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Lyman R. Patterson

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The Types of Evidence: An Analysis

*Lyman Ray Patterson**

Professor Patterson presents here an analysis of direct and circumstantial evidence in functional terms, and compares the resulting meanings with the traditional meanings of direct, circumstantial, real, and demeanor evidence. In conclusion, he discusses the significance of this analysis in relation to the rules of evidence and to proving in a trial.

I. INTRODUCTION

Analysis is a process the purpose of which is to determine the relationship of the parts of a whole so as to ascertain their purpose, function, and nature. With respect to evidence the process is one of determining the relationship of the parts which constitute the evidence to the proposed conclusion. This is because evidence is a relative term; evidence, in order to be evidence, must be related to a proposed conclusion. Thus, the statement, "*D* purchased a pistol and ammunition" is ony a statement in the abstract. When, however, the statement is related to the proposed conclusion, "*D* killed *H*," it becomes evidence. Evidence, then, fulfills the definite function of aiding one in determining the truth or falsity of a proposed conclusion. In order to understand how evidence fulfills this function, it is necessary to analyze evidence in functional terms.

Since the purpose of this article is to analyze evidence in functional terms, it may be helpful at the outset to state the basic ideas which underlie the discussion.

1. Evidence consists of propositions of fact which are related to another proposition, a proposed conclusion. Evidence is thus to be distinguished from the fact or facts which are its basis.

2. The essential relationship of propositions which are evidence to the proposition which is the proposed conclusion is relevancy.

3. The relevancy of evidence to the proposed conclusion is determined by the inference drawn from the evidence. If the evidence will support an inference which coincides with the

* Associate Professor of Law, Vanderbilt University.

proposed conclusion it is relevant. Otherwise it is not.

4. There are two basic types of evidence, direct and circumstantial, which, for purposes of analysis, are best defined in functional terms, by relating the propositions which are evidence to the proposed conclusion.

5. Real evidence and demeanor evidence are facts presented to the senses of the trier of fact and as such should not be thought of as evidence, but only as exhibits which are bases of evidence.

6. Proving in a trial is a process which involves two basic steps by the trier: a determination of the reliability of the evidence, and the drawing of inferences therefrom. The first step is the credibility step, requiring a credibility inference; the second step is the probative step, requiring a probative inference.

7. Proof is the inference drawn from the evidence. Although evidence is generally called proof, it is in fact only the basis of proof.

To develop these ideas, this article first states the meaning of evidence. It then analyzes direct and circumstantial evidence in functional terms, and compares the resulting meanings with the traditional meanings of direct, circumstantial, real, and demeanor evidence. Finally, it discusses the significance of the analysis in relation to the rules of evidence and proving in a trial.

II. THE MEANING OF EVIDENCE

Evidence is a term ordinarily used to indicate facts which produce conviction in the mind as to the existence of another fact. Analytically, however, evidence does not consist of facts, and it is only the basis for that which produces conviction in the mind. To determine why this is so it is necessary to define the term evidence more precisely. Such a definition requires making a fundamental distinction between fact and proposition of fact. A fact is simply something which exists. A proposition is an expression in which the predicate affirms or denies something of the subject. The subject stands for a fact and the predicate expresses what one knows or purports to know about the fact. Although it is often said that facts produce conviction in the mind—meaning that evidence consists of facts—it is more helpful to say that evidence consists of propositions of fact, because all facts must be reduced to propositions before they are used to confirm or deny a proposition. For example, if the conclusion that *D* killed *H* is based on a pistol, a love letter, a hat, a key, and *D*'s presence in the vicinity of *H*'s house before and after the killing, these items are merely facts, and as such they are meaningless as evidence. However, they are

the basis of evidence when transformed into propositions of fact. The evidence then may be the propositions: (1) *D* owned the pistol. (2) *D* wrote *H*'s wife the love letter. (3) *D*'s hat was found in *H*'s house. (4) *D* had a key to *H*'s house. (5) *D* was in the vicinity of *H*'s house before and after the killing.[1] The facts are evidentiary facts, and as such are the basis of evidentiary propositions, but they should not be treated as the evidence itself.

Not all propositions, however, are evidence. First, "proposition" is another name for a statement, and a proposition may be nonsensical. Thus, the statement, "All men have two heads" is a proposition, but it is not a proposition of fact. To be evidence, a proposition must be based on a fact or supposed fact. Thus, the term proposition of fact serves to eliminate nonsensical propositions as evidence. Second, evidence is a relative term, and a proposition must be related to something before it is evidence. This something is another proposition called a proposed conclusion. The purpose of using evidence is to confirm or deny the proposed conclusion, and this is done by relating the evidence to the proposed conclusion. The relationship between the proposition of evidence and the proposed conclusion can be ascertained only by drawing inferences from the evidence, which are simply conclusions one reaches as a result of the evidence. Thus, the use of evidence requires the making of an inference from the evidence, which inference is necessary to relate the evidence to the proposed conclusion. This inference is the probative inference, and it is such inferences which cause one to confirm or deny the proposed conclusion. Consequently, it is these inferences which produce conviction in the mind as to the existence of a fact. Just as facts are the basis of evidence, *i.e.*, propositions of fact, evidence is the basis of that which produces conviction in the mind, *i.e.*, inferences. Thus, evidence can be defined as a proposition purportedly based on a fact and used as a basis for confirming or denying another proposition of fact.[2]

The distinction between facts as evidence and propositions as evidence is sometimes obscured because the term fact is often used to mean proposition of fact. Also, the term evidence is commonly used to indicate facts which, as evidentiary facts, are the basis of propositions of fact to distinguish them from other facts. The varied usage of the term evidence is one of the reasons for the more precise definition given above. Another reason is that a definition such as the

1. These examples, used throughout the article, are based on an illustration in MORGAN, MAGUIRE & WEINSTEIN, CASES AND MATERIALS ON EVIDENCE 326-37 (4th ed. 1957).

2. For an expanded treatment of the meaning of evidence, see Patterson, *Evidence: A Functional Meaning*, 18 VAND. L. REV. 875 (1965).

one suggested is necessary for a fundamental analysis of evidence and evidentiary problems. Its primary value is that it reduces all evidence to its lowest common denominator, something which is necessary if evidence is to be properly analyzed. All evidence must be related to a proposed conclusion, but it is impossible, for the purposes of proving, to relate meaningfully a physical object such as a pistol to a proposed conclusion. The only thing that can be related to the proposed conclusion is a statement about the physical object, *i.e.*, a proposition.[3]

The relationship between propositions which are evidence and the proposition which is the proposed conclusion is extremely important, because it is this relationship which determines the types of evidence, direct and circumstantial.

III. THE FUNCTIONAL MEANING OF DIRECT AND CIRCUMSTANTIAL EVIDENCE

A. *The Functional Meaning of Direct Evidence*

Since the purpose of using evidence is to confirm or deny a proposed conclusion, it is the conclusion to which evidence must be related in order to define the types of evidence in functional terms. This relationship is determined by the inference that can be properly drawn from the evidentiary proposition. If the proposed conclusion is "*D* killed *H*," and the witness testifies, "I saw *D* kill *H*," the trier, assuming he accepts the proposition of the witness, can properly infer only that *D* killed *H*. The evidence is direct evidence because it is the basis of a direct inference which coincides with the proposed conclusion, and the inference is the only inference relative to the proposed conclusion that can be properly drawn. Thus, the evidentiary proposition "I saw *D* kill *H*" is consistent only with the proposed conclusion, "*D* killed *H*."

The inferential process here is so simple that the presence of the inference is not apparent. This is because the evidentiary proposition is such that it will support only one inference relative to the proposed conclusion, and the influence takes substantially the same form as the proposed conclusion. Thus, since the proposed conclusion is "*D* killed *H*," and the evidence is the proposition presented in testimonial form by a witness, "*D* killed *H*," it seems mere tautology to say that the

3. A trial, of course, usually involves several conclusions, as each issue in dispute requires a proposed conclusion. Moreover, a proposition of evidence may put an issue in dispute which is not in the pleadings, as in the case of impeachment of witnesses. Thus, if witness *X* testifies that witness *Y* lied on the witness stand, this evidence ereates a proposed conclusion which is not in the pleading, *i.e.*, that witness *Y* lied. However, even though it is important always to determine to what conclusion the evidence is directed, regardless of what conclusion this is, the analysis is the same.

inference the trier is to make is "*D* killed *H*." Yet, the inference is and must be present, because the inference is the conclusion which the trier reaches on the basis of the evidence. It is because the inference coincides with the proposed conclusion that the trier will affirm the proposed conclusion. Suppose, for example, the trier does not believe the witness and does not accept the evidentiary proposition. He will not draw a conclusion from the evidence, that is, he will not make the necessary inference, and will not affirm the proposed conclusion.

Every proposition also has a contradictory, which is the negative form of an affirmative proposition. If the proposed conclusion is "*D* killed *H*," the contradictory of the conclusion is "*D* did not kill *H*." Consequently, it follows that if an evidentiary proposition is consistent only with the proposed conclusion, it is inconsistent with the contradictory of the proposed conclusion. The converse, of course, is also true. If an evidentiary proposition is consistent only with the contradictory of the proposed conclusion, it is inconsistent with the proposed conclusion. Thus, if the proposed conclusion is "*D* killed *H*," and the evidence is "*D* killed *H*," the evidence is direct evidence because it is consistent only with the proposed conclusion. If the evidence is "*X* killed *H*," it is direct evidence because it is consistent only with the contradictory of the proposed conclusion. Direct evidence then can be defined as a proposition which is consistent only with either the proposed conclusion or its contradictory.

B. *The Functional Meaning of Circumstantial Evidence*

The functional meaning of circumstantial evidence is determined in the same manner as the meaning of direct evidence, by ascertaining the relationship of the evidentiary proposition to the proposed conclusion. If the proposed conclusion is "*D* killed *H*," and the evidence is the proposition, "*D* wrote *H*'s wife a love letter," the evidence is consistent with the conclusion that "*D* killed *H*." Indeed, to qualify as evidence, which must be relevant to the proposed conclusion, it must be consistent with the proposed conclusion in that it, just as direct evidence, will support an inference which coincides with the proposed conclusion. However, the above proposition of evidence is not inconsistent, which is to say that it is consistent, with the contradictory of the proposed conclusion. It will, in other words, support two inferences: one which coincides with the proposed conclusion, and one which coincides with the contradictory of the proposed conclusion. This is the functional difference between direct and circumstantial evidence. Direct evidence is a proposition which is consistent only with either the proposed conclusion or its contradictory; circumstantial

evidence is consistent with both the proposed conclusion and its contradictory.

The difference between the two types of evidence can be seen in the inferential process involved in the use of both. As shown above, the inferential process in using direct evidence is a simple one, requiring only a direct inference, which coincides with the proposed conclusion. The inferential process in using circumstantial evidence is much more complicated, requiring a series of inferences, and the ultimate inference which coincides with the proposed conclusion is an indirect one. To illustrate, assume again that the proposed conclusion is "*D* killed *H*," and that the evidence is the proposition "*D* wrote *H*'s wife a love letter." The problem in using this proposition as evidence is to determine whether one can properly infer from this proposition that *D* killed *H*, that is, can one properly draw from the proposition an inference which coincides with the proposed conclusion. To determine this, a series of inferences is necessary, which may be as follows. From the fact of the writing of the love letter to W, one can infer (1) that *D* loves *W*, that (2) *D* desired to possess *W* for himself, that (3) *D* wished to get rid of *H*, that (4) *D* planned to get rid of *H*, that (5) *D* executed his plan by killing *H*.

Each of these inferences is a particular inference, which, as opposed to a general inference, is one in which the subject is a particular person or thing. A general inference is one in which the subject is a class of things. One of the distinctions between the two types of evidence is that the use of circumstantial evidence always requires the making of general inferences as well as particular inferences, whereas, the use of direct evidence requires only the making of a single particular inference from the evidence. This is because circumstantial evidence requires that one base his ultimate inferences on a general inference in addition to the information stated in the proposition of evidence. Thus, one will not infer from the writing of the love letter that *D* loved *W* unless he makes the general inference that a man who writes a love letter to a woman probably does love her. The particular inferences are drawn from the evidence; the general inferences are drawn from one's knowledge, experience, and background, and it is the general inference that determines what particular inference one is willing to draw from the evidence. The general inference can be called the evidentiary premise, and other general inferences to support the above particular inferences are: (1) a man who loves a woman probably desires her for himself alone; (2) a man who loves a married woman probably wishes to get rid of her husband; (3) a man who wishes to get rid of the husband of the woman he loves probably plans to do so; and (4) a man who

plans to get rid of the husband of the woman he loves probably killed him.

The same proposition of evidence, "*D* wrote *H*'s wife a love letter," however, can be used to support an inference that *D* did not kill *H*. The general inferences or evidentiary premises which are necessary for the required particular inferences are that (1) a man who writes a love letter to a woman probably does love her, are that (2) a man who does love a woman probably does not want to hurt her, that (3) a man who does not want to hurt a woman he loves probably will not want to kill her husband, that (4) a man who does not want to kill the husband of the woman he loves probably did not plan to do so, that (5) a man who did not plan to kill another probably did not do so. The series of particular inferences based on the evidence and the general inferences may be articulated as follows: that (1) *D* loves *W*, that (2) *D* does not want to hurt *W*, that (3) *D* would not hurt *W* by killing *H*, that (4) *D* did not plan to kill *H*, that (5) *D* did not kill *H*.

Neither of the two series of inferences is exhaustive, and neither can be said to be right or wrong. It is true that a man who loves a woman probably wants her for himself alone. It is equally true that a man who loves a woman probably does not want to hurt her. The line of inference any one person will develop depends to a large extent on his personal background and experience, because these are the ultimate sources upon which the particular inferences depend. A person of deep religious faith, for example, is much less likely to infer from the evidence that *D* killed *H* than a pagan would be. The probative force of circumstantial evidence thus varies, and it varies according to whether the proposition of evidence supports a particular inference which most persons would draw from the evidence. This is the practical distinction between direct and circumstantial evidence. The probative value of direct evidence never varies regardless of what the evidence is, although its credibility value does vary. The probative value of circumstantial evidence always varies according to the content of the proposition of evidence. And just as with direct evidence, its credibility value varies. Thus, when we say that circumstantial evidence will support two inconsistent inferences, it may be that neither of the inferences is very strong, or it may be that one of the inferences is very strong and the other very weak. But the fact that the circumstantial evidence may be very strong for one side or the other does not alter the fact that it is still circumstantial evidence, although it may mean that any contradictory inference would be so weak that the evidence is useful for only one side. If, for example, the proposed conclusion is that "*D* strangled *H*," and the evidence is the proposi-

tion "*D*'s thumbprint was found on *H*'s neck," most persons will probably infer that *D* strangled *H*. This is a strong inference because on the basis of background and general experience, most persons would make the general inference that a man whose thumbprint was found on another's neck probably had his hand on that neck; that a man who placed his hand on another's neck probably intended to strangle the other; and that a man who intended to strangle another man probably did so. However, the evidence is still circumstantial evidence, because it is possible to infer, for example, that the thumbprint was placed there after the strangling took place by *D* who was attempting to aid *H*,[4] even though this inference is weak.

Circumstantial evidence, then, can be defined as a proposition which is consistent with both the proposed conclusion and its contradictory. The test for determining whether the evidence is direct or circumstantial is whether only one inference can be drawn from the evidence which coincides with either the proposed conclusion or its contradictory. If there is only one such inference, the evidence is direct evidence. If not, the evidence is circumstantial.[5]

IV. THE TRADITIONAL CLASSIFICATION OF EVIDENCE

The above analysis has been made without reference to the traditional classification of evidence, direct, circumstantial, and real, and the meanings given for direct and circumstantial evidence are not the traditional meanings. In addition, there is another type of evidence to which little attention has been directed in writings on evidence, *i.e.*, demeanor evidence. Since the premise of the above analysis is that evidence is a proposition, and that there are only two basic types of evidence, direct and circumstantial as defined, it is necessary to explain briefly the absence of real evidence and demeanor evidence in the scheme.

A. *Real Evidence and Demeanor Evidence*

Real evidence is by definition a physical object capable of being

4. See, *e.g.*, Beasley v. State, 404 P.2d 911 (Nev. 1965), in which the court held that it was prejudicial error to permit a fingerprint expert to express an opinion as to the time the defendant's finger and palm prints were placed on victim's automobile, where the expert had not conducted a control test.

5. *Cf.* The following definition from Bentham: "In the case of testimonial evidence, the subject of the testimony is either the very fact, the existence or non-existence of which is the principal matter of fact in question, or some fact which, though distinct from it, is considered as being *evidentiary* of it. Source of the decision in this case,—identity or diversity of the matter of fact, asserted by the deponent in the instances in question, with the principal fact in question in the cause. Species which are the result of the division made in this direction and from this source,—*direct* evidence, and *circumstantial* evidence." 1 BENTHAM, RATIONALE OF JUDICIAL EVIDENCE 55 (1827).

directly perceived by the senses, and it is thus a fact presented to the senses of the trier. As such, it has been called percipient evidence. However, in a trial, the trier of fact cannot alone determine the proposition he may properly form, as a result of his perception, relative to the proposed conclusion. Thus, when any physical object is introduced into evidence, it must be accompanied by a proposition, and it is this proposition which is the evidence.

The above points can be illustrated by a recent case, *United States v. Klaw*,[6] an appeal from judgments of conviction for mailing and conspiring to mail obscene matter. In this case, it was necessary for the government to prove that the matter in question appealed to the prurient interest of the average man. For this purpose, the government introduced into evidence the material itself. The court reversed the convictions for lack of evidence.

> [T]he only predicate for any conclusion about prurient appeal was the material itself, as if *res ipsa loquitur*. The jurors were, therefore, left to speculate. They were invited to behold the accused material and, in effect, conclude simply that it is undesirable, it is distasteful, it is disgusting . . . . Because the jury was given no basis for understanding exactly how and why the material appeals to its audience, whether deviate or average person, it may too readily supply an explanation.—'prurient appeal.'[7]

The court went on to say, "Whatever the value of mere 'autoptical' evidence in other contexts, it should not readily be countenanced in this area," and concluded that the jury "had absolutely no evidentiary basis from which to 'recognize' any appeal to the prurient interest of the deviate or the typical recipient . . . ."[8] In short, the real evidence, the matter itself, was not accompanied by a proposition which could be used as a basis for an inference to confirm or deny the proposed conclusion.[9]

Demeanor evidence is simply the demeanor of the witness, and as such cannot be offered into evidence. Just as real evidence is a physical fact, demeanor evidence is a physical event, the conduct of the witness in testifying. Both are directly perceived by the trier, and both are accompanied by probative propositions presented by

6. 350 F.2d 155 (2d Cir. 1965).
7. *Id.* at 167.
8. *Ibid.*
9. The court pointed out that, "[I]f proof of prurient stimulation and response is generally important, it is particularly necessary when the prurient interest may be that of a deviant segment of society whose reactions are hardly a matter of common knowledge. It may well be that there are characters and cults to which exaggerated high heels, black patent leather bindings and bondage have some occult significance, but we doubt that any court would take judicial notice of the reaction that deviates—or the average man—might have to such stimuli. However, some proof should be offered to demonstrate such appeal, thereby supplying the factfinders with knowledge of what appeals to prurient interest so that they have some basis for their conclusion." *Id.* at 155.

the witness in the form of testimony. The proposition which accompanies real evidence as a matter of admissibility must be relative to the physical object which is presented to the senses of the trier. The propositions which accompany demeanor evidence are the testimony of the witness, which, insofar as their admissibility are concerned, are independent of the demeanor of the witness. The value of both real and demeanor evidence, however, is the same in that both are merely persuasive. Thus, as a result of real evidence, the trier may infer either that the accompanying probative proposition is true or that it is not true. And as a result of the demeanor of the witness, the trier will infer either (1) the witness is telling the truth, that is, the probative propositions he presents are true, or (2) that the witness is not telling the truth. If the witness, for example, casts furtive glances while testifying, the trier will probably infer that he is not telling the truth.

The physical objects and events—termed real and demeanor evidence—are very important in a trial, but only because of their persuasive effect. The concepts are not helpful for purposes of analysis once the role of real and demeanor evidence is understood in the light of the two basic steps of proving. The process of proving is essentially the process of drawing inferences from a proposition which is evidence to relate the evidentiary proposition to the proposed conclusion. Before one can reasonably use a proposition as the basis of an inference, however, he must be convinced that the proposition is reliable. The two basic steps in proving, then, are one, determining the reliability of the evidence, and two, drawing the inferences therefrom. The first step can be called the credibility step; the second can be called the probative step, because it convinces the mind of the truth or falsity of the proposed conclusion. These two steps mean that each proposition of evidence requires two inferences, the credibility inference and the probative inference. The credibility inference is an inference about the evidence; the probative inference is an inference from the evidence.

Real evidence and demeanor evidence are important only in regard to the first step of proving—the determination of the reliability of the evidence. Since real evidence is always accompanied by a proposition, the only function that it serves is to help persuade the trier of the correctness of the proposition.[10] Thus, if the evidence is the

10. *Cf.* "Bringing a knife into Court is in strictness not giving evidence of the knife's existence. It is a mode of enabling the Court to reach a conviction of the existence of the knife, and is in that sense a means of producing persuasion; yet it is not giving evidence in the sense that it is asking the Court to perform a process of inference, and it therefore gives rise to no question of relevancy. There is direct apprehension and conviction as to the truth or falsity of the desired proposition." 1 WIGMORE, EVIDENCE § 24 (3d ed. 1940).

proposition, "*D* owned the pistol which killed *H*," showing the pistol to the trier will tend to persuade the trier that the proposition is true. The same is true of demeanor evidence, because the only conclusion the trier can come to on the basis of demeanor evidence is either that the witness is telling the truth or the witness is not telling the truth. This determination is one that must always be made, whether or not real evidence is presented, and demeanor evidence is always present, so it cannot be avoided. The fact that real evidence is presented to the trier to help persuade him of the correctness of the evidentiary proposition does not mean that it should be treated as evidence of the proposed conclusion. Real and demeanor evidence, in other words, are merely exhibits, the difference between them being that the object called real evidence is voluntarily presented to the trier, and the demeanor of the testifying witness is involuntarily presented. Once this is understood, the concepts of real and demeanor evidence have no further use in analyzing evidentiary problems.

This does not mean, of course, that in its broadest scope, the term evidence may not properly include real and demeanor evidence. It does mean that when the term evidence is used to include them a distinction must be made as to whether one is speaking of facts or of information about facts. For purposes of analysis this can only lead to confusion. Since the facts which are called real and demeanor evidence must always be accompanied by propositions, confusion is avoided by thinking of evidence as consisting only of propositions. That a fact is presented along with a proposition of fact does not make that fact evidence any more than any other fact which is the basis of evidence, but which is not presented to the senses of the trier.

B. *The Traditional Meaning of Direct Evidence*

The above analysis of direct evidence is based on the relationship of the evidence to the proposed conclusion. In traditional terms, 'direct evidence' is used to mean the testimony of witnesses.[11] The term direct in this sense refers not to the relationship of the evidence to the proposed conclusion, but to the relationship of the witness to the fact which is the basis of his testimony.[12] In other words, a witness is supposed to testify only to matters of which he has direct knowledge,[13] and thus testimony is direct evidence.

The idea that a witness can testify only to matters of his direct

11. *Id.*, § 25.

12. *Cf.* The following definition taken from a requested instruction to the jury held by the court to define direct evidence correctly. "Direct evidence is where a witness testifies directly of his own knowledge of the main facts or facts to be proved.'" State v. Regazzi, 379 S.W.2d 575, 578 (Mo. 1964).

13. "The Attestation of the witness must be what he knows, and not to that only which he hath heard, for a mere Hearsay is no Evidence; for it is his knowledge that

knowledge is probably the single most important idea in the common law system of evidence. It is manifested in what may be called the direct evidence concept, which is implemented by the three major exclusionary rules, the hearsay, the opinion, and the best evidence rules. Thus, a witness, generally, may not testify as to what others said, he cannot give his opinion, and the original of a document must be produced, or its absence satisfactorily explained, and it is this concept on which the idea of testimony as being direct evidence seems to be based.

When, however, the traditional meaning of direct evidence is analyzed in terms of inferences related to the proposed conclusion, it is not so far removed from the functional definition as it may first seem. The functional definition is based on an analysis of the relationship of the evidence to the proposed conclusion. The traditional definition is based on the relationship between the evidence and the witness who presents it. Functionally, evidence is direct because only a direct inference is necessary to relate it to the proposed conclusion. From this, it follows that any proposition of evidence is direct evidence of the matter contained therein, when the matter contained therein is treated as the proposed conclusion. In other words, any proposition is direct evidence of the fact asserted, because any proposition will support a direct inference as to the fact asserted. Thus, the evidentiary proposition, "*D* owned the pistol which killed *H*," is direct evidence that *D* owned the postol which killed *H*.

The meaning of evidence as direct in the functional sense then differs from the traditional meaning, when the latter is analyzed, only in terms of the conclusion to which each is related. Each proposition of evidence can be viewed as a conclusion to be proved, or each proposition of evidence can be viewed as simply a basis for confirming or denying a proposed conclusion. The traditional view is that each proposition of evidence is a conclusion, and thus each proposition of evidence is direct evidence, because it will support a direct inference as to the matter contained therein. On this basis all testimony can be classified as direct evidence, even in the functional sense.

The traditional meaning of direct evidence, however, is not usually so analyzed, and the classification of testimony as direct evidence is

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must direct the Court and Jury in the Judgment of the Fact, and not his mere Credulity, which is very uncertain and various in several Persons; for Testimony being but an Appeal to the knowledge of another, if indeed he doth not know, he can be no Evidence . . . .

"But though Hearsay be not allowed as *direct Evidence*, yet it may be in Corroboration of a Witness's Testimony to show that he affirmed the same Thing before on other Occasions, and that the Witness is still consistent with himself; for such Evidence is only in support of the witness that gives in his Testimony upon Oath." GILBERT, THE LAW OF EVIDENCE 152-53 (1769). (Emphasis added.)

a result of the concern of the common law for the reliability of the evidence.[14] Thus, only if a witness speaks from his direct knowledge, can the evidence be deemed to be reliable. This emphasis on reliability in turn gives rise to what can be called the step analysis of proving, that is, the idea that evidence consists of a series of related items; each of which is a conclusion, and each of which must be proved before the subsequent can be used. Each proposition so viewed is the basis of direct inferences. Thus, if each item of evidence is true, and serves only as the basis of a direct inference, the correct conclusion must inevitably follow. This point is discussed in greater detail later. For the present, however, it is sufficient to say that the step analysis of proving for a trial is analytically unsound.

The greatest difficulty with the traditional meaning of direct evidence is that it does not provide the most useful basis for understanding the function of evidence, as it does not provide a sound basis for distinguishing direct and circumstantial evidence.

C. *The Traditional Meaning of Circumstantial Evidence*

Circumstantial evidence, in the traditional meaning of the term, is simply evidence of circumstances.[15] The primary question in regard to circumstantial evidence is whether it is relevant, and thus circumstantial evidence must always be related to the proposed conclusion. When this requirement is understood in terms of how relevance is determined, the result is the functional definition stated above.

Relevancy is a concept of relationship, and the relevancy of propositions can exist in various ways, for example, in terms of subject or predicate, and for different purposes. For propositions of evidence, relevancy exists in terms of inference. Evidence must be relevant to the proposed conclusion, and it is relevant only if it can support an inference which coincides with the proposed conclusion or the contradictory of the proposed conclusion. If a proposition of evidence is such that it can support inferences which coincide with both the proposed conclusion and its contradictory, it is consistent with either. This is always true of evidence of circumstances, and thus circumstantial evidence is a proposition consistent with either the proposed conclusion or its contradictory.

14. "The first therefore and most signal Rule, in Relation to Evidence, is this, That a Man must have the utmost Evidence, the Nature of the fact is capable of: For the Design of the Law is to come to rigid Demonstration in Matters of Right, and there can be no Demonstration of a Fact without the best of Evideuce that the Nature of the Thing is capable of; less Evidence doth create but Opinion and Surmise, aud does not leave a Man the entire Satisfaction, that arises from Demonstration. . . ." *Id.* at 4-5.

15. "Circumstantial evidence is proof of certain facts and circumstances in a certain case, from which the jury may infer other and connected facts, which usually and reasonably follow, according to the common experience of mankind." *Ibid.*

The functional meanings of direct and circumstantial evidence suggested above, then, are not radically different from the traditional meanings of the terms. They result primarily from a more refined analysis of the concepts than is usually accorded them, and the basic idea of this analysis is an extremely simple one. It is that in classifying the types of evidence, a uniform basis for analysis should be used. Thus, instead of classifying direct evidence on the basis of the relationship of the witness who gives the evidence to the fact which is the basis of the evidence, and circumstantial evidence on the basis of the relationship of the evidence to the proposed conclusion, all evidence should be classified on the same basis. This basis is the relationship of the evidence to the proposed conclusion.

V. THE RULES OF EVIDENCE AND THE TYPES OF EVIDENCE

The above analysis of evidence as propositions of fact and of the types of evidence as direct and circumstantial is helpful primarily in providing a different perspective from which to examine the rules of evidence and the problems of proving in a trial.

A rule of evidence is a statement about the use of evidence in a trial. Disregarding, for the moment, the types of evidence, the rules can be classified into three general groups: (1) Those concerned with the fairness of a trial; (2) those based on ascertaining the truth; and (3) those based on policies extrinsic to the trial. The first group may be called procedural, and includes rules as to oath, examination, cross-examination, and burdens of proof; the second group may be called probative, and includes the exclusionary rules, their exceptions, and rules of circumstantial evidence; the third group may be called extrinsic policy rules, and includes rules as to privilege and those rules having their basis in constitutional provisions. Some rules, such as those of examination and cross-examination of witnesses, of course, serve more than one purpose. The classification, however, does serve to limit and define the rules here under consideration, the probative rules, that is, those rules concerned with propositions of evidence used as the basis of probative inferences.

A. *Reliability Rules and Inferential Rules*

The probative rules constitute a heterogenous group and do not easily lend themselves to grouping or classification. They include, for example, the hearsay rule, the opinion rule, the best evidence rule, the exceptions to the hearsay rule, and circumstantial evidence rules as to habit and custom, character evidence, and so on. One basis for classification is direct and circumstantial evidence, but under

the traditional meanings of these terms, the classification tends to be confusing because circumstantial evidence is also direct evidence, that is, it is the testimony of witnesses based on their knowledge. However, if the rules are analyzed in terms of evidence as propositions and in terms of the two basic steps of proving, the determining of the reliability of the evidence and the drawing of inferences therefrom, they fall rather easily into two groups, general and particular. The general rules are primarily concerned with reliability of the evidence and may be called the reliability rules. The particular rules are primarily concerned with inferences to be drawn from the evidence, and may be called the inferential rules.

The reliability rules are those applicable without regard to probative value of the evidence, because they are directed primarily to form and source. The major reliability rules are the hearsay, the opinion, and the best evidence rules. Regardless of the probative value of a proposition of hearsay evidence, it may be excluded under the hearsay rule; a witness is to state propositions of fact, not opinion, and only the original of a document may be used. All of these rules are directed to the reliability of the evidence.

The inferential rules include the exceptions to these rules, especially the hearsay rule, and the circumstantial evidence rules. These rules are inferential because they are concerned with the inferences which may be drawn from particular items of evidence, and a determination of their applicability is made on the basis of the inference which can be drawn from the evidence. Although the exceptions to the hearsay rule are all purportedly predicated on some special basis of reliability, the exceptions permit the trier to make the inference desired by the proponent. In effect, the rules say that this proposition of evidence is reliable as probative evidence as a matter of law, but this determination is not made without full cognizance of the desired inference. In the case of a dying declaration, for example, a witness is permitted to testify to the deceased's identification of the defendant as his killer. From this proposition of evidence, the trier is warranted in making the inference that defendant was the killer, notwithstanding evidence to the contrary. A clearer example is admissions, where even though the party opponent had no basis for his statement other than what he has heard, the trier is justified in using the information as a basis of proof.[16]

Since the exceptions to the hearsay rule are usually analyzed in terms of the reliability of the evidence rather than the inferences which may be drawn therefrom, the above point can be better illustrated with rules of circumstantial evidence. Most of the circumstan-

16. *E.g.*, Jamus v. Atskin, 91 N.H. 373, 20 A.2d 552 (1941).

tial evidence rules exclude evidence because the inference to be drawn from the evidence is so obvious that the trier may give undue weight to its probative value. Thus, evidence of other crimes in a criminal case is excluded because the jury might too readily infer from the evidence the commission of the crime in question. Most of the circumstantial evidence rules, however, have a double aspect. Evidence of other crimes, for example, may be used to show motive, intent, plan or design. Although evidence of subsequent repairs cannot be used to show negligence, it can be used to show possession or control of the instrument which caused the injury. As a result of this double aspect of the circumstantial evidence rules, the rules in effect determine the inference the trier is allowed to draw. It is this point which most clearly indicates the reason for designating these rules inferential rules.

B. *Two Basic Premises Underlying the Rules of Evidence*

The rules thus present a broad pattern of general rules directed to the reliability of the evidence and particular rules directed to the inferences to be drawn from the evidence. There are broad rules of an encompassing nature within which the narrower rules operate. The pattern appears to be a sound one. Yet, within the pattern there are inconsistencies and contradictions. Ultimately, one may suppose, the major reason for this is that the rules were developed in piecemeal fashion with two objectives in mind. One is that all evidence in a trial must be reliable; the other is that the trier should be allowed to draw only direct inferences from the evidence. It may be that these objectives were primarily the result of either the jury system or of the adversary system. More probably they were the result of both. Thus, it would be unfair to an opponent to compel him to run the risk that the jury might reach its decision on the basis of unreliable evidence. In any event, these objectives can be stated as constituting the two basic premises underlying the rules of evidence: (1) All evidence admitted in the trial of a case must be true; and (2) the trier shall be allowed to draw only direct inferences therefrom.

To say that the rules of evidence are based on the premise that all evidence admissible in the trial must be true is not to say that all evidence admissible is true or that anyone believes that it is all true. It is to say only that the rules are designed to insure insofar as possible that only true or reliable evidence shall be used. Similarly, the trier cannot in fact be limited to making only direct inferences from the evidence, but the purpose of this objective is to prevent the trier, insofar as possible, from making an inference on an inference. Direct inference in this sense means an inference which takes the

same form, or substantially the same form, as the proposition of evidence which is its basis. It is a conclusion inferred directly from the proposition, without the necessity of using a general inference to make the conclusion. The evidentiary proposition, "*D* wrote *H's* wife a love letter," will support a direct inference as to this fact; but it will support only an indirect inference that *D* loved *H*, because to make this inference, one must use the general inference that a man who writes a love letter to a woman loves that woman.

The above two premises, of course, are wholly inconsistent with matters as they exist. As to the first, since a trial is an adversary proceeding, the evidence introduced in a trial must inevitably be in conflict, and part of it therefore untrue. If it is not in conflict, the jury will not get the case, which the judge will dispose of by a directed verdict or similar procedural device. As to the second premise, again the jury will not get the case if but one reasonable inference can be drawn as to the ultimate conclusion from all the evidence. Only if two reasonable inferences can be drawn is there any reason to submit the case to the jury. Moreover, circumstantial evidence by its nature requires indirect inferences. The inevitable question, then, is how can it be said that these two premises underlie the probative rules of evidence.

The explanation is twofold. First of all, it appears likely that the premises are primarily a result of the traditional meanings of direct evidence, with no consideration of circumstantial evidence.[17] The traditional meaning of direct evidence, as evidence of which a witness has direct knowledge, encompasses circumstantial evidence. More important, however, the premises relate to evidence as separate items of evidence and not to a consideration of the evidence in a given trial as a whole. Thus, it is each item of evidence that must be true and it is from each item of evidence that only a direct inference can be drawn.

C. *The Step Analysis of Proving Criticized*

The above two premises have either resulted in, or resulted from, what may be called the step analysis of proving in a trial. This is the idea that where evidence consists of items A, B, C, D, and E supporting conclusion F, each of these items must be determined to be true before the succeeding one can be used in confirming or denying

17. Circumstantial evidence does not seem to have been recognized as a separate type of evidence in the early common law. Thus, Gilbert in the first treatise on common law evidence, says: "when the Fact itself cannot be proved, that which comes nearest to the Proof of the Fact is, the Proof of Circumstances that necessarily and usually attend such Facts, and these are called Presumptions and not Proof, for they stand instead of the Proofs of the Fact till the contrary be proved." GILBERT, *op. cit. supra* note 13, at 160.

the proposed conclusion. Each item of evidence, in other words, is treated as a conclusion to be proved before succeeding items can be used. As Wigmore said, "In the usual discussion of Circumstantial evidence, difficulty has constantly arisen from not keeping in mind that most Circumstantial evidentiary data must ultimately in turn become themselves a Probandum and be proved by Testimonial evidence . . . ."[18] Since this means that proof must occur before the trier has the opportunity to consider all the evidence, it means that the evidence is treated as proof. However, confusion in analysis results if the evidentiary proposition is treated as proof, rather than merely as the basis of proof. Proof is not accomplished until the aim of the process of proving, conviction in the mind, is achieved, and this conviction is determined by the inference one draws from the evidence. If proof is that which produces conviction in the mind, proof is not the evidence, but the inference the trier draws from the evidence.

The point that it is the inference which constitutes proof is illustrated by *Conley v. Mervis*.[19] The proposed conclusion for which the evidence was offered was that there was a master-servant relationship between defendant and the driver of a truck involved in the collision in question. The evidence was the proposition, "*D* owned the dealer's license plates on the truck." This testimony had been given by defendant when called by plaintiff as on cross-examination. At issue on appeal was the permissible scope of cross-examination. Should defendant's counsel have been allowed to cross-examine him on the question of his ownership of the truck after plaintiff had called him to the stand. In reversing the trial court for refusal to allow the examination, the appellate court said:

> Under our decisions with respect to dealer's license plates, this admission had embodied in it not only the fact of ownership but inferences sufficient to take the case to the jury: namely, that the motor vehicle was owned by defendant; that the driver was his servant; and that the vehicle was being driven at the time on his business. It was not the fact of ownership which was harmful but the implications arising from it. . . .[20]

The trial court had held that as defendant's testimony had been limited to the question of ownership of the license plates, defendant's examination by his own counsel could not extend beyond that precise matter.

> This strict limitation entirely ignored the purpose for which defendant's ownership of the license tags was introduced in evidence and its legal effect

18. 1 WIGMORE, THE SCIENCE OF JUDICIAL PROOF 16 (3d ed. 1937).
19. 324 Pa. 577, 188 Atl. 350 (1936).
20. *Id.* at 583, 188 Atl. at 353.

> as proof of the existence of a master and servant relationship. This evidence was produced exclusively for the purpose of giving rise to a presumption of such relationship. The inferences flowing therefrom enabled plaintiffs to make out a prima facie case, and their probative value was the impelling and vital reason for securing from defendant an admission of ownership of the license plates. The fact of ownership, standing alone and stripped of these inferences, meant nothing to their case. The inferences are the damaging part of this testimony.[21]

The use of the step analysis of proving for analyzing the process of proving in a trial appears to result from a failure to distinguish between proving generally and proving in a trial. Proving generally may be analyzed in retrospect as a step process, but this is so only after a long process of investigation, analysis, and evaluation of evidence. In a laboratory, for example, the scientist is never convinced of the correctness of a proposition until he is sure of the correctness of his evidentiary propositions. Proving in a trial, however, is a much more complicated process, and it is unique in that the trier in the usual case is always faced with two lines of evidence, each more or less equally plausible and each supporting the proposed conclusion or its contradictory. This point has often been obscured because one line of evidence is invariably rejected. Moreover, the step analysis of proof appears to be appropriate if the evidence is direct evidence as defined in functional terms, because only a single direct inference is necessary to sustain the proposed conclusion. Thus, one item of direct evidence may be sufficient to induce a trier to confirm the proposed conclusion. If the witness testifies, "*D* killed *H*," and the trier believes the witness, he will confirm the conclusion, "*D* killed *H*." But, of course, there is only one step involved here.

D. *A Suggested Analysis of the Process of Proving*

The traditional meaning of direct evidence obscures the fact that most evidence in a trial is circumstantial evidence, and it is in regard to circumstantial evidence that the step analysis of proving is most unsatisfactory. The evidence, "*D* wrote *H*'s wife a love letter," is direct evidence of the matter contained therein, but it is only circumstantial evidence of the conclusion that *D* killed *H*. It is obvious, however, that this evidence will not produce an inference creating such a conviction in the mind as the burden of proof requires. Thus, other evidence must be produced, and it is easy to assume that this other evidence constitutes a series of steps, or links in a chain leading to the proposed conclusion. Such other items may be (a) threats by *D* against *H*'s life; (b) the purchase of a pistol and ammunition by

21. *Id.* at 584, 188 Atl. at 354.

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

These other items, however, are not merely links in a chain of proof. Each is the basis of a series of inferences which concludes with the inference, "*D* killed *H*," coinciding with the proposed conclusion. This is the crucial point. Each item of probative evidence must be relevant, and to be relevant it must support an inference which coincides with the proposed conclusion. The strength of the inferences, of course, varies, and it is the combination of inferences, all of which coincide with the proposed conclusion, from different items of evidence that produces the conviction. The process cannot be properly analyzed as a step process whereby one proceeds from one item of evidence to the next, because it is not necessary that the trier accept all of the evidentiary propositions in order to find that *D* killed *X*. He cannot, of course, reject too many of them, but the point is that items of circumstantial evidence are related to each other only because each of them will support an inference which coincides with the proposed conclusion. Items of evidence may or may not be otherwise related to each other, but they must all be related to the proposed conclusion. Thus, the evidence that *D* wrote *H*'s wife a love letter may be related to the evidence that *D* acquired a key to *H*'s house. The meaning of the relationship of these two items, however, depends not upon how they are related to each other, but upon how they are related to the proposed conclusion.

Analysis of proving in a trial as suggested above, that is, relating all the items of evidence to the proposed conclusion rather than to each other, provides a basis for a different approach to the rules of evidence. The following tentative analysis is suggested. All of the rules of evidence, not only the inferential rules, may be viewed as being directed to the inferences to be drawn from the evidence. For example, in regard to hearsay, if the witness testifies, "*X* said '*D* wrote *H*'s wife a love letter,'" the statement is hearsay, that is, it is offered to prove the truth of the matter therein. The hearsay is the statement of the extrajudicial declarant. The testimony thus is a proposition containing a proposition, and the danger is not that the proposition containing the hearsay is unreliable, but that the hearsay contained in the proposition will be used as a basis of inference. The hearsay rule, in effect, determines that the evidence is unreliable as a matter of law and precludes the jury from using it as a basis of inference. The difference between the reliability and inferential rules is that the former approach the problem of inference from the standpoint of

reliability of the evidence in terms of form and source, and the latter approach the problem from the standpoint of inference.

The former approach is a natural one in terms of the two basic steps of proving, determining the reliability of the evidence and the drawing of inferences therefrom. Since, however, by far the greater emphasis in the law of evidence is on the reliability of the evidence, the question of whether or not the present unsatisfactory state of the law of evidence can be attributed to this fact inevitably arises. It is probable, for example, that it is the insistence on the reliability of evidence that has resulted in so many exceptions to the hearsay rule, because the strictness of the rule makes it operation without exceptions impractical. The fact that some special basis of reliability can be stated for each exception does not alter the fact that the evidence is hearsay, and the anomaly is that the rules of law allowing hearsay give admissible hearsay a special seal of approval.

This is not to say that the reliability of evidence in a trial is unimportant. It is to say that the attempt to insure reliability of evidence primarily through the application of rules of evidence may be unrealistic, and that the problem of what evidence to admit in a trial should be approached from the standpoint of inferences. Thus, if we start with the basic principle of the law of evidence that all admissible evidence must be relevant and analyze this principle in terms of inference, the following point is correct. Any proposition of evidence to be relevant must support an inference, either directly or indirectly, which coincides with a conclusion in issue. This point serves immediately to limit the number of propositions which can be admitted as evidence.

A more significant point, however, is that the evidence as to any proposed conclusion, both pro and con, is going to be based, or allegedly based, on the same fact or set of facts, although when the evidence is directed to the contradictory of the proposed conclusion, the set of facts is enlarged. The point that the evidence must be directed to the same conclusions or its contradictory is the key factor in enabling the trier to determine the reliability of the evidence. He does this in two ways: (1) by drawing, tentative inferences to determine the consistency of the evidence, that is, to determine if each proposition will support an inference which coincides with the proposed conclusion; and (2) by considering the source of the evidence. Thus, if the evidence is hearsay, or comes from an interested witness or is merely an opinion, these are factors that the trier will inevitably take into consideration. Since all of the evidence supporting a proposed conclusion must be consistent, it is this consistency or the lack of it that is most significant in convincing the trier to accept or

reject the evidence. Thus, the important point about the reliability of evidence is not, as is generally thought, the reliability of individual items of evidence, but the reliability of the evidence as a whole, because it is the evidence viewed as a whole that will give the trier the most appropriate basis for rejecting unreliable items of evidence. Otherwise, much evidence must inevitably be left out, and "The properties, which constitute trustworthiness in a mass of evidence, are two: correctness and completeness."[22]

This approach requires a recognition of the fact that it is not evidence which is proof, but the inference which the trier draws from the evidence.[23] Thus, proving is essentially a subjective process, because only the individual himself can make inferences. The value of the suggested approach is that it provides a basis for articulating precisely how the trier, using evidence, confirms or denies the proposed conclusion. The trier must make credibility inferences as to the reliability of the evidence, and then make probative interferences, either direct or indirect, which coincide with the proposed conclusion. An explict recognition of these points decreases the importance of the reliability of each individual item of evidence in a trial because it requires that the evidence be viewed as a whole rather than piecemeal.

VI. CONCLUSION

The result of the above analysis can be summarized as follows. First, evidence consists of propositions which are not proof, but only the possible basis of proof, if the trier determines them to be reliable. As such, evidence is basically information. Second, the basic requirement for the admission of evidence is relevancy, and all relevant evidence is admissible. Third, relevancy is determined by whether the evidence will support an inference which coincides with the proposed conclusion. Fourth, evidence which supports a direct interference to coincide with the proposed conclusion (direct evidence), should

22. BENTHAM, *op. cit. supra* note 5, at 28.

23. The position here taken that it is the inference and not the evidence which constitutes proof may appear to be somewhat artificial, since there can be no probative inference without propositions of evidence. Thus, there is justification for calling the evidence proof, because it is the only tangible form proof takes. However, this convenient usage of the term proof obscures the point that proving is fundamentally a subjective process in that proving is a matter of proving to oneself. It is true that the term to prove is most often used in an objective sense to mean the presentation of evidence, and so used it is proper. This aspect of proving is merely a preliminary process, essential to accomplish the aim of proof, conviction in the mind as to the truth of falsity of a proposed conclusion. When used in this sense, proving is completed upon the presentation of evidence. This view of proving thus does not provide any basis for understanding why one litigant succeeds in his proof and the other fails, except that the trier believed the evidence of one and not the other.

require some special indicia of reliability, because only one item of direct evidence may be needed to support a conclusion. Fifth, evidence which supports an indirect inference to coincide with the proposed conclusion (circumstantial evidence) should be admissible in the absence of indicia of unreliability, since one item of circumstantial evidence is never sufficient to support a conclusion.