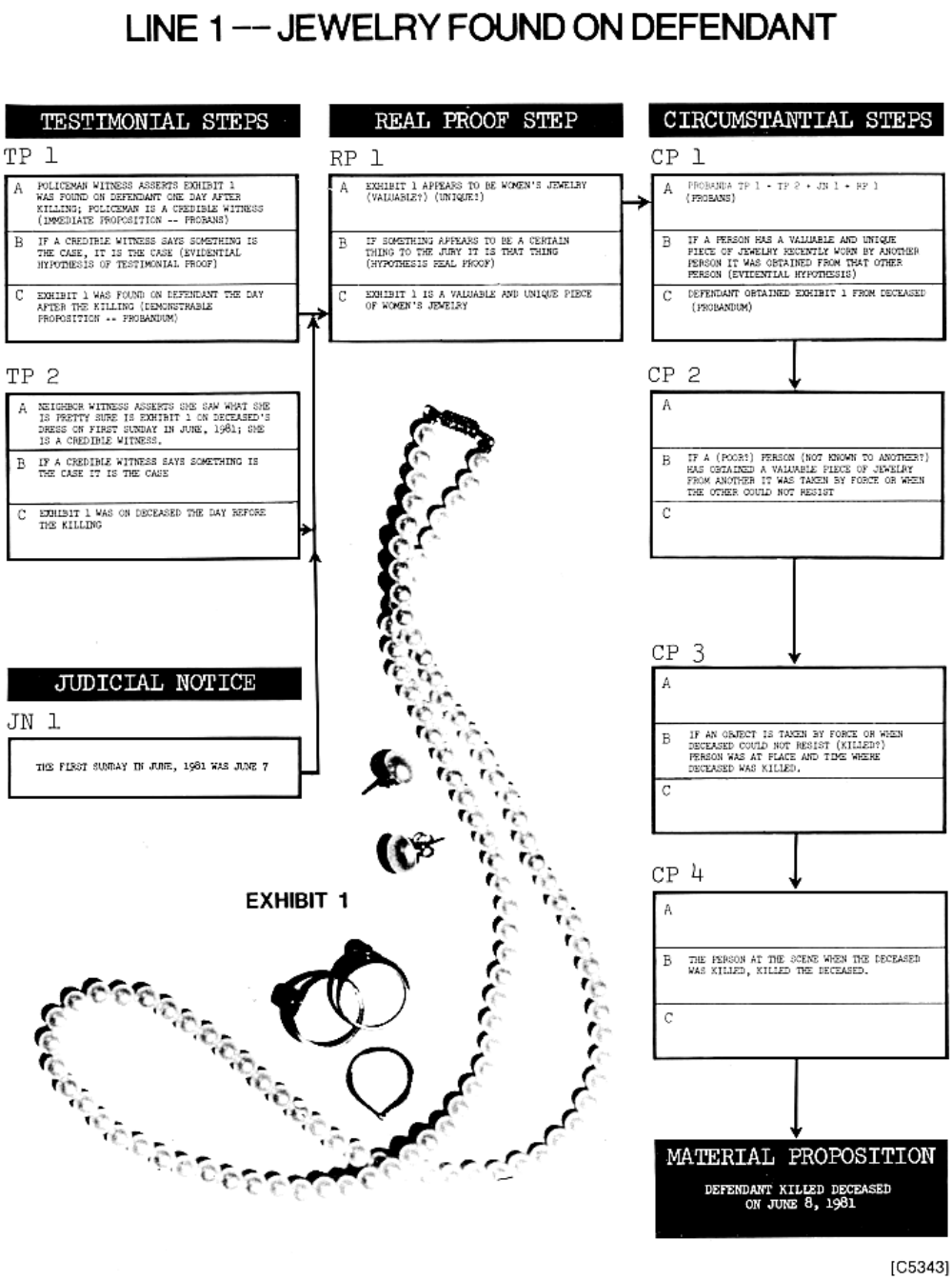
probandum; probanda (pl.)	— Proposition being proved; if ultimate, a material proposition.
probans; probantia (pl.)	— Proposition being used to prove another; if ultimate it is an immediate proposition (i.e., based on sense impression with minimal inference).
evidential or evidentiary proposition	— Elementary proposition employed as a probans; it may be simple or compound.
evidentiary hypothesis	— General proposition employed as a probans.
Step of proof	— A syllogism containing a probandum, an evidential hypothesis and a probans.
Line of proof	— Series of steps of proof beginning in an immediate proposition and ending in a material proposition.
syllogism conclusion	— probandum
major premise	— general proposition—evidential hypothesis
minor premise	— probans

See Michael & Adler, The Nature of Judicial Proof (1931); Michael & Adler, The Trial of An Issue Of Fact, 34 Colum. L. Rev. 1224, 1252 (1934).

The diagram method is utilized extensively in J.H. Wigmore, The Science of Judicial Proof (3rd ed. 1937), but it has been suggested that his system of charts with its complex system of symbols has been one of the factors that resulted in that work being given less weight than it should have received. W. Twining, Theories of Evidence: Bentham and Wigmore, 11–12 (1985). A more modern attempt to use diagrams to assist in analysis is the helpful work of Professor Friedman—e.g., Diagrammatic Approach to Evidence, 66 B.U. L. Rev. 571 (1986); A Close Look at Probative Value, 66 B.U. L. Rev. 733 (1986); Route Analysis of Credibility and Hearsay, 96 Yale L.J. 667 (1987).

In United States v. Shonubi, 895 F.Supp. 460 (E.D.N.Y. 1995), rev'd, 103 F.3d 1085 (2d Cir. 1997), the court estimated drugs smuggled in prior trips of the accused utilizing the classical step-by-step approach of Professor Michael (id. at 483), statistical and Bayesian analysis (id. at 484), set out its perceived biases (id. at 486), used a "storytelling" technique (id. at 487) and relied upon experts including statisticians employed by the government, the defendant, and a panel appointed by the court pursuant to Rule 706 of the Federal Rules of Evidence. Id. at 499 ff.

In *Adamson* assume, in a slight but significant variation from the actual evidence, that the state's Exhibit 1, for identification, was a few pieces of jewelry; the police found the jewelry in defendant's possession a day after the killing; a neighbor saw the deceased wearing "something that looked just like that jewelry" the day before the killing, June 7, 1981, a day she remembers because she went to a friend's wedding.



In the above diagram, the credibility of the witnesses and thus the probability of their statements being true will depend on their (1) ability to have made the observation, (2) to have remembered it accurately, (3) to want to tell truthfully what was remembered, and (4) to communicate effectively with the tribunal.

Admissibility of the real proof, in addition to the need for authentication (supplied by TP1 and TP2 and JN1), will depend on relative prejudicial aspects (Fed.R.Evid. 403),

extrinsic policies such as Fourth Amendment protections, and the ability of the trier to determine from observation such matters as whether it is jewelry normally worn by a woman, its value, and how commonly available it is to the public, e.g., do these pieces have particular dents or marks or are they unique?

Alternative hypotheses for CP1 are that defendant found exhibit 1 or obtained it from an intermediary. Alternate hypotheses for CP2 are that deceased gave the jewelry to, or sold it to, defendant. Alternative hypotheses for CP3 are that it was taken some time before or after the killing. Alternate hypotheses for CP4 is that another or others were there at the time.

In each step of proof, the minor premise is "A," the major premise "B," and the conclusion "C."

In addition to the jewelry, there are the fingerprint evidence, the stockings, the failure of defendant to testify and other lines. Note how the lines interact and feed back on one another so that high probative force of the fingerprint line may enhance the probability that the policeman who says he found stocking tops in defendant's drawer is more likely to be perceived by the trier as a credible witness; contrariwise, a witness who testified that defendant was with him the entire day of the murder would be less likely to be believed. In the O.J. Simpson case, destroying the credibility of one key detective apparently fed back to an evaluation of the other evidence, poisoning much of the prosecutor's case.

Also note how the same piece of evidence may tend to prove more than one material proposition. The use of a lamp cord would tend to show an intentional killing and also that it was not in self-defense. The jewelry and fingerprint lines would tend to show not only that defendant killed the deceased, but that it was done in the course of a felony.

5. In considering the issue of prior convictions discussed in *Adamson*, note how the rules for trials may be based on "normative" rather than pure "truth-finding" considerations. See Bankowski, The Value of Truth: Fact Skepticism Revisited, 1 Legal Studies (Eng.) 257, 265–66 (1981):

> In the case of the trial the conclusion comes from the judge or jury's view of a complex set of data that has been filtered through the trial and the laws of evidence and procedure. These procedures and criteria are justified normatively and we cannot say that a result obtained through using one is wrong by reference to the procedure and criteria of another. We can compare criteria but in doing that we have to operate at a different level. We might in fact find that both sets of procedures are appropriate but in different circumstances.
>
> Let us take an example: according to our rules of evidence past convictions are not be to be counted as evidence of present guilt. Thus the rule that, except in certain circumstances, the prosecution cannot [rely on] evidence as to the accused's previous convictions. The justification for this sort of anti-inductivist bias is well known and ultimately pertains to the moral basis of the system: the presumption of innocence and the burden of proof. The procedure for the police, however, does not employ this anti-inductivist criteria and indeed the police would be in dereliction of their duty if they did so. If a crime has been committed we expect the police, within limits, not to ignore their knowledge of known malefactors on the assumption that all past evidence is to be ignored. This knowledge ought to influence the police inquiries and procedures just as it ought not so to influence the courts'. We expect of the police, then, a laxer criterion than we do of the courts. We should, therefore, not be surprised if the

> police make more arrests than there are convictions. This is one of the ways that the system should work. The 'he did it' of the police is different and ought to be so from the 'he did it' of the jury.
>
> If we accept all this then we can see the problems of asking, in the [Jerome] Frank tradition, whether and can the jury get it right. The only way we can answer that question is by seeing whether the criteria in the trial have been followed: to use any other criteria would be judging it by reference to another truth-certifying procedure. This is why jury verdicts are so difficult to overturn except if the jury perversely does not decide according to the evidence. It is not a question of whether the jury, in some absolute way, get it right but whether they fulfill their allotted role in the system.

In Kaplan, Decision Theory and the Factfinding Process, 20 Stan. L. Rev. 1065, 1074 (1968), Professor Kaplan puts the prior conviction issue in a slightly different way:

> Not only may such evidence [of previous convictions] lead the jurors to the wholly rational conclusion that if the defendant has committed previous crimes he is more likely to be guilty of this one; it may also lead them to the perhaps rational but clearly undesirable conclusion that because of his earlier convictions, . . . the disutility of convicting the defendant should he be innocent, is minimal. Obviously, in a system of justice that regards it as crucial that the defendant be found guilty only of the crime specifically charged, we cannot permit a mistaken factual judgment to be made either on the theory that even if the defendant did not commit the crime charged he probably committed others, or on the theory that since the defendant has been convicted several times before it is not very important to him or to society that he is convicted one more time.

See the discussion of use of other crimes, infra.

6. Does the Continental system of free evaluation require the same methods of analysis set forth in United States v. Shonubi, 895 F.Supp. 460 (E.D.N.Y. 1995), rev'd103 F.3d 1085 (2d Cir. 1997), supra? Compare United States v. Jurado-Rodriguez, 907 F.Supp. 568 (E.D.N.Y. 1995), a prosecution for dealing in drugs after extradition from Luxembourg, where defendant had been convicted of, and served a prison term for money laundering. The principles of international law, the doctrine of specialty, and the rule of non bis in dem (double jeopardy) precluded prosecution for the same crime in the United States. Decision of a motion to dismiss the indictment for drug conspiracy in the United States depended in large part on the meaning of "faits" in the extradition decree. The court, citing Michael and Adler, held that "faits" meant material propositions of fact and not evidence. It permitted the case to proceed in the United States after dismissing a money laundering count. A negotiated plea avoided trial and appeal.

4. RELEVANCE AND PREJUDICE

Robbins v. Whelan

United States Court of Appeals, First Circuit, 1981.
653 F.2d 47, cert. denied, 454 U.S. 1123, 102 S.Ct. 972, 71 L.Ed.2d 110 (1981).

■ COFFIN, CHIEF JUDGE.

This appeal stems from an automobile accident involving a 1971 Mercedes car driven by the defendant-appellee, Robert Whelan, and a second car in which the two

plaintiffs-appellants were passengers. The driver of the second car, Curtis Frye, is not a party to this suit. The accident took place as the Mercedes was traveling east on a four lane undivided highway and the Frye car was exiting a rest area, abutting the southern edge of that same highway. The plaintiffs assert that the Mercedes was first noticed some 700 feet away at the time Frye first approached the highway. Before entering the highway Frye looked in both directions. Upon entering he again looked in the direction of the Mercedes, and this time noticed that it was only 300 feet away and approaching at a speed of about 70 miles per hour. At this point Frye attempted to reenter the rest area. As the resulting collision attests, he was unsuccessful.

The defendant's version claims that he was traveling at about 40 to 48 miles per hour when the Frye car was first noticed some 750–900 feet away advancing in the rest area in the opposite direction. The defendant says he maintained his speed up to a point where the Frye car entered the highway in a "sudden swerve" which left little time for any reaction. After a bifurcated trial the jury decided the issue of liability in favor of the defendant.

Appellants' first claim of error is that the trial court should have admitted into evidence a copy of a Department of Transportation National Highway Safety Bureau report entitled "Performance Data for New 1971 Passenger Cars and Motorcycles." This report contains information on the maximum stopping distances for all automobiles manufactured in a certain year. Specifically, the plaintiffs sought to introduce into evidence that part of these tables stating that the particular type of automobile driven by the defendant had, when traveling at a speed of 60 miles per hour, a maximum stopping distance of 160 feet with a light load and 169 feet with a heavy load. The defendant objected to this document on the grounds that it was not relevant. The district court agreed.

We think the evidence was relevant.[1] A Massachusetts State Police Trooper previously had testified that the defendant's car, which he thought had been traveling faster than 50 miles per hour, had left 160 feet of skid marks. The braking performance report stated the new cars of the defendant's model required at most 169 feet to stop under the test conditions of 60 miles per hour. If factors other than speed were common to both the test and the accident, the report would have supported an inference that the defendant—who presumably was trying to stop as fast as possible—was in fact driving faster than his claimed 40 to 48 miles per hour.

The factors other than speed prevailing both during the test and at the accident were sufficiently similar to allow the jury to hear this evidence. In general, because "perfect identity between experimental or actual conditions is neither attainable nor

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[1] We pause to note an anomaly that not infrequently attends the review of trials—the extensive discussion in the appellate court opinion directed to an incident at trial that received only fleeting attention. Here, for example, appellant called an official of the Registry of Motor Vehicles to testify regarding information from the National Highway Safety Bureau report. Defendant immediately objected that "because there is some agency in Washington that compiles a book of information with respect to various cars and what they might do or will not do under the circumstances, I don't think that has any relevancy, materiality or admissibility in this case."

When read in retrospect, the subsequent colloquy reveals that appellant was referring, none too succinctly, to use of the report as an indirect means of calculating the Mercedes' speed prior to braking. It appears that the court was considering only the relevance of the report as bearing on inadequate brakes, a factor that was not in issue. Nevertheless, we cannot say that the record is so confused that the point as to relevance was not sufficiently made. That point being preserved, we cannot avoid the analysis that follows. [Footnotes by the court].

required . . . [,] [d]issimilarities affect the weight of the evidence, not admissibility." Ramseyer v. General Motors Corporation, 417 F.2d 859, 864 (8th Cir.1969) (citations omitted).[2] Each case must be judged under its own particular facts taking into account the specific purposes for which this type of evidence is submitted.[3] In this particular case, although the tests were performed under specific controlled conditions, see 49 CFR § 575.101(d) and (e) (1980),[4] the defendant has not attempted to demonstrate to us any differences existing at the time of the accident that were significant, except perhaps for the skill of the driver. The evidence that was presented at trial had otherwise established a dry road, no abnormal weather conditions, and a relatively new car in "A–1" condition. On this record the matchup of conditions was sufficient to allow the data to be presented to the jury. It is for the defendant to attack the weight to be accorded such evidence by presenting contrary evidence about how the variance between the test and actual conditions—for instance, as when one car stops with skidmarks and the other without—might affect the inferences that the plaintiff urges be drawn.

[Discussion of hearsay problems under Fed.R.Evid. 803(8)(C) omitted.]

We . . . conclude that the trial court's exclusion of the performance report was more than harmless error. Fed.R.Evid. 103(a); Fed.R.Civ.Proc. 61; 28 U.S.C. § 2111. This case turned in great measure on the critical element of speed. In making this factual determination the jury essentially had before it only the conflicting versions of the two drivers and the defendant's expert witness who testified to the effect that plaintiff's car was traveling at the faster speed at the time of the collision, and that the skid marks on the road were not made by defendant's car. There was no other evidence presented at trial that could serve the same purpose of establishing a relationship between the skid marks and probable speed. See de Mars v. The Equitable Life Assurance Society, 610 F.2d 55, 61–62 (1st Cir.1979) (harmless error when the excluded evidence is cumulative, repetitious, or ambiguous); see also Garbincius v. Boston Edison Company, 621 F.2d 1171, 1175 (1st Cir.1980).

On this close question of negligence it is obvious that plaintiffs' case was made considerably weaker by the error. Because we cannot say with reasonable assurance that the jury, had it been given the opportunity to consider the data, would still have found in favor of the defendant we find no alternative but to remand for a new trial. . . .

The case is remanded for a new trial.

■ CAMPBELL, CIRCUIT JUDGE (Dissenting).

. . . I believe the court fails to give adequate attention to the fact that the trial judge excluded the data . . . for lack of relevance, *and* that appellant never correctly stated the purpose for which the evidence was being offered. Before a party may

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[2] Cf. Winekoff v. Pospisil, 384 Mich. 260, 181 N.W.2d 897, 898 (1970) ("our steady experience with automobile negligence cases suggests that these widely published and pretty well understood stopping distances have some value as evidence, provided the proof preceding their admission discloses a fair and relevant reason for submitting them to the jury as an aid to the solution of the everpresent issues of due care and causation").

[3] The fact that the detailed conditions under which the tests for individual models were performed may be easily verified helps distinguish the report in this case from those in which the opaque averaging of generalized results masked variation in the underlying data and created uncertainty about testing conditions.

[4] The testing conditions and procedures used to compile the information in the 1970 Report have changed very little in 10 years. They are nearly identical to those listed at 49 CFR Part 575 (1980).

claim error on appeal in the exclusion of evidence, he must have told the court not only what he intended to prove but *for what purpose*. McCormick, Evidence § 51, at 110–11 (2d ed. 1972), and cases at n. 12, and 1978 Supp. at 16, n. 12; see also Weinstein's Evidence § 103[03], at 103–27, and cases at n. 3; 1 Wigmore, Evidence § 17, at 319–20 and 1980 Supp., cases at p. 97–98; Fed.R.Evid. 103(a)(2); Fed.R.Civ.P. 46. This rule serves important ends. Backlogged courts should not be required to repeat trials (especially civil trials) because the trial judge has excluded evidence for lack of a clear understanding of the proponent's purpose in offering it. Here, plaintiffs' counsel never explained, as he could easily have done, that his purpose was not to show stopping distance at 60 m.p.h. as such, but rather to give rise to the inference, based on a disputed skid mark, that the car was speeding. It seems clear from the judge's remarks that she did not understand that the evidence was being offered for the latter purpose. The document was thereupon excluded for lack of relevance (the hearsay issue was never reached). All this occurred at the end of a week long trial, in a context where the judge could reasonably have felt that matters were being unduly prolonged.

This court skirts the issue in footnote 1. It says that "read in retrospect," the colloquy between court and counsel "reveals that appellant was referring, none too succinctly, to use of the report as an indirect means of calculating the Mercedes' speed prior to the braking." For this reason, "we cannot say . . . that the point as to relevance was not sufficiently made." The rule, however, is not served by looking at the record retrospectively. The reason a party must communicate the purpose for offering evidence is to put the trial judge on notice while there is still time to save the situation. A trial judge is only human; he may not have perfect recall of earlier testimony; it is counsel's duty, not the court's, to articulate the purpose for which evidence is being offered. Nowhere in this record did counsel say something like, "Judge, I am offering this because we earlier had evidence of 160 foot skid marks and this exhibit will show that if it took the car 160 feet to stop, it must have been going faster than 60 m.p.h." Had this been stated, a different ruling might have been rendered.

To be sure, this court may not mean that counsel here actually *stated* the purpose for the evidence, but only that the purpose was so obvious that counsel was excused from stating it. See McCormick, Evidence § 51, at 111. Defendant's speed was already in issue, and the judge arguably should have realized how the performance data report, taken with the other evidence, would relate to the question of speed. But I do not think the indirect relationship between speed and skid marks was so obvious that counsel was excused from stating it. It was clear from the judge's comments that she was laboring under the misimpression that the evidence was being offered merely to show when the brakes had been applied. If the point was that obvious, one would have expected the judge to perceive it; the whole object of the rule is to require counsel to articulate the purpose when the judge is likely otherwise to misunderstand. At the end of the colloquy, counsel stated his intention to prove that the Mercedes going 60 m.p.h. could stop in 160 feet; but that was to state matters backwards. He never once stated the data was offered for the purpose of showing that the 160 foot skid marks means the Mercedes was going faster than 60.

If I saw evidence of injustice, I might be more tempted to stretch the rule, but I see no such evidence here. Plaintiffs presented their own driver, who testified that the defendant was going 70 m.p.h. or more, as well as the state trooper who testified

to his opinion, based on the skid marks, that defendant was going faster than 50—so the excluded evidence would not have established a new point that was not otherwise made. To be sure, the performance data might have corroborated these witnesses, if the jury believed the skid marks came from the Mercedes, which was put in doubt by one of the plaintiffs' own witnesses as well as by defendant's expert. Even so, the test data was refutable by arguments that it applied only to new, mechanically perfect cars driven by professional drivers who did not lock the wheels and skid. (The tests were expressly said to have been conducted without locked wheels; thus for all we know the stopping distances were quite different from those of a skidding car.) If it could conceivably have tipped the scales in a close case, this case does not seem to have been close—the jury was out for only an hour. I think that plaintiffs had their day in court, before a jury and a judge who was fair. I do not think plaintiffs should receive a second trial.

NOTE

State of Arizona v. Atwood, 832 P.2d 593, 656–657 (Ariz. 1992) (en banc) (a gruesome kidnapping and child sex-murder case of wide notoriety):

> Defendant next asserts that he was prejudiced by the trial court's refusal to allow his trial counsel fully to cross-examine James Corby, the FBI agent who analyzed the paint transfers between defendant's car and the victim's bike. Particularly, he argues that his attorney was unfairly precluded from questioning Corby about areas in which Corby's test results varied from the results obtained in similar tests run by Tim Carlson, the state's first paint expert who died prior to trial. As noted, Carlson's testimony was not preserved before his death.
>
> Our review of the record, however, does not reveal the defense counsel ever actually objected to the court's prohibition against the use of Carlson's conclusions and opinions as an impeachment tool. A lengthy discussion ensued after the prosecution objected to the defense's attempt to use the Carlson material. The prosecution argued that the defense was improperly attempting to bring in Carlson's inadmissible opinions via Corby's cross-examination. The transcript of the discussion reveals considerable confusion among the trial judge, prosecutor, and defense counsel concerning which aspects of the Carlson materials the defense was attempting to use (i.e., the charts, graphs, and other findings generated by the Carlson experiments as opposed to the actual conclusions Carlson reached from those materials). The trial court eventually concluded, based on its understanding of defense counsel's argument, that the defense was seeking only to introduce Carlson's graphs and charts to impeach Corby's testimony. Because the court believed that the materials were "charts and items upon which Mr. Corby and Mr. Carlson and other of their colleagues would normally rely in the preparing of their conclusions and opinions," it determined that the items could be employed by the defense pursuant to rule 703 ("If of a type reasonably relied upon by experts in the particular field in forming opinions or inferences upon the subject, the facts or data need not be admissible in evidence."). In response to this ruling, defense counsel stated:
>
> > I have nothing to add. That's what I was trying to argue yesterday, and I guess I misunderstood Your Honor's ruling.
>
> Thus, our reading of the record indicates that the defense received exactly what it requested.

> Assuming, however, that the defense in fact desired to use Carlson's opinions for impeachment purposes, the record does not reflect that, once the trial court's ruling was clear, defense counsel objected to the limitation placed upon his cross-examination of Corby, nor does it reflect that he made an offer of proof demonstrating the admissibility of Carlson's opinions. . . . We recognize that an offer of proof may not be necessary if "the purpose and purport of the testimony expected to be elicited is obvious.". . . . We do not believe, however, that the "purpose and purport" of using the Carlson materials was "obvious" to the trial court in this case. Indeed, the only obvious aspects of the defense's attempt to use Carlson's material were defense counsel's miscommunication and the trial court's confusion as to the defense's intent. Accordingly, we find no basis for considering on appeal whether the defense was unfairly limited in cross-examining Corby.

State v. Poe

Supreme Court of Utah, 1968.
21 Utah 2d 113, 441 P.2d 512, appeal after remand, 471 P.2d 870 (Utah 1970).

■ CALLISTER, JUSTICE. Defendant, Roy Lee Poe, was convicted of the first degree murder of Kenneth Hall. The murder occurred in St. George, Utah (population about 5,130), and the trial was held there. The deceased had been a lifelong resident of the community, whereas the defendant was a comparative newcomer. The jury, in returning its verdict of guilty, did not recommend life imprisonment. Whereupon, the court pronounced the death penalty. . . .

[D]efendant contends that he was denied a fair trial because of "the community pattern of thought as expressed by potential jurors and (because) of the proximity of relationships which existed between members of the jury and witnesses for the prosecution, the victim, the prosecutors, and the defendant." It cannot be disputed that a large majority of the prospective jurors were aware of the crime and some of its purported facts. This could hardly be otherwise in a sparsely populated community (Washington County, of which St. George is the county seat, has a population of 10,271). However, the trial judge carefully and exhaustively examined the panel and the prospective jurors. There was selected a jury of 12 who had neither formed an opinion or, if they had, it would not prevent them from basing their verdict solely upon the evidence. We cannot say that it was biased or prejudiced. Furthermore, the jury panel was passed for cause by the defendant.

Nor is it strange that members of the jury were acquainted with the sheriff, some of the witnesses for the prosecution,[1] the victim, the defendant, and the prosecutors. However, we are unable to find in the record wherein these acquaintanceships were prejudicial to the defendant. . . .

Finally, defendant contends the trial court abused its discretion in admitting some colored slides into evidence and permitting them to be displayed to the jury by means of a slide projector and screen. With this contention, we are in agreement.

To begin with, the identity of the deceased, his death and its cause had already been established. Black and white photographs had been introduced showing the victim lying in his bed, in a sleeping position, with two bullet holes in his head. The

[1] Most members of the jury were also acquainted with one or both of defendant's counsel. [Some footnotes have been omitted; this one is renumbered; footnote by the court.]

colored slides were made during the course of an autopsy. To describe them as being gruesome would be a gross understatement. One of them, for example, depicted the deceased's head, showing the base of the skull after the skull cap and brain had been removed by the pathologist. The skin is peeled over the edge of the skull showing the empty brain cavity. Another is a top view of the empty cavity. They would have been gruesome in black and white but the color accentuates the gruesomeness.

Initially, it is within the sound discretion of the trial court to determine whether the inflammatory nature of such slides is outweighed by their probative value with respect to a fact in issue. If the latter they may be admitted even though gruesome. In the instant case they had no probative value. All the material facts which could conceivably have been adduced from a viewing of the slides had been established by uncontradicted lay and medical testimony. The only purpose served was to inflame and arouse the jury.

It must be remembered that the jury in this case not only determined the question of guilt but also fixed the punishment itself. The only use of the slides from the prosecution's standpoint was to arouse the emotions of the jury so that they would not recommend life imprisonment. It could very well be that the jury would have returned the same verdict absent its view of the slides. However, with the defendant's life at stake, this court should not hazard a guess. The slides could very well have tipped the scales in favor of the death penalty.

The counsel for defendant did not make the proper objection to the admission of the slides. However, this court will not allow such a technicality to influence its decision in a case such as this.

Because the trial court abused its discretion in permitting the slides into evidence and because of the other doubtful aspects of the trial, this case is reversed and remanded for a new trial.

■ CROCKETT, C.J., and HENRIOD, J., concur.

■ ELLETT, JUSTICE (dissenting).

I dissent from that part of the main opinion holding that the trial court abused its discretion in admitting colored slides into evidence. In the first place, colored pictures should be dealt with exactly the same as black and white pictures. All pictures are admissible in evidence if they tend to prove a matter which would be relevant for a witness to testify to orally. 23 C.J.S. Criminal Law § 852(1)a. When pictures are thus competent there cannot be any proper objection made to them on the ground that they may prejudice the jury. All evidence given tends to prejudice the jury, and pictures are no exception. Just why anyone should ever have supposed a colored picture should be rejected because it shows a true likeness of any given scene escapes me. One would think that of two pictures, the one more accurately portraying the scene would be the proper one to place in evidence. . . .

It is true that the pictures taken of the deceased before he had been removed from his bed showed a considerable amount of blood on his face and on the bedding. He was lying with his arms folded across his chest exactly as if he were asleep. He had two holes in his face, and one could not tell by looking at the holes what had caused them.

. . .

The cause of death had to be proved, and so there was an autopsy on the body. The doctor testified as to two metallic substances he found inside the cranium of the deceased and traced the course from the holes in the head with a metal probe which he placed through the holes to the place where the metallic substances were found. It was relevant and proper for the State to show that the deceased was shot while asleep in bed, and these metallic probes in the head were photographed to show the course of the bullet. . . .

Before allowing the pictures to be seen by the jury in this case, the court on its own motion excused the jury and had the pictures projected onto a screen, "so that counsel for the defendant may have an opportunity to object to them, if they desire after seeing them. . . . I am going to ask that they be shown on the screen and out of the presence of the jury so that counsel may voice an objection if they have any objection."

The pictures were shown out of the presence of the jury, and the only objection made by counsel for the defendant was that the pathologist did not know the deceased personally and, therefore, the pictures were not properly identified as being those of Kenneth Hall, the deceased. The identity of the body was otherwise established. The trial court did not abuse its discretion in admitting into evidence these pictures, especially when no objection was suggested by counsel on the ground that there was anything gruesome or inflammatory about them. . . .

Had defendant wished to avoid having the jury see the pictures, he could have stipulated that Kenneth Hall died as a result of being shot in the face while he was lying in bed. This would have been no admission that he was the one who fired the shots. He didn't have to do this, but he ought not now complain because the State proved those elements of the crime of murder in the first degree which were put in issue by his plea of not guilty. . . .

Since most cases involving gruesome pictures are concerned with conditions created by the defendant, the jury is much more apt to be affected against the defendant than it would be when the condition is caused by a surgeon in the quest for truth. The pictures so vividly described in the prevailing opinion were no more gruesome than was the open heart surgery portrayed on television a few nights ago.

The evidence given to the jury in this case would warrant a finding that the defendant was a guest in the home of the deceased; that while the deceased slept, the defendant shot him twice with a .22 caliber rifle; that defendant immediately sold the murder weapon and deceased's high-powered rifle; and that defendant stole the deceased's station wagon and was intending to get to Old Mexico down the back roads from Las Vegas, Nevada, where he was arrested. The verdict of murder in the first degree without recommendation was warranted by the evidence. The defendant had a fair trial before an unbiased jury, and I think this conviction should be affirmed.

■ TUCKETT, J., concurs in the dissenting opinion of ELLETT, J.

NOTES

1. The danger of the kind of evidence at issue (in part) in *Poe* is the possibility that its prejudicial effect will outweigh its probative value. Otherwise, "if the mere gruesomeness of the evidence were ground for its exclusion, then it would have to be said that the more gruesome the crime, the greater the difficulty of the prosecution in proving its case."

Rivers v. United States, 270 F.2d 435, 438 (9th Cir. 1959), cert. denied, 362 U.S. 920 (1960).

Courts use the power to exclude prejudicial evidence with caution. United States v. Pirolli, 673 F.2d 1200 (11th Cir.), cert. denied, 459 U.S. 871 (1982). See, e.g., United States v. White, 23 M.J. 84, 22 Fed. R. Evid. Serv. 29 (C.M. App. 1986) (disturbing pictures showing injuries and signs of prior injuries to child admitted when relied upon by experts testifying as to "battered child syndrome").

Should expert's reliance on such physical proof be treated in the same way as evidence of children's mental impressions related to investigators or recall of former abuses under hypnosis in prosecutions for sex abuse or assaults during "satanic" orgies? Can prior physical abuse of a mate as revealed by pictures showing prior injuries be relied on in a murder prosecution of the alleged abuser who shot and killed his wife after allegedly beating her on prior occasions? In United States v. Naranjo, 710 F.2d 1465, 1467 (10th Cir. 1983), the court held that "The evidence of defendant's previous batteries of the victim becomes admissible when defendant took the stand and testified that the shooting was accidental." What if defendant had not taken the stand? Is a history of wife-abuse relevant?

2. Russell v. Coffman, 376 S.W.2d 269 (Ark. 1964), approved use by a surgeon of the preserved knee cap of the plaintiff to demonstrate to the jury the nature of plaintiff's injuries and the reason his knee cap had to be removed. Defendant had argued that the X ray plates, pictures of the knee cap, exhibition of plaintiff's knee and the expert evidence of the surgeon, which included use of a plastic model, should have sufficed. Compare Rost v. The Brooklyn Heights Railroad Co., 41 N.Y.S. 1069 (N.Y.A.D. 2d Dept. 1896), reversing after introduction of a child's foot preserved in alcohol to show her size and thus her age.

In Marsee v. United States Tobacco Company, 866 F.2d 319 (10th Cir. 1989), a products liability action against a snuff manufacturer, a videotaped deposition of a severely disfigured postsurgical oral cancer patient was excluded even though he was similar in age, background use habits and extent of illness to plaintiff's decedent. The probative value on causation of decedent's cancer was low where there was no solid proof that the deponent's cancer resulted from snuff use. The disease is widespread and has many causes, the court pointed out, citing In re "Agent Orange" Product Liability Litigation, 611 F.Supp. 1223, 1252–53 (E.D.N.Y.1985) (evidence that 17 of 7500 with Hodgkin's disease were exposed to Agent Orange was not sufficiently probative on issue of whether exposure to Agent Orange caused Hodgkin's disease).

In Harper v. Bolton, 124 S.E.2d 54, 55 (S.C. 1962), it was conceded that plaintiff had lost her eye in an automobile accident and the court held it reversible error to introduce "a small glass vial containing the removed eye." The dissent felt that the concession was not sufficiently clear. Compare Allen v. Seacoast Products, Inc., 623 F.2d 355, 365 n. 23 (5th Cir. 1980) (plaintiff demonstrated the removal and replacement of glass eye before the jury, leading to what defendant claims was an excessive verdict; no abuse of discretion in showing the daily regimen that plaintiff must endure).

In re Richardson-Merrell, Inc. Benedectin Prods., 624 F.Supp. 1212 (S.D.Ohio 1985), the court held that children allegedly crippled at birth by defendant's drug were properly excluded from the courtroom during the liability phase of a product liability action. The court explained that:

> the presence . . . of children suffering from severe birth defects is inherently prejudicial. There is no more protected and beloved member of human society than a helpless newborn infant. Conversely, it has become fashionable to

> castigate and punish that depersonalized segment of society identified variously as "big business," "soulless corporations," or "industrial complex." If the battle is emotional alone, between newborn infants and big business, there can be but one winner. Emotional battles, however, should not be staged in the federal courtroom. We deal in liability imposed not by emotion but by law.

624 F.Supp. at 1224. This decision is quite unusual.

Normally a party, no matter how deformed, has a right to be present. But cf. Gage v. Bozarth, 505 N.E.2d 64 (Ind. App. 1987)., excluding the plaintiff, a severely injured seven-year old quadriplegic at the liability stage. See also Helminski v. Ayerst Lab., 766 F.2d 208, 213 (6th Cir. 1985). What of a party who brings spouse and children, father and mother and others to show support and engender sympathy? Should they be excluded?

3. Should gruesome photographs be allowed when other proof describing the details depicted in the photographs has already been admitted? In Baggett v. Ashland Oil & Refining Co., 236 N.E.2d 243, 250 (Ill. App. 1968), photographs of plaintiff's extensive burns were admitted over defendant's objection that they were merely cumulative to the medical testimony and would be used only to evoke sympathy from the jury. In Burns v. State, 388 S.W.2d 690, 693–699 (Tex. Cr. App. 1965), six different photographs, one of which showed the victim in color lying on his back in a pool of blood with his throat cut from ear to ear, were admitted after testimony to the same effect. The court held them admissible as tending to solve a disputed fact issue. The dissent found them too prejudicial. In Martin v. State, 475 S.W.2d 265 (Tex. Crim. App. 1972), the test applied in *Burns* for the admissibility of photographs was overruled. The court formulated a new test:

> We hold that if a photograph is competent, material and relevant to the issue on trial, it is not rendered inadmissible merely because it is gruesome or might tend to arouse the passions of the jury, unless it is offered solely to inflame the minds of the jury. If a verbal description of the body and the scene would be admissible, a photograph depicting the same is admissible.

Id. at 267 (footnotes omitted).

4. In Douglass v. Hustler Magazine, Inc., 769 F.2d 1128 (7th Cir.1985), cert. denied, 475 U.S. 1094 (1986), a suit for invasion of privacy, the court held that the trial judge improperly admitted a slide show containing 128 of the vilest photographs and cartoons published by the defendant over the years. The court explained that "the prejudicial effect of the parade of filth in the slide show so clearly outweighed its probative value as to require exclusion under Rule 403. . . ." 769 F.2d at 1142.

5. In United States v. Layton, 767 F.2d 549 (9th Cir. 1985), the defendant was charged with the murder of Congressman Leo Ryan in connection with the Jonestown massacre in Guyana. At trial, the government sought to introduce the so-called "Last Hour Tape" made while the mass suicide was in progress to establish a conspiratorial link between Jim Jones and the defendant. The Ninth Circuit upheld the trial court's decision to exclude the tape, concluding that the probative value of the tape was weak and that other evidence already admitted established the conspiratorial link. The court also emphasized the prejudicial effect of the tape:

> It would be virtually impossible for a jury to listen to this tape and ignore the sounds of innocent infants crying (and presumably dying) in the background. The discussion of the impending mass suicide set against the background cacophony of innocent children who have apparently already been given poison would distract even the most conscientious juror from the real issues in the case.

767 F.2d at 556.

6. People v. Cavanaugh, 282 P.2d 53, 64 (Cal. 1955), a murder prosecution, affirmed a conviction when there had been introduced three amputated fingers of the deceased, blood-stained seat covers from the car, a tooth, and pictures of the badly decomposed body crawling with maggots. Dissenting, Justice Traynor noted:

> The majority opinion concedes that unnecessary but highly inflammatory evidence and evidence of other crimes was erroneously admitted, and it is apparent from the record that the prosecutor deliberately presented his case with the purpose of inflaming the jury. I cannot say that he did not succeed in this purpose or that a different verdict would have been improbable had the evidence been excluded.

Is there a difference in the role of the trial and appellate judges in evaluating probative force and prejudice under Rule 403?

Compare the habeas corpus problem in Kealohapauole v. Shimoda, 800 F.2d 1463 (9th Cir. 1986), refusing to find a violation of the Constitution where conviction in a state court for murder depended in part on a forty-five minute video presentation of the autopsy (black and white without sound track) while the pathologist described what was going on. The body was decomposed and the defendant refused to stipulate that the cause of death was blows to the victim's head.

7. To what extent can a party avoid adverse prejudice by stipulating to the reasonable inferences that may be drawn from gruesome or otherwise prejudicial evidence? See, e.g., Fortune, Judicial Admissions in Criminal Cases: Blocking the Introduction of Prejudicial Evidence, 17 Crim. L. Bulletin 101, 104–05 (1981):

> A distinction should be drawn between admissions of *ultimate facts* and admissions of *evidentiary facts*. When a jury is presented with a judicial admission of an ultimate fact it has no function as regards that fact. The jury is told, in effect, not to concern itself with debating the fact but to pass to matters in dispute. In such a case, there is no reason to permit proof of that which is admitted. On the other hand, when the admission is as to an evidentiary fact the jury has a function; it must decide whether to infer from the evidentiary fact an ultimate fact in issue. It is then reasonable to permit the proponent to prove the evidentiary fact by evidence best calculated to persuade the jury to make the desired inference. To limit the proponent to a judicial admission of the evidentiary fact may rob the evidentiary fact of its probative value. Whether the proponent should be precluded from proving an admitted evidentiary fact should be determined by the principles codified in Rule 403 of the Federal Rules of Evidence—balancing the additional probative value of the proof (over the probative value of the judicial admission) against the prejudice to the other party.

The Court may utilize a combination of stipulations and conditions to minimize prejudice. See, e.g., United States v. Jackson, 405 F.Supp. 938 (E.D.N.Y. 1975). Defendant was accused of robbing a bank in New York on August 23, 1971. On November 7 of that year, he was stopped in Georgia by a policeman and arrested for driving without a license. He was using a false name and guns were found in the car. Subsequently, the defendant escaped from the local jail. The court held the defendant's arrest and subsequent escape inadmissible, provided the defendant entered into a stipulation that he was in Georgia shortly after the robbery and that while there he used a false name. In addition to the principal case which follows, see, e.g., James Joseph Duane, "Right" to Prove Undisputed Facts, 168 F.R.D. 405 (1997).

8. Admission of prejudicial evidence may be proper even though the party against whom it is offered would be willing to stipulate to the proposition for which it is offered since the stipulation may not provide a jury with a basis for evaluating probative force. For example, in United States v. Bowers, 660 F.2d 527 (5th Cir. 1981), a prosecution for child abuse, the court admitted a photograph of a child's lacerated heart even though the defendant was willing to stipulate the cause of the child's death. The court deemed the evidence essential to show that the defendant used cruel and excessive physical force on the child. See also United States v. Gantzer, 810 F.2d 349 (2d Cir. 1987), a prosecution for sending obscene matter through the mail where defendant offered to stipulate that the pictures were obscene:

> We have long recognized that the decision whether to admit potentially prejudicial evidence is entrusted to the sound discretion of the district judge and will not be disturbed absent an abuse of discretion. . . . [He] acted well within his discretion in admitting the photographs for which Gantzer was indicted, Gantzer's concession of obscenity notwithstanding. A party is not obliged to accept an adversary's "judicial admission" in lieu of proving the fact,. . . . particularly in the context of a criminal prosecution where the accused seeks to stipulate to an element of the crime charged.

Do you agree?

If the crime itself requires proof of prejudicial matter as an element of the offense there is almost no way to avoid the evidence. In United States v. Petrov, 747 F.2d 824 (2d Cir. 1984), for example, a prosecution for mailing obscene material by a commercial developer was based on pictures showing human sexual relations with animals and naked children. The majority dismissed some of the counts as not proven as to a commercial photo processor such as the defendant. It found "spillover prejudice" to those counts where even such a photo processor could be convicted. The trial court's exclusion of defendant's evidence to show community standards without explanation of how he applied Rule 403 was criticized. The dissent would have declared the statute not applicable to photo processors, who cannot be expected to make a judgment on films sent by clients for processing. The case with three opinions from the panel of three suggests the close relationship between substantive and evidentiary law.

Old Chief v. United States

Supreme Court of United States, 1997.
519 U.S. 172, 117 S.Ct. 644, 136 L.Ed.2d 574.

■ JUSTICE SOUTER delivered the opinion of the Court.

Subject to certain limitations, 18 U.S.C. § 922(g)(1) prohibits possession of a firearm by anyone with a prior felony conviction, which the government can prove by introducing a record of judgment or similar evidence identifying the previous offense. Fearing prejudice if the jury learns the nature of the earlier crime, defendants sometimes seek to avoid such an informative disclosure by offering to concede the fact of the prior conviction. The issue here is whether a district court abuses its discretion if it spurns such an offer and admits the full record of a prior judgment, when the name or nature of the prior offense raises the risk of a verdict tainted by improper considerations, and when the purpose of the evidence is solely to prove the element of prior conviction. We hold that it does.

I

In 1993, petitioner, Old Chief, was arrested after a fracas involving at least one gunshot. The ensuing federal charges included not only assault with a dangerous weapon and using a firearm in relation to a crime of violence but violation of 18 U.S.C. § 922(g)(1). This statute makes it unlawful for anyone "who has been convicted in any court of, a crime punishable by imprisonment for a term exceeding one year" to "possess in or affecting commerce, any firearm. . . ." "[A] crime punishable by imprisonment for a term exceeding one year" is defined to exclude "any Federal or State offenses pertaining to antitrust violations, unfair trade practices, restraints of trade, or other similar offenses relating to the regulation of business practices" and "any State offense classified by the laws of the State as a misdemeanor and punishable by a term of imprisonment of two years or less." 18 U.S.C. § 921(a)(20).

The earlier crime charged in the indictment against Old Chief was assault causing serious bodily injury. Before trial, he moved for an order requiring the government "to refrain from mentioning—by reading the Indictment, during jury selection, in opening statement, or closing argument—and to refrain from offering into evidence or soliciting any testimony from any witness regarding the prior criminal convictions of the Defendant, except to state that the Defendant has been convicted of a crime punishable by imprisonment exceeding one (1) year." App. 6. He said that revealing the name and nature of his prior assault conviction would unfairly tax the jury's capacity to hold the Government to its burden of proof beyond a reasonable doubt on current charges of assault, possession, and violence with a firearm, and he offered to "solve the problem here by stipulating, agreeing and requesting the Court to instruct the jury that he has been convicted of a crime punishable by imprisonment exceeding one (1) year[ ]." App. 7. He argued that the offer to stipulate to the fact of the prior conviction rendered evidence of the name and nature of the offense inadmissible under Rule 403 of the Federal Rules of Evidence, the danger being that unfair prejudice from that evidence would substantially outweigh its probative value. He also proposed this jury instruction:

> "The phrase 'crime punishable by imprisonment for a term exceeding one year' generally means a crime which is a felony. The phrase does not include any state offense classified by the laws of that state as a misdemeanor and punishable by a term of imprisonment of two years or less and certain crimes concerning the regulation of business practices.
>
> "[I] hereby instruct you that Defendant JOHNNY LYNN OLD CHIEF has been convicted of a crime punishable by imprisonment for a term exceeding one year."

The Assistant United States Attorney refused to join in a stipulation, insisting on his right to prove his case his own way, and the District Court agreed, ruling orally that, "If he doesn't want to stipulate, he doesn't have to." App. 15–16. At trial, over renewed objection, the Government introduced the order of judgment and commitment for Old Chief's prior conviction. This document disclosed that on December 18, 1988, he "did knowingly and unlawfully assault Rory Dean Fenner, said assault resulting in serious bodily injury," for which Old Chief was sentenced to five years' imprisonment. App. 18–19. The jury found Old Chief guilty on all counts, and he appealed.

II

A

As a threshold matter, there is Old Chief's erroneous argument that the name of his prior offense as contained in the record of conviction is irrelevant to the prior-conviction element, and for that reason inadmissible under Rule 402 of the Federal Rules of Evidence. Rule 401 defines relevant evidence as having "any tendency to make the existence of any fact that is of consequence to the determination of the action more probable or less probable than it would be without the evidence." Fed. Rule Evid. 401. To be sure, the fact that Old Chief's prior conviction was for assault resulting in serious bodily injury rather than, say, for theft was not itself an ultimate fact, as if the statute had specifically required proof of injurious assault. But its demonstration was a step on one evidentiary route to the ultimate fact, since it served to place Old Chief within a particular sub-class of offenders for whom firearms possession is outlawed by § 922(g)(1). A documentary record of the conviction for that named offense was thus relevant evidence in making Old Chief's § 922(g)(1) status more probable than it would have been without the evidence.

Nor was its evidentiary relevance under Rule 401 affected by the availability of alternative proofs of the element to which it went, such as an admission by Old Chief that he had been convicted of a crime "punishable by imprisonment for a term exceeding one year" within the meaning of the statute. The 1972 Advisory Committee Notes to Rule 401 make this point directly:

> "The fact to which the evidence is directed need not be in dispute. While situations will arise which call for the exclusion of evidence offered to prove a point conceded by the opponent, the ruling should be made on the basis of such considerations as waste of time and undue prejudice (see Rule 403), rather than under any general requirement that evidence is admissible only if directed to matters in dispute." Advisory Committee's Notes on Fed. Rule Evid. 401, 28 U.S.C.App., p. 859.

If, then, relevant evidence is inadmissible in the presence of other evidence related to it, its exclusion must rest not on the ground that the other evidence has rendered it "irrelevant," but on its character as unfairly prejudicial, cumulative or the like, its relevance notwithstanding.

B

The principal issue is the scope of a trial judge's discretion under Rule 403, which authorizes exclusion of relevant evidence when its "probative value is substantially outweighed by the danger of unfair prejudice, confusion of the issues, or misleading the jury, or by considerations of undue delay, waste of time, or needless presentation of cumulative evidence." Fed. Rule Evid. 403. Old Chief relies on the danger of unfair prejudice.

1

The term "unfair prejudice," as to a criminal defendant, speaks to the capacity of some concededly relevant evidence to lure the factfinder into declaring guilt on a ground different from proof specific to the offense charged. See generally 1 J. Weinstein, M. Berger, & J. McLaughlin, Weinstein's Evidence, ¶ 403[03] (1996) (discussing the meaning of "unfair prejudice" under Rule 403). So, the Committee Notes to Rule 403 explain, " 'Unfair prejudice' within its context means an undue

tendency to suggest decision on an improper basis, commonly, though not necessarily, an emotional one." Advisory Committee's Notes on Fed. Rule Evid. 403, 28 U.S.C.App., p. 860.

Such improper grounds certainly include the one that Old Chief points to here: generalizing a defendant's earlier bad act into bad character and taking that as raising the odds that he did the later bad act now charged (or, worse, as calling for preventive conviction even if he should happen to be innocent momentarily). As then-Judge Breyer put it, "Although . . . 'propensity evidence' is relevant, the risk that a jury will convict for crimes other than those charged—or that, uncertain of guilt, it will convict anyway because a bad person deserves punishment—creates a prejudicial effect that outweighs ordinary relevance." United States v. Moccia, 681 F.2d 61, 63 (C.A.1 1982). Justice Jackson described how the law has handled this risk:

> "Courts that follow the common-law tradition almost unanimously have come to disallow resort by the prosecution to any kind of evidence of a defendant's evil character to establish a probability of his guilt. Not that the law invests the defendant with a presumption of good character, Greer v. United States, 245 U.S. 559, 38 S.Ct. 209, 62 L.Ed. 469, but it simply closes the whole matter of character, disposition and reputation on the prosecution's case-in-chief. The state may not show defendant's prior trouble with the law, specific criminal acts, or ill name among his neighbors, even though such facts might logically be persuasive that he is by propensity a probable perpetrator of the crime. The inquiry is not rejected because character is irrelevant; on the contrary, it is said to weigh too much with the jury and to so overpersuade them as to prejudge one with a bad general record and deny him a fair opportunity to defend against a particular charge. The overriding policy of excluding such evidence, despite its admitted probative value, is the practical experience that its disallowance tends to prevent confusion of issues, unfair surprise and undue prejudice." Michelson v. United States, 335 U.S. 469, 475–476, 69 S.Ct. 213, 218–219, 93 L.Ed. 168 (1948) (footnotes omitted).

Rule of Evidence 404(b) reflects this common law tradition by addressing propensity reasoning directly: "Evidence of other crimes, wrongs, or acts is not admissible to prove the character of a person in order to show action in conformity therewith." Fed. Rule Evid. 404(b). There is, accordingly, no question that propensity would be an "improper basis" for conviction and that evidence of a prior conviction is subject to analysis under Rule 403 for relative probative value and for prejudicial risk of misuse as propensity evidence. Cf. 1 J. Strong, McCormick on Evidence 780 (4th ed. 1992) (hereinafter McCormick) (Rule 403 prejudice may occur, for example, when "evidence of convictions for prior, unrelated crimes may lead a juror to think that since the defendant already has a criminal record, an erroneous conviction would not be quite as serious as would otherwise be the case").

As for the analytical method to be used in Rule 403 balancing, two basic possibilities present themselves. An item of evidence might be viewed as an island, with estimates of its own probative value and unfairly prejudicial risk the sole reference points in deciding whether the danger substantially outweighs the value and whether the evidence ought to be excluded. Or the question of admissibility might be seen as inviting further comparisons to take account of the full evidentiary

context of the case as the court understands it when the ruling must be made. This second approach would start out like the first but be ready to go further. On objection, the court would decide whether a particular item of evidence raised a danger of unfair prejudice. If it did, the judge would go on to evaluate the degrees of probative value and unfair prejudice not only for the item in question but for any actually available substitutes as well. If an alternative were found to have substantially the same or greater probative value but a lower danger of unfair prejudice, sound judicial discretion would discount the value of the item first offered and exclude it if its discounted probative value were substantially outweighed by unfairly prejudicial risk. As we will explain later on, the judge would have to make these calculations with an appreciation of the offering party's need for evidentiary richness and narrative integrity in presenting a case, and the mere fact that two pieces of evidence might go to the same point would not, of course, necessarily mean that only one of them might come in. It would only mean that a judge applying Rule 403 could reasonably apply some discount to the probative value of an item of evidence when faced with less risky alternative proof going to the same point. Even under this second approach, as we explain below, a defendant's Rule 403 objection offering to concede a point generally cannot prevail over the Government's choice to offer evidence showing guilt and all the circumstances surrounding the offense.

The first understanding of the rule is open to a very telling objection. That reading would leave the party offering evidence with the option to structure a trial in whatever way would produce the maximum unfair prejudice consistent with relevance. He could choose the available alternative carrying the greatest threat of improper influence, despite the availability of less prejudicial but equally probative evidence. The worst he would have to fear would be a ruling sustaining a Rule 403 objection, and if that occurred, he could simply fall back to offering substitute evidence. This would be a strange rule. It would be very odd for the law of evidence to recognize the danger of unfair prejudice only to confer such a degree of autonomy on the party subject to temptation, and the Rules of Evidence are not so odd.

Rather, a reading of the companions to Rule 403, and of the commentaries that went with them to Congress, makes it clear that what counts as the Rule 403 "probative value" of an item of evidence, as distinct from its Rule 401 "relevance," may be calculated by comparing evidentiary alternatives. The Committee Notes to Rule 401 explicitly say that a party's concession is pertinent to the court's discretion to exclude evidence on the point conceded. Such a concession, according to the Notes, will sometimes "call for the exclusion of evidence offered to prove [the] point conceded by the opponent. . . ." Advisory Committee's Notes on Fed. Rule Evid. 401, 28 U.S.C.App., p. 859. As already mentioned, the Notes make it clear that such rulings should be made not on the basis of Rule 401 relevance but on "such considerations as waste of time and undue prejudice (see Rule 403). . . ." Ibid. The Notes to Rule 403 then take up the point by stating that when a court considers "whether to exclude on grounds of unfair prejudice," the "availability of other means of proof may . . . be an appropriate factor." Advisory Committee's Notes on Fed. Rule Evid. 403, 28 U.S.C.App., p. 860. The point gets a reprise in the Notes to Rule 404(b), dealing with admissibility when a given evidentiary item has the dual nature of legitimate evidence of an element and illegitimate evidence of character: "No mechanical solution is offered. The determination must be made whether the danger of undue prejudice outweighs the probative value of the evidence in view of the availability of

other means of proof and other facts appropriate for making decision of this kind under 403." Advisory Committee's Notes on Fed. Rule Evid. 404, 28 U.S.C.App., p. 861. Thus the notes leave no question that when Rule 403 confers discretion by providing that evidence "may" be excluded, the discretionary judgment may be informed not only by assessing an evidentiary item's twin tendencies, but by placing the result of that assessment alongside similar assessments of evidentiary alternatives. See McCormick 782, and n. 41 (suggesting that Rule 403's "probative value" signifies the "marginal probative value" of the evidence relative to the other evidence in the case); 22 C. Wright & K. Graham, Federal Practice and Procedure § 5250, pp. 546–547 (1978) ("The probative worth of any particular bit of evidence is obviously affected by the scarcity or abundance of other evidence on the same point").

2

In dealing with the specific problem raised by § 922(g)(1) and its prior-conviction element, there can be no question that evidence of the name or nature of the prior offense generally carries a risk of unfair prejudice to the defendant. That risk will vary from case to case, for the reasons already given, but will be substantial whenever the official record offered by the government would be arresting enough to lure a juror into a sequence of bad character reasoning. Where a prior conviction was for a gun crime or one similar to other charges in a pending case the risk of unfair prejudice would be especially obvious, and Old Chief sensibly worried that the prejudicial effect of his prior assault conviction, significant enough with respect to the current gun charges alone, would take on added weight from the related assault charge against him.

The District Court was also presented with alternative, relevant, admissible evidence of the prior conviction by Old Chief's offer to stipulate, evidence necessarily subject to the District Court's consideration on the motion to exclude the record offered by the Government. Although Old Chief's formal offer to stipulate was, strictly, to enter a formal agreement with the Government to be given to the jury, even without the Government's acceptance his proposal amounted to an offer to admit that the prior-conviction element was satisfied, and a defendant's admission is, of course, good evidence. See Fed. Rule Evid. 801(d)(2)(A).

Old Chief's proffered admission would, in fact, have been not merely relevant but seemingly conclusive evidence of the element. The statutory language in which the prior-conviction requirement is couched shows no congressional concern with the specific name or nature of the prior offense beyond what is necessary to place it within the broad category of qualifying felonies, and Old Chief clearly meant to admit that his felony did qualify, by stipulating "that the Government has proven one of the essential elements of the offense." App. 7. As a consequence, although the name of the prior offense may have been technically relevant, it addressed no detail in the definition of the prior-conviction element that would not have been covered by the stipulation or admission. Logic, then, seems to side with Old Chief.

3

There is, however, one more question to be considered before deciding whether Old Chief's offer was to supply evidentiary value at least equivalent to what the Government's own evidence carried. In arguing that the stipulation or admission would not have carried equivalent value, the Government invokes the familiar, standard rule that the prosecution is entitled to prove its case by evidence of its own

choice, or, more exactly, that a criminal defendant may not stipulate or admit his way out of the full evidentiary force of the case as the government chooses to present it. . . .

This is unquestionably true as a general matter. The "fair and legitimate weight" of conventional evidence showing individual thoughts and acts amounting to a crime reflects the fact that making a case with testimony and tangible things not only satisfies the formal definition of an offense, but tells a colorful story with descriptive richness. Unlike an abstract premise, whose force depends on going precisely to a particular step in a course of reasoning, a piece of evidence may address any number of separate elements, striking hard just because it shows so much at once; the account of a shooting that establishes capacity and causation may tell just as much about the triggerman's motive and intent. Evidence thus has force beyond any linear scheme of reasoning, and as its pieces come together a narrative gains momentum, with power not only to support conclusions but to sustain the willingness of jurors to draw the inferences, whatever they may be, necessary to reach an honest verdict. This persuasive power of the concrete and particular is often essential to the capacity of jurors to satisfy the obligations that the law places on them. Jury duty is usually unsought and sometimes resisted, and it may be as difficult for one juror suddenly to face the findings that can send another human being to prison, as it is for another to hold out conscientiously for acquittal. When a juror's duty does seem hard, the evidentiary account of what a defendant has thought and done can accomplish what no set of abstract statements ever could, not just to prove a fact but to establish its human significance, and so to implicate the law's moral underpinnings and a juror's obligation to sit in judgment. Thus, the prosecution may fairly seek to place its evidence before the jurors, as much to tell a story of guiltiness as to support an inference of guilt, to convince the jurors that a guilty verdict would be morally reasonable as much as to point to the discrete elements of a defendant's legal fault. Cf. United States v. Gilliam, 994 F.2d 97, 100–102 (CA2), cert. denied, 510 U.S. 927, 114 S.Ct. 335, 126 L.Ed.2d 280 (1993).

But there is something even more to the prosecution's interest in resisting efforts to replace the evidence of its choice with admissions and stipulations, for beyond the power of conventional evidence to support allegations and give life to the moral underpinnings of law's claims, there lies the need for evidence in all its particularity to satisfy the jurors' expectations about what proper proof should be. Some such demands they bring with them to the courthouse, assuming, for example, that a charge of using a firearm to commit an offense will be proven by introducing a gun in evidence. A prosecutor who fails to produce one, or some good reason for his failure, has something to be concerned about. "If [jurors'] expectations are not satisfied, triers of fact may penalize the party who disappoints them by drawing a negative inference against that party." Saltzburg, A Special Aspect of Relevance: Countering Negative Inferences Associated with the Absence of Evidence, 66 Calif. L.Rev. 1011, 1019 (1978) (footnotes omitted). Expectations may also arise in jurors' minds simply from the experience of a trial itself. The use of witnesses to describe a train of events naturally related can raise the prospect of learning about every ingredient of that natural sequence the same way. If suddenly the prosecution presents some occurrence in the series differently, as by announcing a stipulation or admission, the effect may be like saying, "never mind what's behind the door," and jurors may well wonder what they are being kept from knowing. A party seemingly

responsible for cloaking something has reason for apprehension, and the prosecution with its burden of proof may prudently demur at a defense request to interrupt the flow of evidence telling the story in the usual way.

In sum, the accepted rule that the prosecution is entitled to prove its case free from any defendant's option to stipulate the evidence away rests on good sense. A syllogism is not a story, and a naked proposition in a courtroom may be no match for the robust evidence that would be used to prove it. People who hear a story interrupted by gaps of abstraction may be puzzled at the missing chapters, and jurors asked to rest a momentous decision on the story's truth can feel put upon at being asked to take responsibility knowing that more could be said than they have heard. A convincing tale can be told with economy, but when economy becomes a break in the natural sequence of narrative evidence, an assurance that the missing link is really there is never more than second best.

4

This recognition that the prosecution with its burden of persuasion needs evidentiary depth to tell a continuous story has, however, virtually no application when the point at issue is a defendant's legal status, dependent on some judgment rendered wholly independently of the concrete events of later criminal behavior charged against him. As in this case, the choice of evidence for such an element is usually not between eventful narrative and abstract proposition, but between propositions of slightly varying abstraction, either a record saying that conviction for some crime occurred at a certain time or a statement admitting the same thing without naming the particular offense. The issue of substituting one statement for the other normally arises only when the record of conviction would not be admissible for any purpose beyond proving status, so that excluding it would not deprive the prosecution of evidence with multiple utility; if, indeed, there were a justification for receiving evidence of the nature of prior acts on some issue other than status (i.e., to prove "motive, opportunity, intent, preparation, plan, knowledge, identity, or absence of mistake or accident," Fed. Rule Evid. 404(b)), Rule 404(b) guarantees the opportunity to seek its admission. Nor can it be argued that the events behind the prior conviction are proper nourishment for the jurors' sense of obligation to vindicate the public interest. The issue is not whether concrete details of the prior crime should come to the jurors' attention but whether the name or general character of that crime is to be disclosed. Congress, however, has made it plain that distinctions among generic felonies do not count for this purpose; the fact of the qualifying conviction is alone what matters under the statute. "A defendant falls within the category simply by virtue of past conviction for any [qualifying] crime ranging from possession of short lobsters, see 16 U.S.C. § 3372, to the most aggravated murder." Tavares, 21 F.3d, at 4. The most the jury needs to know is that the conviction admitted by the defendant falls within the class of crimes that Congress thought should bar a convict from possessing a gun, and this point may be made readily in a defendant's admission and underscored in the court's jury instructions. Finally, the most obvious reason that the general presumption that the prosecution may choose its evidence is so remote from application here is that proof of the defendant's status goes to an element entirely outside the natural sequence of what the defendant is charged with thinking and doing to commit the current offense. Proving status without telling exactly why that status was imposed leaves no gap in the story of a defendant's subsequent criminality, and its demonstration by stipulation or

admission neither displaces a chapter from a continuous sequence of conventional evidence nor comes across as an officious substitution, to confuse or offend or provoke reproach.

Given these peculiarities of the element of felony-convict status and of admissions and the like when used to prove it, there is no cognizable difference between the evidentiary significance of an admission and of the legitimately probative component of the official record the prosecution would prefer to place in evidence. For purposes of the Rule 403 weighing of the probative against the prejudicial, the functions of the competing evidence are distinguishable only by the risk inherent in the one and wholly absent from the other. In this case, as in any other in which the prior conviction is for an offense likely to support conviction on some improper ground, the only reasonable conclusion was that the risk of unfair prejudice did substantially outweigh the discounted probative value of the record of conviction, and it was an abuse of discretion to admit the record when an admission was available. [A redacted judgment is an alternative.] What we have said shows why this will be the general rule when proof of convict status is at issue, just as the prosecutor's choice will generally survive a Rule 403 analysis when a defendant seeks to force the substitution of an admission for evidence creating a coherent narrative of his thoughts and actions in perpetrating the offense for which he is being tried.

The judgment is reversed, and the case is remanded to the Ninth Circuit for further proceedings consistent with this opinion.

It is so ordered.

■ JUSTICE O'CONNOR, with whom THE CHIEF JUSTICE, JUSTICE SCALIA, and JUSTICE THOMAS join, dissenting.

The Court today announces a rule that misapplies Federal Rule of Evidence 403 and upsets, without explanation, longstanding precedent regarding criminal prosecutions. I do not agree that the Government's introduction of evidence that reveals the name and basic nature of a defendant's prior felony conviction in a prosecution brought under 18 U.S.C. § 922(g)(1) "unfairly" prejudices the defendant within the meaning of Rule 403. Nor do I agree with the Court's newly minted rule that a defendant charged with violating § 922(g)(1) can force the Government to accept his concession to the prior conviction element of that offense, thereby precluding the Government from offering evidence on this point. I therefore dissent. . . .

The principle is illustrated by the evidence that was admitted at petitioner's trial to prove the other element of the § 922(g)(1) offense—possession of a "firearm." The Government submitted evidence showing that petitioner possessed a 9mm semiautomatic pistol. Although petitioner's possession of any number of weapons would have satisfied the requirements of § 922(g)(1), obviously the Government was entitled to prove with specific evidence that petitioner possessed the weapon he did. In the same vein, consider a murder case. Surely the Government can submit proof establishing the victim's identity, even though, strictly speaking, the jury has no "need" to know the victim's name, and even though the victim might be a particularly well loved public figure. The same logic should govern proof of the prior conviction element of the § 922(g)(1) offense. That is, the Government ought to be able to prove, with specific evidence, that petitioner committed a crime that came within § 922(g)(1)'s coverage. . . .

Any incremental harm resulting from proving the name or basic nature of the prior felony can be properly mitigated by limiting jury instructions. Federal Rule of Evidence 105 provides that when evidence is admissible for one purpose, but not another, "the court, upon request, shall restrict the evidence to its proper scope and instruct the jury accordingly." Indeed, on petitioner's own motion in this case, the District Court instructed the jury that it was not to " 'consider a prior conviction as evidence of guilt of the crime for which the defendant is now on trial.' " Brief for United States 32. The jury is presumed to have followed this cautionary instruction, see Shannon v. United States, 512 U.S. 573, ___, 114 S.Ct. 2419, 129 L.Ed.2d 459 (1994), and the instruction offset whatever prejudice might have arisen from the introduction of petitioner's prior conviction. . . .

The Court manufactures a new rule that, in a § 922(g)(1) case, a defendant can force the Government to accept his admission to the prior felony conviction element of the offense, thereby precluding the Government from offering evidence to directly prove a necessary element of its case. I cannot agree that it "unfairly" prejudices a defendant for the Government to prove his prior conviction with evidence that reveals the name or basic nature of his past crime. Like it or not, Congress chose to make a defendant's prior criminal conviction one of the two elements of the § 922(g)(1) offense. Moreover, crimes have names; a defendant is not convicted of some indeterminate, unspecified "crime." Nor do I think that Federal Rule of Evidence 403 can be read to obviate the well accepted principle, grounded in both the Constitution and in our precedent, that the Government may not be forced to accept a defendant's concession to an element of a charged offense as proof of that element. I respectfully dissent.

NOTES

1. "Stipulating away" an issue.

Notice the way in which *Old Chief* addresses the same issue of the two cases *Gantzer* and *Bowers* discussed immediately before (page 45, Note 10), decided ten and sixteen years (respectively) earlier than *Old Chief*. Justice Souter's opinion limited a prosecutor's ability to have admitted into evidence a court document specifying the name and nature of a felony of which defendant Old Chief had been convicted, which established that he was a "felon in possession of a firearm." The opinion holds that the defendant should be allowed to *stipulate* that he was a felon, and that, in light of his offer of stipulation, it was an *abuse of discretion* for the trial judge to admit the prosecutor's preferred means of showing that he was a felon. Justice Souter's decision drew a heated dissent, and both opinions raise—but do not answer—the question in what kinds of situations is a defendant permitted to stipulate away an issue.

2. The rational, the a-rational, and the irrational in Justice Souter's *Old Chief* opinion.

Despite the fact that Justice Souter's opinion ultimately held that, in the specific context of defendant Old Chief's charge for being "a felon in possession of a firearm" (see Note 1 immediately above), the opinion also speaks in broad and bold terms of the prosecutor's constitutionally permissible ability to prove its case as it sees fit. But does Justice Souter's analysis of this question go so far as to give constitutional protection to *non-rational* or even *irrational* jury inferences based on prosecutorial evidence? Consider in this regard this passage from Justice Souter's opinion:

> [T]he Government invokes the familiar, standard rule that the prosecution is entitled to prove its case by evidence of its own choice, or, more exactly, that a criminal defendant may not stipulate or admit his way out of the full evidentiary force of the case as the government chooses to present it. . . .
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> This is unquestionably true as a general matter. The "fair and legitimate weight" of conventional evidence showing individual thoughts and acts amounting to a crime reflects the fact that making a case with testimony and tangible things not only satisfies the formal definition of an offense, but tells a colorful story with descriptive richness. *Unlike an abstract premise, whose force depends on going precisely to a particular step in a course of reasoning,* a piece of evidence may address any number of separate elements, striking hard just because it shows so much at once; the account of a shooting that establishes capacity and causation may tell just as much about the triggerman's motive and intent. *Evidence thus has force beyond any linear scheme of reasoning,* and as its pieces come together a narrative gains momentum, with power not only to support conclusions but to sustain the willingness of jurors to draw the inferences, whatever they may be, necessary to reach an honest verdict. This persuasive power of the concrete and particular is often essential to the capacity of jurors to satisfy the obligations that the law places on them. Jury duty is usually unsought and sometimes resisted, and it may be as difficult for one juror suddenly to face the findings that can send another human being to prison, as it is for another to hold out conscientiously for acquittal. When a juror's duty does seem hard, the evidentiary account of what a defendant has thought and done can accomplish what no set of abstract statements ever could, not just to prove a fact but to establish its human significance, and so to implicate the law's moral underpinnings and a juror's obligation to sit in judgment. Thus, the prosecution may fairly seek to place its evidence before the jurors, as much to tell a story of guiltiness as to support an inference of guilt, to convince the jurors that a guilty verdict would be morally reasonable as much as to point to the discrete elements of a defendant's legal fault. . . .
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> . . .
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> In sum, the accepted rule that the prosecution is entitled to prove its case free from any defendant's option to stipulate the evidence away rests on good sense. *A syllogism is not a story, and a naked proposition in a courtroom may be no match for the robust evidence that would be used to prove it*.

Old Chief, 519 U.S. at 186–89 (1997). How should we understand Justice Souter's claims that a prosecutor is entitled to make his argument in ways *distinct from*: "abstract premise[s] whose force depends on going precisely to a particular step in a course of reasoning"; "linear scheme[s] of reasoning"; "syllogisms"; "naked propositions"? Is the emphasis Justice Souter makes here a more or less indirect way of saying that prosecutors must be allowed to appeal to more than a juror's *reason*? Are the phrases quoted above metonyms for the faculty of reason, distinct from the non-rational or irrational faculties of a juror to which, Justice Souter concludes, the prosecution must (in general—though not in the specific context of Old Chief's specific charge) be permitted to appeal? If so, do you see wisdom in Justice Souter's approach, or danger, or both? If this is a fair and correct reading of his analysis on this general permission to prosecutor's, is it consistent with the Advisory Committee note to Fed.R.Evid. 403 itself, which states:

> Exclusion for risk of unfair prejudice, confusion of issues, misleading the jury, or waste of time, all find ample support in the authorities. "Unfair prejudice"

> within its context means an undue tendency to suggest decision on an improper basis, commonly, though not necessarily, an emotional one.

Consider this statement from a federal circuit court decision (decided before *Old Chief*) analyzing the concept of pragmatic relevance under Fed.R.Evid. 403:

> [Fed.R.Evid. 403] . . . does not offer protection against evidence that is merely prejudicial, in the sense of being detrimental to a party's case. Rather, the rule only protects against evidence that is unfairly prejudicial. Evidence is unfairly prejudicial only if it has "an undue tendency to suggest decision on an improper basis, commonly, though not necessarily, an emotional one." Advisory Committee's Note, Fed.R.Evid. 403. It is unfairly prejudicial if it "appeals to the jury's sympathies, arouses its sense of horror, provokes its instinct to punish," or otherwise "may cause a jury to base its decision on something other than the established propositions in the case. . . ." [footnote omitted] 1 J. Weinstein & M. Berger, Weinstein's Evidence P 403(03), at 403–15 to 403–17 (1978).

Carter v. Hewitt, 617 F.2d 961, 972 (3d Cir. 1980). Is Justice Souter's *Old Chief* opinion consistent with the letter and spirit of Fed.R.Evid. 403? Why or why not?

5. SUFFICIENCY AND CIRCUMSTANTIAL EVIDENCE

NOTE ON DISTINCTION OF "DIRECT" FROM "CIRCUMSTANTIAL" EVIDENCE

To understand how judges reason with rules of relevancy (and how lawyers reason in anticipation of judges' relevancy rulings), we must give some close attention to the process of inference. One useful tool for this analysis is the distinction lawyers and judges often use or refer to between "circumstantial" and "direct" evidence. The Fed.R.Evid. do not use or refer to these terms, and there is perhaps a common misapprehension that "circumstantial" evidence is inherently weaker than "direct" evidence. The supposed distinction between these two types of evidence is often not clearly explained, and perhaps is often misunderstood even by many of those who nevertheless use the distinction. See R. Greenstein, Determining Facts: The Myth of Direct Evidence, 45 Hous. L. Rev. 1801 (2008)).

Nevertheless, we can clearly define the distinction in this way. "Direct" evidence is evidence which, if believed, conclusively establishes the hypothesis for which the proponent proffers the evidence. "Circumstantial" evidence is such that, even if the evidence is believed, additional inferences are needed to establish the hypothesis for which the proponent proffers the evidence. For example a witness's testimony, "I saw the defendant shoot the victim" is direct evidence that the defendant shot the victim, because if the factfinder believes this testimony then the factfinder perforce accepts the truth of the testimonial assertion that the defendant shot the victim. A witness's testimony, "I heard the gunshot and immediately looked toward the sound and saw the defendant running away" would be only circumstantial evidence that the defendant shot the victim. This testimonial evidence, even if believed by a factfinder, does not establish that the defendant committed the shooting. The factfinder would have to supply additional inferences to get from the fact that the witness saw the defendant running away from the scene of a shooting to the conclusion that the defendant did the shooting—such as, perhaps, the defendant ran away because he had done the shooting and was fleeing to escape either detection or capture.

This distinction, and the important point that direct evidence is not necessarily more probative than circumstantial evidence, is properly and succinctly made in Tennessee's jury instructions:

> One type of evidence is called direct evidence, and the other is called circumstantial evidence. Direct evidence is those parts of the testimony admitted in court which refer to what happened and was testified to by witnesses who saw, or heard, or otherwise sensed what happened firsthand. If witnesses testified about what . . . they, themselves, saw, or heard, or otherwise sensed, they presented direct evidence.
>
> Circumstantial evidence is all the testimony and exhibits which give you clues about what happened in an indirect way. It consists of all the evidence which is not direct evidence. Do not assume that direct evidence is always better than circumstantial evidence. According to our laws, direct evidence is not necessarily better than circumstantial evidence. Either type of evidence can prove a fact, if it is convincing enough.

State v. Robinson, 146 S.W.3d 469, 522 (Tenn. 2004) (quoting T.P.I.—CRIM. 42.03(a) (4th ed. 1995)).

Regina v. Onufrejczyk

Court of Criminal Appeals of England, 1955.
[1955] 1 All E.R. 247.

■ LORD GODDARD, C.J.

The appellant, a Pole, who has been in this country since 1947, was convicted before Oliver J. at the last assizes for Swansea of the murder of his partner, another Pole, named Sykut. The trial lasted for some 12 days and was summed up with meticulous care by the judge, who analyzed the evidence in what I think I might describe as a masterly fashion, and the principal question argued on this appeal is whether there was proof of what the law calls a corpus delicti. For the remarkable fact about this case—and it has remained remarkable and unexplained—is that the body of Sykut who was last seen, so far as anybody knows, on December 14, 1953, has completely disappeared, and there is no trace whatever either of him or his clothes or his ashes. [The court held that the law did not require that the deceased's body or parts of it be located.]

The case against the prisoner was this: He and Sykut had a farm. The farm was a failure, and the appellant had come to the end of his resources. He was in dire need of money; of that there cannot be any doubt, for his own letters show it. He was trying to borrow money from this person and that, that relation and near friend; and he failed every time. He had actually got to the point when he was obviously considering fraud, for he was hoping to find a valuer who would overvalue the farm so that he might be able to raise more money on mortgage from his bank. Meanwhile, Sykut wanted to break off his association with the appellant. There was a suggestion that he should be paid out. Sykut had invested his money in the farm and was willing to sell his share in it for £700 if he could get it from the appellant; otherwise, Sykut had said, the farm must be put up for sale. They had been to Mr. Roberts, a solicitor of Llandilo, and their difficulties had been discussed before him. There was evidence—though for myself I do not think it was anything like so strong or convincing, as was much of the other evidence, as to point towards murder—that the men had quarreled;

but by December 14 nothing had happened for any conclusion to be reached between the two men about the sale of the farm. Whether or not the appellant had at that time any money beyond perhaps a few shillings or a few pounds it seems clear that he had nothing at all to enable him to buy out his partner. He, the appellant, was very anxious to avoid the sale by auction and wanted to get the whole farm, because presumably he thought that if he had the whole of it he could make a satisfactory business out of it.

On December 14 Sykut disappeared, not only from Carmarthenshire, not only from England but, so far as is known, from the face of the earth. Letters came from Poland from his wife after his complete disappearance when there would have been ample time for him to have got back to Poland and to have got into touch with his friends, which would seem to show that he had not gone back to Poland; and the last person who is known to have seen Sykut is the appellant.

The appellant's activities after December 14 were certainly very remarkable. There was evidence, and very strong evidence, that the appellant must have posted a letter to a Polish woman living not very far away not later than a quarter to five, or possibly five o'clock on December 18. In that letter he said: "My case is already completed, but I must if only for a few hours pop in to London to take from my acquaintances money. I gave my partner the gross of the money"—I suppose that means the larger part of the money—"because I borrowed for a few weeks, only I must sell what is possible. So beg you very much to help me in this matter and I will be very grateful, at the moment this is all for now, the rest we talk over when Mrs. comes over. Beg you to inquire whether it is possible to sell the poultry alive before the holidays, as I must have at least part of the money to begin something and may be some of the cattle. Hand kisses, expecting as soon as possible to see you because my partner is leaving for 14 days and might change his mind. Please don't wait a moment because it might be too late." There he is saying that he has fixed up matters with his partner, that he has paid him most of the money and that he is expecting him to go away for a few days. What we know is that the appellant went to London and that he was trying by every means in his power to borrow money from relatives there to enable him to pay off his partner. He was getting a woman, who gave evidence and who evidently impressed the judge, to forge—there is no other word for it, though she may not have known that she was forging—documents purporting to be agreements, and then adding a signature to them which purported to be the signature of Sykut, and he was giving all sorts of contradictory accounts. When he was required to give an account of how his partner disappeared, he told the sort of story that might well be found in a magazine or a detective story, or a story by the late Phillips Oppenheim, as to how a large, dark car, sometimes described as black and sometimes as green, had arrived at this lonely farm at 7:30 at night, finding its way up a dreadful rocky path; that there were three men, one of whom had had a revolver; and that the unfortunate Sykut was put into the car at the point of the revolver and driven away. That was the kind of story that was told; and yet, remarkably enough, on December 18, when a sheriff's officer had gone to the farm before 7 p.m. to levy an execution against the appellant alone and in order to ensure that he was not levying on partnership property the officer had asked: "Where is Mr. Sykut?" he was told: "Oh, Sykut has gone to a doctor at Llandilo." According to the evidence that was given he never went to a doctor at Llandilo, but at 7:30 that night he was supposed to have been kidnapped and taken to London. The appellant said

in his evidence that he was expecting his partner back at the farm, and yet all the letters which he wrote at that time seem to say that his partner had gone to Poland and that he would not see him back; his letters can only be explained on the footing that he knew perfectly well that his partner could never appear again.

It seems to me that one of the matters of the greatest possible importance is that when the appellant was in London, telling all sorts of contradictory stories to the people from whom he was trying to borrow money, he made two remarkable proposals. First, he asked Mrs. Pokora, with whom he was evidently on terms of close friendship, to send him sham registered letters, that is to say, to get registered envelopes, put sheets of paper in them, and send them to him, purporting to send him a couple of hundred pounds. Another more remarkable proposal was that he actually asked Mrs. Pokora's husband should go with him to see a solicitor at Llandilo and impersonate his partner. Could he have done that—would he have dared to do that, if he had thought that there was the smallest chance of this man appearing again? Yet he said in his evidence that he did expect Sykut to come back again. Sykut had new clothes and other property, and yet, if the appellant's story is true, he went off with these people, whether to Poland or somewhere else, leaving his clothes and everything behind and never came back or made any attempt to come back. Indeed, the appellant said that he knew one of the men, Jablonski—which I daresay is as good as any other name if one is using a Polish name—and that Mr. Jablonski had arranged to meet his partner at Paddington Station at 3 o'clock, on which day does not matter; that he went there and waited till 3 o'clock and that nobody came. Later, he said that he met Jablonski and Sykut at a Polish club and that there a document was signed; and that the signature said by the prosecution to be a forgery was affixed by Sykut in the presence of Jablonski and another gentleman; but nobody was called from the Polish club to say that these people ever existed at all.

I do not propose to go all through the evidence called, but one very remarkable piece of evidence cannot possibly be accounted for in any way other than that the appellant was deliberately trying to manufacture evidence with regard to the life of Sykut. That was the evidence of the local blacksmith. On December 14, the last day on which anyone saw Sykut alive, the appellant had taken a horse from the farm to the blacksmith for shoeing; the horse had been fetched away from the forge by Sykut, and the blacksmith had charged 17s. 6d. for shoeing the horse. The blacksmith's evidence was perfectly clear about that. He said that there was no doubt in his mind at all about it. Whether he referred to his books or not I do not know, but I think that he did; and it was on December 14 that Sykut came and took away the horse. Later in the month, at the end of December, when the police were beginning to make inquiries, the appellant visited the blacksmith and paid him the money, and he then tried to persuade the blacksmith to say that it was on December 17 that Sykut had gone there to take the horse away. The case for the prosecution was that Sykut was dead by the 17th, having been killed either on or immediately after the 14th. December 14 was the last day on which anybody had seen that unhappy man alive. Yet here was the appellant, at the end of December, when the police had begun to make inquiries, trying to get a man whose evidence on one point was vital, to give untrue evidence as to the date on which Sykut had fetched the horse. There can be no doubt about it; the blacksmith's evidence was either true or untrue. If it was true, the appellant was trying to get him to say something untrue.

Those are all matters which were pointed out to the jury by the judge, matters on which they had the advantage of hearing counsel on both sides. It is perfectly true that the judge did not point out to the jury all the matters. A judge does very often say to a jury: "It is very remarkable that such a point has not been proved, and if it could be, it ought to have been proved." The case for the prosecution was: this man has disappeared; he has completely gone from the ken of mankind; it is impossible to believe that he is alive now. I suppose that it would have been possible for him to have got out of the country and become immured behind what is sometimes called the "iron curtain"; but here there are facts which point inevitably, as it is said irresistibly, towards the appellant being the person who knows what happened to the missing man and who disposed of that man in one way or another. It may be that it would have been desirable to emphasize to the jury that the first thing to which they must apply their minds was whether a murder had been committed; but, speaking for myself, I think that the way the judge put it in the two passages which I have read did sufficiently direct the attention of the jury to the fact that they had to be satisfied of that, and that if they were satisfied of the death, the violent death, of this man, they need not go any further. It is no doubt true that the prosecution relied considerably on certain minute spots in the kitchen—a minute quantity on the wall and a minute quantity on the ceiling—which were found to be blood when scientifically examined; spots so small that they might easily have escaped the attention of somebody who was trying to wash or wipe up blood. The appellant did not deny that the blood which was found was that of his partner. He said that it was due to the fact that his partner had cut his hand in the field, on one of the tractors, and that on coming in he must have shaken his hand and shaken off some blood. That, of course, was a possibility, and it was put to the jury. It was also a possibility that Sykut was disposed of in the kitchen; but there is no evidence that he was; indeed as Mr. Elwyn Jones has very properly stressed, there is no evidence at all as to how the man met his death. But this court is of opinion that there was evidence on which the jury could infer that he did meet his death, and that he was dead; and if he was dead, the circumstances of the case point to the fact that his death was not a natural one. If that establishes, as it would, a corpus delicti, the evidence was such that the jury were entitled to find that the appellant murdered his partner.

For these reasons, we have been unable to find any misdirection by the judge, or anything in the summing up which would justify us in saying that the case was not properly presented to the jury. We have come to the conclusion that there was evidence on which the jury were entitled to find that the appellant's partner was murdered and that the appellant was the murderer, and accordingly this appeal is dismissed.

Appeal dismissed.

NOTES

1. Instructing criminal juries on use of "circumstantial evidence."

33 Can.B.Rev. 603 (1955) criticizes the main case. See also Morris, Corpus Delicti and Circumstantial Evidence, 68 L.Q. Rev. 391 (1952), discussing *Rex v. Horry*. An aspect of this striking case that merits discussion is the question of the proper charge to a jury in a circumstantial case. While Lord Goddard objects to the use of "epithets" to enhance the value of evidence, many American jurisdictions require a special charge in a circumstantial case. The circumstantial evidence charge in criminal cases is sometimes

put in these terms: "where the evidence is circumstantial it must be such as to exclude every reasonable hypothesis other than that of guilt" or even "to exclude to a moral certainty every other inference except guilt." Compare the provisions of the New York Pattern Jury Instructions for civil cases (2014 revision):

N.Y. Pattern Jury Instr.—Civil 1:70

PJI 1:70 General Instruction—Circumstantial Evidence

> Facts must be proved by evidence. Evidence includes the testimony of a witness concerning what the witness saw, heard or did. Evidence also includes writings, photographs, or other physical objects which may be considered as proof of a fact. Evidence can be either direct or circumstantial. Facts may be proved either by direct or circumstantial evidence or by a combination of both. You may give circumstantial evidence less weight, more weight, or the same weight as direct evidence.
>
> Direct evidence is evidence of what a witness saw, heard, or did which, if believed by you, proves a fact. For example, let us suppose that a fact in dispute is whether I knocked over this water glass near the witness chair. If someone testifies that he saw me knock over the glass, that is direct evidence that I knocked over the glass.
>
> Circumstantial evidence is evidence of a fact which does not directly prove a fact in dispute but which permits a reasonable inference or conclusion that the fact exists. For example, a witness testifies that he saw this water glass on the bench. The witness states that, while he was looking the other way, he heard the breaking of glass, looked up, and saw me wiping water from my clothes and from the papers on the bench. This testimony is not direct evidence that I knocked over the glass; it is circumstantial evidence from which you could reasonably infer that I knocked over the glass.
>
> Those facts which form the basis of an inference must be proved and the inference to be drawn must be one that may be reasonably drawn. In the example, even though the witness did not see me knock over the glass, if you believe (his, her) testimony, you could conclude that I did. Therefore, the circumstantial evidence, if accepted by you, allows you to conclude that the fact in dispute has been proved.
>
> In reaching your conclusion you may not guess or speculate. Suppose, for example, the witness testifies that the water glass was located equally distant from the court clerk and me. The witness states that he heard the breaking of glass and looked up to see both the court clerk and me brushing water from our clothes. If you believe that testimony, you still could not decide on that evidence alone who knocked over the water glass. Where these are the only proved facts, it would be only a guess as to who did it. But, if the witness also testifies that he heard the court clerk say "I am sorry," this additional evidence would allow you to decide who knocked over the water glass.

See also, In re Winship, 397 U.S. 358, 369–72 (1970) (Harlan J., concurring).

In People v. Morris, 347 N.Y.S.2d 975, 977 (N.Y.A.D. 1973), aff'd, 334 N.E.2d 10 (N.Y.C.A. 1975), a criminal case where the defendant's guilt was based entirely on circumstantial evidence, it was held that "the trial court should have charged the jury that the evidence must point logically to defendant's guilt so as to exclude to a moral certainty every other reasonable hypothesis."

The concurring opinion in Vargas v. Keane, 86 F.3d 1273, 1281 (2d Cir. 1996) describes the results of a questionnaire to jurors testing their reaction to various forms of instruction. At least one form of the moral certainty charge provided less protection to defendants than standard forms. The conclusion of the concurring judge was that the less said about defining reasonable doubt, the better.

Professor Shapiro, in "To a Moral Certainty": Theories of Knowledge and Anglo-American Juries, 1600–1850, 38 Hastings L.J. 153 (1986), concludes that the phrase "moral certainty" once had the meaning of highest degree of probability. Influenced by contemporary philosophical thought, it began to be used to mean "satisfied conscience," as free evaluation of probative force to form a satisfied belief began to supplant the more mechanical evaluation of witnesses under medieval practice.

> Early in the seventeenth century the concern for evaluating evidence was encapsulated in "satisfied conscience" or "satisfied belief" formulas that resonated to the moral and religious obligations of jurors serving under oath. During the seventeenth and eighteenth centuries, the concepts of probability, degrees of certainty, and moral certainty were poured into the old formulas so that they emerged at the end of the eighteenth century as the secular moral standard of "beyond reasonable doubt."
>
> . . . . The earliest standards we have identified were "satisfied belief" and "satisfied conscience." They were succeeded by "satisfied mind" or "satisfied understanding," or something closely approximating them. Gradually this language, too, was replaced by the concept of "moral certainty" and "beyond reasonable doubt."
>
> Throughout this development two ideas to be conveyed to the jury have remained central. The first idea is that there are two realms of human knowledge. In one it is possible to obtain the absolute certainty of mathematical demonstration, as when we say that the square of the hypotenuse of a right triangle is equal to the sum of the squares of the other two sides. In the other, which is the empirical realm of events, absolute certainty of this kind is not possible. The second idea is that, in this realm of events, just because absolute certainty is not possible, we ought not to treat everything as merely a guess or a matter of opinion. Instead, in this realm there are levels of certainty, and we reach higher levels of certainty as the quantity and quality of the evidence available to us increases. The highest level of certainty in this realm in which no absolute certainty is possible is what traditionally has been called moral certainty.
>
> There is little doubt that "moral certainty" no longer conveys these two ideas, but it may be worthwhile to continue to convey them. To further that task I present the following proposed jury instruction as a supplement to a revised reasonable court instruction that omits "moral certainty":
>
> We can be absolutely certain that two plus two equals four. In the real world of human actions we can never be absolutely certain of anything. When we say that the prosecution must prove the defendant's guilt beyond a reasonable doubt, we do not mean that you, the jury, must be absolutely certain of the defendant's guilt before finding the defendant guilty. Instead, we mean that you should not find the defendant guilty unless you have reached the highest level of certainty of the defendant's guilt that it is possible to have about things that happen in the real world and that you must learn about by evidence presented in the courtroom.

Id. at 192–93.

The California Jury Instructions, Criminal (CALJIC) (4th ed.) No. 2.01 (1979 revision) provided:

> However, a finding of guilt as to any crime may not be based on circumstantial evidence unless the proved circumstances are not only (1) consistent with the theory that the defendant is guilty of the crime, but (2) cannot be reconciled with any other rational conclusion.
>
> Further, each fact which is essential to complete a set of circumstances necessary to establish the defendant's guilt must be proved beyond a reasonable doubt. In other words, before an inference essential to establish guilt may be found to have been proved beyond a reasonable doubt, each fact or circumstance upon which such inference necessarily rests must be proved beyond a reasonable doubt.
>
> Also, if the circumstantial evidence [as to any particular count] is susceptible of two reasonable interpretations, one of which points to the defendant's guilt and the other to his innocence, it is your duty to adopt that interpretation which points to the defendant's innocence, and reject that interpretation which points to his guilt.
>
> If, on the other hand, one interpretation of such evidence appears to you to be reasonable and the other interpretation to be unreasonable, it would be your duty to accept the reasonable interpretation and to reject the unreasonable.

A different approach is taken in the federal courts. In Holland v. United States, 348 U.S. 121, 139–40 (1954), the Supreme Court concluded that "the better rule is that where the jury is properly instructed on the standards for reasonable doubt, such an additional instruction on circumstantial evidence is confusing and incorrect," for the reason that "circumstantial evidence in this respect is intrinsically no different from testimonial evidence." In McGreevy v. Director of Public Prosecutors (1973) 1 All E.R. 503, the court held there is no rule that, where the prosecutor's case is based entirely on circumstantial evidence, the judge must as a matter of law give an instruction that the jury must not convict unless it is satisfied that the facts proved are not only consistent with the guilt of the defendant, but also such as to be inconsistent with any other conclusion.

Considering the multiple inferential assessments of error, veracity, bias, and so on, necessary to sustain testimonial proof, is there any substantial difference between a case like *Onufrejczyk* and a "pure" testimonial case?

2. Appellate review of evidence sustaining criminal convictions.

Another problem suggested by the *Onufrejczyk* case is that of appellate review of convictions. Curley v. United States, 160 F.2d 229, 232–33 (D.C. Cir. 1947) (Prettyman, J.):

> The true rule . . . is that a trial judge, in passing upon a motion for directed verdict of acquittal, must determine whether upon the evidence, giving full play to the right of the jury to determine credibility, weigh the evidence, and draw justifiable inferences of fact, a reasonable mind might fairly conclude guilt beyond a reasonable doubt. If he concludes that upon the evidence there must be such a doubt in a reasonable mind, he must grant the motion; or, to state it another way, if there is no evidence, upon which a reasonable mind might fairly conclude guilt beyond reasonable doubt, the motion must be granted. If he concludes that either of the two results, a reasonable doubt or no reasonable

> doubt, is fairly possible, he must let the jury decide the matter. 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 case is not easy, for the rule of reason is frequently difficult to apply, but we know of no way to avoid that difficulty. . . .
>
> If the judge were to direct acquittal whenever in his opinion the evidence failed to exclude every hypothesis but that of guilt, he would preempt the functions of the jury. Under such rule, the judge would have to be convinced of guilt beyond peradventure of doubt before the jury would be permitted to consider the case. That is not the place of the jury in criminal procedure. They are the judges of the facts and of guilt or innocence, not merely a device for checking upon the conclusions of the judge.

See generally, discussion of burden of production, infra.

3. Circumstantial evidence and inferences of criminal guilt.

A case similar to *Regina v. Onufrejczyk* is People v. Scott, 1 Cal.Rptr. 600 (Cal. App. 1959), appeal dismissed and cert. denied, 364 U.S. 471 (1960); 61 Colum. L. Rev. 740 (1960). In People v. Manson, 139 Cal.Rptr. 275, cert. denied, 435 U.S. 953 (1978), the death of the alleged victim—one of two elements of the corpus delicti—was proven by circumstantial evidence. See also, Perkins, The Corpus Delicti of Murder, 48 Va. L. Rev. 173, 184 (1962).

4. Evidence and inference of a person's state of mind.

In American Communications Association, CIO v. Douds, 339 U.S. 382, 411 (1950), the court pointed out:

> To state the difference, however, is but to recognize that while objective facts may be proved directly, the state of a man's mind must be inferred from the things he says or does. Of course we agree that the courts cannot "ascertain the thought that has had no outward manifestation." But courts and juries every day pass upon knowledge, belief and intent—the state of men's minds—having before them no more than evidence of their words and conduct, from which, in ordinary human experience, mental condition may be inferred. See 2 Wigmore, Evidence (3d ed.) §§ 244, 256 et seq. False swearing in signing the affidavit must, as in other cases where mental state is in issue, be proved by the outward manifestations of state of mind. In the absence of such manifestations, which are as much "overt acts" as the act of joining the Communist Party, there can be no successful prosecution for false swearing.

5. The misguided prohibition of "inference upon inference."

Statements can be found in the cases that in a circumstantial evidence case no inference may be based upon an inference. See Waldman v. Shipyard Marina, 230 A.2d 841, 845–46 (R.I. 1967), where an action for negligence was brought to recover damages to a motorboat resulting from a fire that occurred while the boat was berthed at the defendant's marina. The court, in holding that one could not properly infer that defendant's actions proximately caused the accident based on the facts produced at trial said:

> The facts established by the direct evidence . . . are simply that the Muehlberg boat was fueled by the dockmaster; that the dockmaster without taking any prior precautions to ventilate the vessel, attempted to start the engine; and that a fire occurred. To establish a causal connection between the

> omissions of the dockmaster to take precautions after fueling and the fire, the trial justice inferred the gasoline fumes had collected either in the engine room or in the bilges of the Muehlberg boat. From this inferential fact he then inferred that these fumes were ignited when the dockmaster attempted to start the engine.
>
> It is clear from our prior discussion that the second inference can be accepted as being of probative force only if the inference upon which it rests, that is, that the fumes accumulated in the engine room or bilges, necessarily excludes the drawing of any other reasonable inference from the fact that the fueling operation had been carried out. We are unable to agree that such is the only reasonable inference that can be drawn from the carrying out of the fueling operation. That degree of probability necessary to exclude other reasonable or contrary inferences does not inhere in the basic inference. . . .
>
> It may well be that the inference that fumes accumulated as a result of the fueling operation would possess such a degree of probability as to exclude other reasonable inferences had it been established that there was some defect in the fuel tank or gasoline line or some spillage during the fueling operation.

How would you have analyzed the case for the plaintiff? What other proof could you have supplied to buttress your argument?

Wigmore's criticism of the no inference on an inference rule seems unanswerable:

> There is no such orthodox rule; nor can there be. If there were, hardly a single trial could be adequately prosecuted. [Footnote omitted.] For example, on a charge of murder, the defendant's gun is found discharged; from this we infer that he discharged it; and from this we infer that it was his bullet which struck and killed the deceased. Or, the defendant is shown to have been sharpening a knife; from this we argue that he had a design to use it upon the deceased; and from this we argue that the fatal stab was the result of this design. In these and innumerable daily instances we build up inference upon inference, and yet no court (until in very modern times) ever thought of forbidding it. All departments of reasoning, all scientific work, every day's life and every day's trial, proceed upon such data.

1 Wigmore § 41, at 435–36 (3d ed.).

In spite of such criticism (and see Jennings, Probative Value of an Inference Drawn Upon an Inference, 22 U. Cin. L. Rev. 39 (1953)), the no inference on an inference rule continues to put in an appearance when courts seek to exercise control they believe necessary. It would seem that adequate control can be maintained through enforcement of sound notions, consonant with ordinary reasoning, concerning the exclusion of evidence of excessive remoteness and insignificant probative value.

Note the criticism in United States v. Shonubi, 895 F.Supp. 460, 475–478 (E.D.N.Y. 1995), rev'd. on this ground, 103 F.3d 1085 (2d Cir. 1997), of the court of appeals ruling that estimation of drug quantity must be based upon "specific evidence.":

> Perhaps the appellate court, embarrassed either by the Guidelines' excessive reliance on quantity as a surrogate for culpability or by the low burden of proof required at sentencing, believes that a specific or direct evidence requirement offers defendants some necessary protection. . . . If so, it has taken a road that leads to less accurate fact-finding with haphazard over- and under-"protection" of defendants. The "specific evidence" rule does not guard against injustice.

> Instead, it introduces—in the language of the court of appeals—a "baffling" distinction.

Id. at 478. In *Shonubi*, the court of appeals insisted that "specific evidence" was required to provide adequate protection to defendants in guideline sentencing. What is "specific evidence"? Would increasing the burden of proof provide better protection? See, criticizing the court of appeals decision as based on medieval concepts of evidence, United States v. Shonubi, 962 F.Supp. 370 (E.D.N.Y. 1997).

Interlake Iron Corp. v. N.L.R.B., 131 F.2d 129, 133 (7th Cir. 1942):

> [I]nferences alone may, if reasonable, provide a link in the chain of evidence and constitute in that regard substantial evidence. But an inference cannot be piled upon an inference, and then another inference upon that, as such inferences are unreasonable and cannot be considered as substantial evidence. Such a method could be extended indefinitely until there would be no more substance to it than the soup Lincoln talked about that was "made by boiling the shadow of a pigeon that had starved to death."

United States v. Medico, 557 F.2d 309, 317–18 (2d Cir. 1977): The defendant was convicted of armed robbery. At trial, an F.B.I. agent identified a pair of red pants which he had taken from the defendant's apartment. The pants contained numerous holes in them that the agent testified appeared to be "pellet holes possibly from a shotgun." He also identified various caliber shells as objects taken from defendant's apartment.

> The probative value of the trousers and the pellets in identifying the appellant as one of the bank robbers rested on the jury's drawing two inferences from this evidence. The first inference involved the appellant's possession of the weapons used to discharge the pellets into the wall and trousers at the time of the robbery. The second inference would have been that one or more of these weapons was used in the robbery. . . .
>
> One bank employee testified that one of the robbers carried a rifle and the other carried a shotgun. . . .
>
> There was, concededly, no evidence linking the shotgun used in the robbery to the shotgun fired in Medico's apartment. Absent additional factors, this court has indicated that the mere similarity of the weapons would be an insufficient ground for admission. . . . The inferences required to be drawn by the jury—that at the time of the crime, appellant had access to weapons, at least one of which was used in the robbery—without more would be too weak.

The court upheld the admission of the evidence stating:

> Where, however, direct and circumstantial evidence independent of the defendant's possession of guns exists to link him to the crime, the basis for those inferences is strengthened, . . . and admission of such evidence is less questionable. Two eyewitnesses to the crime identified Medico in court as one of the perpetrators, . . . [and t]here was also testimony that before the robbery Medico had been seen driving the car used for the getaway.

Most courts by now accept the need to base an inference upon an inference. For example, in Cora Pub, Inc. v. Continental Casualty Co., 619 F.2d 482, 486 (5th Cir. 1980), the court explained that "[t]he important question is whether the inference is reasonably well supported by the evidence. We must judge the inference as we would any other, taking into consideration that its probability may be attenuated by each underlying inference." See also Daniels v. Twin Oaks Nursing Home, 692 F.2d 1321 (11th Cir. 1982); Fenner v. General Motors Corp., 657 F.2d 647 (5th Cir. 1981), cert. denied, 455 U.S. 942

(1982). Is a contrary rule merely a shorthand expression for judicial distrust of strained reasoning or of reliance upon remote or unfounded inferences or conclusions?

State v. Brewer

Supreme Judicial Court of Maine, 1985.
505 A.2d 774.

■ GLASSMAN, JUSTICE.

Ricky Brewer appeals from a judgment of the Superior Court, Androscoggin County, affirming the judgment of the District Court, Livermore Falls, finding him guilty of operating a motor vehicle while under the influence of intoxicating liquor . . . and operating a motor vehicle while his license to operate had been suspended . . .

I

Virginia Curtis advised the sheriff's department by telephone that there was an accident on the Line Road in Leeds. The accident had occurred within approximately 20 minutes after she had traveled that road to reach her home. Within 5 minutes of the telephone call she went to the scene where she observed the defendant sitting alone behind the wheel in a pick-up truck. The motor was not running. When assured by the defendant that he was all right, she returned to her home to report this to the sheriff's office and was advised that a Maine State Police officer was on the way to the scene. Shortly after this telephone call the defendant came into the Curtis home.

On arrival at the scene, the trooper found the truck a few feet from the Line Road lodged too close to a tree to permit the left door to open. The trooper observed tracks on the right side of the truck near the door. There was no one in the truck when the trooper arrived, and the trooper was unable to determine how many people had been in the truck when the accident occurred. In the trooper's opinion someone could have left the truck by the passenger door, reached the road and left the scene of the accident. The only evidence as to the direction of the footprints was the trooper's testimony "there weren't any leading off into the woods." The trooper also observed a star-shaped crack high on the windshield to the left of the driver's seat and fragments of glass from the shattered sunroof on both the driver's and passenger's seats. From the registration in the vehicle, the trooper determined that Andrew Pratt was the owner.

At the Curtis home the trooper observed that the defendant had a cut under his chin and scratches on his face. His breath smelled of alcohol, and his eyes were red and glassy with the eyelids drooping. The defendant insisted he had not been driving the truck. A breath test was administered that gave a blood-alcohol level of 0.212 percent of weight.

In response to the question—"You didn't contact Andrew Pratt, to see whether he had been using the [truck] that night, did you?"—the trooper testified that when Pratt came to "pick up" the defendant, he stated he had not been using the truck, but had gone to bed and left the keys on the table in the apartment that he and the defendant shared.

At trial in the District Court the defendant freely admitted his intoxication and the suspension of his license, but denied driving the truck. The defendant testified that he and Pratt had been drinking together at a bar in Lewiston. They left together

and got into Pratt's truck. Pratt was driving, and the defendant had gone to sleep and did not awaken until after the accident. At that time he was alone in the truck.

Neither party called Pratt as a witness. In his closing argument the prosecutor asked the court to draw an inference adverse to the defendant based on the defendant's failure to call Pratt. In making findings of fact the court stated:

> [T]he defendant, while on the stand, admitted that he was under the influence of alcohol or intoxicating liquor. . . . But the question . . . revolves around the issue of operation. . . . The Court does have the right to infer, that if someone else was operating this car, as the defendant contends, then that someone, Mr. Pratt, is the party who would be his—Brewer's best alibi witness. He's not here today, . . . obviously he's the witness who might clear him of this charge.

The court found the defendant guilty as charged, and the defendant appeals. The defendant contends on appeal, *inter alia,* that the evidence is insufficient to support the conviction and that the inference drawn by the trial court is improper.

II

When, as here, a defendant challenges the sufficiency of the evidence, we will set the conviction aside only if no trier of fact rationally could have found the elements of the crime beyond a reasonable doubt. . . . A conviction based on circumstantial evidence is not for that reason any less conclusive. . . . While the element of operation is a close question in this case, we cannot say on the facts presented that no trier of fact rationally could have found the elements of the crime beyond a reasonable doubt.

III

The defendant contends that it was improper for the trial court to draw any inference of the defendant's guilt by reason of the defendant's failure to call Pratt as a witness. We agree . . .

Any inference as to the content of testimony not given presents grave dangers of speculation and conjecture. See McCormick, Law of Evidence § 272 at 657 (E. Cleary ed. 1972). Accordingly, even when we have permitted the inference, we cautioned that it can involve serious risks of unfairness to the accused. . . . We have held the drawing of an inference improper when neither party can be said to have greater power to produce the witness. . . .

The promulgation of the Maine Rules of Evidence removed any logical basis for the missing-witness inference by abolishing the practice of vouching. Rule 607 provides: "The credibility of a witness may be attacked by any party, including the party calling him." Under Rule 607 a party may call a witness, elicit the witness's testimony, and then freely attack the witness's credibility if the testimony proves to be adverse. See M.R.Evid. 607 Advisers' Note, reprinted in R. Field & P. Murray, supra, at 136; State v. Price, 275 N.W.2d 82, 90 (Neb.1979) (the identical Nebraska Rule 607 represents a repudiation "of the ancient and universally criticized rule that a party 'vouches' for the credibility of his own witnesses and may not impeach them"). Since neither party vouches for any witness's credibility, the failure of a party to call a witness cannot be treated as an evidentiary fact that permits any inference as to the content of the testimony of that witness.

Also, the availability of modern discovery procedures sharply undercuts whatever utility the inference might once have possessed in compelling a reluctant party to identify witnesses who might be expected to testify to relevant evidence. If a party violates his discovery obligation, the trial court has available to it a variety of sanctions.

To allow the missing-witness inference in a criminal case is particularly inappropriate since it distorts the allocation of the burden of proving the defendant's guilt. The defendant is not obligated to present evidence on his own behalf. The inference may have the effect of requiring the defendant to produce evidence to rebut the inference. If he fails to do so, the missing-witness inference allows the state to create "evidence" from the defendant's failure to produce evidence. Such a result is impermissible. . . . See also State v. Cavness, 381 P.2d 685, 686–87 (Haw.1963) (inference improper, when the missing witness is an accomplice or codefendant); accord Christensen v. State, 333 A.2d 45, 49 (Md.1975); Schrameck v. State, 595 P.2d 799 (Okla.Crim.App.1979) (per curiam).

The facts of the instant case amply illustrate the impropriety of the missing-witness inference in a criminal case. The defendant testified that Pratt had been drinking for a couple hours and then drove the truck. If Pratt had testified to corroborate the defendant's story, Pratt might have subjected himself to criminal liability on charges of operating under the influence of intoxicating liquor, 29 M.R.S.A. § 1312–B (Supp.1984–1985) and leaving the scene of an accident, id. §§ 893–894 (1978). Thus the defendant's failure to call Pratt might as strongly suggest that Pratt's testimony would have been favorable to the defendant as it would suggest unfavorable testimony, but either inference would be speculative.

We hold, therefore, that in a criminal case the failure of a party to call a witness does not permit the opposing party to argue, or the factfinder to draw, any inference as to whether the witness's testimony would be favorable or unfavorable to either party. We overrule any prior decisions to the extent that they permitted such an inference.

Accordingly, we hold that the trial court erred in drawing an inference of the defendant's guilt from the defendant's failure to call Pratt as a witness. [Remanded for a new trial.]

NOTES

1. Regulating fact-finder inferences: "missing witness" (inference disallowed) in *Brewer*.

The *Brewer* case is discussed in detail in John H. Mansfield, Evidential Use of Litigation Activity of the Parties, 43 Syracuse L. Rev. 695, 730 ff. (1992) (effect of not introducing evidence).

2. Regulating fact-finder inferences: "lack of evidence."

A usual charge includes the sentence: "Reasonable doubt may be based upon the evidence or the lack of evidence." After *Brewer* could a defendant argue: "Where is the key witness? Might she not have raised a doubt?" or, "Why was no picture taken?" or "Why did not the police investigate by _____?" Should the same rule apply to both defense and prosecution? If the government does not call a key witness, should the judge? See also the discussion of grants of immunity by the prosecutor and refusal to do so on demand of defendant, infra.

3. Regulating fact-finder inferences: "missing test."

In State v. Cloutier, 628 A.2d 1047, 1049 (Me. 1993), the court found objectionable the state's informing the jury that after its chemist tested blood samples, it gave samples to defendant's chemist for testing. The latter's tests were never submitted to the jury. The court feared "creat[ing] a missing-test-result inference similar to the missing-witness inference created in Brewer." Can and should the defendant always have the opportunity to test DNA? What might be the effect of a rigid rule? See District Attorney's Office for the Third Judicial District v. Osborne, 557 U.S. 52 (2009) (§ 1983 plaintiff has no right under Due Process Clause to obtain postconviction access to State's evidence for DNA testing).

4. Regulating fact-finder inferences: "missing witness" (inference allowed).

In Lewis v. State, 862 P.2d 181, 191 (Ala. App. 1993), the court refused to reverse a conviction after the state argued to the jurors that defendant had failed to call key defense witnesses. After describing variants of the rule, of which *Brewer* was the strictest, the court apparently applied a soft version, refusing to reverse since the jury knew the state had the burden of proof and the trial court "had broad discretion to determine the need for a mistrial."

5. Notes on spoliation regulating fact-finder inferences: "Spoliation" of evidence.

In its most general sense, spoliation covers a broad category of situations where a litigant destroys evidence, induces witnesses not to testify, relies upon a variety of privileges to prevent evidence from being adduced, or fails to answer questions or call witnesses who might be expected to give favorable testimony or is otherwise not forthcoming with the tribunal. Some of the ethical obligations of the attorney, which raise related but quite distinct sets of problems, are discussed in Chapter 4, infra, under Preparation of Witnesses and in Chapter 10 on Privileges under The Attorney-Client Privilege.

In McQueeney v. Wilmington Trust Co., 779 F.2d 916 (3d Cir. 1985), the court held that the trial judge improperly excluded evidence suggesting that the plaintiff had suborned perjury. The court explained that:

> [t]he intuitive appeal of defendants' proffer is immediate. One who believes his own case to be weak is more likely to suborn perjury than one who thinks he has a strong case, and a party knows better than anyone else the truth about his own case. Thus, subornation of perjury by a party is strong evidence that the party's case is weak. Admittedly the conclusion is not inescapable: parties may be mistaken about the merits or force of their own cases. But evidence need not lead inescapably towards a single conclusion to be relevant, it need only make certain facts more probable than not. The evidence of subornation here does cast into doubt the merits of McQueeney's claims, even if it does not extinguish them.

779 F.2d at 921. As to tampering with witnesses, see United States v. Bongard, 713 F.2d 419 (8th Cir. 1983) (per curiam) (government may offer evidence of defendant's attempts to influence testimony to show defendant's consciousness of guilt); United States v. Qamar, 671 F.2d 732 (2d Cir. 1982) (trial judge properly admitted evidence that the defendant issued death threats against a witness and his family).

In United States v. Obayagbona, 627 F.Supp. 329 (E.D.N.Y. 1985), the court refused to charge the jury that the prosecution's failure to call a confidential informant as a

witness gave rise to an inference that the testimony would be unfavorable since the witness had been available to the defense throughout the trial. The court explained that:

> [t]he missing witness rule charges should almost never be given unless a party has procured the witness' unavailability. Where this occurs, the missing witness argument is insignificant as compared to the much more powerful inference of guilty mind through spoliation. Counsel are quite capable of dealing with the probative force of such lines of proof without having the court single them out for special emphasis.

627 F.Supp. at 344–45.

Along this same line, one commentator has argued that the attempt to sort and balance the relative disadvantages of particular testimony to each side for the sole purpose of identifying an inference of weakness through absence of a witness is largely a waste of judicial resources. Stier, Revisiting the Missing Witness Inference—Quieting the Loud Voice from the Empty Chair, 44 Md. L. Rev. 137 (1985).

The spoliation doctrine only applies to the conduct of the parties to a lawsuit. Thus, the spoliation inference is inapplicable where a *witness,* independently of a party, destroys evidence. United States v. Esposito, 771 F.2d 283 (7th Cir. 1985), cert. denied, 475 U.S. 1011 (1986). But cf. Penfield v. Venuti, 589 F.Supp. 250 (D.Conn. 1984) (reliance on vehicle owner's son's refusal to answer at deposition on Fifth Amendment grounds usable against father).

On the issue of the use of false testimony, see United States v. Agurs, 427 U.S. 97, 103 (1976). The Federal Sentencing Guidelines provide for an increased sentence for perjury by the defendant at his trial. United States v. Shonubi, 998 F.2d 84 (2d Cir. 1993), criticized on remand, 895 F.Supp. 460, 524–28 (E.D.N.Y. 1995). See also on the government's withholding of exculpatory evidence, Brady v. Maryland, 373 U.S. 83 (1963); United States v. Bagley, 473 U.S. 667 (1985).

Some courts recognize a civil cause of action for spoliation of evidence. See Smith v. Superior Court, 198 Cal.Rptr. 829 (Cal. App. 1984) (recognizing a cause of action for intentional spoliation of evidence); Bondu v. Gurvich, 473 So.2d 1307 (Fla. App. 1984) (recognizing a cause of action for negligent spoliation of evidence). For a general discussion of this issue, see Note, Spoliation: Civil Liability for Destruction of Evidence, 20 U. Rich. L. Rev. 191 (1985). Sanctions may be imposed for intentional destruction of evidence; what are the permissible forms? See United States v. Sommer, 815 F.2d 15 (2d Cir. 1987), and cases cited.

In National Life & Accident Insurance Co. v. Eddings, 221 S.W.2d 695 (Tenn. 1949), the plaintiff, suing to recover benefits on account of illness on an industrial insurance policy, effectively blocked the insurance company from proving he had lied on his application when he said he had no prior serious illnesses. Plaintiff refused to waive his physician-patient privilege to permit examination of certain hospital records. The court concluded that this exercise of the privilege was not affirmative proof of the defense. It declared:

> The inference to be drawn from such conduct may well be a persuasive factor in the process of weighing and interpreting the testimony offered by the party who can produce evidence and fails to do so, but it cannot be treated as affirmative evidence of a fact otherwise unproved. Logic and precedent combine to establish this conclusion.

221 S.W.2d at 698. Do you agree with the "logic" of this conclusion? Is it consistent with the *Onufrejczyk* case? See comment in Chapter 10 (section 2), dealing with the privilege against self-incrimination and inferences to be drawn.

Contrast with the *Eddings* opinion, cases such as United States v. Monahan, 633 F.2d 984 (1st Cir. 1980), where defendant's conviction for threats to witnesses in the case being tried were admitted on a theory of consciousness of guilt. The court impliedly recognized the strong probative force of such evidence, suggesting that only if the threat is "inflammatory or macabre in content," would it be "excluded under Rule 403." Id. at 985.

Suppose each side has made out a prima facie case and thus the court must instruct the jury on the nature of the inference arising from failure to call a witness, or, in a non-jury case, must draw the inference itself. Pacific-Atlantic S.S. Co. v. United States, 175 F.2d 632, 636 (4th Cir.), cert. denied, 338 U.S. 868 (1949), involved a collision at sea. The respondent produced a number of eye-witnesses but failed to produce three others who saw the event. Libellant vigorously attacked the credibility of respondent's witnesses and asked the court to assume that if the three missing witnesses had been called their testimony would have been damaging to respondent and would have contradicted the testimony of respondent's witnesses. The court ruled that a trier of fact can draw the inference that the testimony of uncalled witnesses would be unfavorable. But, said the court, there is no principle that when there are twelve witnesses to an event and two are not called the trier must discredit the testimony of the other ten. What should the court do if the witnesses are equally available to both sides?

Pennewell v. United States, 353 F.2d 870 (D.C. App. 1965): Error for prosecutor to refer to defendant's failure to call a witness who under the prosecution theory was defendant's front man and under defendant's theory committed the crime himself; it could not reasonably be supposed that the missing witness would support the defendant's story. See also Morrison v. United States, 365 F.2d 521 (D.C. App. 1966): When a witness' claim of privilege against self-incrimination is sustained and the prosecution refuses to grant immunity, the defendant should not be allowed to make a "missing witness" argument, emphasizing the peculiar availability of the witness to the prosecution. "The large number of considerations which enter into the relatively rare use of immunity grants indicates that government reluctance to use this power cannot reasonably be equated to the failure of a litigant to produce an otherwise available witness." See Comment, Judicial Response to Governmental Loss or Destruction of Evidence, 39 U. Chi. L. Rev. 542 (1972); Orena v. United States, 956 F.Supp. 1071 (E.D.N.Y. 1997) (effect of claiming privilege by witness in a habeas corpus case who is later granted immunity and testifies).

Many of the cases in this area raise interrelated questions of ambiguity of inference and privilege: The prosecution in a narcotics case fails to put on the stand an informer. Defendant contends an inference results that the informer's testimony would be unfavorable to the prosecution, and therefore there was not sufficient evidence to find defendant guilty beyond reasonable doubt. People v. Lewis, 198 N.E.2d 812 (Ill. 1964). May not the prosecution have preferred to hide the identity of the informer so that he might be used again, or to protect him from criminal vengeance?

In a felony murder case, there were repeated references to defendant's refusal to take a lie detector test, evidence of the conclusions drawn from which would have been inadmissible. State v. Driver, 183 A.2d 655, 657–61 (N.J. 1962), overruled on other grounds, State v. McDavitt, 297 A.2d 849 (N.J. 1972). Assuming the test to be unreliable as a demonstrator of guilt or innocence, why did defendant refuse? Because he was conscious of guilt and erroneously believed the test infallible; or because he believed the test unreliable; or for some other reason? Contrast refusal to submit to ultra-violet ray

test for presence of fluorescent powder on hands or clothing, People v. Gallagher, 336 P.2d 259, 265–66 (Cal. App. 1959), and refusal to speak for purposes of voice identification, State v. Cary, 230 A.2d 384, 389 (N.J. 1967).

In a murder prosecution, part of the prosecution's theory of defendant's motive for killing her husband related to the financial situation of the family. Was it objectionable for the prosecutor to introduce the testimony of an accountant, employed by defendant and her husband, that he was contacted by defendant's attorneys the day after the husband died and asked to hand over records relating to the family's affairs? People v. Miller, 53 Cal.Rptr. 720, 736 (1966), cert. dismissed, 392 U.S. 616 (1968).

There is a tendency in some jurisdictions to punish a party who destroyed or hid evidence by shifting the burden of proof on that issue to that party. See, e.g., Public Health Trust of Dade County v. Valcin, 507 So.2d 596 (Fla. 1987); Thor v. Boska, 113 Cal.Rptr. 296 (1974); See Telectron, Inc. v. Overhead Door Corp., 116 F.R.D. 107 (S.D. Fla. 1987).

If a lawyer working for a corporation refuses to destroy documents needed in a litigation, can he or she block discharge for disobedience of orders? Suggesting that the answer is no are Herbster v. North American Co., 501 N.E.2d 343 (Ill. App. 1986); Willy v. The Coastal Corporation, 647 F.Supp. 116 (S.D. Tex. 1986). What if the lawyer were working for outside counsel? What remedies apart from an action for reinstatement might exist? What if the lawyer were working for the government and there was a whistle blowing statute? See generally, Closen & Wojck, Lawyers Out in the Cold, ABAJ Nov. 1, 1987, p. 94.

On the ethics of counsel or client suppressing documents see, e.g., Jack B. Weinstein, Individual Justice in Mass Tort Litigation, 66 ff. (1995). Consider also the possibility of utilizing Rule 11 of the Federal Rules of Civil Procedure, various tort law damage theories and disciplinary proceedings.

6. PROBABILITY AND STATISTICAL EVIDENCE IN DECISIONMAKING

Smith v. Rapid Transit, Inc.

Supreme Judicial Court of Massachusetts, 1945.
58 N.E.2d 754.

Action by Betty Smith against Rapid Transit, Inc., for personal injuries sustained by plaintiff as the result of negligent operation of a bus claimed to belong to defendant.

■ SPALDING, JUSTICE.

The decisive question in this case is whether there was evidence for the jury that the plaintiff was injured by a bus of the defendant that was operated by one of its employees in the course of his employment. If there was, the defendant concedes that the evidence warranted the submission to the jury of the question of the operator's negligence in the management of the bus. The case is here on the plaintiff's exception to the direction of a verdict for the defendant.

These facts could have been found: While the plaintiff at about 1:00 A.M. on February 6, 1941, was driving an automobile on Main Street, Winthrop, in an easterly direction toward Winthrop Highlands, she observed a bus coming toward

her which she described as a "great big, long, wide affair." The bus, which was proceeding at about forty miles an hour, "forced her to turn to the right," and her automobile collided with a "parked car." The plaintiff was coming from Dorchester. The department of public utilities had issued a certificate of public convenience or necessity to the defendant for three routes in Winthrop, one of which included Main Street [at the point where the accident occurred], and this was in effect in February, 1941. "There was another bus line in operation in Winthrop at that time but not on Main Street." According to the defendant's time-table, buses were scheduled to leave Winthrop Highlands for Maverick Square via Main Street at 12:10 A.M., 12:45 A.M., 1:15 A.M., and 2:15 A.M. The running time for this trip at that time of night was thirty minutes.

The direction of a verdict for the defendant was right. The ownership of the bus was a matter of conjecture. While the defendant had the sole franchise for operating a bus line on Main Street, Winthrop, this did not preclude private or chartered buses from using this street; the bus in question could very well have been one operated by someone other than the defendant. It was said in Sargent v. Massachusetts Accident Co., 307 Mass. 246, at page 250, 29 N.E.2d 825, at page 827, that it is "not enough that mathematically the chances somewhat favor a proposition to be proved; for example, the fact that colored automobiles made in the current year outnumber black ones would not warrant a finding that an undescribed automobile of the current year is colored and not black, nor would the fact that only a minority of men die of cancer warrant a finding that a particular man did not die of cancer." The most that can be said of the evidence in the instant case is that perhaps the mathematical chances somewhat favor the proposition that a bus of the defendant caused the accident. This was not enough. A "proposition is proved by a preponderance of the evidence if it is made to appear more likely or probable in the sense that actual belief in its truth, derived from the evidence, exists in the mind or minds of the tribunal notwithstanding any doubts that may still linger there." Sargent v. Massachusetts Accident Co., 307 Mass. 246, at page 250, 29 N.E.2d 825, at page 827.

In cases where it has been held that a vehicle was sufficiently identified so as to warrant a finding that it was owned by the defendant, the evidence was considerably stronger than that in the case at bar.

The evidence in the instant case is no stronger for the plaintiff than that in Atlas v. Silsbury-Gamble Motors Co., 278 Mass. 279, 180 N.E. 127, or in Cochrane v. Great Atlantic & Pacific Tea Co., 281 Mass. 386, 183 N.E. 757, where it was held that a finding that the vehicle in question was owned by the defendant was not warranted.

Exceptions overruled.

NOTES

1. Application of Kaufman, 143 N.Y.S.2d 853 (1955). Plaintiff was struck by a taxicab, but did not know the identity of its owner and driver. An agent of a liability insurance company "investigated the accident and made some effort to adjust it." This company did not deny that it had pertinent information. Plaintiff sought to take the deposition of the claims manager of the company under New York Civ.Prac.Act § 295, which permits the taking of a deposition before action is commenced for the purpose of ascertaining the identity of prospective defendants. The court ordered the examination "as to the identity of the taxicab striking the plaintiff or coming upon the sidewalk at the time when and

the place mentioned where the applicant was injured including its license number, and as to name and residence and P.O. addresses of owner and driver thereof."

What other information could the jury have expected the plaintiff to produce in Smith? Was it proper to consider the possible availability of other evidence in determining whether plaintiff had made out a prima facie case?

2. If understood as insisting on a numerically higher showing—an "extra margin" of probability above, say, .55—then the decision in Smith would make no sense, at least if the court's objective were the significant limitation of the total number of judicial errors in situations of this kind, an objective essentially implicit in the adoption of a "preponderance of the evidence" standard. See Ball, The Moment of Truth: Probability Theory and Standards of Proof, 14 Vand. L. Rev. 807 (1961). But cases like *Smith* are entirely sensible if understood instead as insisting on the presentation of some nonstatistical and individualized proof of identity before compelling a party to pay damages, and even before compelling him to come forward with defensive evidence, absent an adequate explanation of the failure to present such individualized proof. Tribe, Trial by Mathematics: Precision and Ritual in the Legal Process, 84 Harv. L. Rev. 1329, 1341 n. 37 (1971). This article is one of a series of thrusts and parries encouraged by People v. Collins, 68 Cal.2d 319, 66 Cal.Rptr. 497, 438 P.2d 33, 36 A.L.R.3d 1176 (1968), noted following State v. Rolls, infra. See also in the series Finkelstein and Fairley, A Bayesian Approach to Identification Evidence, 83 Harv. L. Rev. 489 (1970); Finkelstein and Fairley, A Comment on "Trial by Mathematics," 84 Harv. L. Rev. 1801 (1971); and Tribe, a Further Critique of Mathematical Proof, 84 Harv. L. Rev. 1810 (1971).

M.O. Finkelstein does not object to applying a "spoliation" view to naked statistical evidence as a policy matter to encourage the production of more particular evidence. In his book, Quantitative Methods in Law, 76–78 (1978), he suggests that pure statistical evidence is regarded as inadequate in most situations (except where overwhelming) because decisions based solely on statistics would tilt the balance of errors too much one way (in the examples he gives, toward plaintiffs). Professor Kaye believes a .50 + subjective probability should be used to minimize total errors. Kaye, Naked Statistical Evidence, 89 Yale L.J. 601 (1980) (in most cases the naked aspect of the statistical evidence "spoils" the numerical showing, making the subjective probability drop below one-half).

3. See United States v. Shonubi, 895 F.Supp. 460, 512–518 (E.D.N.Y. 1995), rev'd. on other grounds, 103 F.3d 1085 (2d Cir.1997), grounds for reversal criticized on remand, 962 F.Supp. 370 (E.D.N.Y.1997) (omissions not indicated):

> Law Applicable to Statistical and Other Information
>
> Admissibility of probabilistic evidence
>
> As Jeremy Bentham observed:
>
> > Certainty, absolute certainty, is a satisfaction which on every ground of inquiry we are continually grasping at, but which the inexorable nature of things has placed forever out of reach. Practical certainty, a degree of assurance sufficient for practice, is a blessing, the attainment of which, as often as it lies in our way to attain it, may be sufficient to console us under the want of any such superfluous and unattainable acquisitions.
>
> 5 Jeremy Bentham, Rationale of Judicial Evidence 351 (J.S. Mill ed. 1827).
>
> As already noted, Rules 401 and 402 of the Federal Rules of Evidence provide for the admissibility of any evidence which can logically influence the trier's assessment of the probability of a material fact. From these rules "one

might infer that the court wishes and expects to have its judgments about facts at issue . . . expressed in terms of probabilities." The Evolving Role of Statistical Assessments as Evidence in the Courts 193 (Report of the Panel on Statistical Assessments as Evidence in the Courts) (Stephen E. Fienberg ed., 1989) [hereinafter Evolving Role].

The value of statistical evidence has been recognized, at least in theory, for several hundred years. See Peter Tillers, Intellectual History, Probability, and the Law of Evidence, 91 Mich.L.Rev. 1465, 1473–74 (1991) (reviewing Barbara J. Shapiro, "Beyond Reasonable Doubt" and "Probable Cause": Historical Perspective on the Anglo-American Law of Evidence (1991)) (describing 17th–19th century mathematical approaches to problems of proof).

Today, complex statistical evidence is being introduced in American courts in a wide variety of both civil and criminal matters. Evolving Role, supra, at 7–9; see also Cimino v. Raymark Indus., 751 F.Supp. 649, 661 (E.D.Tex.1990) ("Acceptance of statistical evidence is now commonplace in the courts."); id. (listing wide variety of cases in which statistical evidence has been accepted); David W. Barnes & John M. Conley, Statistical Evidence in Litigation 13 (1986) ("There is at present virtually no area of the law in which properly conceived and executed statistical proof cannot be admitted."). As one measure of the rise of statistical proof in litigation, a LEXIS search of district court opinions using the words "statistic," "statistics," or "statistical" turned up 608 examples in the years 1960 to 1969; 2,786 cases from 1970 to 1979; 4,364 cases from 1980 to 1989; and 3,015 from 1990 thru July 31, 1995.[12] A similar search on Westlaw turned up nearly identical numbers. In fact, with the rise of "public law" litigation involving discrimination and mass torts, statistical and epidemiological evidence have become essential to legal fact-finding. At the same time, the adoption of the Federal Rules of Evidence permits judges to exercise broad discretion in admitting useful statistical evidence. See, e.g., Fed.R.Evid. 102, 401, 402, 403, 702–706, 803(18).

A few commentators have argued that triers need to curtail evidentiary uses of statistics. See Laurence Tribe, Trial By Mathematics: Precision and Ritual in the Legal Process, 84 Harv.L.Rev. 1329 (1971); Charles Nesson, The Evidence or the Event? On Judicial Proof and the Accessibility of Verdicts, 98 Harv.L.Rev. 1357 (1985). This thesis has been rejected both by judges and academicians. As Professor Rosenberg has pointed out, the exclusion of probabilistic evidence is impossible, because all evidence is probabilistic:

> The entire notion that "particularistic" evidence differs in some significant qualitative way from statistical evidence must be questioned. The concept of "particularistic" evidence suggests that there exists a form of proof that can provide direct and actual knowledge of [the parties' conduct]. "Particularistic" evidence, however, is in fact no less probabilistic than is the statistical evidence that courts purport to sun. . . . "Particularistic" evidence offers nothing more than a basis for conclusions about a perceived balance of probabilities.

David Rosenberg, The Causal Connection in Mass Exposure Cases: A "Public Law" Vision of the Tort System, 97 Harv.L.Rev. 849, 870 (1984) (footnotes omitted), quoted in In re "Agent Orange" Prod. Liab. Litig., 597 F.Supp. 740,

[12] [A Lexis search turned up 5,866 cases for 1990 thru 1999, 14,242 cases for 2000 thru2009, and 18,715 cases for 2010 thru June 15, 2015.]

835–36 (E.D.N.Y.1984); id., 597 F. Supp. at 836 (even with seemingly non-probabilistic evidence, "issues of credibility and varying inferences drawn by the trier based upon varying assessment of probative force may cause reasonable people to assess these percentages in a range"). See also, e.g., Michael J. Saks & Robert F. Kidd, Human Information Processing and Adjudication: Trial by Heuristics, 15 Law & Soc'y Rev. 123, 151 (1980–1981) ("Much of the testimony that is commonly thought of as particularistic only seems so. It is far more probabilistic than we normally allow jurors (or judges) to realize.") (citations omitted); cf. Evolving Role 78–79 (noting the contradiction between the court's insistence on evidence that seems certain, and such "probabilistic" institutions as plea bargaining, in which decisions are made on the basis of "probable" outcome).

Nevertheless, some scholars fear that the seeming precision of numerical evidence tends to overshadow evidence not expressed in quantitative form. See, e.g., Laurence Tribe, Trial by Mathematics, 84 Harv. L. Rev. 1329, 1330 n. 2 (1971) (arguing for exclusion of statistics despite acknowledgement that "all factual evidence is ultimately statistical, and all legal proof ultimately probabilistic") (emphasis in original). These scholars argue that

> [t]he apparent precision of statistical evidence often stands in marked contrast to the uncertainties of other testimony. . . . The danger is that such evidence will overshadow equally probative but admittedly unscientific and anecdotal nonstatistical evidence.

Evolving Role, supra, at 150 (citations omitted).

This limited view of the intellectual powers of judges and jurors when properly advised by experts and counsel has been rebutted. In one of the leading analyses of how decision-makers process information, Professors Saks and Kidd noted that triers are more likely to underestimate than overestimate the probative force of statistical analysis and quantitative proof. They wrote:

> Research demonstrates . . . that people . . . cannot integrate . . . statistical and anecdotal evidence and consequently tend to ignore that statistical information. Intuitive, heuristic, human decision makers must dispense with certain information, and that tends strongly to be the quantitative information. While commentators' arguments have been that the [statistical] data are inordinately persuasive, the evidence says that the reverse is true.

Saks & Kidd, supra, at 149 (emphasis omitted). The Committee on Statistical Assessments as Evidence in the Courts, in a report written at the request of the National Science Foundation, reached a similar conclusion:

> When statistical evidence conflicts with anecdotal evidence that bears on the same issue, highly probative statistical data may be rejected in favor of a less probative but more striking anecdotal instance. . . . [A]necdotal evidence is vivid and reaches us in a way that . . . statistical information cannot.

Evolving Role, supra, at 153–54.

As Professors Kaye and Koehler suggest, research is not decisive on this point. See generally D.H. Kaye & Jonathan J. Koehler, Can Jurors Understand Probabilistic Evidence?, supra; see also Edward J. Imwinkelried, The Next Step After Daubert: Developing a Similarly Epistemological Approach to Ensuring

the Reliability of Nonscientific Expert Testimony, 15 Cardozo L. Rev. 2271, 2286 (1994) ("[G]iven the research data currently available, it would be dishonest to make any purportedly scientific claim about the impact of scientific or nonscientific testimony on lay jurors"). But cf. Evolving Role, supra, at 154 (citing R. Nisbett & L. Ross, Human Inference: Strategies and Shortcomings of Social Judgment (1980)); R.M. Reyes et al., Judgmental Biases Resulting from Different Availabilities of Arguments, 2 J. Personality & Soc. Psych. 39 (1980); see also United States v. Starzecpyzel, 880 F.Supp. 1027, 1048–49 (S.D.N.Y.1995) (urging triers "not to overreact" to supposed dangers of scientific proof); Edward J. Imwinkelried, The Standard for Admitting Scientific Evidence: A Critique from the Perspective of Juror Psychology, 28 Vill. L. Rev. 554, 566–68 (1982) (reviewing studies showing that jurors are not overly influenced by scientific proof); Michael S. Jacobs, Testing the Assumptions Underlying the Debate About Scientific Evidence: A Closer Look at Juror "Incompetence" and Scientific "Objectivity", 25 Conn. L. Rev. 1083 (1993) (reviewing recent studies that show jurors capable of decided [sic] complex cases involving scientific and technical matters); Joe S. Cecil et al., Citizen Comprehension of Difficult Issues: Lessons from Civil Jury Trials, 50 Am. U. L. Rev. 727, 764 (1991) (same); Elizabeth Loftus, Psychological Aspects of Courtroom Testimony, 347 Annals of the New York Academy of Sciences 27, 34 (1980) (jurors more willing to convict on the basis of lay testimony than on high-caliber scientific proof); see also United States v. Jakobetz, 955 F.2d 786, 797 (2d Cir.) ("[A]lthough scientific and statistical evidence may seem complicated, we do not think that a jury will be so dazzled or swayed as to ignore evidence suggesting that an experiment was improperly conducted or that testing procedures have not been established."), cert. denied, 506 U.S. 834 (1992). Studies of juror behavior, while not decisive as to judges, are probably representative of professional as well as lay decision-making.

Statistical evidence must be presented with care. See Margaret A. Berger, "Evidentiary Framework," in Federal Judicial Center, Reference Manual on Scientific Evidence 95, 97 (1994) (" '[P]rosecutor's fallacy' occurs when a prosecutor presents statistical evidence to suggest that the evidence indicates the likelihood of the defendant's guilt rather than the odds of the evidence having been found in a randomly selected sample."); William C. Thompson & Edward L. Schumann, Interpretation of Statistical Evidence in Criminal Trials: The Prosecutor's Fallacy and the Defense Attorney's Fallacy, 11 Law & Hum. Behv. 167, 181–82 (1987). Powerful tools such as DNA evidence require particular care. But to reject them is to shackle the courts in their search for the truth. See, e.g., United States v. Jakobetz, 955 F.2d 786 (2d Cir.) (approving use of DNA evidence in kidnapping trial), cert. denied, 506 U.S. 834 (1992); Eric S. Lander, DNA Fingerprinting on Trial, 339 Nature 501 (1989); National Research Council of the National Academy of Sciences, DNA Technology in Forensic Science (1992); cf. Ronald J. Allen et al., An Internet Exchange, supra (discussing error requiring reversal in State v. Skipper, 637 A.2d 1101 (Conn.1994), but finding fault with broad negative dicta in decision). Courts which deny themselves the help of statistical tools increase the risks of incorrect conclusions. See Mirjan Damaska, "Approaches to the Evaluation of Evidence: A Comparative View," in John Henry Merryman: A Festschrift (Berlin 1988) (critiquing "atomistic" approach to admissibility in American system).

Effective techniques for developing and presenting scientific evidence to juries do exist. They will be further developed and refined in the wake of the Supreme Court's decision in Daubert [v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579 (1993)]. See, e.g., Jack B. Weinstein, The Effect of Daubert on the Work of Federal Trial Judges, Shepard's Expert & Sci. Evidence Q., Summer 1994, at 1. Putting aside questions of cost and availability to both sides, there is no reason to deny factfinders reliable information or analytic techniques.[13]

Use of bare statistics

Generally

Once introduced, how much can statistics prove? "[T]he interrelationship between an opinion couched in probabilistic terms and the applicable burden of proof" has proved to be a "perplexing problem for the courts." Margaret A. Berger, "Evidentiary Framework," in Federal Judicial Center, Reference Manual on Scientific Evidence 95 (1994).

Law professors properly dote on hypotheticals in which triers must decide cases on the basis of statistical evidence alone. Popular examples include the "blue bus case" (percentage of blue and white buses passing a point is only evidence of which company's bus hit plaintiff) (see, e.g., Jack B. Weinstein, John H. Mansfield, Norman Abrams & Margaret A. Berger, et al., Cases and Materials on Evidence, 45–73 (8th ed. 1988) (discussing Smith v. Rapid Transit, Inc., 317 Mass. 469, 58 N.E.2d 754 (1945)); Charles Nesson, Agent Orange Meets the Blue Bus: Factfinding at the Frontiers of Knowledge, 66 B.U. L. Rev. 521 (1986)); the gatecrasher hypothetical (percentage of gatecrashers at rodeo is over 50 percent; can all be found liable?) (see, e.g., L. Cohen, The Probable and the Provable 77–81 (1977); Richard Lempert, Symposium, Probability and Inference in the Law of Evidence: I. Theories of Inference and Adjudication: The New Evidence Scholarship: Analyzing the Process of Proof, 66 B.U.L.Rev. 439, 454 (1986)); and the prison yard hypothetical (999 prisoners out of one thousand have rioted; can each be found guilty?) (see, e.g., Terence Anderson & William Twining, Analysis of Evidence 39–40 (1991); Daniel Shaviro, Statistical-Probability Evidence and the Appearance of Justice, 103 Harv. L. Rev. 530, 533–36 (1989)). As Prof. Green has noted, "[i]n the ensuing debate [on 'naked' statistical evidence], numerous blue buses have run untold numbers of near-sighted elderly ladies off the road; hundreds of alleged gatecrashers have been collared; dozens of murderous prisoners have been brought to justice, and countless articles, books, and opinions have been written on the subject." Eric D. Green, Symposium: Probability and Inference in the Law of Evidence: Foreword, 66 B.U. L. Rev. 377, 378 (1986) (footnotes omitted).

In at least two classes of cases, "naked"—or nearly naked—statistical evidence has proven essential. In mass torts, proof of causation often requires

[13] [Since the decision in the 1995 *Shonubi* case that is extensively quoted in the text to this note, *Daubert* has been extensively applied by courts, and followed up by the Supreme Court in Kumho Tire Co., Ltd. v. Carmichael, 526 U.S. 137, 119 S. Ct. 1167 (U.S. 1999). Also, Fed.R.Evid. 702 was amended in 2000 to reflect holdings in these cases. Despite the confidence expressed in the note that "[e]ffective techniques for developing and presenting scientific evidence to juries do exist," a great deal of scholarly commentary has questioned the capacity of the *Daubert* procedures for admission of scientific expert testimony to enable accurate fact-finding by non-expert juries. Some have argued that there is considerable reason to doubt the rationality of non-expert factfinders' findings when the two litigating parties proffer competing complex expert scientific (and mathematical) evidence that the non-experts can understand only to a very limited extent by virtue of the fact that they are non-experts. See Brewer, Scientific Expert Testimony and Intellectual Due Process, 107 Yale L.J. 1535 (1998).]

the use of statistically based epidemiological proof. See, e.g., Steve Gold, Causation in Toxic Torts: Burdens of Proof, Standards of Persuasion, and Statistical Evidence, 96 Yale L.J. 376 (1986). Given that determining the causation of many diseases—particularly those with latent effects and no "signature" relationship—is extremely difficult, plaintiffs in many mass tort cases would be unable to prove that a defendant caused an illness were it not for statistical epidemiological data. See Joseph Sanders, From Science to Evidence: The Testimony on Causation in the Bendectin Cases, 46 Stanford L. Rev. 1, 14–18 (1993) (discussing use of statistics to prove causation in mass torts). In the Agent Orange litigation, the court noted two possible responses to this problem:

> Under the "strong" version of the preponderance rule, statistical correlations alone indicating that the probability of causation exceeds fifty percent are insufficient; some "particularistic" or anecdotal evidence, that is, "proof that can provide direct and actual knowledge of the causal relationship between the defendant's tortious conduct and the plaintiff's injury is required." . . . The "weak" version of the preponderance rule would allow a verdict solely on statistical evidence. . . .

In re "Agent Orange" Prod. Liability Litig., 597 F.Supp. 740, 835 (E.D.N.Y.1984) (citations omitted).[14] The court went on to explain its decision to reject the strong version of the preponderance rule in mass exposure cases:

> [W]here the chance that there would be particularistic evidence would be quite small, the consequence of retaining the requirement might be to allow defendants who, it is virtually certain, have injured thousands of people and caused billions of dollars in damages, to escape liability.

Id. at 836. The court concluded: "Except where it appears that the absence of anecdotal evidence may be due to spoliation, probabilities based upon quantitative analysis should support a recovery." Id. Thus, in mass tort cases the decision to rely on "naked" statistical proof if that is all that can be presented is consistent with the goal of providing the most justice for the most people. See, e.g., Deborah Hensler, Resolving Mass Toxic Torts: Myths and Realities, 1989 U. Ill. L. Rev. 89, 90 (concluding that aggregative procedures provide the best possible match between victims' losses and compensation).

"Naked" statistical evidence has also been decisive in discrimination cases. For example, under Title VII of the Civil Rights Act of 1964, a plaintiff can prove employment discrimination by introducing statistical data showing that the defendant's hiring practices had a racially disparate impact. See Griggs v. Duke Power Co., 401 U.S. 424, 429–30 (1971). But see Wards Cove Packing Co. v. Atonio, 490 U.S. 642, 660 (1989) (restricting use of disparate-impact studies in Title VII cases); see also, e.g., Castaneda v. Partida, 430 U.S. 482 (1977) (statistical evidence drawn from census data and grand jury records can establish a prima facie case of discrimination in grand jury selection); Machetti v. Linahan, 679 F.2d 236 (11th Cir.1982) (statistical evidence of disparity between percentage of females in adult population and percentage of females on jury lists sufficient to prove discrimination), cert. denied, 459 U.S. 1127 (1983); Ramona L. Paetzold, The Statistics of Discrimination: Using Statistical Evidence in Discrimination Cases (1994).

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[14] [How should one make sense of the "strong" version of the preponderance in light of Professor Rosenberg's argument, noted above, that all "particularistic" evidence is also probabilistic?]

In other types of litigation, "pure" statistical cases rarely arise. Statistical evidence is almost always evaluated in the light of non-statistical proof. See In re "Agent Orange" Prod. Liability Litig., 597 F.Supp. 740, 836 (E.D.N.Y.1984) (in cases other than those involving mass torts, anecdotal "evidence is almost always available"). Courts expect parties to proffer anecdotal as well as statistical evidence. As Professor Berger has pointed out, "failure by experts to consider [individual case histories] could lead a court to conclude that the proffered opinion failed to satisfy Rule 703 [requiring a proper basis for expert testimony]." Berger, "Evidentiary Framework," supra, at 96; cf. Richard Lempert, The New Evidence Scholarship: Analyzing the Process of Proof, 66 B.U.L. Rev. 439, 450–62 (1986) (discussing spoliation inference in litigation). Thus, the issue of "naked" statistical evidence is more hypothetical than real.

Criminal Cases

Several commentators have expressed particular concern about the use of explicitly probabilistic evidence in criminal cases. See, e.g., Ronald Dworkin, Taking Rights Seriously 13 (1977); Andrew von Hirsch, Prediction of Criminal Conduct and Preventive Confinement of Convicted Persons, 21 Buff. L. Rev. 717, 744–50 (1972), cited in Barbara D. Underwood, Law and the Crystal Ball: Predicting Behavior with Statistical Inference and Individualized Judgement, 88 Yale L. J. 1309, 1312 (1979); Saks & Kidd, supra, at 152; Tribe, supra; Nesson, supra; L. Jonathan Cohen, Subjective Probability and the Paradox of the Gatecrasher, 1918 Ariz. St. L.J. 627, 632 (rejecting use of statistics in criminal cases); Alex Stein, On the Unbearable Lightness of "Weight" and the Refoundation of Evidence Law 48–49 (forthcoming 1995, on file in the instant case) (arguing that the problem with "naked" statistical evidence in criminal cases is not that it is unreliable, but that its "weight" is insufficient to support conviction).

The better view is that no special rule of exclusion is required in criminal cases. In criminal as in civil cases, factfinders need all available information. Significantly, the Federal Rules of Evidence do not distinguish between civil and criminal cases in their pertinent provisions. See, e.g., Rules 401 to 403, Rule 1101, and Article VII.

Protection of defendants in criminal cases warrants special concern, but burdens of proof and existing rules of evidence, as well as constitutional and statutory protections, rather than exclusions of highly probative evidence that happens to be in statistical form, are the best means of avoiding injustice. See, e.g., Daniel Shaviro, Statistical-Probability Evidence and the Appearance of Justice, 103 Harv. L. Rev. 530, 538 (1989) (possibility of unwarranted conviction "suggests raising the burden of proof for all cases. It does not support a special rule for statistical probability cases."). Rather than excluding statistics, courts should provide for defense and court-appointed experts to ensure that statistics, when available, are properly used. These devices were utilized in this case.

Even were attempts to impose blanket exclusion of statistical evidence in criminal cases not contrary to Rules 401, 402, 403, and 1101, which encourage use of all available probative evidence, the law could not afford to exclude highly probative statistical evidence and useful quantitative methods. Courts ignore whole categories of evidence only at their peril. Thus the court of appeals for this circuit has held that "doubts about whether an expert's testimony will be useful should generally be resolved in favor of admissibility unless there are

> strong factors such as time or surprise favoring exclusion." United States v. Jakobetz, 955 F.2d 786, 797 (2d Cir.) (citation omitted), cert. denied 506 U.S. 834 (1992).

4. Some commentators argue that so-called "naked" statistical evidence may be sufficient only in certain contexts. See Brook, The Use of Statistical Evidence of Identification in Civil Litigation: Well-Worn Hypotheticals, Real Cases, and Controversy, 29 St. Louis U. L.J. 293 (1985); Black & Lilienfield, Epidemiologic Proof in Toxic Tort Litigation, 52 Fordham L. Rev. 732 (1984); Gold, Causation in Toxic Torts: Burdens of Proof, Standards of Persuasion, and Statistical Evidence, 96 Yale L.J. 376 (1986); Rosenberg, The Causal Connection in Mass Exposure Cases: A "Public Law" Vision of the Tort System, 97 Harv. L. Rev. 851 (1984); Note, Proving Causation in Toxic Torts Litigation, 11 Hofstra L.J. 1299 (1983). See also Final Report of the Royal Commission on the Use and Effects of Chemical Agents on Australian Personnel in Vietnam (July 1985). As one evidence jurist has noted:

> We can expect more situations in which there appears to be an increased incidence of a fairly widespread disease, but it is not clear which, if any, persons suffer from it as a result of exposure to a particular toxic substance, and it is also not clear which of many producers is responsible for any particular injury. This is the situation that may exist in the DES cases, in many hazardous waste injury cases and in cases where workers have moved from job to job and have been exposed to toxic substances over many years.

Weinstein, Preliminary Reflections of the Law's Reaction to Disasters, 11 Colum. J. Envtl. L. 1, 11 (1986). See also, e.g., Bethlehem Mines Corp. v. Massey, 736 F.2d 120 (4th Cir. 1984); Rutledge v. Tultex Corp., 301 S.E.2d 359 (N.C. 1983); Brawn v. St. Regis Paper, 430 A.2d 843 (Me. 1981); Swink v. Cone Mills, Inc., 309 S.E.2d 271 (N.C. App. 1983). But see Bazemore v. Friday, 478 U.S. 385 (1986) (regression analysis should not have been rejected even though not all factors were considered and nonstatistical information should have been admitted in employment discrimination suit).

5. Related substantive developments, put increasing pressure on experts, making the rules on the use of such witnesses more important. See Weinstein, Improving Expert Testimony, 20 U. Rich. L. Rev. 473 (1986); Weinstein, Litigation and Statistics: Obtaining Assistance Without Abuse, 1 Toxics L.Rep. (BNA) 813 (Dec. 24, 1986). Whether the substantive law needs revision in the light of evidentiary and procedural problems raised by these developments as well as social, political and technological changes remains a critical question. See generally, Jack B. Weinstein, Individual Justice in Mass Tort Litigations (1995); Kenneth R. Feinberg and Jack B. Weinstein, Mass Torts, Cases and Materials (1995).

6. For the combination of the colored bus and credibility issue, see P. Gardnerfors et al., Evidentiary Value, Philosophical, Judicial and Psychological Aspects of a Theory, 44–45 (1983) (footnotes omitted):

> (At the beginning of this dialogue on evidentiary value the conversation involves two persons: The first is Basie, a statistician, very much interested in subjective probabilities. Then working on a problem involving assessments of probabilities, he always thinks to himself: What would Bayes say in a situation like this? The second person is Lazy, an ordinary man, neither a statistician, nor a lawyer, but a representative of what the lay say.)
>
> *Lazy:* Look, Basie. I've just come from the Psychology Department where I participated as a subject in an experiment on probabilistic reasoning. One of the problems given to me was the following:

"Two cab companies operate in a given city, the Blue and the Green (according to the color of cab they run). Eighty-five per cent of the cabs in the city are Blue, and the remaining 15% are Green.

A cab was involved in a hit-and-run accident at night.

A witness later identified the cab as a Green cab.

The court tested the witness's ability to distinguish between Blue and Green cabs under nighttime visibility conditions. It found that the witness was able to identify each color correctly about 80% of the time, but confused it with the other color about 20% of the time. What do you think are the chances that the errant cab was indeed Green, as the witness claimed?"

Well, I answered that the chance was 80%, because that is the probability that the witness was correct. But I smell a rat here. I am not so certain that my reasoning is valid. What do you say?

Basie: It seems to me that you are the victim of a very common cognitive illusion. You fail to consider that there are many more Blue cabs than Green. In fact, it is more probable that the cab was Blue and the witness incorrectly identified it as Green than that it was Green and the witness made a correct identification. Since 85% of the cabs are Blue and the witness is wrong in 20% of the cases, the first situation should occur in 85% × 20% = 17% of the cases in the long run. The other situation occurs in only 15% × 80% = 12% of the cases. So, the probability that the cab is Green, given that the witness says it is Green, is only 0.12/(0.12 + 0.17) = 0.41.

Lazy: I see how you count, Basie, but where did I go wrong?

Basie: The problem is a standard case of Bayesian inference. There are two pieces of information. One is in the form of background data, often called *base-rate* information. The second, the witness report, may be called *indicator* information. In your reasoning, when you fail to consider the first piece of information, you commit what has been called the *base-rate fallacy*.

Lazy: After the experiment at the Psychology Department I was informed by the experimenter that most of the subjects gave the same answer as I did. Even lawyers seem to be reasoning in the same way.

Basie: It does not surprise me. The base-rate fallacy is a persistent illusion. It is the duty of statisticians to show people where their intuitions go wrong. One way of doing this is to point out that the probability that the cab is Green (let us denote this by G) given that the witness says green (denoted WG), i.e. P(G/WG), is not the same as the probability that the witness says green given that the cab is Green, i.e. P(WG/G). The latter is 0.80 (P(WG/G)), as was given in the problem, but the former (P(G/WG)), as I showed earlier, is only 0.41. . . .

Assuming Basie is correct, will the jury make the same "mistake" as Lazy if the attorneys, their experts and the court fill their roles properly? What are those roles and the techniques available?

Butcher v. Kentucky

Supreme Court of Kentucky, 2002.
96 S.W.3d 3.

■ Opinion of the Court by JUSTICE GRAVES.

In or around 1979, Appellant, Larry Butcher, moved in with the mother of then seven-year-old H.B. In 1982, the three moved to Johnson County, Kentucky, where H.B.'s mother gave birth to twin girls fathered by Butcher. Around the time the twins were born, Butcher began a pattern of sexual abuse with H.B., who was then ten years old. From December 1982 through April 1987 this abuse continued, as Appellant repeatedly fondled, sodomized, and had sexual intercourse with H.B. The sexual intercourse between Appellant and H.B. eventually resulted in conception, and H.B. became pregnant in April 1987, at age fourteen. H.B. gave birth to a baby girl on January 19, 1988.

Appellant was convicted by a jury in the Johnson Circuit Court of eleven counts of first-degree rape, two counts of first-degree sodomy, and two counts of first-degree sexual abuse. He was acquitted of two counts of incest. Appellant was sentenced to forty years imprisonment for each count of rape, thirty years imprisonment for each count of sodomy, and five years imprisonment for each count of sexual abuse, all to run concurrently for a total sentence of 40 years imprisonment. Appellant appeals to this Court as a matter of right.

The issues raised on appeal are the following: (1) whether the trial judge was required to recuse himself; (2) whether introduction of a paternity test violated the requirement that the Commonwealth prove all elements of an offense beyond a reasonable doubt; and (3) whether the prosecutor's closing argument improperly injected the civil paternity standard into the case and misled the jury as to the real effect of DNA evidence.

. . .

II. ADMISSION OF PATERNITY TEST

Appellant next claims that the trial court erred in admitting into evidence the results of a DNA paternity test indicating a 99.74 percent likelihood that Appellant was the father of H.B.'s child. Appellant contends that admission of the test violates the 14th Amendment of the United States Constitution, and the Kentucky Constitution §§ 2 and 11, which require that the Commonwealth prove all elements of a charged offense beyond a reasonable doubt. Although Appellant concedes that this issue was not properly preserved, he argues that the error was palpable under RCr 10.26 and seeks reversal as such.

A brief explanation of the paternity test employed is necessary for our analysis. The test at issue, like similar paternity tests used throughout the nation, involves three separate tiers or determinations: probability of exclusion, paternity index, and probability of paternity. *Griffith v. State,* 976 S.W.2d 241, 243 (Tex.Ct.App.1998); *see generally* D.H. Kaye, "The Probability of an Ultimate Issue: The Strange Cases of Paternity Testing," 75 Iowa L.Rev. 75 (1989). The first tier, probability of exclusion, seeks to "exclude" Appellant as a possible father of H.B.'s child. As explained by the expert who conducted the testing in this case, Mr. DeGuglielmo, exclusionary testing looks for inconsistencies between the genetic make-up of the child and the alleged father that would necessarily indicate a lack of relation.

An exclusion analysis is premised on the basic notion that half of the child's DNA comes from each parent. It requires a comparison of the DNA of the mother with that of the child, excluding the DNA that matches between them. Since the remaining DNA of the child necessarily comes from the biological father, it can then be isolated and compared with the DNA of the alleged father. *Griffith v. Texas, supra.* If the alleged father's DNA does not "match" the child's DNA at all, he can be excluded as a possible parent.

With respect to Appellant's DNA testing, Mr. DeGuglielmo testified that his team analyzed "a panel of eight different genetic markers . . . eight different tests that we use to try to find something that would say that Appellant could not be the father of [the child]." He concluded, however, "Each test showed that Mr. Butcher was included in the group of people who could potentially be the father of the child."

Once it is established that an alleged father cannot be excluded as a possible parent, as in Appellant's case, the second part of the paternity test takes effect. As Mr. DeGuglielmo explained at trial, "When we don't find any exclusion, we then have to make some relevance to the information that we have there. . . . So we do a statistical evaluation to say how likely that match that we see is." Applying a formula that factors the frequency of "matches" between the alleged father and the child results in an assessment expressed numerically as a paternity index. As explained in *Griffith, supra:*

> The paternity index is a value reflecting the likelihood that a tested man is the father of the child as opposed to an untested man of the same race. It is expressed as a number. If a paternity ***7** index can be assigned to a man, it means that he is that many more times likely to be the father than any other randomly selected male of his race.

976 S.W.2d at 243. Mr. DeGuglielmo testified that tests performed on the eight genetic markers previously discussed yielded a paternity index of 388/1, meaning Appellant was 388 times more likely to be the father of the child than a randomly selected male of the same race.

The third and final part of the paternity test translates the paternity index into a percentage that is more understandable. This percentage constitutes the end test result—the probability of paternity. It is calculated using Bayes' Theorem, a formula that takes into account actual events and circumstances, as opposed to random sequences of events. *Id.; see also Davis v. State*, 476 N.E.2d 127, 137–138 (Ind.Ct.App.1985*)*. In paternity tests generally, this formula combines the paternity index and another value representing the prior probability that an event occurred, including such factors as access to the mother, fertility, and date of conception. The result is a percentage that can be used to assess the overall probability of paternity. The formula is as follows:

$$\text{Probability of Paternity} = \frac{\text{Paternity Index Prior Probability}}{\text{Paternity Index Prior Probability} + (1 - \text{Prior Probability})}$$

In the context of criminal cases, however, those using this formula to determine paternity typically insert a standard prior probability of .5 regardless of any other

factors, which indicates a fifty percent chance that the alleged father actually had sexual intercourse with the mother. Using .5 as the prior probability value, the probability of paternity is simplified as follows[1]:

The resulting quotient indicates the percentage of random men that would be excluded as possible fathers of a child because they lack the necessary genetic material. In other words, as the percentage reflecting the probability of paternity increases, the alleged father becomes increasingly outnumbered by men who could not be the child's father. Because this concept is not easily conveyed or understood, the probability of paternity is accepted as simply representing the percent likelihood that the tested male is actually the father of the child. *Griffith,* 976 S.W.2d at 243.

Appellant's paternity test resulted in a probability of paternity of 99.74 percent. That is, there was a 99.74 percent likelihood that Appellant was the father of H.B.'s child. Although Mr. DeGuglielmo did not testify that he had used a prior probability value of .5 in reaching his expert conclusions, the mathematical results of the test suggest that he did. Appellant centers his appeal on this issue of prior probability.

Appellant's argument is essentially that the results of the paternity test were improperly based on the assumption that Appellant had sexual intercourse with H.B. It is evident that Mr. DeGuglielmo assumed a fifty percent prior probability that Appellant had sexual intercourse with H.B. in order to arrive at his conclusive testimony that "there was a 99.74% likelihood that Larry Butcher was [the baby's] father". The impropriety of this assumption, Appellant argues, is that it assumes intercourse to prove intercourse. As the Commonwealth was required to prove every element of the offense of rape, Appellant reasons it should not have been permitted to introduce evidence that assumed the very activity that constituted the unproven offense. Appellant asserts error based on the general idea that the Commonwealth was required to presume innocence, then establish guilt by proving each element of the charged offenses beyond a reasonable doubt. For purposes of our discussion, we condense this notion into the more succinct requirement of "presumption of innocence."

Quoting McCormick on Evidence § 342 at 579–80 (4th ed.1992), the *Griffith* court found that the presumption of innocence "merely describes the fact that the burden of persuasion and production in a criminal matter are on the prosecution." 976 S.W.2d at 246–247. We consider this to be an accurate statement of the law, and reject Appellant's argument that the .5 prior probability figure offends the principle of presumption of innocence.

Appellant contends that the use of any prior probability whatsoever in calculating probability of paternity in a criminal trial offends due process because it lessens the Commonwealth's burden of proof and presumption of innocence. While this Court has determined that genetic paternity tests are admissible as evidence in rape cases, we have yet to address the effects of such testing on the presumption of

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[1] Inserting the .5 value into the formula, we would come up with a somewhat unwieldy equation. Thus, the equation is doubled for ease of calculation. Because probability of paternity is expressed as a percentage, the doubled equation yields the exact same result; but, it is important to note that this only works with the .5 value.

$$\text{Probability of Paternity} = \frac{\text{Paternity Index}}{\text{Paternity Index} + 1}$$

innocence. *See v. Commonwealth,* Ky., 746 S.W.2d 401 (1988) (holding that paternity test "was a reliable indicator, and certainly compelling evidence of rape"). Because this is a case of first impression in Kentucky, we look to other jurisdictions for guidance on the issue of prior probability.

Though various courts have entertained virtually the same question we have before us, we are most persuaded by the reasoning employed by the Court of Appeals of Texas facing similar facts in *Griffith v. State, supra.* There, the appellant had been convicted of sexual assault against a mentally retarded female. The assault had resulted in pregnancy and the birth of a child, and the trial court admitted evidence in the form of paternity test results showing a 99.99 percent probability that the appellant was the father of the child. *Id.* Like Appellant here, the appellant in *Griffith* alleged error as to the admission of test results, which were calculated using a .5 prior probability, on the grounds that it violated the requisite presumption of innocence in a criminal trial.

Concluding that the use of a probability statistic based on Bayes' Theorem in a criminal case did not violate the presumption of innocence, the court held:

> The use of a prior probability of .5 is a neutral assumption. The statistic merely reflects the application of a scientifically accepted mathematical theorem which in turn is an expression of the expert's opinion testimony. . . . The jury is free to disregard it. It can be weakened on cross and in argument.

Id. at 247. In this case, Appellant had ample opportunity to question the use of the prior probability and call it to the attention of the jury. Appellant made no effort to have Bayes' Theorem or prior probability explained, nor did he attempt to weaken the effect of the seemingly reliable evidence at issue. We believe the jury was aware that Mr. DeGuglielmo was expressing his opinion, and the jury was free to accept or disregard it.

As to the neutrality of the .5 prior probability, the *Griffith* court noted, "Logically, the prior probability assumes intercourse *could* have occurred and thus the putative father could be the actual father, but the statistic does not necessarily assume intercourse *did* occur." 976 S.W.2d at 248. In fact, use of a .5 prior probability merely acknowledges that intercourse preceded the birth of the child, and there is an equal chance that another individual engaged in that intercourse with the mother as there is a chance that the alleged father did.

This principle was aptly explained by the New Jersey Supreme Court in *State v. Spann,* 130 N.J. 484, 617 A.2d 247 (1993). Although that court held that expert testimony based on prior probability figures was inadmissable in New Jersey, it recognized the value of paternity testing and opted to allow juries to determine prior probability figures based on evidence offered at trial. Explaining that the .5 prior probability was not inherently violative of due process, the court stated,

> The .5 prior-probability assumption (odds of 1) says only that the chance that defendant is the father is fifty-fifty, that it is just as likely that he is *not* the father as that he is, or that it is just as likely he is as that any man chosen at random is. . . . The fifty-fifty odds calculated into the probability of paternity percentage do not at all assume that defendant had intercourse with the victim. . . .

Id. at 253. In the criminal arena, such an assumption assigns no more culpability to the alleged father than it does to any other random individual.

Appellant contends that the only fair way to assess prior probability would be to insert a zero into the Bayes' formula. Addressing this very point, the *Griffith* court refuted such an argument both mathematically and theoretically:

> A zero prior probability does not simply presume a defendant is innocent. Rather, a zero probability, in fact presumes that it was *impossible* for the defendant to be the father. When a zero prior probability is plugged into Bayes' Theorem (the formula), naturally the probability of paternity results becomes 0%. The presumption of innocence does not require a jury to assume it was impossible for a defendant to commit the crime charged. Rather, it requires the jury to assume as a starting proposition that the defendant did not commit the crime, until proven otherwise.

976 S.W.2d at 249.

We realize that Appellant does not actually seek to have experts insert zeroes in calculating paternity. Instead, he would have us hold that prior probability has no place in the criminal law. We stand, however, with the *Griffith* court in our belief that justice is served by a neutral assessment of paternity in criminal cases like the one before us; we further agree that a .5 prior probability is neutral, neither assuming nor denying that intercourse has taken place between the mother of the child and the alleged father.

Appellant in the case before us, as the appellant in *Griffith* likewise did, looks to several cases from other jurisdictions for support of his arguments. The courts in *State v. Hartman,* 145 Wis.2d 1, 426 N.W.2d 320 (1988), and *State v. Skipper,* 228 Conn. 610, 637 A.2d 1101 (1994), held that paternity test results predicated on a prior probability statistic were inadmissable because such evidence violates the presumption of innocence requirement of criminal proceedings. The *Griffith* court found that these holdings were flawed, principally because they were based in large part upon a single law review article, Peterson, "A Few Things You Should Know About Paternity Tests (But Were Afraid To Ask)," 22 Santa Clara L.Rev. 667 (1982). Among other criticisms of the article, the *Griffith* court found that "the author does not cite direct authority (either legal or scientific) to support his statement." Thus, both *Skipper* and *Hartman* were based on a weak foundation and cannot support Appellant's contentions here.

Like the *Griffith* court, we agree with the dissenting opinion of Justice Steinmartz in *Hartman,* explaining that the probability of paternity statistic is truly neutral, as it "equally assumes the defendant is not the putative father, no matter how damning the evidence in the case." *Hartman, supra,* at 328. Like Justice Steinmartz, we find no violation of presumption of innocence principles in the use of a prior probability to deduce the likelihood of paternity based on DNA testing. We would therefore follow *Griffith, supra,* in concluding that such evidence is admissible, subject, of course, to other applicable evidentiary constraints.

We next address the Commonwealth's burden of proving every element of a charged offense. As the presumption of innocence mandates that the burden of proof and production fall on the Commonwealth, any burden shifting to a defendant in a criminal trial would be unjust. Here, Appellant argues that since the conclusive test results bypassed the issue of intercourse by assuming it occurred, the

Commonwealth was relieved of its duty to prove each and every element beyond a reasonable doubt. However, the *Griffith* court explained, and we agree, that probability of paternity is "merely a way of expressing and interpreting the actual DNA test results. Thus, the statistic itself does nothing to shift the burden of going ahead to the defendant." 976 S.W.2d at 249. Mr. DeGuglielmo merely offered evidence of paternity, not proof of intercourse. The jury heard repeated testimony that a genetic paternity test could never be 100 percent conclusive of fatherhood. It is possible that the jury could have believed Appellant was not the father of H.B.'s child, but that Appellant had nonetheless raped, sodomized, and sexually abused H.B.

Furthermore, Appellant fails to consider, or neglects to mention, that the intercourse that resulted in pregnancy related to the indictment charges of incest. All eleven rape charges were based on intercourse with a child under twelve, which H.B. was until 1984. Only the incest charges alleged intercourse after 1984; as H.B. became pregnant in 1987, paternity would have been evidence of incestuous intercourse, not rape. Appellant was acquitted, however, of the incest charges. Thus, even if the Commonwealth had somehow eluded its burden of proving intercourse, an element of the incest charges, no conviction arose therefrom. The Commonwealth satisfied its requirement to prove intercourse for all eleven rape charges.

From Appellant's viewpoint, it stands to reason that if the jury believed Appellant had intercourse with H.B. when she was fourteen, the jury may have been more easily convinced that Appellant had raped H.B. as a young girl. This prejudicial effect does not make the evidence inadmissible. Under KRE 403, the trial court must weigh the prejudicial effect against the probative value of the evidence sought to be admitted. *See Commonwealth v. English, Ky.*, 993 S.W.2d 941 (1999). Here, the paternity test was ostensibly significant for an incest determination, and therefore valuable as a probative vehicle. Any prejudice that occurred as a byproduct was minimal, especially in light of other compelling evidence. It was therefore not error to admit the results of the paternity test as evidence.

Appellant relies on a palpable error standard of review for this unpreserved issue. RCr 10.26 provides that an alleged error improperly preserved for appellate review may be revisited upon a demonstration that it resulted in manifest injustice. Palpable error affects the substantial rights of a party and, under *Partin v. Commonwealth,* Ky., 918 S.W.2d 219, 224 (1996), relief will only be granted if the reviewing court concludes "that a substantial possibility exists that the result would have been different" absent the error.

In light of the abundant evidence against Appellant, even if we were to find that the DNA paternity test evidence was potentially prejudicial, we do not believe the outcome of Appellant's trial would have been any different with a lower prior probability. We are also confident that even if the paternity test had not been admitted into evidence, Appellant would still have been convicted of all eleven counts of rape. At trial, H.B. testified that Appellant began sexually abusing her on December 4, 1982, while H.B.'s mother was in the hospital giving birth to H.B.'s younger twin sisters. According to her testimony, the first instance occurred when Appellant woke H.B. from her sleep and gave her a soft drink with alcohol in it. He then fondled H.B. and engaged in sexual intercourse and oral sex with her. The sexual abuse and sexual intercourse occurred several times over the ensuing three days that H.B.'s mother was in the hospital.

H.B. testified that between December 1982 and April 1983 there were at least five more instances of sexual intercourse. She also testified that during the spring and summer of 1984, there were at least three additional instances of sexual intercourse. H.B. further described specific places where intercourse took place, referred to dates, and even told of a certain dress that she had discarded because Appellant often sexually abused her when she wore it. She indicated that Appellant subjected her to sexual contact many times throughout her childhood, and that from September 1986 through the spring of 1987, sexual intercourse continued. H.B. became pregnant in April 1987, and testified that Appellant was the father of the child. Though supported by corroborating testimony from social worker Linda Duncan and H.B.'s mother, H.B.'s testimony standing alone was sufficient to sustain Appellant's conviction. *Dyer v. Commonwealth,* Ky., 816 S.W.2d 647 (1991), *overruled on other grounds* in *Baker v. Commonwealth,* Ky., 973 S.W.2d 54 (1998); *Robinson v. Commonwealth,* Ky., 459 S.W.2d 147 (1970).

Having determined that admission of the paternity test results did not offend Appellant's due process guarantee of presumption of innocence, and that there was sufficient evidence even without the test results to support Appellant's numerous rape convictions, we conclude that no error, palpable or other, occurred at trial.

III. CLOSING ARGUMENT

[11] Appellant's third and final argument is that the Commonwealth, during closing argument, improperly injected the civil paternity standard into this case and misled the jury on the real effect of the DNA evidence. Appellant readily concedes this issue was not preserved.

The prosecutor stated in his closing argument,

> It's only in recent years that we have the benefit of DNA. There were paternity and blood tests but nothing as specific as DNA in 1988. This is the same process . . . DNA process as used today, as he told you, Dr. DeGuglielmo told you, it's used for freeing people and putting people on death row and to establish paternity. And in those cases paternity is established by a ratio of just one hundred to one. If they come up with that, one hundred to one match, then they say "X" is the father of so-and-so. Or anything that works out to a ninety percent probability then that's conclusive for a DNA process. This is well beyond that. This is almost four times that; three hundred and eighty-eight. And I think the probability was 98.74, I believe.

To warrant reversal, misconduct of the prosecutor must be so serious as to render the entire trial fundamentally unfair. *Stopher v. Commonwealth,* Ky., 57 S.W.3d 787, 805 (2001), *cert. denied,* 535 U.S. 1059, 122 S.Ct. 1921, 152 L.Ed.2d 829 (2002). Moreover, counsel is allowed great latitude in closing argument. *Slaughter v. Commonwealth,* Ky., 744 S.W.2d 407 (1987), *cert. denied,* 490 U.S. 1113, 109 S.Ct. 3174, 104 L.Ed.2d 1036 (1989). Opening and closing statements are not evidence and prosecutors have wide latitude during both. *Stopher, supra,* at 805–806. Here, the prosecutor did not "improperly inject the civil paternity standard into this case." Rather, he referred to the testimony of Mr. DeGuglielmo, who did, in fact, state, "In most jurisdictions paternity tests look for what we call a paternity index of a hundred or greater." The prosecutor made no mention of Kentucky statutory law in his closing

argument, and we attribute his misstatement of numerical data to mistake, not misconduct. We find no merit in Appellant's argument as to the closing argument.

The judgment and sentence of the Johnson Circuit Court are affirmed.

■ LAMBERT, C.J., GRAVES, JOHNSTONE, KELLER and WINTERSHEIMER, J.J. concur.

■ COOPER, J., concurs in a separate opinion.

■ STUMBO, J., dissents from the majority opinion in regard to the failure of the Circuit Judge to recuse and joins the concurring opinion filed by JUSTICE COOPER as to the statistical analysis.

■ COOPER, JUSTICE, Concurring.

I do not agree that a person can be convicted of an offense involving sexual intercourse on the basis of statistics that assume a 50% probability of guilt solely because he has been accused. There might be justification for factoring in the 50% probability when the paternity test is used to identify a child's father in a civil action for the purpose of establishing a child support obligation. KRS 406.011; KRS 406.111. In most such cases, the alleged father admits having had sexual intercourse with the child's mother but denies that the act resulted in conception. But there is no justification for factoring in a 50% probability of guilt in a criminal case when the alleged father denies having had sexual intercourse with the child's mother and the act of sexual intercourse is the crime of which he is accused. Use of a statistic that assigns a 50% probability of guilt based solely on the existence of an accusation denigrates the presumption of innocence by shifting the burden of proof from the prosecution to the defense.

However, I agree that the error was rendered harmless when the jury acquitted Appellant of the only charge that was premised upon the victim's pregnancy, *i.e.,* incest. If the jurors believed Appellant was the father of H.B.'s child, they would have necessarily found him guilty of incest. For whatever reason, they believed H.B.'s accusations that Appellant subjected her to sexual intercourse, deviate sexual intercourse, and sexual abuse prior to her twelfth birthday, but disbelieved her accusation that he subjected her to sexual intercourse again at age fourteen—despite evidence of a 99.74% probability that he was the father of her child. Perhaps the jurors, too, had misgivings about converting an accusation into a 50% probability of guilt.

■ STUMBO, J., joins this concurring opinion.

NOTES

1. In some cases blood tests were an important source of forensic evidence. See, e.g., State v. Rolls 389 A.2d 824. (Me. 1978). Sophisticated genetic testing has come to be accepted as considerably more useful than blood tests. Their use does not, however, eliminate the need for reliable statistical bases of relative frequency in the subject populations. (See the discussion of *Daubert* and its progeny in Chapter 7). A particularly dramatic use of genetic tracing occurred in Argentina, where genetic tracing was used to locate children of murdered parents and to prove they were closely related to their still living grandparents. See Film by WGBH Boston, Nova, The Search for the Disappeared (1986). Cf. United States v. Massey, 594 F.2d 676 (8th Cir. 1979) (hair on ski mask used to identify defendant; error in reference to mathematical probabilities of guilt).

2. In People v. Collins, 438 P.2d 33, 36 A.L.R.3rd 1176 (Cal. 1968), eyewitnesses testified that a Caucasian woman with blond hair and a ponytail ran from the scene of the assault and entered a yellow automobile driven by a male Negro with a mustache and beard. At the trial of a couple fitting this description, a college mathematics instructor testified to the "product rule" of elementary probability theory: the probability of the joint occurrence of a number of mutually independent events equals the product of their individual probabilities. The witness was asked to assume the following individual probabilities:

Yellow automobile	$1/10$
Man with mustache	$1/4$
Girl with ponytail	$1/10$
Girl with blond hair	$1/3$
Negro man with beard	$1/10$
Interracial couple in car	$1/1000$

Applying the product rule to the assumed values, the prosecutor concluded that the chance that a couple chosen at random would possess all the incriminating characteristics was one in twelve million. The jury convicted; but the Supreme Court of California reversed, holding that the evidence concerning probability theory had been improperly admitted.

The court voiced several objections: on its own terms the theory had been misapplied; the assumed probabilities lacked any evidential foundation; the six characteristics were not shown to be independent; and the whole procedure tended to embarrass jurors and opposing counsel unused to thinking in mathematical terms. See M.O. Finkelstein, Quantitative Methods in Law, 78 ff. (1978), approving the appellate result but not its entire reasoning and indicating how quantitative analysis combined with intuitive assessment of probabilities may be useful if a Bayesian technique is utilized. See also Fairley and Mosteller, A Conversation About Collins, 41 U. Chi. L. Rev. 242 (1974) (includes a discussion on whether dependent or independent probabilities were the basis for the prosecutor's arguments in Collins and offers an interpretation more favorable to the prosecution than usually given); Charrow and Smith, A Conversation About "A Conversation About Collins", 64 Geo.L.J. 669 (1976); Brown & Kelly, Playing the Percentages and the Law of Evidence, 1970 Law Forum 23, 41–46 (a balanced analysis concluding that probability statements in litigation will be infrequent but should not be foreclosed). But see Braun, Quantitative Analysis and the Law: Probability Theory as a Tool of Evidence in Criminal Trials, 1982 Utah L.Rev. 41 (rejecting use of Bayesian technique but advocating increased use of frequency and classical probability theory in criminal trials); Eggleston, The Probability Debate, 1980 Crim.L.Rev. 678 (defending use of classical probability theory).

3. Compare with Collins, Rowan v. Owens, 752 F.2d 1186 (7th Cir. 1984), (Posner, J.), on claim that no reasonable jury could have found voluntary manslaughter:

> True, there is less than complete certainty that Rowan was the assailant. He points out that each piece of evidence—the fingerprint, the comb, the hair, the car keys—that placed him in Miss Ayer's home is inconclusive, but he ignores the fact that the probability that all four pieces of evidence falsely point to him as the assailant is very small. Suppose that the probability that the fingerprint was not his (or, as he argues, was put on the can months earlier when he was

> shopping in the store where it was bought) is .01 (a generous estimate); the probability the comb was not his is .50; the probability that the hair was not his is .30; and the probability that someone else discarded Miss Ayer's car keys near his mother's house is .05. Then, assuming these probabilities are independent of each other, the probability that Rowan was not in Miss Ayer's house at a time near when she died is only .000075 (.01 × .50 × .30 × .05), which is less than one-hundredth of one percent. (This is the "product rule," lucidly discussed in McCormick's Handbook of the Law of Evidence 492–99 (2d ed., Cleary, 1972).) True, it would not follow that he had killed her; someone else might have entered the house before or after him, and done the deed. But that is exceedingly unlikely (especially in light of a statement he made to the police) . . . and does not cast substantial doubt on his guilt. And true, the numbers in our example are arbitrary; but they bring out the point that it is wrong to view items of evidence in isolation when they point in the same direction. The jury was not irrational. . . .

Id. at 1188. Are *Rowan v. Owens* and *People v. Collins* distinguishable? How? Does judicial notice, stereotyping or other bases for evidential hypotheses or the roles of attorney, jury, judge or appellate court affect your answer? Is there a different standard before or after trial? See Backes v. Valspar Corp., 783 F.2d 77 (7th Cir. 1986).

4. Compare with People v. Collins and Rowan v. Owens, Branion v. Gramly, 855 F.2d 1256, 1263–66 (7th Cir. 1988), (Easterbrook, J.) (footnotes omitted), on murder defendant's argument in habeas corpus action using multiplication rule of probability (the same rule mentioned in Collins and Rowan) to show that defendant's commission of crime was so mathematically miniscule as to fall very far short of the proof beyond a reasonable doubt:

> Even if this were so, Branion insists, it would still be exceedingly improbable that he could have killed his spouse-so unlikely that no sane person could find guilt beyond a reasonable doubt. Branion starts from the ranges of time offered for driving (6 to 12 minutes) and forming bruises (15 to 30 minutes) and submits that the likely times were in the middle of those ranges. A time at the low end of each range-which Branion thinks necessary to make the crime possible-was correspondingly unlikely: a probability of "less than 0.01" in each case, Branion says. The probability that the low end of each range would occur back-to-back is 0.01 × 0.01 = 0.0001. Proof beyond a reasonable doubt means a probability much greater than the 0.51 more-likely-than-not standard;[5] a probability of 0.0001 that the accused did it is so far away from "beyond a reasonable doubt" that the federal court must issue the writ. We attach, as an appendix, Branion's full argument (omitting footnotes).
>
> We shall not become mired in the debate, set off by *People v. Collins,* 68 Cal.2d 319, 68 Cal.Rptr. 497, 438 P.2d 33 (1968), about the proper use of statistical inference in criminal litigation. Statistical methods, properly employed, have substantial value. Much of the evidence we think of as most reliable is just a compendium of statistical inferences. Take fingerprints. The first serious analysis of fingerprints was conducted by Sir Francis Galton, one of the pioneering statisticians, and his demonstration that fingerprints are unique depends entirely on statistical methods. See Galton, **Finger Prints** (1892). See also Stephen M. Stigler, **The History of Statistics: The Measurement of Uncertainty before 1900** 297–98 (1986). Proof based on genetic markers (critical in rape and paternity litigation) is useful though altogether statistical, *United States v. Green,* 680 F.2d 520, 523 (7th Cir.1982).

So too evidence that, for example, the defendant's hair matched hair found at the scene of the crime. *United States ex rel. DiGiacomo v. Franzen,* 680 F.2d 515, 517–19 (7th Cir.1982). None of these techniques leads to inaccurate verdicts or calls into question the ability of the jury to make an independent decision. Nothing about the nature of litigation in general, or the criminal process in particular, makes anathema of additional information, whether or not that knowledge has numbers attached. After all, even eyewitnesses are testifying only to probabilities (though they obscure the methods by which they generate those probabilities)-often rather lower probabilities than statistical work insists on.

The lesson of *Collins* is not that statistical methods are suspect but that people must be sure of what they are looking for, and how they can prove it, before they start fooling with algebra. The crime had been committed by a blonde woman with a ponytail and a bearded black man with a mustache, driving a yellow car. The defendants had these characteristics. An "expert" determined the probability that any particular person is black, blonde, bearded, etc., and multiplied these, coming up with the probability of one in 12 million that any randomly selected persons would have matched the characteristics of the perpetrators. That, the prosecution maintained, showed that the defendants were the culprits: how improbable that there should be two such couples. But all these figures showed is that the defendants had *not* been randomly selected! The state scrounged up two persons who matched the description of the offenders; the expert "proved" that if the police had arrested people at random they would not have nabbed two such persons, but not that the persons actually arrested had anything to do with the offense. The figures did not even show that such couples are scarce; *every* person has some distinguishing, uncommon characteristics, and the likelihood of their occurrence can be multiplied to yield some very small number. Any two numbers less than one, when multiplied, give a still smaller number. So it is easy to provide the kind of "proof" in *Collins* for every person and crime, without doing anything to help figure out whether the state caught the offender. This error should put us in mind of an example suggested by Condorcet: a lottery may have a million possible number combinations, so when the proprietor of the lottery announces that the winning combination is such-and-such, the probability that this is indeed the winning combination is one in a million. Conclusion: the proprietor is lying. See Isaac Todhunter, **A History of the Mathematical Theory of Probability from the Time of Pascal to That of Laplace** 400 (1865).

Every event, if specified in detail, is extremely improbable; indeed, with *enough* detail it is unique in the history of the universe. It is always possible to take some probabilities, small to start with, and multiply them for effect. In order to avoid the errors produced by mindless multiplication, the statistician must specify with care what we should expect to find if the event in which we are interested has occurred, and what we should expect to find if it has not. Next we must develop criteria that might differentiate the one from the other. Only then can we begin to assess probabilities. This can be a daunting task. See *Mister v. Illinois Central Gulf R.R.,* 832 F.2d 1427 (7th Cir.1987). It is not, however, an impossible task.

Branion's lawyers did not attempt it. They simply multiplied two small numbers to get a smaller one, without describing why these were plausible

numbers or why we ought to multiply them. Imagine a defendant seeking a writ of habeas corpus with this argument: "Twenty witnesses testified for me, and although the probability that any one of them was lying may have been 0.9, the probability that every one of them was lying was $(0.9)^{20}$, or 0.12, so I must be innocent." Such a maneuver, like the one in *Collins,* assumes that the events are independent, when they are not. This is not precisely the error committed here, but it is close. The first task is to specify the minimum time Branion *needed,* not the minimum possible time. The jury could have found that 30 minutes lapsed between Branion's leaving the Hospital and his call to the police. We therefore should like to know the probability that the combination of travel and murder times came to 30 minutes or less; Branion has offered only his view of the probability that the time came to 21 minutes or less. He produced even this figure by a method that is proper only if the probability of the 6-minute drive and the 15-minute bruise are *independent* events. Yet on the state's hypothesis of a planned murder, they are anything but independent.

That's not all. Branion assumed that the distribution of driving and bruise-forming times is Gaussian (that is, characterized by a normal bell-shaped curve centered on the mean of the distribution). He derived the probability of a six-minute drive beginning with the calculation of a mean of 9 minutes, from the average of the extreme times (6 and 12). He then added the assumption that the standard deviation is one minute, leading to the conclusion that a travel time of six minutes, three standard deviations from the mean, will happen less than one time in a hundred. Where did this mean and standard deviation come from? The range of 6 to 12 minutes is from a series of six trials in 1968. We know that a driving time of 6 minutes was achieved at least once in six runs, not (as Branion's calculation implies) once in a hundred. For all this record reveals, the six trials came out with times of 6, 6, 7, 7, 8, and 12 minutes. A calculation based on a mean driving time of nine minutes, with a standard deviation of one minute, would produce a bizarre conclusion. Nothing suggests a Gaussian distribution or the absence of skewness. As for the pathologist's range of 15 to 30 minutes for bruise formation: this was a number from the air, and we have no idea what the mean time or standard deviation might be.

That's *still* not all. Even if the time sequences are independent, even if we are interested in the probability that the driving plus choking time is 21 minutes or less, even if the distributions are Gaussian, the probability is very sensitive to the assumed standard deviation. On Branion's assumptions, the probability is 0.1% rather than 0.01% as Branion believes; on more plausible assumptions, the probability is 10%. The proof appears in the margin.[7] Since this probability reflects a series of assumptions generally favorable to Branion (though implausible individually and collectively), the statistical argument that the jury was *compelled* to find him innocent collapses.

5. In their 1996 paper, United States v. Shonubi, and the Use of Statistics in Court, Johan Bring of Uppsala University, Sweden and Colin Aitken of the University of Edinburgh, write:

Statistical theory can also be helpful in the determination of the combined value of several pieces of evidence. The value of several pieces of evidence is combined by use of the odds version of Bayes theorem. The basic form in the context of our discussion is

$$\frac{P(H_g e)}{P(H_i e)} = \frac{P(eH_g)}{P(eH_i)} * \frac{P(H_g)}{P(H_i)}$$

> The probabilities of guilt (g) and innocence (i) prior to the presentation of evidence e are denoted $P(H_g)$ and $P(H_i)$ and known as prior probabilities. Their ratio is known as the prior odds in favour of guilt. The left hand side of the equation is the posterior odds for guilt, i.e. odds in favour of guilt after, or posterior to the presentation of the evidence e. When new evidence, f say, is presented this posterior odds serves as the prior odds for the new piece of evidence. . . . Generalisation to more than two pieces of evidence follows in an intuitively straightforward manner. Schum [Evidential Foundations of Probabilistic Reasoning] (1994) gives a thorough analysis of how to apply Bayes theorem in different situations and for different kinds of evidence. Thus, Bayes theorem can be seen as a formal method for continuously updating our beliefs about a person's guilt. Note here the use of probability as a measure of the strength of personal belief in a hypothesis. The use of the Bayesian framework in the law has been advocated for a long time (Lempert, [Modelling Relevance, 89 Mich. L. Rev. 1021] 1977). However, it has not yet gained general acceptance in the courtrooms. It remains to be seen if this is because of practical problems which are currently insurmountable or perhaps because of a lack of education. A good introductory discussion of the application of Bayes theorem in a court case can be found in the interesting discussion in Allen et al. [Probability and Proof in State v. Skipper, 35 Jurimetrics J. 277] (1995). Another useful source for the uses and limitations of Bayesian ideas is Tillers and Green, [Probability and Inferences in the Law of Evidence: The Use and Limits of Bayesianism] (1988).

Id. at 5–6. The authors conclude that the technique used in *Shonubi* was essentially intuitive rather than statistical, though statistics and a "semi-Bayesian approach" were relied upon. See generally S.E. Fienberg and M.O. Finkelstein, Bayesian Statistics and the Law, 130–146, in J.M. Bernardo, J.O. Berger, A.P. David & A.F.M. Smith, Bayesian Statistics (1996), for another formulae for application of Bayesian analysis.

6. Students who are interested in the mathematical analysis will find extensive bibliographical references to the use of the Bayes and other formulae to aid triers in assessing statistical evidence in Kaye, The Laws of Probability and the Law of the Land, 47 U. Chi. L. Rev. 34 (1979). The Table of Posterior Probability, below, is from M.O. Finkelstein, Quantitative Methods in Law, 90 (1978); the table does not, of course, take account of such attenuation of posterior probabilities that will be assigned subjectively by the trier because of belief in such factors as poor statistical bases, mistakes of testing or other credibility problems with experts, or of police misconduct.

Finkelstein and Fairley, A Bayesian Approach to Identification Evidence, 83 Harv. L. Rev. 489 (1970), suggest the use of Bayes's formula to convey to the jurors the probative force of the quantitative evidence. They illustrate their proposal by a graphic example. Suppose a woman's body is found in a ditch. There is evidence that the deceased had a violent quarrel with her boyfriend the night before. He is known to have struck her on other occasions. Investigators find the murder weapon, a knife, whose handle bears a latent palm print similar to the defendant's. The information on the print is limited so that an expert can say only that such prints appear in no more than one case in a thousand. Finkelstein and Fairley believe that the jurors will be aided in accurately assessing the total probative value of the evidence if they are first shown a chart depicting, in numerical terms, how much the probability that the defendant wielded the

murder weapon is enhanced by the discovery of the prints. The chart they use is set forth below. The mathematical tool for devising such a chart is the Bayes formula. Finkelstein and Fairley suggest using the Bayesian chart as a pedagogical device, which would give the jurors some guidance in assessing the significance of the statistical evidence.

Table of Posterior Probabilities

Frequency of Characteristic in Suspect Population	Prior Probability				
	.01	.1	.25	.50	.75
.50	.019	.181	.400	.666	.857
.25	.038	.307	.571	.800	.923
.1	.091	.526	.769	.909	.967
.01	.502	.917	.970	.990	.996
.001	.909	.991	.997	.999	.999

Among those critical of the above approach relying on mathematical analysis to assist in evaluating probabilities are Tribe, Trial by Mathematics: Precision and Ritual in Legal Process, 84 Harv. L. Rev. 1329 (1971); Brilmayer & Kornhauser, Review: Quantitative Methods and Legal Decisions, 46 U. Chi. L. Rev. 116 (1978). Many are merely dubious. See, e.g., Kaplan, Decision Theory and the Fact Finding Process, 20 Stan. L. Rev. 1065, 1083 ff. (1968).

Even such a strong proponent of proper use of statistics and mathematical analysis as Professor Kaye warns of dangers in the Admissibility of "Probability Evidence" in Criminal Trials—Part I, 26 Jurimetrics J. 343 (1986), describing instances where dubious probability evidence was used. In Part II of this article, 27 Id. 160 (1987), he maintains:

> (1) that reasonable estimates of pertinent population proportions should be admissible, (2) that argument on the part of counsel as to corresponding estimates of the probability of a coincidental misidentification should be permitted, and (3) that neither expert opinions as to whether the defendant left the trace evidence nor displays of the posterior probability that defendant did so should be admissible.

Minnesota, following Professor Tribe's warning against reliance on statistical proof, in Minnesota v. Boyd, 331 N.W.2d 480 (Minn. 1983), held blood test results to show the defendant fathered the child were allowed, but the expert was only permitted to say that "the test results [are] consistent with" the view that defendant is the father of the baby. This was a rather pallid statement compared to the expert's opinion (expressed outside the jury's presence) that "1121 unrelated men would have to be randomly selected from the general population of men before another man would be found with all the appropriate genes to have fathered the child in question."

7. The "Paradox of the Gatecrasher", originally posed by Jonathan Cohen, an English philosopher of science, presents interesting problems in applying probability theory to the process of legal proof:

> Consider a case in which it is common ground that 499 people paid for admission to a rodeo, and that 1,000 are counted on the seats, of whom A is one. Suppose no tickets were issued and there can be no testimony as to whether A paid for admission or climbed over the fence. So there is a .501 probability, on the admitted facts, that he did not pay. The conventionally accepted theory of

> probability would apparently imply that in such circumstances the rodeo organizers are entitled to judgment against A for the admission money, since the balance of the probability would lie in their favor. But it seems manifestly unjust that A should lose when there is an agreed probability of as high as .499 that he in fact paid for admission.
>
> Indeed, if the organizers were really entitled to judgment against A, they would be entitled to judgment against each person in the same position as A. So they might conceivably be entitled to recover 1,000 admission prices when it was admitted that 499 had actually been paid. The absurd injustice of this suffices to show that there is something wrong somewhere. But where?

Kaye, The Paradox of the Gatecrasher and Other Stories, 1979 Ariz. St. L.J. 101, quoting the paradox almost verbatim from L. Cohen: The Probable and the Provable 75 (1977). For the two authors' particular resolutions of the paradox, see Kaye, supra, at 104–108, Cohen, supra, at 270. See also the response of Cohen, Subjective Probability and the Paradox of the Gatecrasher, 1981 Ariz. L.J. 627, and Professor Kaye's surrebuttal, Paradoxes, Gedanken Experiments and the Burden of Proof: A Response to Dr. Cohen's Reply. Id. at 635. See generally, Eggleston, The Probability Debate, 1980 Crim. L. Rev. 678, 681 ("[I]f one accepts that the figures postulated make it more probable then not that a person chosen at random from the group of spectators did not pay, I do not see why that evidence would not be admissible, and being admitted make a prima facie case."); Williams, The Mathematics of Proof—I, 1979 Crim. L. Rev. 297, 304 (Even if only fifty spectators paid for their seats, "[i]t would still be wrong to give judgment against A."). To what extent does an unimaginably high a priori probability deflect inquiry from the special facts of the case at hand? Compare the effect of statutory presumptions; if 98% of all heroin in the United States is illegally imported, should the factfinder be allowed to infer importation from the single fact of possession? See discussion of constitutionality of presumptions, in Chapter 8, infra.

8. A great deal of basic research on how people think, remember, reason and come to conclusions has been followed with fascination by lawyers, students, and judges, who have tended to ignore intradisciplinary debates such as those of the cognitive and behaviorist psychologists. See Introduction: The Nature of Testimonial Proof, Chapter 4, infra. Some of that research has been applied to such matters as Jury Instructions. See, e.g., M.F. Kaplan, The Impact of Social Psychology on Procedural Justice 44 (1986). Other data have been used in such matters as determining the proper scope of expert testimony in assisting the trier to assess eyewitness testimony, id. at 109, or in jury selection. Id. at 167. Some of this material finds its way into practical guides for lawyers. See, e.g., D.E. Vinson, Jury Trials: The Psychology of Winning Strategy, xiii (1986):

> It has been said that there are key moments in every trial. These are the voir dire, the opening statement, the presentation of certain critical visual communications, and the testimony of key witnesses. Critical issues for jurors in any trial are relatively small numbers of anchoring ideas which they use to form their own understanding of a case. These ideas can be legal points, but they are often psychological or emotional issues which may not be immediately evident from a legal standpoint. An important part of psychological strategy in any trial is aimed at uncovering these key issues.

In the courtroom, the emotional and stereotypical feelings of triers, witnesses and lawyers need to be recognized. See, e.g., Goleman, "Useful" Modes of Thinking Contribute to the Power of Prejudice; Studies of strong stereotypes also point to the primacy of feelings over rational thought, N.Y. Times, p. c. 1 (May 12, 1987) (cognitive role of categorizing and stereotyping essential to living). They also affect judgments in setting

policy and risk analysis in regulation and product development. See, e.g., Slovic, Perception of Risk, 236 Science 280 (April 1987):

> The elusive and hard to manage qualities of today's hazards have forced the creation of a new intellectual discipline called risk assessment, designed to aid in identifying, characterizing and quantifying risk. . . . Whereas technologically sophisticated analysts employ side assessment to evaluate hazards, the majority of citizens rely on intuitive risk judgments, typically called 'risk perceptions'. For these people experience with hazards tends to come from the news media, which rather thoroughly document mishaps and threats occurring throughout the world. The dominant perception for most Americans (and one that contrasts sharply with the views of professional risk assessors) is that they face more risk today than in the past and that future risks will be even greater than today's.

See also specific perceptions on toxic substances and cancer under judicial notice, Chapter 9, infra.

To the same effect is work by Professor Dan Kahan (et. al—Kahan has been a collaborator of Paul Slovic). See, e.g., Kahan, Hoffman, Braman, Whose Eyes are You Going to Believe? Scott v. Harris and the Perils of Cognitive Illiberalism, 122 Harv. L. Rev. 837, 838 (2009):

> This Article accepts the unusual invitation to "see for yourself" issued by the Supreme Court in Scott v. Harris, 127 S. Ct. 1769 (2007). Scott held that a police officer did not violate the Fourth Amendment when he deliberately rammed his car into that of a fleeing motorist who refused to pull over for speeding and instead sought to evade the police in a high-speed chase. The majority did not attempt to rebut the arguments of the single Justice who disagreed with its conclusion that "no reasonable juror" could find that the fleeing driver did not pose a deadly risk to the public. Instead, the Court uploaded to its website a video of the chase, filmed from inside the pursuing police cruisers, and invited members of the public to make up their own minds after viewing it. We showed the video to a diverse sample of 1350 Americans. Overall, a majority agreed with the Court's resolution of the key issues, but within the sample there were sharp differences of opinion along cultural, ideological, and other lines. We attribute these divisions to the psychological disposition of individuals to resolve disputed facts in a manner supportive of their group identities. The Article also addresses the normative significance of these findings. The result in the case, we argue, might be defensible, but the Court's reasoning was not. Its insistence that there was only one "reasonable" view of the facts itself reflected a form of bias—cognitive illiberalism—that consists in the failure to recognize the connection between perceptions of societal risk and contested visions of the ideal society. When courts fail to take steps to counteract that bias, they needlessly invest the law with culturally partisan overtones that detract from the law's legitimacy.

Also deeply pertinent here is exciting research on the way in which the *confirmation bias*, a tendency apparently deeply imbued in human cognition, selectively to screen out evidence that is inconsistent with previously held beliefs and credit instead to evidence that confirms those beliefs. See Daniel Kahneman, Thinking, Fast and Slow 81 (2011) ("The operations of associative memory contribute to a general *confirmation bias*. When asked, 'Is Sam friendly?' different instances of Sam's behavior will come to mind than would if you had been asked 'Is Sam unfriendly?' A deliberate search for confirming evidence, known as *positive test strategy*, is also how System 2 tests a hypothesis.

Contrary to the rules of philosophers of science, who advise testing hypotheses by trying to refute them, people (and scientists, quite often) seek data that are likely to be compatible with the beliefs they currently hold. The confirmatory bias of System 1 favors uncritical acceptance of suggestions and exaggeration of the likelihood of extreme and improbable events." (emphases in original)); H. Mercier and D. Sperber, Why do humans reason? Arguments for an argumentative theory, 34 Behavioral and Brain Sciences 57 (2011).

How will such perceptions, stereotypes, prejudices and psychological and social psychological information be obtained by the lawyer? How will it affect what happens in the courtroom? How can or should the rules of court procedure and evidence be affected by this information? See, e.g., Frederick Schauer, Profiles, Probabilities, and Stereotypes (2003); Gold, Causation in Toxic Torts: Burdens of Proof, Standards of Persuasion, and Statistical Evidence, 96 Yale L.J. 376 (1986); National Research Council, Proceedings of Conference on Valuing Health Risks, Costs, and Benefits for Environmental Policy Making (June 23–24, 1987) and particularly M.J. Machine, The Economic Theory of Choice under Uncertainty at 30 ("alternative means of representing or 'framing' probabilistically equivalent choice problems will lead to systematic differences in choice"). The problems of risk analysis for substantive purposes are analogous. See, e.g., Stephen Breyer, Breaking the Vicious Circle: Toward Effective Risk Management (1993). See also introduction to witnesses, Chapter 4, infra. Systematic errors in assessing probabilistic information and in misleading heuristics throw serious doubt on the ability of triers to formulate probabilities correctly. Id. Are these conclusions, reached largely on the basis of laboratory studies, valid in the courtroom?

Does "jury science" utilized to advise litigants on how jurors of certain backgrounds may react to a case and how the evidence and arguments can deal with specific jurors offer help in rationalizing trials? See, e.g., Jeremy W. Barber, The Jury is Still Out: The Role of Jury Science in the Modern American Courtroom, 31 Am. Crim. L. Rev. 1225 (1994) (suggesting, among other devices for dealing with this matter, equal access to data, state funding for indigent defendants, abolishing peremptory challenges, and conducting the voir dire only by the court). See, e.g., the kinds of research available from commercial firms, Donald E. Vinson (of Decision Quest, Inc.), The O.J. Simpson Trial: A Lesson in Persuasion (1996) (referring not only to selection of jurors and persuasion in court, but to a calculated pretrial effort to deal with the media and, through it, potential jurors). Ethnic and gender backgrounds had an impact on reaction to the O.J. Simpson verdict. Post-verdict surveys showed 42% of "blacks" thought Simpson not guilty, compared to 16% of whites. Surprisingly, 23% of "black" males thought him guilty, but only 7% of "black" females were of this opinion. In view of this analysis is this a case fairly characterized as demonstrating jury nullification? See Jack B. Weinstein, Considering Jury "Nullification": When May and Should a Jury Reject The Law to Do Justice, 30 Am. Crim. L. Rev. 239 (1993).

Should behavioral research be conducted to identify conditions that might cause a trier of fact to misinterpret such evidence as DNA profiling and how well various ways of presenting expert evidence on DNA can reduce such misunderstandings? How might such research affect jury selection as well as methods of presenting evidence?

To what extent can these problems be dealt with by the voir dire in jury selection or by instruction by the court. See Mansfield, Jury Notice, 74 Georgetown L.J. 395 (1985). To what extent are all of the lawyer's tactical decisions at the trial affected by such considerations. See D.E. Vinson, Jury Trials: The Psychology of Winning Strategy, xiii (1986). Critical of the Vinson approach is Gold, Psychological Manipulation in the Courtroom, 66 Neb. L. Rev. 562 (1987); 65 N.C. L. Rev. 481 (1987).

9. Whether or not various mathematical models and statistical tools are explicitly brought to the attention of jurors through experts, arguments of counsel or judicial notice, an attempt to understand them has an important bearing on the practitioner's approach to preparation for trial and trial itself. Moreover, since the lawyer is often a factfinder himself in nonlitigation settings such as advising a client whether there is sufficient risk of harm to consumer or environment to warrant production of a product or whether to report a matter to the S.E.C. or police or change employment techniques to avoid discrimination litigation, he or she must attempt to understand how people arrive at decisions and how the process may be improved.

A particularly useful article is Saks & Kidd's, Human Information Processing and Adjudication: Trial by Heuristics, 15 L. & Soc'y Rev. 123 (1980) (relying on behavioral decision theory and research particularly of Professor Tversky, and extensive bibliography in the article, with emphasis on the problem of squaring individual triers' intuitive assumptions of base rates and empirical observation of such rates when they must integrate this information with case-specific information). Illustrative of how people use simplifying mental operations, called "heuristics" to reduce the complexity of information and to integrate it with other knowledge in making decisions, is the following example from Saks and Kidd at 127–29:

> The following description is of a man selected at random from a group composed of 70 lawyers and 30 engineers. "John is a 39-year-old man. He is married and has two children. He is active in local politics. The hobby that he most enjoys is rare book collecting. He is competitive, argumentative, and articulate." A large group of respondents was asked to estimate the probability that John is a lawyer rather than an engineer. Their median probability estimate was .95. Another group of respondents was asked the same question, except that they were first told that the group from which John was selected consisted of 30 lawyers and 70 engineers. The second group's median estimate of the likelihood that John is a lawyer was also .95. Information about the composition of the group from which John was selected logically should have affected the estimated probability, but it had no effect at all on the decision makers' judgment. (This problem is taken from Kahneman and Tversky, 1973 ["On the Psychology of Predictions," 80 Psychological Review 237].) Only at the extremes of the distributions, where the group approaches 100 lawyers and 0 engineers (or the converse) do the decision makers become sensitive to the information about group composition. . . .
>
> The . . . example illustrates how human decision making tends to be insensitive to base rates when case-specific information is available. Given only the group base rates—30 lawyers: 70 engineers—people rely heavily on this information to make their judgments. They correctly say the probability is .30 that the person selected is a lawyer. When descriptive case-specific information is added, they tend to ignore the numerical base rate and rely instead on the degree to which the description of John is representative of their stereotype of lawyers. Subjects base their estimate of the probability that John is a lawyer on the degree of correspondence between his description and their stereotype of lawyers as argumentative, competitive, and politically aware. Given the base-rate data in this example, it is 5.44 times as likely that John is a lawyer when the group is composed of 70 lawyers and 30 engineers than when the opposite membership distribution holds.

See also, e.g., Lempert, Modeling Relevance, 75 Mich. L. Rev. 1021 (1977); R. Nisbett & L. Ross, Human Inference (1980), reviewed by Spitzer, 9 Hofstra L. Rev. 1621 (1981);

Loftus and Beach, Human Inference and Judgment, Is the Glass Half Empty or Half Full?, 34 Stan. L. Rev. 939 (1982), reviewing R. Nisbett and R. Beach, Human Inference: Strategies and Shortcomings of Social Judgment (1980). Cullison, Probability Analysis of Judicial Fact Finding: A Preliminary Outline of the Subjective Approach, 1969 Toledo L. Rev. 538; Jackson, Probability and Mathematics in Court Fact-Finding, 31 N. Ireland Legal Q. 239 (1980) (referring to both Commonwealth and American literature).

It may well be that newer information on trier's reasoning can be utilized most effectively at this stage in our development in fact finding situations outside the courtroom. Often, however, the "factual" and "normative" decisions in such situations are mingled, making it difficult sometimes to distinguish between a scientific or managerial fact consensus and a negotiated agreement where policy such as corporate or governmental image and risks are at stake. See, e.g., Center for Public Resources, Dispute Management, A Manual of Innovative Corporate Strategies for the Avoidance and Resolution of Legal Disputes (1980); M.R. Wessel, Science and Conscience, xii-xiv (1980) ("Socioscientific disputes have a number of important special characteristics which distinguish them from older, more traditional disputes;" adversarialism leads to increased public acrimony; a "scientific consensus finding conference" might avoid such difficulties; a "rule of reason" requiring much more candor is recommended). The process may even be designed to avoid fact finding that pins the parties down to an outcome based upon assessment of real world events. See, e.g., R. Fisher & W. Ury, Getting to Yes, Negotiating Agreement Without Giving In (1980) (fact finding, except in a reference to use of "phony facts" among "tricky tactics," p. 138, is not mentioned). Compare the "give" in court fact finding permitted by the rules of burdens of proof and degree of probability required.

10. Research and writing on the theory of decision making in courts, other adjudicative bodies and rule making fora was reflected in the rich symposium published in 66 Boston University Law Review 377 (1986). The primary issue as stated by Professor Twining was "what constitutes valid cogent, and appropriate modes of reasoning about disputed questions of fact in adjudication." Id. at 391. See also the symposium contributions by Professors Green, Tillers, Allen, Lempert, Zuckerman, Friedman, Nesson, Cohn, Edwards, Shafer, Feinberg, Kaye, Brilmayer, Martin, Schervish, Shafer, Schum, Edwards, Ashford, and Nance. Gardenfas et al., Evidential Value: Philosophical Judicial and Psychological Aspects of a Theory (1983); Cohen, Confidence in Probability: Burdens of Persuasion in a World of Imperfect Knowledge, 60 N.Y.U. L. Rev. 385 (1985); Pennington and Hastie, Evidence Evaluation in Complex Decision-making, 51 J. of Personality and Social Psychology 242 (1986); Pennington and Hastie, Juror Decision-Making models: Use Generalization Gap, 89 Psychological Bulletin 246 (1981) (in their later unpublished writings the authors have developed a "story model" for juror decision making). See generally, Richard D. Friedman, Assessing Evidence, 94 Mich. L. Rev. 1810, reviewing C.G.G. Aitken, Statistics and the Evaluation of Evidence for Forensic Scientists (1995); Bernard Robertson and G.A. Vignaux, Interpreting Evidence: Evaluating Forensic Science in the Courtroom (1995); David A. Schum, Evidential Foundations of Probablistic Reasoning (1994).

In a sense, the burgeoning of theoretical discussion of the theory of proof and of inference and decisionmaking is a response to a whole host of new economic, scientific, social, philosophical and political problems placing our regulatory and judicial system under increasing strain. We expect more precision and certainty from our scientists and our courts than they can often deliver. See e.g., Jack B. Weinstein Individual Justice in Mass Tort Litigation, 115 (1995) ("We tend to exaggerate the purity of scientists and their ability to provide precise answers when needed."). Should a judicial system in a

democracy such as ours try to find the best answers to issues of fact and face up to the unreliability and lack of precision of much of our fact finding? What values favor disguising lack of certainty in fact finding, treating our triers as infallible and their judgments as if they were in fact, indubitably accurate? How can lawyers, judges and juries use new forms of evidence and more sophisticated reasoning effectively? For a detailed philosophical examination of the problem of juror competence with mathematical and empirical scientific expert evidence, see Brewer, Scientific Expert Testimony and Intellectual Due Process, 107 Yale L.J. 1535 (1998).

11. Should there be any difference in the reasoning techniques used depending on the degrees of risk involved? See Chapter 7, infra, on burdens of proof. Kaplan, Decision Theory and the Factfinding Process, 20 Stan. L. Rev. 1065, 1073–74 (1968):

> Probably the most important reason why we do not attempt to express reasonable doubt in terms of quantitative odds, however, is that in any rational system the utilities (or disutilities) that determine the necessary probability of guilt will vary with the crime for which the defendant is being tried, and indeed with the particular defendant. In a criminal trial, as in any decision process, we must consider the utilities associated with differing decisions of the particular case at issue—not just the average utilities over many disparate types of criminal cases. Thus the rational factfinder should consider the disadvantages of convicting this defendant of this crime if he is innocent as compared with those of acquitting him if he is guilty. It is obviously far less serious to society, for instance, to acquit an embezzler, who, in any event, may find it very difficult to be placed again in a position of trust, than it would be to acquit a child molester, since the latter crime is one that tends to be repeated. The utilities . . . will vary then, not only with the seriousness of the offense, but with the danger of its repetition.

Speaking of the problem of the officer in the street making the decision to stop and frisk a passerby, the Supreme Court noted, *United States v. Cortez*, 449 U.S. 411 (1981):

> The process does not deal with hard certainties, but with probabilities. Long before the law of probabilities was articulated as such, practical people formulated certain common sense conclusions about human behavior; jurors as factfinders are permitted to do the same—and so are law enforcement officers. Finally, the evidence thus collected must be seen and weighed not in terms of library analysis by scholars, but as understood by those versed in the field of law enforcement.

12. On the importance of statistical proof see, e.g., Stephen E. Feinberg, Samuel H. Krislov, Miron L. Straf, Understanding and Evaluating Statistical Evidence in Litigation, 36 Jurimetrics 1 (1995). Compare with Collins, supra, cases utilizing "trait evidence" for the purpose of identification in both civil and criminal cases. See, e.g., United States v. Massey, 594 F.2d 676 (8th Cir.1979) (a conviction for bank robbery was reversed where crucial evidence against defendant consisted of an analysis comparing hair samples found at the scene of the crime with those found in a ski mask resembling that used in commission of the crime; it was held that the prosecutors remarks suggesting the expert's analysis of the hair samples was 99.4% foolproof "confused the probability of concurrence of identifying marks with probability of mistaken identification," thus having the effect of making the uncertain seem all but proven; reversible error); State v. Carlson, 267 N.W.2d 170 (Minn.1978) (expert testimony that there was only a 1-in-800 chance that foreign pubic hairs found on victim did not come from defendant and 1-in-400 chance that head hairs found in victim's hand did not belong to defendant was improperly received since such statistical probability testimony could suggest by qualification, guilt beyond a

reasonable doubt). See also, Kaye, The Laws of Probability and the Law of the Land, 47 U. Chi. L. Rev. 34 (1979); Charrow and Smith, Upper and Lower Bounds for Probability of Guilt Based on Circumstantial Evidence, 70 J. Am. Stat. Ass'n 555 (1975) (the authors develop a mathematical model for use in determining the probability that the suspect and the perpetrator are one and the same based solely on the circumstantial evidence, i.e., matching traits, with a key assumption that the underlying events were independent or any dependence is de minimis; they suggest such independence occurs in cases involving typewriter identification, fingerprint identification, or in a scenario where a perpetrator with facial scars and a blue overcoat is seen fleeing the scene in a Chevrolet pickup); Gaudette and Keeping, An Attempt at Determining Probabilities in Human Scalp Hair Comparison, 19 J. For. Sci. 599, 605 (1974). Cf. Lincoln, Blood Group Evidence for the Defense, 20 Med. Sci. Law 239 (1980). Note the method of offering blood evidence by affidavit in California Evidence Code § 712.

See United States v. Shonubi, 103 F.3d 1085 (2d Cir. 1997), reversing 895 F.Supp. 460 (E.D.N.Y. 1995), criticized in 962 F.Supp. 370 (E.D.N.Y. 1997) on the ground that statistical evidence was not "specific evidence" required in the context of sentencing guidelines. Is this a distortion of Rules 401 and 402?

13. Many of the scientific proof avenues are limited by extrinsic policies. See the discussion in Chapter 7, infra. For example, a suspect may be ordered to give a blood sample if there is a clear indication of need and the method of intrusion into the suspect is safe and reliable. In re Abe A., 437 N.E.2d 265 (N.Y. 1982). What inference can be drawn from a suspect's refusal to cooperate? What constitutional issues are implicated? See 437 N.E.2d at 268:

> [I]n Cupp v. Murphy, 412 U.S. 291 [removal of fingernail scrapings] and in Schmerber v. California, 384 U.S. 757 [testing for alcohol in blood], the Supreme Court, while in each case excusing the absence of a warrant because of "the ready destructibility of the evidence," emphasized that the police had the requisite probable cause (Cupp v. Murphy, supra, at pp. 294–296; Schmerber v. California, supra, at pp. 770–771). . . . [W]hen the physical evidence whose possession is the raison d'etre for detaining a person cannot be altered or destroyed, as in the case of the type of blood integral to one's body (Graves v. Beto, 301 F.Supp. 264, 265, affd. 424 F.2d 524), by definition there can be no exigency to justify exemption from the warrant standard of probable cause. . . .

How would you treat an operation to obtain a bullet from defendant's body to compare its rifling marks with the bullets fired from the victim's gun in order to show that the defendant was the person the deceased fired at and therefore more probably the person who shot at the deceased?

14. The use of statistics and explicit reference to probability theory and mathematics in the courtroom has increased enormously in recent years. A number of factors explain this increased use. First, the loosening of the rules of evidence governing experts has made it easier to use statistics. Second, the substantive law is increasingly based on social and economic changes which require statistics as proof—e.g., discrimination, antitrust or carcinogen-based environmental damages cases. Third, technological developments such as computers and large available data bases make statistical proof easier. Fourth, expanding government regulation has presented factual issues and administrative staff inviting the use of statistical argument. Fifth, the more positive attitude of the legal profession and education of young lawyers favors this kind of proof.

15. While courts are reluctant to replace traditional adjudicative methods with more complex forms of mathematical analysis, intuitive appraisals of statistics frequently underlie racial discrimination cases. See, e.g., Texas Department of Community Affairs v. Burdine, 450 U.S. 248 (1981); D.C. Baldus & J.W.L. Cole, Statistical Proof of Discrimination (1979); discussion of Burdens of Proof Chapter 8, infra. See also Keyes v. School District Number 1, 413 U.S. 189 (1973) (school desegregation); Swain v. Alabama, 380 U.S. 202 (1965) (court viewed statistical evidence as showing that few African-Americans have been selected to serve on juries); United States v. Jenkins, 496 F.2d 57 (2d Cir.), cert. denied, 420 U.S. 925 (1975) (jury selection); Hawkins v. Town of Shaw, 437 F.2d 1286 (5th Cir. 1971) (municipal improvements); See also, Note, 89 Harv. L. Rev. 387 (1975). "Scientifically designed samples and polls, meeting the tests of necessity and trustworthiness, are useful adjuncts to conventional methods of proof and may contribute materially to shortening the trial of the complex case." Federal Judicial Center, Manual for Complex and Multidistrict Litigation, 2.612. See Rosado v. Wyman, 322 F.Supp. 1173, 1180–1181 (E.D.N.Y.), aff'd 437 F.2d 619 (2d Cir. 1970) (citing considerable authority):

> Such mathematical and statistical methods are well recognized by the courts as reliable and acceptable in determining adjudicative facts. [Extensive citations omitted.] It was a principal recommendation of the prestigious committee which wrote the Manual for Complex and Multidistrict Litigation that "[s]cientifically designed samples . . . meeting the tests of necessity and trustworthiness . . . [be used to] contribute materially to shortening the trial of the complex case." Manual for Complex and Multidistrict Litigation, supra, at 2.612.
>
> Statisticians can tell us with some assurance what the reliability factors and probabilities are. Only the law can decide, as a matter of procedural and substantive policy, what probabilities will be required before the courts will change the status quo by granting a remedy.

See also United States v. Twitty, 72 F.3d 228 (1st Cir. 1995) (statistics about guns retrieved by the police to show unlawful sale); South Dakota Pub. Util. Comm'n v. FERC, 643 F.2d 504 (8th Cir. 1981) (use of statistical models to determine propriety of accelerated depreciation of public utility's gas pipeline); Contemporary Mission Inc. v. Famous Music Corp., 557 F.2d 918 (2d Cir.1977) (a statistical analysis of record industry sales figures offered by the plaintiff to prove how successful its record might have been if defendant had not breached his contract); American Brands, Inc. v. R.J. Reynolds Tobacco Co., 413 F.Supp. 1352 (S.D.N.Y. 1976) (poll used in a false advertising case to determine consumer's reaction to the advertisement): United States v. Lopez, 328 F.Supp. 1077 (S.D.N.Y.1971) (probable cause to search airline passengers based on statistical "profile" of recurring characteristics in hijackers); Boucher v. Bomhoff, 495 P.2d 77 (Ala. 1972) (at issue was whether prefatory language of the constitutional referendum ballot suggested that a constitutional convention had to be held; lower court admitting the results of a survey conducted to determine if the prefatory language had a bias towards an affirmative vote was proper, concurring opinion per J. Erwin);

16. Sometimes the statistical analysis becomes the basis for what is in effect a substantive rule of law. See, for example, the two-or-three-standard deviation rule for assessing significance in a jury discrimination case. While the Court spoke of a prima facie case and shifting burdens, was it really creating a rule of substantive law that could be easily applied in *Castaneda v. Partida*, 430 U.S. 482, 497 n. 17 (1977) when it wrote:

> If the jurors were drawn randomly from the general population, then the number of Mexican-Americans in the sample could be modeled by a binomial distribution. See Finkelstein, The Application of Statistical Decision Theory to

> the Jury Discrimination Cases, 80 Harv.L.Rev. 338, 353–356 (1966). See generally P. Hoel, Introduction to Mathematical Statistics 58–61, 79–86 (4th ed. 1971); F. Mosteller, R. Rourke, & G. Thomas, Probability with Statistical Applications 130–146, 270–291 (2d ed. 1970). Given that 79.1% of the population is Mexican-American, the expected number of Mexican-Americans among the 870 persons summoned to serve as grand jurors over the 11-year period is approximately 688. The observed number is 339. Of course, in any given drawing some fluctuation from the expected number is predicted. The important point however, is that the statistical model shows that the results of a random drawing are likely to fall in the vicinity of the expected value. See F. Mosteller, R. Rourke, & G. Thomas, supra, at 270–290. The measure of the predicted fluctuations from the expected value is the standard deviation, defined for the binomial distribution as the square root of the product of the total number in the sample (here 870) times the probability of selecting a Mexican-American (0.791) times the probability of selecting a non-Mexican-American (0.209). Id., at 213. Thus, in this case the standard deviation is approximately 12. *As a general rule for such large samples, if the difference between the expected value and the observed number is greater than two or three standard deviations, then the hypothesis that the jury drawing was random would be suspect to a social scientist*. The 11-year data here reflect a difference between the expected and observed number of Mexican-Americans of approximately 29 standard deviations. A detailed calculation reveals that the likelihood that such a substantial departure from the expected value would occur by chance is less than 1 in 10.
>
> The data for the 2½-year period during which the State District Judge supervised the selection process similarly support the inference that the exclusion of Mexican-Americans did not occur by chance. Of 220 persons called to serve as grand jurors, only 100 were Mexican-Americans. The expected Mexican-American representation is approximately 174 and the standard deviation, as calculated from the binomial model, is approximately six. The discrepancy between the expected and observed values is more than 12 standard deviations. Again, a detailed calculation shows that the likelihood of drawing not more than 100 Mexican-Americans by chance is negligible, being less than 1 in 10. (Emphasis supplied; footnotes omitted.)

Compare Kaye, The Numbers Game: Statistical Inference in Discrimination Cases, 80 Mich. L. Rev. 833, 840 (1984), criticizing two standard deviation rule as requiring higher than a more probable than not standard, with particular objection to the application in Hazelwood School District v. United States, 433 U.S. 299 (1977). See also Kaye, Is Proof of Statistical Significance Relevant, 61 Washington L. Rev. 1333 (1986).

Proper use of statistical evidence requires extensive early planning, often with the assistance of the court to obtain data bases both sides can use and to narrow differences among the experts. See, e.g., Trout v. Hidalgo, 517 F.Supp. 873, 877 n. 4 (D.C. Cir. 1981):

> The data used by both parties' experts for statistical analysis consisted of a computer tape and a computer printout furnished to plaintiffs by defendants in response to an interrogatory. The tape included eighteen recent job actions taken with respect to each employee from 1970 to 1979, as well as the employee's age, sex, date of entry in federal service, date of hire by, and departure from, NARDAC, and the prior employing agency. The printout included age, sex, educational level, date of entry in federal service, date of hire by NAVCOSSACT, and all job actions between 1972 and 1977. These data, from

> which all subsequent analyses were derived, were first requested by plaintiffs on May 9, 1980, five weeks before the trial began. Some of the deficiencies in the parties' statistical analysis can be traced directly to certain gaps in these two sources of data. Had either party focused its attention earlier on the critical role statistical analysis would play in the proof of this case, it might have been possible to obtain and analyze the personnel records themselves as a basis for more accurate determinations.

7. NEGATIVE INFERENCES BASED ON DISBELIEF OF TESTIMONY

The trier of fact may disbelieve the testimony of a witness even though that testimony is uncontradicted. Does the rejection of the witness's testimony warrant a negative inference, that the opposite of what he says is true? Thus, if the defendant testifies that he has paid a debt and he is not believed, should the jury—on this testimony alone—be permitted to conclude that he has not paid the debt?

A philosopher might approach this question by asking whether a juror could believe some proposition to be true, but disbelieve a particular witness's claim to know that it was true. For example, the jury might believe that the witness was drunk when standing at the intersection where the accident occurred, and thus disbelieve the witness's testimony "I know that the light was green when the truck hit the car," but they could still believe it true that the light was green. Such a juror, the philosopher might conclude from this example, is rationally coherent, and thus this is one illustration of how disbelieving a person's testimony that a proposition is true does *not* always warrant the conclusion that the proposition is false.

Appellate courts have generally announced the rule that disbelief of testimony is not the equivalent of proof of facts contrary to that testimony—and so they seem to endorse the same view that our exemplary philosopher reasoned her way to in the example above. E.g., Hudiburgh v. Palvic, 274 S.W.2d 94, 99 (Tex. Civ. App. 1954); Maniscalco v. Director, 97 N.E.2d 639, 642 (Mass. 1951) (review of an administrative decision). But see Duffy v. National Janitorial Services, Inc., 240 A.2d 527 (Pa. 1968). In *Pariso v. Towse*, 45 F.2d 962, 964 (2d Cir. 1930), Judge Hand also recognized the rule that disbelief of testimony is not the equivalent of proof of facts contrary to that testimony: "Upon such an issue as that at bar it might indeed be possible to argue that the owner's denial could be used in positive support of his consent. He has personal acquaintance with the fact, and the jury is certainly free to find affirmatively that his denial is untrue. Moreover, to find the denial false of something necessarily known to the witness, ought to result in finding true the proposition denied. That, however, would, at least if generalized, carry matters too far. An executor could not, for example, prove a contract with his testator by calling the promisor, and demanding a verdict because his denial was patently untrue. The law does not ordinarily cut so fine; a party must produce affirmative proof." See also Orena v. United States, 956 F.Supp. 1071 (E.D.N.Y. 1997). Similar reasoning was used in Kirby v. President, Etc., Delaware & H. Canal Co., 46 N.Y.S. 777, 780 (N.Y.A.D. 3d Dept. 1897): The proponent of a fact "cannot call his adversary as a witness as to that fact, elicit testimony from him to the effect that such alleged fact has no existence, and then call upon the jury to discredit the evidence of such adversary simply because he is interested as a party, and to base upon the assumed falsity of his evidence an affirmative finding of the existence of such alleged fact,

without any other evidence of its existence, or from which it may be inferred." Is this reasoning implicitly based on a sporting theory of justice—i.e., each side ought to obtain its proof without the aid of the other? Is there more reason to apply the rule in criminal than in civil cases? Would it tend to discourage a defendant from taking the witness stand whenever his attorney had a serious doubt about whether the plaintiff had proved a prima facie case? If no such rule existed would the power of the courts to control juries be reduced?

Consider the following situations:

1. Defendant moves for summary judgment and plaintiff's affidavit presents no evidence but merely urges the possibility of cross-examining the defendant or his witnesses. In Dyer v. MacDougall, 201 F.2d 265 (2d Cir. 1952), plaintiff's complaint alleged that defendant slandered him in plaintiff's absence, but in the presence of two witnesses. Defendant's motion for summary judgment was supported by his own affidavit and those of the alleged witnesses, all denying that the slander had been committed. The trial judge summarily dismissed the complaint and the second circuit affirmed. Judge Hand recognized that the jury might rationally be convinced by the demeanor of the defendant on the witness stand that the truth was the opposite of what he said it was. Nevertheless, he voted to affirm: "This is owing to the fact that otherwise in such cases there could not be an effective appeal from the judge's disposition of a motion for a directed verdict. He, who has seen and heard the 'demeanor' evidence, may have been right or wrong in thinking that it gave rational support to a verdict; yet, since that evidence has disappeared, it will be impossible for an appellate court to say which he was." (footnote omitted).

Judge Frank disagreed with Judge Hand's reasoning, although voting to affirm on other grounds. First he pointed out that the problem bothering Judge Hand is equally pressing in any case in which oral testimony plays a significant role; then Judge Frank disposed of the issue by noting that on a motion for a directed verdict the trial judge does not weigh the evidence, including the credibility of witnesses, but assumes that the jury will believe all the evidence, including demeanor evidence, favorable to the adverse party. "The rule that a trial judge . . . may not legitimately consider demeanor in considering directed verdict motions means that his orders on such motions are readily reviewable." See N.L.R.B. v. Walton Manufacturing Co., 369 U.S. 404, 408, 417–21 (1962), for a sharp difference among the members of the Court as to practical significance and application of the principles put forward in Dyer v. MacDougall. Does one find better support for Judge Hand's position from the possibility that a litigant could always get to a jury in a case in which there was important testimonial evidence against that litigant, because the litigant could always claim that the jury's disbelief by virtue of their demeanor assessment of the adverse witnesses might actually support the litigant's claim?

Subin v. Goldsmith, 224 F.2d 753, 757 (2d Cir.), cert. denied, 350 U.S. 883 (1955), saw Judge Frank prevail. This was a stockholders' derivative action in which the court reversed a summary judgment for the defendant. Judge Frank, writing for the majority, said: "We shall assume, arguendo, that Feinberg's affidavit, if taken as true, completely controverted the allegations of Count V. But we have held that, in such derivative stockholder's suit—especially as to facts peculiarly within the knowledge of the defendants—plaintiff is entitled to a trial at which he may cross-examine the defendants and at which the trial judge can observe their demeanor in

order, thereby, to evaluate their credibility." In his dissenting opinion Judge Medina said:

> Perhaps the most significant feature of the papers submitted in support of and in opposition to the motion for summary judgment is the complete failure of plaintiff to present any proofs whatever to establish his charges. The affidavit of counsel is no more than an argumentative memorandum. And so the proofs submitted in support of the motion remain unanswered.

Id. at 776 (Medina, J., dissenting.). It is now generally conceded that Judge Medina was right, the opponent cannot simply sit back and depend upon a possible negative evaluation of adverse witnesses with knowledge to supply gaps in the proponent's proof. See, e.g., Celotex v. Catrett, 477 U.S. 317 (1986); Anderson v. Liberty Lobby, Inc., 477 U.S. 242 (1986); Charles Alan Wright, Law of Federal Courts, § 99 (1994).

Does the result in the Subin case depend on the fact that it is a shareholders' derivative action? If so, what characteristics does such an action have that are lacking in the slander action involved in *Dyer*? Cf. Paul E. Hawkinson Co. v. Dennis, 166 F.2d 61 (5th Cir. 1948) (patent infringement).

2. Are courts permitting negative inferences when they hold that false or contradictory extra-judicial statements are indicative of consciousness of guilt sufficient to satisfy the requirement that the testimony of an accomplice be corroborated by independent evidence? See People v. Coakley, 238 P.2d 633, 636 (Cal. App. 1951) ("Such contradictions by one accused or his silence or his lies are independent corroborative evidence."); see also People v. Sandelin, 233 P.2d 147 (Cal. App. 1951); People v. Willmurth, 176 P.2d 102 (Cal. App. 1947). Contra: State v. Elsberg, 295 N.W. 913 (Minn. 1941). In each of these cases there appears to have been sufficient corroborative evidence apart from the false or contradictory statements. Might the presence of independent corroborative evidence be the real factor operating in these cases, and not the disbelieved testimony?

What is the bearing on this problem of the rule that an accusation and reply are admissible as proof of guilt if the defendant does not remain silent in the face of a charge but equivocally denies or makes false, evasive, or contradictory statements? The theory is that such an equivocal response gives rise to an inference of acquiescence in the truth of the accusation or that such a response is evidence of a consciousness of guilt. E.g., People v. Carmelo, 210 P.2d 538 (Cal.App.1949); People v. McKnight, 196 P.2d 104 (Cal.App.1948); People v. Popilsky, 8 N.E.2d 640 (Ill.1937); Commonwealth v. Hebert, 163 N.E. 189 (Mass.1928); Commonwealth v. Spiropoulos, 94 N.E. 451 (Mass.1911). Does it make any difference that these cases are not based on the principle that disbelief of a statement raises the inference that the opposite of that statement is true, but rather on the principle that a man's conduct may be affirmative evidence of his guilt? In this connection, note that where there is an unequivocal denial of guilt, testimony as to the accusatory statement or the defendant's response is excluded. 4 Wigmore, Evidence § 1072(5) (3d ed. 1940).

3. In an action for fraudulently inducing plaintiff to enter into a bilateral contract, plaintiff must prove, among other things, that the defendant promised to do something and that at the time he made his promise he had no intention of keeping it. Plaintiff offers testimony which, if believed, proves that the promise was made and never carried out. Defendant testifies that he never made the promise. If the jury believes that the promise was made, may it conclude that at the time it was

made defendant did not intend to keep it? See, e.g., McCreight v. Davey Tree Expert Co., 254 N.W. 623, 625 (Minn. 1934); cf. Kley v. Healy, 44 N.E. 150, 152 (N.Y.C.A. 1896).

4. Would it help the opponent if the judge charged: "If you do not believe a witness' testimony, you may not assume that the opposite of what the witness said is true?" Apart from the logical difficulties with this task, is this charge—and many charges directing a jury to ignore something, counterproductive? See, e.g., Wegner, Schneider, Carter and White, Paradoxical Effects of Thought Suppression, 53 J. of Personality and Social Psychology 5 (1987) (asking a subject not to think of something increases the likelihood that the thought will not be suppressed).

8. PRESERVATION OF ISSUES FOR APPEAL

United States v. Wilson

Court of Appeals, Seventh Circuit, 1992.
966 F.2d 243.

. . .

II. Discussion

A. Admission of the Gun

In his appeal, Wilson invokes Fed. R. Evid. 403 which provides that "although releant, evidence may be excluded if its probative value is substantially outweighed by the danger of unfair prejudice. . . ." Wilson concedes on appeal that guns are relevant to show that a defendant knowingly and intentionally possessed drugs. However, Wilson points out that he had already been convicted of possession with intent to distribute in November 1989 and could not contest that issue at his May 1990 conspiracy trial. Since knowledge and intent to possess were not at issue, Wilson argues that the gun had little probative value with respect to the issue of his conspiracy while it had substantial prejudicial effect. Wilson maintains that after determining that the gun was relevant, the district court should have engaged in Rule 403 balancing.

Although Wilson objected to the admission of the gun both before and at trial, he did not raise Rule 403 or even mention the prejudicial effect of the gun before the district court. When the government proffered testimony about the gun, Wilson stated that the gun had "no relevance to today's charge [conspiracy]" without mentioning the gun's prejudicial effect. (Tr. at 86). Later, at a side bar conference, the district court justified its ruling on the record by explaining that this court's decisions in United States v. Alvarez, 860 F.2d 801 (7th Cir.1988), cert. denied, 490 U.S. 1051 (1989) and United States v. Rush, 890 F.2d 45 (7th Cir.1989) held that guns are "tools of the [drug] trade" and are relevant when found in close proximity with the drugs. (Tr. at 135). Once again, Wilson did not raise the gun's prejudicial effect.

The government argues that by not raising the prejudicial effect of the gun or Rule 403 before the district court, Wilson waived the issue on appeal. We agree. An objection based on "relevance" does not preserve an error based on Rule 403. . . . Under Fed. R. Evid. 103 (a) (1) error may not be predicated upon a ruling that admits evidence unless a timely objection appears on the record "stating the specific ground

of objection, if the specific ground was not apparent from the context." Fed. R. Evid. 103 (a) (1). Providing specific grounds for an objection alerts the district judge to the asserted nature of the error and enables opposing counsel to take proper corrective action. Fed. R. Evid. 103 Advisory Committee Notes. Wilson's objection based on "relevance" alerted the court to consider two rules of evidence: Rule 401, which defines relevant evidence, and Rule 402, which provides that relevant evidence is generally admissible, but irrelevant evidence is not. Wilson implicitly asked the court to exclude the gun under Rule 402 because it did not fit the definition in Rule 401. Rule 403, on which Wilson now relies, however, constitutes one of the exceptions to Rule 402. It provides that even if the evidence is "relevant" the court may exclude it because of its extensive prejudicial effect. Wilson's objection was not specific enough to alert the district court to Wilson's concerns about the prejudicial effect of the gun, and therefore Wilson did not properly preserve for appeal any error based on Rule 403. See Mejia, 909 F. 2d at 247 (defendant cannot complain about Rule 403 balancing on appeal since he never gave the district court the opportunity to balance probative value against prejudice); United States v. Chaidez, 919 F.2d 1193, 1202–1203 (7th Cir.1990), cert. denied sub nom. Chavira v. United States, 501 U.S. 1234 (1991) (defendant's assertion that drug records were irrelevant was insufficient to preserve on appeal his argument based on Rule 403); also see C. McCormick, McCormick on Evidence § 52 at 130 (E. Cleary, 3d ed. 1984) (in principle, a relevance objection does not raise Rule 403 considerations).

Wilson argues that once a court embarks on a relevance inquiry it must also consider the evidence's probative value compared to its prejudicial effect. However, to reach his conclusion, Wilson reads too much into this court's decision in Alvarez. In Alvarez, the defendants, who had been convicted of narcotics distribution conspiracy and operation of racketeering enterprise, argued that the district court should have excluded a pistol from evidence either because the pistol was irrelevant or because its prejudicial effect outweighed its probative value. Alvarez, 860 F. 2d at 829. The court joined the "overwhelming majority of courts of appeal" and held that the pistol was relevant as a "tool of the trade." Id. at 829–30. The opinion continued:

> However, our analysis does not stop here. We must determine if the pistol should not have been admitted because it unduly prejudiced the appellant. See Fed. R. Evid. 403 [footnote omitted].

Id. at 830. Wilson argues that under Alvarez a court must consider not only relevance but "must determine whether to exclude the evidence because the danger of unfair prejudice outweighs its probative value." (Appellant's Brief at 17) (emphasis added). Wilson is wrong. Nothing in Alvarez indicates that a court must apply Rule 403 even if the defendant did not raise the issue of unfair prejudice at trial. Alvarez simply does not address the issue of waiver. . . .

NOTES

The rules of evidence manifest themselves in a trial through offers of, and objections to, evidence. Many aspects of making such offers and objections have to do with tactics, trial technique and advocacy, matters treated in depth in other courses. There are certain basic issues relating to this subject that merit brief treatment here. The issues will be brought up over and over again in connection with almost every appellate case in the text.

1. Rules governing offers of and objections to evidence have three dimensions. They are directed to the parties, placing a responsibility on each side to make clear what is being offered and what is being objected to and the grounds of objection so that errors can be corrected, if possible, at the trial level. They are aimed at the trial court. The making of specific objections and adequate offers of proof supported by specific grounds for admitting or excluding are designed to enable the trial judge to rule intelligently and quickly. They are also designed to provide an adequate basis for appeal with enough material in the record so that the appellate court can intelligently decide whether the error, if any, merits reversal. Overall, they should serve the goal of reducing the necessity for retrials which, of course, involve costs for the parties and the administration of justice.

Rule 103 of the Federal Rules captures the essential thrust of these policies. It places the initiative on the party for raising and preserving the issue in connection with a ruling on the admission or exclusion of evidence. Although the court has a role, it is the party's primary responsibility. It also makes clear that an evidentiary ruling will not be a basis for reversal unless it affects the substantial rights of the parties.

2. In considering the following materials, keep in mind the following:

> It must be remembered in reading evidence cases that the evidence point is often but a peg to hang a reversal on where the court, for some articulated or unexpressed reason, feels an injustice has been done. Predicting reversals or affirmances on errors in evidence rulings is therefore difficult and the precedential value of most such decisions is weak. Since almost no trial is completely error free, the process increases appellate discretion to prevent what the bench may conceive to be a miscarriage of justice though it may lack such undifferentiated power.

J.B. Weinstein and M.A. Berger, Weinstein's Evidence ¶ 103(02) at 103–24.

3. Generally, the approach taken today is to pay less attention to strictly technical requirements. It is less common nowadays, for instance, to require the formal taking of an "exception", as well as the making of an objection, to save rights regarding an adverse evidential ruling. Where a full trial record is kept stenographically or otherwise there is far less need for use of a magic technical vocabulary. See 1 Wigmore, Evidence § 20 (Rev. P. Tillers, 1983). Statutes and court rules exert a large force here; it is essential to know them well. Id.

4. An objection to the introduction of evidence must be timely. 1 Wigmore, Evidence § 18 (Rev. by P. Tillers, 1983) (as soon as it is known or reasonably could be known unless there are special circumstances). See also Isaacs v. United States, 301 F.2d 706 (8th Cir.), cert. denied, 371 U.S. 818 (1962).

Failure to object promptly to an item of evidence will normally result in waiver. As Wigmore said, "A rule of Evidence not invoked is waived." 1 Wigmore, Evidence § 18 at 790 (Rev. by P. Tillers, 1983) (emphasis on *waived* in original in 1940 edition, but not 1983 edition). The reasons for requiring prompt objection on pain of loss of the opportunity to raise the issue are multiple: It promotes finality and economy in litigation. It makes possible clarification of the facts relating to an issue at the time it is raised. It speeds up the tempo of the trial by permitting it to forge ahead without backtracking. It avoids the often futile direction to the jury to ignore what it has already heard. It permits correction by the party and a ruling by the trial court.

"If testimony, even though improper, is introduced into evidence without objection it becomes part of the record and is available to be considered for its probative value by the trier of fact." United States v. Jamerson, 549 F.2d 1263, 1267 (9th Cir. 1977) (unobjected-to hearsay may be considered by the trier of fact). A limitation on the notion

of waiver is the obvious logical one that a court may not rely on irrelevant evidence even if received without objection. Waiver may be implied even where objection has been made to the evidence, if the objecting party refers to or relies upon the erroneously admitted evidence or introduces like evidence that tends to prove the same facts.

5. Rules of evidence may be explicitly waived. Caranta v. Pioneer Home Improvements, Inc., 467 P.2d 719 (N.M. 1970) ("Where documentary evidence is admitted by stipulation, hearsay statements contained therein become competent evidence."). But the stipulation cannot violate some rule of "public policy." DeCarbo v. Borough of Ellwood City, 284 A.2d 342 (Pa. 1971) (stipulation cannot enlarge or limit jurisdiction); State v. Chavez, 461 P.2d 919 (N.M. App. 1969) (whether or not stipulating to the admittance of results of a polygraph test is against state policy).

The rules can also be bypassed by stipulating facts which could only be proved by inadmissible evidence. Normally, these stipulations concern facts about which there can be little doubt. They are binding on the court and parties. For a general discussion of stipulations see Note, Judicial Admissions, 64 Colum. L. Rev. 1121 (1964). See also notes 7 and 8 following *State v. Poe*, supra. Compare Old Chief v. United States, 519 U.S. 172 (1997), supra.

Attorneys have broad power to bind their clients. Once made, the parties are bound by the stipulation, unless they mutually ignore it as by trying the issue. Stipulations are judicial admissions which cannot be contradicted by evidence and are to be distinguished from extra-judicial admissions, i.e., hearsay.

With the present state of overcrowded calendars, many courts have added their own pressures to sound professional practice of stipulating where there is no real dispute. Where requests to stipulate are made in open court, there is also a natural reluctance to appear obstructive. On the other hand, clients emotionally involved in a litigation may insist that it be made as expensive as possible for the other side. There is, too, the loss of color and ability of the trier to evaluate credibility where parties stipulate that witnesses would say so and so, were they called, or that an expert is "qualified" without specifying his background. Courts and attorneys, therefore, sometimes discourage this practice.

May stipulations be bargained for? State v. Ruud, 491 P.2d 1351, 1355 n. 5 (Wash.App.1971) (record suggests that defendant's counsel gave a stipulation in exchange for a stipulation that the question of the death penalty not be submitted to the jury). Should evidence be offered when the attorney knows that it is inadmissible?

6. Normally the ground for an objection to the admission of evidence must be specified. See F.R.Evid. 103(a)(1). Generally, stating the grounds as "incompetent, irrelevant and immaterial" is not sufficiently specific although it has been suggested that if the basis for the objection is relevancy, then that wording may be sufficient. J.B. Weinstein and M.A. Berger, Weinstein's Evidence ¶ 103(02) at n. 30, citing Ladd, Objections, Motions and Foundation Testimony, 43 Cornell L.Q. 543, 546 (1958).

Suppose an objection is made in general terms without specifying the grounds and the trial judge sustains it. On appeal what should the appellate court do, assuming that there are valid grounds for the objection? See id. at 548–549.

Suppose an objection is made in general terms without specifying the grounds, and the objection is overruled. On appeal, should the court consider the proper specific objection? In Een v. Consolidated Freightways, 220 F.2d 82, 88 (8th Cir.1955) the court declined to do so. See also United States v. Long, 574 F.2d 761 (3d Cir.1978) where a non-specific objection was made to other crime evidence which the appellate court characterized as "[c]haritably" adding up to a relevancy objection under Fed.R.Evid. 404(b) and which the court proceeded to consider. Since the concurring judge on appeal

also addressed the Federal Rule 403 issue not explicitly raised below, the majority did too, indicating that the balancing required under that provision was "subsumed" in the trial judge's ruling.

Suppose a specific objection is made, but on the wrong grounds and it is overruled. May the correct grounds be specified on appeal? See Huff v. White Motor Corp., 609 F.2d 286, 290, n. 2 (7th Cir. 1979).

United States v. Holland, 880 F.2d 1091, 1094–95 (9th Cir. 1989):

> The tape records a casual, rambling conversation more than 90 minutes in length. Although portions of the conversation were admissible under Fed. R. Evid. 804(b)(3), much of the tape was irrelevant. . . .
>
> Although Holland objected to the admission of the tape as a whole, the record reflects no objection sufficient to inform the district court that Holland also objected to failure to redact the tape.
>
> Holland's blanket objection to the admission of the tape does not preserve an objection to failure to redact the tape. See Fed. R. Evid. 103(a)(1). . . .
>
> Reversal for plain error would not be appropriate. "Reversal of a criminal conviction on the basis of plain error is an exceptional remedy, which we invoke only when it appears necessary to prevent a miscarriage of justice or to preserve the integrity and reputation of the judicial process." United States v. Bordallo, 857 F.2d 519, 527 (9th Cir.1988) (internal quotation omitted). In light of the copious evidence of Holland's guilt, and the relatively small part of the statement Holland identifies as improperly admitted, we conclude there was no "miscarriage of justice" which alone would justify relief.

See also United States v. Brewer, 1 F.3d 1430 (4th Cir. 1993) (convoluted line of questioning made basis of objection unclear, such that objection was not preserved for appeal under FRE 103(a); failure to request limiting instruction at trial, so error as to jury instruction reviewed under deferential "plain error" standard) (dissent says basis of objection was clear and that the prosecution was manipulating its witnesses to bend the rules).

Suppose a specific objection is made to evidence and it is excluded but the ground relied upon was incorrect although a correct reason for exclusion could have been offered. Should the appellate court reverse? Wigmore concluded no. 1 Wigmore, Evidence § 18 (P. Tillers Rev.1983). Morgan argued, however, that if the defect in the evidence was curable, the proponent is prejudiced by the giving of the wrong reason for exclusion. "It would be improper for him to reframe his question or to lay a foundation in order to make other objections inapplicable so long as the judge's ruling on the specified matter stands." Morgan, Basic Problems of Evidence 47–49 (5th ed. by J.B. Weinstein). For a case applying the Morgan approach, see Bloodgood v. Lynch, 56 N.E.2d 718 (N.Y. 1944).

A judge should inform the parties of the grounds he or she is relying on to sustain a general objection—if he is willing to entertain one—or on which of several urged specific grounds he is sustaining a specific objection, so that the proponent of the evidence can reframe his proffer to meet the ruling. If the judge does not do so, the burden is on the proponent to request a ruling.

A motion to strike out testimony will of course be appropriate when a witness makes an unresponsive and inadmissible answer to a proper question as well as when evidence is admitted conditionally and the proponent ultimately fails to satisfy the condition. Such a motion should be made with all possible dispatch. An instruction to the jury to disregard

the expunged evidence should be requested in supplementation, even though the efficacy of such instructions is questionable.

7. Counsel examining on direct and encountering objection must be prepared to make an "offer of proof," a statement for the record of what he intends to prove. See Fed.R.Evid. 103(a)(2). In the absence of a record the reviewing court will be unable to ascertain whether an error occurred. Counsel may, however, be spared actual explanation and offer of proof when the purpose is obvious.

What attitude should be taken with respect to requiring offers of proof on cross-examination? Assuming that the examiner is not pursuing the dangerous practice of fishing blindly, should he be required to disclose in advance his line of attack? See Note, Excluded Evidence on Cross-Examination—Preservation for Appeal, 33 N.C. L. Rev. 476 (1955).

8. Some objections must be raised before trial—e.g., a motion to suppress evidence obtained by illegal search and seizure. See Rule 12(b)(3), Fed.R.Cr.Pr. Regarding government appeals from pretrial evidentiary rulings, see note 9 below.

General policies relevant to the question of whether advance rulings should be issued have been described as follows:

> The general rule permitting the district judge to delay evidentiary rulings is designed to prevent unnecessary and unwarranted advisory opinions. It is sometimes unwise to decide whether to admit evidence before it is actually presented. If no advance ruling is made, the parties may decide to abandon their positions for reasons unrelated to the anticipated ruling of the court. A refusal to rule may thus promote judicial economy. In other situations, a delayed ruling is advisable because the facts as they develop during the course of the proceeding may affect the determination of admissibility.

United States v. Burkhead, 646 F.2d 1283, 1286 (8th Cir. 1981).

Some courts have indicated a favorable attitude toward advance rulings on the admissibility of prior convictions for impeachment. In *United States v. Oakes*, 565 F.2d 170, 171 (1st Cir. 1977), for example, the court stated:

> [W]hile we emphasize that the timing is discretionary, we think a court should, when feasible, make reasonable efforts to accommodate a defendant by ruling in advance on the admissibility of a criminal record so that he can make an informed decision whether or not to testify.
>
> The balancing problems faced by the court can be minimized by attempting to ascertain in advance what it needs to know about defendant's likely testimony and other relevant information. Defendant could be asked to state the substance of his testimony in advance. Indeed a court's advance ruling might . . . still be helpful even if made expressly provisional, allowing the court greater leeway to change it in light of later events and testimony.

Later, in its opinion, however, the court referred to the fact that "many judges may feel [i]t is impossible to accomplish [the balancing required under Rule 609(a)] conscientiously without hearing defendant's actual testimony." Id. at 173. As to the need of the defendant to take the stand after an in limine adverse ruling on a Rule 607(a) issue, see Luce v. United States, 469 U.S. 38 (1984), infra.

9. Intertwined with the subject of advance rulings is the question whether appellate review of an evidentiary ruling can be obtained immediately or must await final judgment in the matter. The subject is complex; only a few highlights will be mentioned here. 18 U.S.C. § 3731 provides for appeals by the government in criminal cases from a district

court decision "suppressing or excluding evidence . . . not made after the defendant has been put in jeopardy and before the verdict or finding . . . if the United States Attorney certifies . . . that the appeal is not taken for purpose of delay and that the evidence is a substantial proof of a fact material in the proceeding."

United States v. Barletta, 644 F.2d 50 (1st Cir. 1981) after tracing the intricate relationship between § 3731, supra and Rule 12(e) of the Federal Rules of Criminal Procedure, concluded that the government may appeal from a pretrial evidentiary ruling (whether resulting from the granting of defendant's motion to suppress or exclude evidence or from the denial of the government's motion to admit evidence). The court also concluded that absent "good cause" to defer a ruling, the government could compel the trial court to rule in advance on the admissibility of evidence only in one "limited class of cases," namely where the issue is "entirely segregable from the evidence to be presented at trial," i.e. not involving "the presentation of any significant quantity of evidence relevant to the question of guilt or innocence." As illustrative of such issues, the court mentioned, "the existence of an attorney-client privilege or the satisfaction of a hearsay exception." See also United States v. Horwitz, 622 F.2d 1101 (2d Cir. 1980).

Collins v. Wayne Corp., 621 F.2d 777, 784 (5th Cir. 1980) stands for the proposition that in a civil case the overruling of a motion *in limine* does not preserve error for appeal; that such motions are frequently made in the abstract and in anticipation of some hypothetical situations that may not develop at trial; that when a motion *in limine* is overruled, the party must renew his objection when the evidence is offered at trial.

10. There are three categories of error well-recognized in statutory law and judicial opinion. "Harmless error" is that raised at trial but found not to affect substantial rights. Rule 103(a) of the Federal Rules of Evidence has the effect of establishing a harmless error rule for reviewing evidentiary rulings. "Reversible error" is that raised at trial which is found to affect substantial rights. "Plain error" is that not raised at trial but nevertheless considered by a reviewing court because it is found to affect substantial rights. The plain error doctrine thus acts as a general limitation on the notion of waiver. The distinction between harmless and plain error turns on whether the particular error in the case excuses the party's failure to bring it properly to the trial court's attention. In *United States v. Dixon*, 562 F.2d 1138, 1143 (9th Cir. 1977), the court compared the standard to be applied for determining plain error with that for harmless error. As to plain error "we would reverse only if it were *highly* probable that the error materially affected the jury's verdict." As to harmless error, "we will . . . affirm only if it is more probable than not that the error did not materially affect the verdict." See also United States v. Valle-Valdez, 554 F.2d 911, 915 (9th Cir. 1977). Compare, however, Government of the Virgin Islands v. Toto, 529 F.2d 278 (3d Cir. 1976) where applying a harmless error approach the court reversed the conviction because it could not say that it was highly probable that the improperly admitted evidence did not prejudice the defendant. If the error would have been easily correctable at trial, it will not be deemed plain error on appeal. See United States v. Richardson, 562 F.2d 476, 478 (7th Cir. 1977), cert. denied, 434 U.S. 1072 (1978).

11. Is error which adversely affects a party's constitutional rights always reversible or plain error? See Chapman v. California, 386 U.S. 18, 21–24 (1967) (error affecting some constitutional rights may sometimes be harmless). The problem of "harmless error" in cases involving collateral attacks on a criminal judgment for government's failing to reveal information helpful to defendant in violation of the constitution and on the basis of newly discovered evidence is discussed in Kyles v. Whitley, 514 U.S. 419 (1995). See also Orena v. United States, 956 F.Supp. 1071 (E.D.N.Y. 1997).

12. Should the lawyer's strategy at trial affect an appellate court's assessment of errors in the admission of evidence when there was no objection? See Marshall v. United States, 409 F.2d 925, 927 (9th Cir. 1969) (defendant asserted for the first time on appeal that the testimony of a government agent should have been excluded as a product of an unlawful search and seizure; the record suggested that the defendant's counsel deliberately chose not to object in order to attempt to use the agent's testimony to the advantage of the defendant).

13. In utilizing the harmless error rule, to what extent should appellate courts consider the personalities and setting at trial? Judge Traynor in his discussion of the harmless error rule recognized such factors but rejects the possibility of an appellate court taking them into account. "The appellate court is limited to the mute record made below. Many factors may affect the probative value of testimony, such as age, sex, intelligence, experience, occupation, demeanor, or temperament of the witnesses. A trial court or jury before whom witnesses appear is at least in a position to take note of such factors. An appellate court has no way of doing so. It cannot know whether a witness answered some questions forthrightly but evaded others. . . . A clumsy sentence in the record may not convey the ring of truth that attended it when the witness groped his way to its articulation. . . . an appellate court can never conjure up the impact of live confrontation." Traynor, The Riddle of Harmless Error 20–21 (1970). Most appellate lawyers, however, assume that the appellate court's knowledge of the personality of the judge and trial attorney has some impact.

A possible technique would be for the trial judge to state on the record why he thought some errors were or were not prejudicial. Rule 33 of the Federal Rules of Criminal Procedure, Rule 59 of the Rules of Civil Procedure, and the post-trial motion practice provide an opportunity for the trial court to evaluate claimed error, permitting him to make his or her views known to the appellate tribunal.

14. Many determinations of the trial judge are practically unreviewable because of wide discretion. For example, see scope of cross-examination and order of witnesses, discussed in Chapter 4, infra.

CHAPTER 2

ADVANCED ANALYSIS OF REASONING ABOUT EVIDENCE

The casebook to which this casebook traces its origin begins with this statement:

> I have spoken of evidence and reasoning as belonging to the region which has to do with methods of arriving at the law and fact that are involved in an issue. In expressing this I have said, with what may seem a certain violence of phrase, that they belonged, in a way, with procedure. It will be useful to indicate here, a little more plainly, just what is meant by this. Reasoning, the rational method of settling disputed questions, is the modern substitute for certain formal and mechanical "trials" (i.e. tests) which flourished among our ancestors for centuries, and in the midst of which the trial by jury emerged. When two men to-day settle which is the "best man" by a prizefight, we get an accurate notion of the old Germanic "trial." Who is it that "tries" the question? The men themselves. There are referees and rules of the game, but no determination of the dispute on grounds of reason,—by the rational method. So it was with "trial by battle" in our old law; the issue of right, in a writ of right, including all elements of law and fact, was "tried" by this physical struggle, and the judges of the Common Pleas sat, like the referee at a prize-fight, simply to administer the procedure, the rules of the game. So of the King's Bench in criminal appeals; and so sat Richard II. at the "trial" of the appeal of treason between Bolingbroke and Norfolk, as Shakespeare represents it in the play. So of the various ordeals; the accused party "tried" his own case by undergoing the given requirement as to hot iron, or water, or the crumb. So of the oath; the question, both law and fact, was "tried" merely by the oath, with or without fellow-swearers. The old "trial by witnesses" was a testing of the question in like manner by their mere oath. So a record was said to "try" itself. And so when out of the midst of these methods first came the trial by jury, it was the jury's oath, or rather their verdict, that "tried" the case. How this mode of trial came to swallow up the others, and then to lose some of its chief features, and become shaped into an instrument of our modern purely rational procedure, is a long story, and is not for this place. But as we use the phrase "trial" and "trial by jury" now, we mean a rational ascertainment of facts, and a rational ascertainment and application of rules. What was formerly "tried" by the method of force or the mechanical conformity to form, is now "tried" by the method of reason.
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> SELECT CASES ON EVIDENCE AT THE COMMON LAW, JAMES BRADLEY THAYER 1 (1892).

More recently, the principal author of this casebook has argued that a sophisticated understanding of the processes of reasoning with evidence, by both judges and jurors as fact-finders and law-appliers, is essential to an understanding and mastery of evidence rules, principles, and institutions:

> The horn-book requirement for admitting evidence is based on the premise that jurors will evaluate evidence rationally, by applying it logically to one material proposition after another, in determining whether the elements of the cause of action have been proved to the requisite degree of probability. . . . Traditional theory assumes that a jury will decide the relationship between the law and the facts of the case as if solving a puzzle in logic—viewing evidence in pieces and discretely evaluating their connection through formal principles. . . . More recently philosophical, psychological, and trial advocacy literature, as well as studies of juries, suggest that jurors reason and process information not merely as Aristotelian logicians, but somewhat more holistically, in terms of stories they can relate to. The present tendency is to recognize that advocates place—and juries expect them to put—more flesh on the bare bones of traditional evidence-in-chief, which provide only a factual skeleton supporting a legal concept. . . . Yet, there are dangers in this more relaxed view. There is . . . the increased possibility that jurors fixed on story-telling will be less willing to responsibly address the precise substantive-legal-factual issues for which they were empaneled. A jury deliberation is not a coffee klatch.

Blue Cross and Blue Shield of New Jersey v. Philip Morris, Inc., 138 F.Supp. 2d 357 (E.D.N.Y 2001) (Weinstein, J.) (extensive citation and quotation omitted).

These two quotations, from a text that evolved very considerably over the span of more than a century, reveal a consistent commitment to presenting evidence doctrines and institutions in a way that reveals, honors, respects, and interrogates the mix of reason and emotion that inevitably affect all of those actors who are entrusted with the solemn duty of applying law to facts in circumstances that can result in the deprivation of life, liberty, or property. In the latest, current evolution of this casebook, we reflect our commitment to the sophisticated understanding of these matters by starting with the detailed presentation of a method of analysis of evidence rules and arguments that students, lawyers, and judges from legal systems around the world have found valuable. We offer the material in this chapter in the belief that a true mastery of law—including the law of evidence—must include a firm grasp of the reasoning methods by which evidence analysts make decisions under the guidance of rules of evidence, what makes those reasoning methods strong, and what makes them weak. We also offer it in the belief that only a brief glance at these methods does not give the reader a fair opportunity to take advantage of powerful, sophisticated tools that can aid the analysis of evidence arguments, both one's own and others'.

Accordingly, the material in this chapter offers to those who are interested the opportunity to understand and master the method of analysis introduced in Chapter 1, the Logocratic Method. Because this chapter supplements, but does not duplicate the material introducing the method in the previous chapter, it is intended to be read after and in light of the first chapter. Where appropriate, this chapter provides references to material in the other chapter, and vice versa.

1. FROM ENTHYMEME TO ARGUMENT: LOGOCRATIC METHOD AND THE VIRTUES AND VICES OF ARGUMENTS

A. ARGUING VIRTUE AND VICE

We have said that evidence itself has the character of argument, and that very often in informal reasoning about evidence (whether in evidence litigation or some other domain), reasoners use evidentiary enthymemes, which are arguments whose logical form is not explicit. We have also spoken of the Logocratic Method of *argufying* argument-enthymemes and, similarly, *rulifying* rule-enthymemes, which is to use interpretive judgment to give a fair formal representation of the argument-enthymeme or rule-enthymeme that makes explicit the logical form of the argument or rule. We offered examples from *Knapp* of argufication of an argument-enthymeme and rulification of a rule-enthymeme.

In the Logocratic Method, once the argument-enthymeme has been argufied, the analyst moves to the next step, which is to assess the *virtues and vices* of the arguments, including strength and weakness as one type of virtue and vice (respectively). There is a counterpart analysis of the virtues and vices of rules as well: the virtue is discernible clarity of logical structure, the vice, a lack thereof.

We may introduce the idea of the virtue of an argument by considering, once again, an example from *Knapp*. Recall that the issue in *Knapp* was whether the trial judge erred, as defendant-appellant Knapp claimed, by admitting testimony of the prosecution's witness that was not logically relevant. In his opinion in *Knapp*, Justice Gillett presented an argument-enthymeme to reach the conclusion that the trial judge had ruled correctly, because the evidence was logically relevant. (We have identified the argument-enthymeme and argufied it previously, see Chapter 1, section 2 (D)(2), pages 18–19).

Once we have fairly formally represented an argument-enthymeme, we are in a position to ask a vital question about the argument thus represented. How *good* is it? We can be more precise about what we mean in characterizing an argument as "good" or "bad" by speaking of an argument's *virtues* or *vices*. When we have offered simple and clear definitions of those terms, we can ask of Justice Gillett's argument, in what ways does it exhibit virtue, or fail to do so? We now offer the basic concepts of virtue and vice that operate in the Logocratic Method, and then use them to assess Justice Gillett's argument in *Knapp*.

B. WHAT IS VIRTUE, AND WHAT KINDS OF THINGS CAN BE VIRTUOUS?

As we shall use the term, 'virtue' means functional excellence. The basic framework we use is found in Aristotle's conception of arete (Greek: ἀρετή), translated as 'virtue' or 'excellence'.[1] If some object x is an F, then the virtue of x as an F is that characteristic of x that makes x a good F. Put concisely: an object x's virtue reflects its good performance of the function of Fs.[2] For example, consider an object (x) that is a knife (F). The virtues of a knife are those features that make it a

[1] See Aristotle, Nicomachean Ethics (Terence Irwin trans., 1999) (c. 350 B.C.E).

[2] Id.

good knife, such as having an appropriately sharp blade—we say "appropriately," because as we can see on quick reflection, the virtue of a butter knife differs from that of a steak knife in the degree of sharpness required for functional excellence.

Many and varied kinds of things can be "bearers" of virtue, that is, can properly be said to be virtuous (or not). Among this vast array of possibly virtuous (or vicious[3]) items are implements such as knives, hammers, and spoons; institutions, such as schools, universities, and the legal institutions that comprise the "rule of law"[4]; professionals, such as lawyers, doctors, and professors; and arguments, which is the central focus of the Logocratic Method. As we will see, there are various kinds of purpose one might have for arguments, and those purposes guide our judgments about what is virtuous, that is, what is functionally excellent in arguments.

C. THE (SYNONYMOUS) CONCEPTS MODE OF LOGICAL INFERENCE AND LOGICAL FORM

We identify two types of Logocratic virtue, "mode-independent" and "mode-dependent." The reference in these phrases to "mode" is to the "mode of logical inference" of an argument. Understanding the concept of a mode of logical inference can be a powerfully illuminating and enabling tool for the student of argument, including legal evidentiary arguments. We therefore take some time carefully and clearly to present the concept of a mode of logical inference, with examples from doctrinal evidentiary arguments, before returning to the concept of Logocratic Virtue that we define in using these two concepts of mode-dependent and mode-independent virtues of arguments.

So pervasive is the appearance in our daily and intellectual lives of inferences with evidence, that even the discipline of logic itself can usefully be understood with an *evidentiary* conception.[5] According to this conception, logic is the study of the different modes of logical inference that different kinds of arguments display. An argument's *mode of logical inference* (or, synonymously, its *logical form*) is *the evidential relation between the argument's premises* and its *conclusion*.

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[3] From here on, unless otherwise noted, an ascription to an item of virtue should be understood to mean virtue or vice. Thus, our discussion of the criteria for virtuous evidentiary argument is also perforce a discussion of the vices of evidentiary arguments. Virtue and vice are best understood as on a spectrum rather than a bivalent, yes-no, state, more virtuous and less vicious, or more vicious and less virtuous.

[4] Philosopher Joseph Raz provides a trenchant example of a conception of the *rule of law* as an instrument that has a specific virtue:

> Regarding the rule of law as the inherent or specific virtue of law is a result of an instrumental conception of law. The law is not just a fact of life. It is a form of social organization which should be used properly and for the proper ends. **It is a tool in the hands of men differing from many others in being versatile and capable of being used for a large variety of proper purposes. As with some other tools, machines, and instruments a thing is not of the kind unless it has a least some ability to perform its function. A knife is not a knife unless it has some ability to cut. The law to be law must be capable of guiding behaviour, however inefficiently**. Like other instruments, the law has a specific virtue which is being morally neutral as to the end to which the instrument is put. **It is the virtue of efficiency; the virtue of an instrument as an instrument. For the law this virtue is the rule of law. Thus the rule of law is an inherent virtue of the law, but not a moral virtue as such.**

Joseph Raz, The Rule of Law and Its Virtue, in The Authority of Law: Essays on Law and Morality 210, 226 (2d ed. 2009) (emphases added).

[5] See Skyrms, Choice & Chance, supra Chapter 1, note 3, at 4, 15.

D. MODE-DEPENDENT LOGOCRATIC VIRTUES: THE FOUR MODES OF LOGICAL INFERENCE AND THEIR CHARACTERISTIC VIRTUES

There are four fundamental, irreducible modes of logical inference. They are distinguished from one another by the relation that obtains between the premises of the argument and its conclusion when the argument yields the most warranted inference (that is, when the argument is most "internally strong," as defined below, see section 1(E)(1), page 138) from premises to conclusion that it is logically capable of yielding.[6] All four modes of logical inference are found in legal argument in general, in evidentiary legal arguments in particular, and indeed in arguments in every domain of argument.

(1) DEDUCTION AND ITS MODE-DEPENDENT VIRTUE

In a *valid* deductive argument, it is logically impossible that the premises should all be true while the conclusion is false. That is, the truth of the premises of a valid deductive argument provides *incorrigible evidence* for the truth of its conclusion. Validity is what we will call the *characteristic virtue* of a deductive argument. The **characteristic virtue** of a type of argument is that property or set of properties of that type of argument the possession of which make it the best exemplar of that type. The characteristic virtue of a deductive argument is validity. Some arguments are deductive but lack this virtue—they are invalid—and in that way, they are vicious.

Here is an argument-enthymeme, in its argumental context,[7] from *Old Chief v. United States* (printed and discussed in Chapter 1, pages 45–54) that, we suggest, can be argufied—fairly formally represented—as a valid deductive argument.

a. Argument-Enthymeme in Old Chief v. United States

> In 1993, petitioner, Old Chief, was arrested after a fracas involving at least one gunshot. The ensuing federal charges included not only assault with a dangerous weapon and using a firearm in relation to a crime of violence but violation of 18 U.S.C. § 922(g)(1). This statute makes it unlawful for anyone "who has been convicted in any court of, a crime punishable by imprisonment for a term exceeding one year" to "possess in or affecting commerce, any firearm. . . ." "[A] crime punishable by imprisonment for a term exceeding one year" is defined to exclude "any Federal or State offenses pertaining to antitrust violations, unfair trade practices, restraints of trade, or other similar offenses relating to the regulation of business practices" and "any State offense classified by the laws of the State as a misdemeanor and punishable by a term of imprisonment of two years or less." § 921(a)(20).
>
> . . .

[6] We might say that the criteria of identity of each logical form is an ideal—something like a Platonic "Form". What distinguishes deductive, inductive, analogical, and inference to the best explanation arguments from each other are the *ideal forms* of those arguments.

[7] Note that there is no sharp distinction between the argument-enthymeme itself and its context, that is, the set of sentences in which the argument-enthymeme occurs in, such as a judicial opinion or lawyer's brief. All argufication, like interpretation itself, must be sensitive to the context in which the interpreted text occurs.

> As a threshold matter, there is Old Chief's erroneous argument that the name of his prior offense as contained in the record of conviction is irrelevant to the prior-conviction element, and for that reason inadmissible under Rule 402 of the Federal Rules of Evidence. Rule 401 defines relevant evidence as having "any tendency to make the existence of any fact that is of consequence to the determination of the action more probable or less probable than it would be without the evidence." Fed. Rule Evid. 401. To be sure, the fact that Old Chief's prior conviction was for assault resulting in serious bodily injury rather than, say, for theft was not itself an ultimate fact, as if the statute had specifically required proof of injurious assault. But its demonstration was a step on one evidentiary route to the ultimate fact, since it served to place Old Chief within a particular sub-class of offenders for whom firearms possession is outlawed by § 922(g)(1). A documentary record of the conviction for that named offense was thus relevant evidence in making Old Chief's § 922(g)(1) status more probable than it would have been without the evidence.

Justice Souter here offers an argument, namely, a *relation* between two sets of propositions, a set of premises and a set of conclusions, in which the former is offered to, or can be taken to, provide support for the latter. In order to assess whether this is a strong argument or not, we must first discern what the argument is. This means, specifically, that me must move from the natural language presentation of his argument (the way it appears in the report of the judicial opinion) to a *fair formal representation* of the argument in a way that makes explicit the argument's premises, its conclusion, and its logical form. This is a matter of interpretation—an essential lawyerly skill. Using interpretation to discern its premises and conclusion, we can *fairly represent* Justice Souter's arguments as follows:

b. Old Chief Argument: Valid Deductive Argument

proposition (type and #)	**Proposition**
Premise ε_1	Relevant evidence is evidence having "any tendency to make the existence of any fact that is of consequence to the determination of the action more probable or less probable than it would be without the evidence."
Premise ε_2	Being a person "who has been convicted in any court of, a crime punishable by imprisonment for a term exceeding one year" is a "fact that is of consequence to the determination of the action."
Premise ε_3	The evidence of a documentary record of the prior conviction of defendant Old Chief for assault resulting in serious bodily injury makes it more probable than it would be without the evidence that he was a person "who has been convicted in any court of a crime punishable by imprisonment for a term exceeding on year."

Conclusion h_1	The evidence of a documentary record of the prior conviction of defendant Old Chief for assault resulting in serious bodily injury is relevant.

In this argument table we have "argufied" Justice Souter's argument-enthymeme. This means that we have identified its premises and conclusion and represented it as a deductive argument. This argument possesses the characteristic virtue we have identified for deductive arguments: it is valid. If premises ε_1, ε_2, and ε_3 are all true, it is not possible (or conceivable—try it!) for the conclusion to be false.

Note, too, that the premises of a *valid* deductive argument may in fact (that is, in our actual world) be *false*, as in the argument

ε_1 All whales are fish

ε_2 Fido is a whale

therefore

h Fido is a fish

—in which premise ε_1 is false. This deductive argument is valid, but it is not *sound*. A *sound* deductive argument is a valid argument whose premises are in fact true. (Truth in some possible world is also a virtue of arguments, but this type of virtue pertains not to deductive arguments alone, but to any argument in any of the four modes of logical inference. We will return to this point when we consider the virtue of dialectical strength of an argument, below.)

Judges very often, perhaps even always, use deductive arguments to apply legal rules to the facts of cases, whether those are rules of substantive law or "adjective law" (rules of evidence and procedure). This is true even when they also use other modes of logical inference among interlocking arguments (for example, using argument by analogy to interpret a term in an applicable legal rule that is vague). Do you believe that Justice Souter's argument above is both valid *and* sound? What is it that can make the premises of a legal argument *true*? (This is an important jurisprudential question, but regardless of your knowledge of jurisprudence you likely have at least a solid educated intuition about that question.)

(2) THE BASIC PATTERNS OF INDUCTIVE INFERENCE AND ITS MODE-DEPENDENT VIRTUE

In an *inductive* argument, the truth of the premises cannot guarantee the truth of the conclusion, but when they are well chosen, their truth can warrant belief in the truth of the conclusion to some degree of probability. There are two main varieties of inductive inference: inductive generalization and inductive specification. The *Knapp* case exemplifies both.

a. Inductive Generalization

Inductive generalization involves generalizing from particular instances. The premises of this type of argument report features of the particulars, and its conclusion states a probabilistic generalization that is inferred from those particulars. In the notes below we'll use two examples to illustrate the form of inductive generalization. One is the *Knapp* judge's analysis of logical relevance in

the case he was deciding, the other is a simplified example from empirical science (induction is one of the foundations of all empirical scientific reasoning).

Where	'$\alpha_1 \ldots \alpha_n$'	stands for a set of individual instances
	'φ'	stands for one property that the individuals $\alpha_1 \ldots \alpha_n$ have been noted to possess
	'θ'	stands for another property the individuals $\alpha_1 \ldots \alpha_n$ have been noted to possess

the pattern of inductive generalization is:

(ε_1) α_1 is both φ and θ (i.e., has both characteristics, φ and θ)

[e.g., Person A made a factual assertion and Person A spoke truly.]

[e.g., Bird A was a swan and Bird A was white.]

(ε_2) α_2 is both φ and θ

[e.g., Person B made a factual assertion and Person B spoke truly.]

[e.g., Bird B was a swan and Bird B was white.]

(ε_3) α_3 is both φ and θ

[e.g., Person C made a factual assertion and Person C spoke truly.]

[e.g., Bird C was a swan and Bird C was white.]

. . .

(ε_n) α_n is both φ and θ

[e.g., Person N made a factual assertion and Person N spoke truly.]

[e.g., Bird N was a swan and Bird N was white.]

(ε_{n+1}) There were [few or no] observed instances of an α that was φ and was not θ

[e.g., There were few persons who made a factual assertion and did not speak truly—*Knapp*: "even in the greatest liars . . . where they lie once they speak truth 100 times."]

[e.g., No swans were observed to be non-white.]

Therefore h: [Probably] [**All or Most]** φ's are θ

[e.g., *Knapp*: Probably, **most** persons who make factual assertions are persons who speak truly.]

[e.g., Probably, **all** swans are white.]

Note that, like all arguments, *inductive arguments are arguments consisting of evidence (premises of the argument) and hypotheses (the conclusion of the argument) that the evidence is said to support*. Thus, the premises of an inductive argument are

evidentiary propositions (the "ε_i" in our Logocratic ε–h schema) and the conclusion is a hypothesis that the evidence is offered to support (the "h_i" in our ε–h schema).

b. Inductive Specification

The other type of inductive inference is *inductive specification*. Instead of reaching a conclusion about a class of individuals, an inductive specification offers a conclusion about one individual, based on a generalization about the classes to which that individual belongs. Again, we illustrate the form of this argument by reference to the two examples offered above.

In the *Knapp* example, the inductive specification is the argument that in the set of all persons—even including that set "the greatest liars"—who made factual assertions, a great many persons spoke truly the vast majority of the time (*Knapp* endorses the claim that the ratio is 100 to 1!); therefore, some individual person D who made a factual assertion (or perhaps the next individual person who will make a factual assertion) is also likely to have spoken truly (or likely will speak truly).

In the swan example, the inductive specification is the argument that a great many (actually, in this example, all) swans were white; therefore, some individual swan was white (or perhaps the next observed individual swan will be white).

Note that inductive specifications are a basic form of argument for making *predictions* based on empirical evidence—predictions, for example, about the next person we encounter who will make a factual assertion, or the color of the next swan we will see. It is in part for this reason that inductive arguments are so fundamentally a part of arguments in empirical science.

The abstract form of an inductive specification argument is this:

(ε_1 through ε_n) α_1 through α_n have all been both φ and θ (i.e., has both characteristics, φ and θ)

[e.g., Person A through Person N all made a factual assertion and spoke truly.]

[e.g., Bird A through Bird N all were swans and white.]

(ε_{n+1}) There were [few or no] observed instances of an α that was φ and was not θ

[e.g., There were few persons who made a factual assertion and did not speak truly.]

[e.g., No swans were observed to be non-white.]

Therefore h: Some individual α_{n+1} [probably] has both φ and θ.

[e.g., Some person (perhaps some person we encounter in the future) who makes a factual assertion probably spoke (or probably will speak) truly.]

[e.g., Some bird (perhaps some bird we encounter in the future) who is a swan probably is white.]

c. The Mode-Dependent Virtues of Inductive Generalizations and Inductive Specifications

Note that the premises of inductive arguments (both generalizations and specifications) cannot provide support for the conclusion that is as strong as the support that the premises of a valid deductive argument provide for its conclusion. Even when all the premises of an inductive generalization are true, and even if the number of such premises is vast, the premises cannot guarantee the truth of the conclusion. Put another way, unlike in a valid deductive argument, it is conceivable that all the premises are true and that the conclusion is false. (In fact, it used to be believed that all swans were white until black swans were discovered in Australia. See Frederick Schauer, Profiles, Probabilities, and Stereotypes 8 (2006).)

To assess the virtues or vices of inductive inference, that is, in order to assess the strength of the inferential or epistemic warrant that the premises of an inductive inference provide for the conclusion, one must assess the premises or conclusion according to several criteria. Note that the criteria for virtuous inductive specifications are logically dependent on those for virtuous inductive generalizations, since the specification is an application of the generalization to a specific instance. One useful articulation of the criteria for a virtues inductive generalization is as follows:

> Guidelines for Evaluating Inductive Generalizations
>
> 1. Try to determine what the sample is and what the population is. If it is not stated what the population is, make an inference as to what population is intended, relying on the context for cues.
> 2. Note the size of the sample. If the sample is lower than 50, then, unless the population is extremely uniform or itself very small, the argument is weak.
> 3. Reflect on the variability of the population with regard to the trait or property, x, that the argument is about. If the population is not known to be reasonably uniform with regard to x, the sample should be large enough to reflect the variety in the population.
> 4. Reflect on how the sample has been selected. Is there any likely source of bias in the selection process? If so, the argument is inductively weak.
> 5. For most purposes, samples based on volunteers, college students, or persons of a single gender, race, or social class are not representative.
> 6. Taking the previous considerations into account, try to evaluate the representativeness of the sample. If you can give good reasons to believe that it is representative of the population, the argument is inductively strong. Otherwise, the argument is weak.

Trudy Govier, A Practical Study of Argument 265 (7th ed. 2014).

In his similar list, philosopher Stephen Barker makes one crucially important addition:

> [T]here must be an adequate explanatory relation among the identified characteristics in the premises.

See Steven Barker, The Elements of Logic 187 (5th ed. 1994).[8]

This is not an exhaustive list of the criteria of inductive vice and virtue. Unlike the theory of other modes of inference (especially, indeed perhaps only, deduction), logicians and epistemologists do not agree on an exclusive and exhaustive set of criteria. (Can you think of other important criteria not listed above?)

(3) INFERENCE TO THE BEST EXPLANATION ('IBE'—ALSO REFERRED TO AS 'ABDUCTION' IN THE LITERATURE ON THE THEORY OF ARGUMENT): ITS STRUCTURE AND MODE-DEPENDENT VIRTUE

a. The Terminology and Idea of Inference to an Explanation

The term 'abduction' was introduced into the theory of argument by the American philosopher Charles Sanders Peirce. Philosopher Gilbert Harman rebranded the reasoning process Peirce called 'abduction' to 'inference to the best explanation', and since that time, philosophers, logicians, and other students of the theory of argument have used both terms. In this presentation we shall use the terms interchangeably, and define below precisely what we refer to with these two labels. A successful meta-abduction—inference to the best *explanation of* inference to the best explanation—must have or rely on some cogent conception of the speech-act of explanation. Reasoners offer explanations that take different forms. They sometimes explain *why* something is what it is, sometimes explain *how* something is what it is, by virtue of what, what genealogy it has, and sometimes explain *what* something is.

According to the Logocratic account of abduction, explanations are always offered from and according to the criteria of a *point of view*. One might be said literally to have a point of view, that is, to occupy some position in space that gives one a particular visual vantage. On the forest floor, one might see only trees; from a point atop a mountain, one might see the forest and not only the trees; from a bird's-eye view (say, from an airplane), one might see the shape of a lake; from an astronaut's-eye view, the shape of the earth.

Expertise provides another type of point of view. An expert witness might tell a jury or judge what the facts are from the point of view of a biologist, a chemist, a ballistician, a psychiatrist, and so on. One might also identify an institutional or social point of view, the point of view of a particular type of actor in an institutional

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[8] Barker's whole list of criteria for a strong induction is:

- a sufficient number of observed instances in the premises
- a proper degree of shared characteristics among the identified characteristics in the premises
- a proper degree of unshared characteristics among the identified characteristics
- the logical strength of the conclusion ("all," "some," "probably," "very likely" etc.)
- the explanatory relations among the identified characteristics in the premises

The final criterion is important because of what philosopher Nelson Goodman called the "grue" problem, which we can explain concisely as follows (but using an example different from Goodman's more complex one). In the inductive generalization above to the conclusion 'all swans are white', the premises are observations based on experience. *Experientially*, each premise is of an item that is OBSERVED AND SWAN AND WHITE. When we make the inductive generalization, we generalize over the properties of swans and whiteness, to get 'all swans are white', but we do not, and should not, generalize over observed and swan, to get 'all swans are observed'. Why not? A deep part of the reason, to which Goodman and Barker both point, is that we believe that there is an explanatory relation between bird species and bird color, but not between bird species and being observed.

or other social setting—the points of view, for example, of a legislator, a judge, a lawyer, a citizen, a president, a "bad man," a parent, a child, a professor, a student.

One might also identify an "enterprise" conception of point of view, and indeed the enterprise conception is, we suggest, the common thread that runs through all the notions of point of view mentioned above, both the more ordinary and the more reflectively philosophical. This point of view might even be understood as the point of view of an enterprise, an enterprise in which particular methods of analysis are chosen both to produce factual judgments and to serve specified cognitive goals. Examples of such enterprises include: systems of legal reasoning (the "legal point of view"); systems of moral reasoning (on a cognitivist account of morality, at least, this yields the "moral point of view"); philosophical reasoning (the "philosophical point of view"); systems of reasoning in support of business objectives (the "business point of view"); the "military point of view"; the "economic point of view"; "the religious point of view". . . and so on for many other enterprises.

In each use of point of view noted above, the concept of point of view is invoked to justify some claim, either a claim about what we ought to believe (a theoretical claim) or how we ought to act (a practical claim). Note that simply identifying the general point of view of an enterprise does not by itself answer the following question: What are the specific aims of the enterprise for abductive reasoners who recognize themselves as pursuing the same generic enterprise, but who often disagree about what are the proper specific aims of the enterprise? Such disagreements are a principal source (but not the only source) of the difference among theories within an enterprise. It is, for example, a source of disagreement among legal theorists who march under such banners as "Legal Positivism," "Natural Law," "Legal Realism," and "Critical Legal Studies."

The enterprise conception of point of view, properly supplemented by Laudan's axiological model, can serve to explicate the concept of the "point of view" in its different philosophical uses.[9] Generalized from the particular intellectual domain of science, Larry Laudan's axiological model of scientific explanation greatly helps us to explicate the role of viewpoint on the enterprise conception, both in explanation generally and in abduction specifically. The enterprise conception of a point of view posits that an intellectual enterprise that produces distinctive justificatory claims may be dissected into three separate components: factual judgments, the distinctive methods that the enterprise uses to generate those factual judgments, and the distinctive cognitive aims that the methods are chosen to advance and serve. One invokes a point of view to justify some claim. To serve this justificatory function, the point of view is assumed to be a reliable method of achieving the (explicit or implicit) aims of some rational enterprise.

The enterprise conception of point of view, supplemented with Laudan's axiological model, allows us to offer an identity criterion for an individual point of view:

> The point of view of enterprise E consists of the factual judgments, produced by the methodological rules adopted to serve the axiological goals of E.

[9] See generally, L. Laudan, Science and Values (1984).

According to this criterion, there are a great many logical species of abduction. The list of these types is long, likely, in principle, unending. We here identify some of the domains of abduction that are of particular interest for Logocratic analysis of law—*legal* abduction, *moral* abduction, *logical* abduction, *interpretive* abduction, and *philosophical* abduction (including metaphysical).

b. The Characteristic Virtues of IBE-Abduction

An account of the characteristic virtues of abduction closely tracks the enterprise conception of point of view as elaborated with the help of Laudan's axiological model. A virtuous abduction accurately deploys methods to issue the judgments that are characteristic of that point of view, in turn choosing methods that do a good job of serving the axiological aims. Because the contexts and domains of abductive argument vary so widely, it is not possible to say much that is specific about the virtues of an abductive argument apart from this. However, a deep research project is involved by practitioners of abduction in their respective fields concerning the elements of their respective points of view. They perforce consider and argue about (albeit not usually in these terms) what are, and what should be the axiological goals, methods chosen to serve those goals, and what are the judgments that issue from application of those methods. As Laudan's model makes clear, disagreement among abductive reasoners is possible regarding any of the three-part judgment-method-goal triads that comprise a point of view.

What is the legal point of view? What should be the legal point of view? What are or should be its judgments, methods, and aims? These are questions that occupy much of jurisprudence. However, even among jurisprudential theories as opposed as Legal Positivism and Natural Law, it is clear that legal abduction consists to a very large extent in explanation of whether the criteria of rules are satisfied—even if rules do not (as they cannot) provide a complete explanation of legal outcomes, whether in evidence or in other legal domains.

c. The Formal Structure of IBE-Abduction

Inference to the best explanation involves, as its name suggests, inference to an explanation of some fact or set of facts. In this argument, a statement of the phenomenon (or phenomena) to be explained and the putative explanation both appear as premises of the argument and the explanation itself is the argument's conclusion. The fundamental pattern of inference to the best explanation consists in four basic steps, three premises (represented as 'ε_1', 'ε_2', 'ε_3') and a conclusion (represented as 'h'). The generic pattern of inference to the best explanation has this structure:

Premise ε_1: The statement of the phenomenon to be explained, called the *explanandum*.

Premise ε_2: The statement of one or more sets of propositions that could *plausibly* explain the phenomenon to be explained. (One or more "plausible explanation" conditionals Φ_n, of the form, "If Φ_i were true or otherwise warranted in this case, that would explain the explanandum.")

Premise ε_3: The statement asserting, of those propositions or sets of propositions that could plausibly explain the phenomenon

(identified and stated in premise ε_2), that proposition or set of propositions is the *best* explanation—*as measured by the interests and purposes of the arguer*.[10] It is perhaps intuitively clear that, in inference to the best legal explanation, the interests and purposes of the plaintiff or prosecutor compete with the interests and purposes of the defendant, and thus, in an adversary system, they offer competing legal explanations of events and transactions; one, for example, that the transactions amounted to breach of contract, the other, that they did not. The same dynamic pertains to inferences to the best explanation that are made under the aegis of rules of evidence, the proponent arguing that the proffered evidence is best explained, from a legal point of view, as admissible, the opponent arguing that the proffered evidence is best explained, from a legal point of view, as (for example) hearsay and not admissible. The question of the point of view a judge has, or should have, when offering her own inference to the best legal explanation, is a deep jurisprudential question.

Conclusion h: The statement that this best-among-the-plausible explanations is the explanation the arguer endorses.

IBE is extremely common, nay, ubiquitous in legal analysis, including analysis under rules of evidence. Every time a legal analyst explains a set of facts from a legal point of view—e.g., are the facts of this transaction best explained as contract, or as tort, or as the crime of murder; or is the proffered evidence logically relevant, or conditionally relevant, or hearsay, or character evidence—that analyst uses the argument pattern of inference to the best *legal* explanation. And when the factfinder (judge alone, or judge plus jury) finds those facts that are material to a substantive law claim, the factfinder uses inference to the best *legal-factual explanation*.[11]

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[10] A good deal more can be said with precision about the nature of the point of view and its role in IBE. See the discussion in Brewer, *Scientific Expert Testimony and Intellectual Due Process*, 107 YALE L.J. 1535, 1568–79 (1998). Here an intuitive example may suffice. Suppose one country, which is a signatory to several international treaties, contemplates invading another country. One can evaluate the advisability of that action from several distinct points of view, each point of view being comprised of distinctive kinds of judgments, methods for producing those judgments, and aims served by those methods. The distinct points of view that can be taken in this question of advisability of invasion may cohere and agree one with another, but also may well not. It might be advisable (or ill-advised) from a military point of view, or from a legal point of view, or from a moral point of view. See also R. Giere, Scientific Perspectivism 13–15 and passim (2006). A competition among points of view about the invasion of the Ancient Island of Melos by the Athenians is trenchantly explored by the ancient historian Thucydides. See Thucydides, History of the Peloponnesian War Book 5 § 89 (Benjamin Jowett trans., 1883) (Athenian envoys to Melian representatives, "[I]nto the discussion of human affairs the question of justice only enters where the pressure of necessity is equal, and that the powerful exact what they can, and the weak grant what they must.").

[11] Different domains have different methods for assessing facts more precisely. There are, among many others, legal facts, logical facts, physics facts, biological facts, and possibly moral facts (which can be explained whether one is a moral realist or a moral relativist). This understanding of facts is given sustained theoretical defense in N. Goodman, Ways of Worldmaking (1978) (see especially Chapter VI "The Fabrication of Facts"). By the phrase 'legal facts' we refer to what evidence jurists sometimes call a "material fact" or "operative fact." It is especially important to distinguish domains of factual claims because the methods for establishing putative facts are distinctive in those distinctive domains. Our brief discussion of inference to the best explanation will help to explain this point. An example in one well-known case reveals that what is "in fact" a "chicken" for the purposes of a contract may well differ from what a chicken is for the purposes of ornithology. See the well-known case of *Frigaliment Importing Co. v. B.N.S. International Sales Corp.*, 190 F. Supp. 116 (Friendly, J.), a dispute about the meaning of "chicken" in a contract putatively for that commodity. Among the many definitions canvassed by one of

Virtually all the cases in this book offer inference to the best legal explanation, and a great many of them also offer inference to the best legal-factual explanation.

As we will see again with analogical arguments, there are ways in which one mode of logical inference can play a role *within* another, and inference to the best legal explanation is one such instance. At some point in an inference to the best legal explanation, the Logocratic analyst seeks to explain the facts of a given case (or hypothetical) by determining what legal rules *might* apply to the fact pattern, and then determining the outcome of the application of the rule to the fact pattern. One of the most likely successful representations of the application of rules to potential facts is as a possible deductive argument.[12] Another way we may understand the role of deduction within inference to the best legal explanation is that the analyst *explains the fact pattern from a legal point of view*.[13] Thus, for example, when Justice Gillett in *Knapp* reasoned his way to the best legal explanation of the prosecutor's proffer of the doctor's testimony about how the old man in question died (see discussion in Chapter 1, section 2(D)), he used an application of the rule for logical relevance to offer a *deductive* argument to determine that this proffered evidence was logically relevant. In so doing he used his application of the deductively applicable rule for logical relevance to conclude that, because the requirements of the rule were in fact satisfied by the facts of the case before him ('satisfied' here means that there was sufficient evidence for the facts, under the appropriate burden of persuasion), the best explanation of the proffer of evidence by the prosecutor is that the proffer was, from a legal point of view, logically relevant. In effect, that is, the justice reasoned that, because the requirements of the rule of logical relevance (*evidence is relevant if and only if evidence conduces to the proof of a pertinent hypothesis*) were satisfied, that rule would be the best explanation of the prosecutor's proffer of evidence.

We can also present the role of deduction within legal abduction using *Knapp* as an illustration in a more formal way, using the formal IBE pattern we have just identified. In *Knapp* the proposition to be explained from a legal point of view was the prosecutor's proffer of evidence ε_1 offered to support the hypothesis h_1, and h_1, in turn, which serves as an evidentiary proposition ε_2 offered to support h_2 (the "ultimate issue" in the case—note that there is a chain of arguments, from ε_1 to h_1 which then in turn serves as premise ε_2 to h_2). Note also that the explanandum, the item to be explained in *Knapp*, and as is typical of inferences to the best legal explanations in reasoning with evidence rules, is *an evidentiary-enthymeme*. In *Knapp* Justice Gillett's task was to explain *from a legal point of view* the prosecutor's proffer of ε_1 offered to prove h_2.

[Abstract form of IBE-Premise ε_1]

Premise ε_1 Statement of proposition to be explained in IBE, the "explanandum," abbreviated "Θ"

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the parties' witnesses, is "Chicken is everything except a goose, a duck, and a turkey. Everything is a chicken, but then you have to say, you have to specify which category you want or that you are talking about."

[12] This is because the role of reasoning with rules in legal abduction is so often best represented as deductive reasoning, see the discussion in Brewer, Exemplary Reasoning, infra note 14, at 999–1003.

[13] For extensive analysis of the concept of "point of view" and its role in inference to the best explanation, see Brewer, Scientific Expert Testimony and Intellectual Due Process, 107 Yale L.J. 1535, 156–81 (1998).

[IBE Premise ε_1 in example of *Knapp*]

Premise ε_1 the prosecutor proffers an evidentiary enthymeme, seeking to have evidence ε_1 admitted, in order to prove h_1 and then from there to prove h_2. This proffer calls for the trial judge to explain the proffer from a legal point of view—is ε_1 offered for h_1 (logically) relevant or not (or does it fit some other definition of admissibility/excludability, such as hearsay, character, privilege, etc.)

evidentiary enthymeme proposition ε_1

The prosecutor's proffer of testimony by the doctor that the old man, whom defendant claimed to have heard died of a beating at the hands of the decedent, died of natural causes and not from a beating

evidentiary enthymeme proposition h_1/ε_2

Defendant **did not act in** self-defense fearing for his life

evidentiary enthymeme proposition h_2

Defendant committed first-degree murder

[Abstract form of IBE-Premise ε_2]

Premise ε_2 Statement of a proposition Φ_1 such that, if Φ_1 were true, Φ_1 would be a plausible explanation of the explanandum Θ

[IBE Premise ε_2 in example of *Knapp*]

Plausible-explanation proposition Φ_1

If the prosecutor's evidence ε_1 proffered to support h_1 was *logically relevant* ('logically relevant' is our contemporary term) to h_1, *that would plausibly explain this evidence from a legal point of view*.

[Comment: this is a statement of a proposition that Justice Gillett thinks could plausibly explain the explanandum (which, recall, is the prosecutor's evidentiary enthymeme). In *Knapp* Justice Gillett discusses only one proposition that he thinks is a plausible explanation of the prosecutor's proffer, namely, that the prosecutor's evidence ε_1 proffered to support h_1 was *logically relevant*. In order to determine whether this explanation is the best explanation, Justice Gillett must see whether the criteria of the rule for logical relevance are satisfied on the facts before him. This is where deduction plays a role *within* inference to the best legal explanation.]

[Abstract form of Premise ε_3 of inference to the best legal explanation]

Premise ε_3 Statement of a proposition Φ_i such that, Φ_i is the best explanation of all the plausible explanations of explanandum Θ

[IBE Premise ε_3 in example of *Knapp*]

That the prosecutor's evidence ε_1 proffered to support h_1 *was* logically relevant to h_1 is the best explanation of all the plausible explanations of the explanandum (the prosecutor's proffer of doctor's testimony offered to address defendant's self-defense claim), by virtue of this valid *deductive* argument:

Premise ε_1 evidence is relevant **if and only if** evidence conduces to the proof of a pertinent hypothesis

Premise ε_2 the prosecutor's evidence conduces to proof of a pertinent hypothesis

Conclusion h the prosecutor's evidence is relevant

[IBE conclusion h in example of *Knapp*]

[Justice Gillett did determine that the prosecutor's proffer met the requirement of the rule for logical relevance, as we've noticed earlier (we present a representation of the argufied argument in *Knapp* about logical relevance that is more concise than the more detailed representation in Chapter 1, pages 18–19). Justice Gillett offers this deductive argument as part of his resolution of the case by admitting the prosecutor's proffered evidence. What we've now added to our understanding is that his deductive argument was in important step within his inference to the best legal explanation.]

Note that some IBE inferences can fairly be represented as having as much force as valid deductive inferences. Consider, for example, how one can explain how it is that a pawn in chess can appear on the same column as a pawn on the same "team" (color). The answer, that one pawn on that team "captured" an opposing piece, or en passant, is an application of deductively applicable rules of chess. Other IBE explanations have only as much force as the inductive specifications on which they rely. Thus, in some IBEs the premises provide incorrigible evidence for the truth of their conclusions (as in the chess explanation, and when IBE is used, as it indeed is, in mathematical and logical reasoning), and sometimes only probabilistic warrant (probability less than 1). Whether inferences to the best *legal* explanation, in which legal rules play such an important role (as we just observed), also have the force of deductively applicable rules is a nice and important jurisprudential question.[14]

(4) ANALOGY AND ITS MODE-DEPENDENT VIRTUES

In an analogical argument, one reasons that because two or more items (call these the "source" of the analogy and the "target" of the analogy) share some characteristics ("shared characteristics"), one can infer that they share an additional characteristic that is of particular interest to the reasoner (the "inferred characteristic"). In order to have rational cogency, arguments by analogy operate by discovering, articulating, and then applying a *rule* that links the presence of the shared characteristics to the inferred characteristic (the "analogy-warranting rule.")[15]

Analogical argument is a centerpiece of reasoning from precedent, a dominant mode of reasoning in Anglo-American law. Very often judges and lawyers argue that a precedent case is (or is not) relevantly similar to a case under consideration in some particular ways that are of interest to the reasoner. Analogical arguments also appear in arguments made in the course of evidence litigation. Sometimes these are arguments from precedent, as in common law evidentiary reasoning, but sometimes analogical arguments are used for other purposes, including when a statute, such as

[14] For a discussion of relevant considerations on this issue, see Brewer, On the Possibility of Necessity in Legal Argument: A Dilemma for Holmes and Dewey, 34 John Marshall L. Rev. 9 (2000).

[15] For an extended discussion of analogical argument, see Brewer, Exemplary Reasoning: Semantics, Pragmatics, and the Rational Force of Legal Argument By Analogy, 109 Harv. L. Rev. 923–1028 (1996).

the Fed.R.Evid., is the principal source of law. Here is an example of an analogical argument offered by Justice O'Connor in the *Old Chief* case (see Chpater 1, pages 45–54):

> [I]n our system of justice, a person is not simply convicted of "a crime" or "a felony." Rather, he is found guilty of a specified offense, almost always because he violated a specific statutory prohibition. . . . That a variety of crimes would have satisfied the prior conviction element of the § 922(g)(1) offense does not detract from the fact that petitioner committed a specific offense. The name and basic nature of petitioner's crime are inseparable from the fact of his earlier conviction and were therefore admissible to prove petitioner's guilt.
>
> The principle is illustrated by the evidence that was admitted at petitioner's trial to prove the other element of the § 922(g)(1) offense—possession of a "firearm." The Government submitted evidence showing that petitioner possessed a 9-mm. semiautomatic pistol. Although petitioner's possession of any number of weapons would have satisfied the requirements of § 922(g)(1), obviously the Government was entitled to prove with specific evidence that petitioner possessed the weapon he did. In the same vein, consider a murder case. Surely the Government can submit proof establishing the victim's identity, even though, strictly speaking, the jury has no "need" to know the victim's name, and even though the victim might be a particularly well loved public figure. The same logic should govern proof of the prior conviction element of the § 922(g)(1) offense. That is, the Government ought to be able to prove, with specific evidence, that petitioner committed a crime that came within § 922(g)(1)'s coverage.

Old Chief v. United States, 519 U.S. 172, 195 (1997) (O'Connor, J., dissenting). Here are the elements of Justice O'Connor's analogical argument:

Sources for the analogical argument:

source 1	[I]n our system of justice, a person is not simply convicted of "a crime" or "a felony." Rather, he is found guilty of a specified offense, almost always because he violated a specific statutory prohibition.
source 2	To prove the element of the § 922(g)(1) offense—possession of a "firearm"—the Government submitted evidence showing that petitioner possessed a 9-mm. semiautomatic pistol, even though possession of any number of weapons would have satisfied the requirements of § 922(g)(1).
source 3	In a murder case, the Government submits proof establishing the victim's identity, even though, strictly speaking, the jury has no "need" to know the victim's name, and even though the victim might be a particularly well-loved public figure.

Target for the analogical argument:

> The Government's proffer of evidence that defendant Old Chief's prior felony conviction which brought him within the scope of being a "felon

in possession of a firearm," and thus within the scope of the offense specified by § 922(g)(1), was for assault causing serious bodily injury.

Shared characteristic		There is a use of a specific name to prove the element of a legal rule
Inferred characteristic		The use of a specific name to prove the element of a legal rule is legally permitted
Analogy-warranting rule	If	
		there is a use of a specific name to prove the element of a legal rule
	then	
		the use of a specific name to prove the element of a legal rule is legally permitted[16]

Analogy-warranting rationale: ?

Note: A fully virtuous argument by analogy—one that has all of the characteristic virtues of an argument by analogy—also has either an explicit or fairly easily discernible *analogy-warranting rationale*, which offers a justification for the analogical arguer's endorsement of the analogy-warranting rule. Specifically, this justification is an explanation of why one may infer the presence of the inferred characteristic of the analogy from the presence of the shared characteristic.[17] Justice O'Connor offers no easily discernible analogy-warranting rationale for her analogy-warranting rule—unless it is something like (and as vague as) "common sense."

a. Mode-Dependent Virtues of Analogical Arguments

What are the characteristic virtues of an analogical argument, the features that make such an argument as strong as an analogical argument can be? The main criterion of virtue comes from powerful work done by philosopher Paul Grice, who showed that the communicative exchanges operate under a powerful presumption, namely, that speakers and authors behave in accord with a cooperative principle: "Make your conversational contribution such as is required, at the stage at which it occurs, by the accepted purpose or direction of the talk exchange in which you are

[16] I represent the analogy-warranting rule here as a rule that is capable of yielding a valid deductive inference, by means of modus ponens. In some reasoning by analogy, the analogy-warranting rule yields only "defeasible modus ponens," meaning that the rule is only a probabilistic generalization (as in this very condensed analogical argument: 'This dog is like other dogs in my experience in being a pit bull, and those pit bulls have been vicious, so this dog is also likely to be vicious."). The question of the role of deduction in the adequate representation of legal arguments is a deep jurisprudential question. See Brewer, Traversing Holmes' Path toward a Jurisprudence of Logical Form, in The Path of the Law and Its Influence: The Legacy of Oliver Wendell Holmes 94 (S. Burton ed., 2000). For discussion of deductive and inductive analogy-warranting rules, see the discussion in Brewer, Exemplary Reasoning, supra note 14, at 983–1017.

[17] See Brewer, Exemplary Reasoning, supra note 14, at 966–68.

engaged."[18] Argument, including analogical argument, is a type of communicative exchange to which both authors-speakers and readers-listeners apply the interpretive presumption that the author-speaker is obeying the cooperative principle. Specifically for analogical argument this means that fully virtuous analogical (and disanalogical) arguments communicate sufficiently clearly what are the: sources, targets, shared characteristics (analogy), unshared characteristics (disanalogy), analogy-warranting rule, and disanalogy-warranting rule. No less important is a vital additional virtue for analogical and disanalogical arguments: that there is a cogent and compelling analogy- or disanalogy-warranting rationale, appropriate for either deductively warranting contexts or inductively warranting contexts.[19]

E. MODE-INDEPENDENT LOGOCRATIC VIRTUES

We have considered the first two types of Logocratic virtues, namely, the virtues of arguments that are *dependent on their logical form*. We have briefly summarized what are the mode-dependent, characteristic virtues of deduction, induction, analogy, and inference to the best explanation. There are also Logocratic virtues that are *independent of* the logical form, and it is to discussion of these that we now turn. These are virtues of arguments that apply to all arguments regardless of their logical form, including, of course, evidential arguments. These virtues of arguments are, more specifically, types of *strength* (virtue) or *weakness* (vice) understood as *creative instrumental efficacy for achieving one or another (or some combination) of three goals or purpose*. We refer to these three types of mode-independent strength (or weakness) as *internal*, *dialectical*, and *rhetorical*.

(1) INTERNAL (ALSO REFERRED TO AS "INFERENTIAL" OR "EPISTEMIC") STRENGTH OR WEAKNESS

One logical, form-independent purpose for argument is to use argument to infer conclusions from premises in such a way that the argument is *internally strong,* in the sense that *if* the premises of the argument are true, then they provide strong support for the conclusion of the argument. Or, we could equally well say, if the premises are the argument are believed, they provide strong support for believing the conclusion of the argument; this is what we mean by the phrase 'epistemic strength'. And we could also equally well say, if the premises are the argument are true, they provide strong support for *inferring* the conclusion of the argument; this is what we mean by the phrase 'inferential strength'.

For example, in the argument below, we can assess the "inferential strength" or the "epistemic strength" or the "internal strength" that the two premises ε_1 and ε_2 provide for the conclusion h.

ε_1 All men are mortal.

ε_2 Socrates is a man.

therefore

[18] Grice, Logic and Conversation, in 3 Syntax and Semantics: Speech Acts 46 (P. Cole and J. L. Morgan eds., 1975).

[19] The distinction between deductively warranting contexts or inductively warranting contexts is discussed in Brewer, Exemplary Reasoning, supra note 14, at 983–1017.

h Socrates is mortal.

This is a type of argument—which we have identified above as a *valid deductive argument*—in which the internal (inferential, epistemic) strength is as strong as possible. Put another way, in this argument, whenever all the premises (ε_1 and ε_2) are true, it is not conceivable that the conclusion (h) is false. There cannot be any stronger warrant than the internal warrant that these premises of this argument, and this type of argument (valid deductive argument), provide for its conclusion.

It is very useful to note that, in Logocratic theory, there is an important relationship between mode-dependent virtues of deduction, induction, analogy, and abduction, on the one hand, and this type of mode-independent virtue—internal strength, on the other. The mode-independent virtue of internal strength is a function of the degree to which an argument exemplifies the characteristic, mode-dependent virtues associated with its type of argument.

(2) DIALECTICAL (ALSO REFERRED TO AS "EXTERNAL") STRENGTH OR WEAKNESS

Internal (inferential, epistemic) strength is only one of three important measures of am argument's strength or weakness. Another is *dialectical* strength (or weakness). A *dialectic* of arguments is a *competition* among arguments. Recognizing that dialectical strength (or weakness) is a type of strength (or weakness) distinct from internal (inferential, epistemic) strength allows us to make further distinctions among dialectical competitions of arguments. There can be:

(i) *External* competition *among* arguers, as for example in litigation, when there is competition of prosecutor or plaintiff against a defendant, or when, on a multi-judge panel, there is competition of majority and dissenting judges.

(ii) *Internal* competition *within* an arguer, as for example when a judge or lawyer debates the pros and cons of a legal argument (or when a philosopher does likewise with philosophical arguments—compare Socrates in Plato's dialogue *the Apology*: "[T]he greatest good of man is daily to converse about virtue and all that concerning which you hear me *examining myself and others* . . . ." (38A) (emphasis added)).

(iii) *Formal* competition of arguments (and arguers), guided by formal rules, as for example in litigation (*rules of evidence and procedure may be very usefully understood as rules that guide the formal competition of litigants' and judges' arguments*) or in various scholastic debate competitions.

(iv) *Informal* competition of arguments (and arguers), guided by informal rules, as for example in philosopher Socrates' debates with his interlocutors in the Socratic "elenchos" (Ancient Greek term for cross-examination).

(3) RHETORICAL STRENGTH OR WEAKNESS

The third measure of strength (or weakness) of an argument is its ***rhetorical*** strength (or weakness). In Part 2 of his treatise *Rhetoric*, the philosopher Aristotle defines 'rhetoric' as follows:

> Rhetoric may be defined as the faculty of observing in any given case the available means of persuasion. This is not a function of any other art. Every other art can instruct or persuade about its own particular subject-matter; for instance, medicine about what is healthy and unhealthy, geometry about the properties of magnitudes, arithmetic about numbers, and the same is true of the other arts and sciences. But rhetoric we look upon as the power of observing the means of persuasion on almost any subject presented to us; and that is why we say that, in its technical character, it is not concerned with any special or definite class of subjects.

Aristotle, Rhetoric 7 (W. Rhys Roberts trans., 2010) (c. 350 B.C.E). In accord with this definition, we may say that rhetoric is the attempt by a source rhetor to persuade a target audience to accept a proposition or set of propositions. Legal arguers, including judges, lawyers, and law students (as well as arguers in many other settings) seek not only to offer arguments that are internally strong and dialectically strong (strong in competition with other arguments), but also are *persuasive* to one or more target audiences.

Some of the most famous decisions in the Supreme Court's history have been arguments that were dialectically weaker (in that they were dissenting Justices' opinions, which, by definition, lost the dialectical competition with the majority justices' opinion) but were rhetorically strong for target audiences of subsequent generations of judges and lawyers. One may cite, for example, Justice Harlan's dissent in Plessy v. Ferguson, 163 U.S. 537, 559 (1896) ("In my opinion, the judgment this day rendered will, in time, prove to be quite as pernicious as the decision made by this tribunal in the Dred Scott Case.") (Harlan, J., dissenting) and Justice Holmes's dissent in Lochner v. New York, 198 U.S. 45, 74 (1905) (Holmes, J., dissenting).

In the specific area of evidence litigation, judicial opinions offer a good deal of evidence of their effort to offer arguments that are rhetorically strong (while *also* internally and dialectically strong). Some of this evidence is in the form of rhetorical devices like metaphors and other figures of speech, as for example in Justice Thurgood Marshall's final opinion as a full sitting Justice in Payne v. Tennessee, 501 U.S. 808, 844 (1991) (Marshall, J., dissenting). In that opinion, Justice Marshall used reasoning by analogy (see the discussion above, section 1(D)(4)) to challenge the majority's argument attempting to justify overturning two Supreme Court precedents that were then only two and four years old. Although he lost the dialectical competition with the majority (by definition, since this was a dissenting opinion), his opinion had clear evidence of an effort to make a rhetorically strong appeal:

> Power, not reason, is the new currency of this Court's decision-making. Four Terms ago, a five-Justice majority of this Court held that "victim impact" evidence of the type at issue in this case could not constitutionally be introduced during the penalty phase of a capital trial. . . . By another 5–4 vote, a majority of this Court rebuffed an attack upon this ruling just two Terms ago. Nevertheless . . . today's majority overrules Booth and Gathers and credits the dissenting views expressed in those cases. Neither the law nor the facts supporting Booth and Gathers underwent any change in the last four years. Only the personnel of this Court did. . . . In dispatching Booth and Gathers to their graves, today's majority ominously suggests

> that an even more extensive upheaval of this Court's precedents may be in store.

Id. at 844. A particularly colorful effort to offer an argument that is rhetorically strong comes from lawyer Daniel Webster, arguing to the Supreme Judicial Court in Massachusetts in Commonwealth v. Knapp, 9 Pick. 495 (Mass. 1830), that "suicide is confession." Webster, the prosecutor, sought to persuade the factfactinder to believe that a man who had committed suicide had committed murder, in order to aid Webster's cases against others who, Webster argued, aided and abetted the man who had committed suicide. Webster's rhetorical appeal (in language reminiscent of the dramatic action in Edgar Allen Poe's short story *The Tell-Tale Heart*), made in order to establish that the court should consider suicide to be confession (consider this argument when in Chapter 5 you consider the framework of confessions in Fed.R.Evid. 801(d)(2)), is as follows:

> The human heart was not made for the residence of such an inhabitant. It finds itself preyed on by a torment which it does not acknowledge to God nor man. A vulture is devouring it, and it can ask no sympathy or assistance, either from heaven or earth. The secret which the murderer possesses soon comes to possess him; and, like the evil spirits of which we read, it overcomes him, and leads him whithersoever it will. He feels it beating at his heart, rising to his throat, and demanding disclosure. He thinks the whole world sees it in his face, reads it in his eyes, and almost hears its workings in the very silence of his thoughts. It has become his master. It betrays his discretion, it breaks down his courage, it conquers his prudence. When suspicions, from without, begin to embarrass him, and the net of circumstance to entangle him, the fatal secret struggles with still greater violence to burst forth. It must be confessed, it will be confessed; there is no refuge from confession but suicide, and suicide is confession.

VII American State Trials 395, 515–16. (John D. Lawson ed., 1917)

2. SUMMARY OF THE ARGUING VIRTUES

We have spoken about two kinds of virtues and vices of arguments. Those that are specific to an argument's mode of logical inference ("mode-dependent virtues") and those that pertain to an argument regardless of its mode of inference ("mode-independent virtues"). For the mode-independent virtues, we have marked the idea of virtue as functional excellence by calling attention to three kinds of things arguers do with arguments as—pick the metaphor that best suits one's interests in argument in a given context—tools, instruments, implements, and weapons.

> (1) An arguer sometimes seeks to construct an argument that is internally strong, and we identified three ways to describe this kind of strength:
>
> > (a) if the premises are *true or otherwise warranted* (such as probabilistically warranted, less than 100% probability), then they provide some degree of support for the truth, or other warrant, of the conclusion
> >
> > (b) epistemic strength—*belief* in the truth or other type of warrant of the premises provides support for *belief* in the conclusion

(c) inferential strength—the truth or other warrant of the premises *licenses the inference* to the conclusion

(2) Arguers sometimes seek to construct an argument that is dialectically strong, meaning that it is strong in competition with another argument. A paradigm for this kind of competition is the contest of inferences to the best legal explanation of prosecutor (or plaintiff) and defendant in virtually every case (including *Knapp*, illustrated in detail above), and of majority and dissenting judges on multi-member judicial panels (illustrated in the *Sherrod* case, above).

(3) Arguers sometimes seek to construct an argument that is rhetorically strong, meaning that it is strong in its capacity to persuade a target audience, including multiple target audiences that might yield differing measures of rhetorical strength for same argument. For example, a dissenting judge's argument has by definition lost the dialectical competition of arguments with those of the majority, but it might persuade segments of the public, or the bar, or indeed future majorities of judges. Compare, e.g., Lawrence v. Texas, 539 U.S. 558, 604 (2003) (Scalia, J., dissenting) ("At the end of its opinion—after having laid waste the foundations of our rational-basis jurisprudence—the Court says that the present case 'does not involve whether the government must give formal recognition to any relationship that homosexual persons seek to enter.' Do not believe it. . . . This case 'does not involve' the issue of homosexual marriage only if one entertains the belief that principle and logic have nothing to do with the decisions of this Court. Many will hope that, as the Court comfortingly assures us, this is so.") with Obergefell v. Hodges, 135 S. Ct. 2584 (2015) (majority holding same-sex couples may exercise the fundamental right to marry).

3. DEFEASIBILITY AS A STRENGTH-VIRTUE AND WEAKNESS-VICE IN AN ARGUMENT: VITAL FOR UNDERSTANDING EVIDENTIARY ARGUMENTS

We will conclude this presentation of the Logocratic Method with an explanation of one additional feature of arguments that is vital for a complete understanding and mastery of arguments in evidence (and other domains): the property of *defeasibility*. And we shall suggest that this property is simultaneously a weakness-vice of arguments (since in a defeasible argument true or warranted premises cannot provide incorrigible evidence for the truth or warrant of the conclusion) and a virtue, the virtue of flexibility of adapting one's judgments about the world to new information. We also in this section return to Justice Gillett's argument in *Knapp* regarding logical relevance to illustrate the very typical operation of defeasible arguments in juristic reasoning about evidence.

Recall that, on our evidential conception of the discipline of logic (see Chapter 1, pages 13–16), logic studies the evidential relation between the argument's premises and its conclusion. Consider this shorter representation of the argufied argument in *Knapp* about logical relevance (the more detailed representation is in Chapter 1, section 2(D)(2)):

Premise ε_1	evidence is relevant **if and only if** evidence conduces to the proof of a pertinent hypothesis
Premise ε_2	the prosecutor's evidence conduces to proof of a pertinent hypothesis
Conclusion h	the prosecutor's evidence is relevant

Represented thus, this is a valid deductive argument, and has the highest possible degree of what we have called internal strength (also, "epistemic" and "inferential" strength, see discussion in section 1(E)(1) above): whenever all the premises of this type of argument are true, the conclusion must be true as well.

Now consider this hypothetical argument, which tracks a series of items of evidence that a prosecutor might offer to support the conclusion-hypothesis of guilt on a murder charge:

Argument 1

Premise/item of evidence ε_1	Jones confessed to shooting Smith.
Premise/item of evidence ε_2	Each of five witnesses testified that he or she saw Jones shoot Smith.
Premise/item of evidence ε_3	Jones's fingerprints were found on the gun recovered at the scene of Smith's shooting.
Therefore,	
Conclusion/hypothesis h	Jones shot Smith.

If premises ε_1, ε_2, and ε_3 were all true, doesn't it seem likely that you—and a factfinder—would consider them strong "evidence" for the conclusion h? But now suppose that these additional items of evidence/premises ε_4 through ε_7 are all also true (including, that is, ε_1, ε_2, and ε_3):

Additional premises

Premise/item of evidence ε_4	Jones was beaten by the police and ordered to confess.
Premise/item of evidence ε_5	Each of the five witnesses was bribed by the prosecutor to testify that he or she saw Jones shoot Smith.
Premise/item of evidence ε_6	Fingerprint evidence is reliable only 40% of the time.
Premise/item of evidence ε_7	The technicians in laboratory to which the gun was sent for fingerprint analysis were both incompetent and corrupt.

If we put all these premises together as one superset of premises, how strong is the support the whole set (all of the new "evidence," premises ε_1 through ε_7) provides for the conclusion h?

Argument 2 (= Argument 1 + Additional premises)

Premise/item of evidence ε_1	Jones confessed to shooting Smith.
Premise/item of evidence ε_2	Each of five witnesses testified that he or she saw Jones shoot Smith.
Premise/item of evidence ε_3	Jones's fingerprints were found on the gun recovered at the scene of Smith's shooting.
Premise/item of evidence ε_4	Jones was beaten by the police and ordered to confess.
Premise/item of evidence ε_5	Each of the five witnesses was bribed by the prosecutor to testify that he or she saw Jones shoot Smith.
Premise/item of evidence ε_6	Fingerprint evidence is reliable only 40% of the time.
Premise/item of evidence ε_7	The technicians in laboratory to which the gun was sent for fingerprint analysis were both incompetent and corrupt.
Therefore,	
Conclusion/hypothesis h	Jones shot Smith.

Compare Argument 1 and Argument 2. Whereas Argument 1 seems to provide strong evidence for the conclusion that Jones shot Smith (although not conclusive—keep in mind that the burden of persuasion in a criminal case like this would be beyond a *reasonable* doubt, not beyond *all* doubt), Argument 2, which contains and adds premises to the premises in Argument 1, provides far less, if any, support for the conclusion that Jones shot Smith. We shall call the additional premises added to the premises of Argument 1 *defeasiary evidence*. Overall, this example illustrates the property of **defeasibility.** Argument 1 is defeasible, and it is defeasiary evidence that is added to Argument 1 resulting in Argument 2.

> **Definition of 'defeasible':** An argument from premises to a conclusion is defeasible if and only if the argument is one in which it is possible that the addition of some premises to the argument's original premises can undermine the degree of evidential warrant that the original premises provide for the conclusion.

Of the four modes of logical inference we have examined, valid deductive inferences are always indefeasible (they are never defeasible). Inductive arguments, whether generalizations or specifications, are always defeasible. Some analogical arguments are defeasible, others are indefeasible (some are offered in which the analogical-warranting rationales belong to deductive systems), and likewise some abductive arguments are defeasible, others are indefeasible (some offer explanations of deductive phenomena, in which the explanatory system belong to deductive systems).

Reasoning about facts in evidence involves both inductive inference and inductively-informed inferences to the best explanation, and thus is

always defeasible. This fact can be deeply empowering for the evidence analyst who engages dialectical competitions over the facts of litigated (or mooted) cases, for it means that the opponent of evidence whose support is inductive (and therefore defeasible) might always be able to search for, and perhaps find, additional premises that undermine the support that the opponent's original evidence-premises provided for a conclusion. To take one very prominent example in recent U.S. litigative history, when the prosecutor in the O.J. Simpson trial presented a good deal of evidence (that is, evidentiary arguments) about blood samples and the "bloody glove" that seemed deeply incriminating of the defendant, the defense was able to present potentially *defeasiary evidence* about the alleged mishandling of evidence in the chain of custody and the character of a vital prosecution witness, police officer Mark Fuhrman. And in the dialectical competition between prosecutor and defendant in that case, the defendant's defeasiary challenges to the prosecution's factual arguments for guilt seem to have won that famous-infamous dialectical competition.[20]

Bottom line: whether one is a proponent or opponent of evidentiary arguments, one out to be on the lookout for potentially defeasiary evidence that might undermine the force of one's own, or one's opponent's, evidential arguments. If used in competitive evidentiary arguments in this way, defeasibility in an argument may be thought of as a weakness of an argument's internal strength (though not necessarily of its dialectical or rhetorical strength). But if we think of this same process of defeasible reasoning about the facts of the world, defeasibility has the virtue of allowing us flexibly to revise our beliefs in light of new information.

[20] See G. Uelman, The O.J. Files: Evidentiary Issues in a Tactical Context (1998).