TESTING THE COMPREHENSIBILITY OF JURY INSTRUCTIONS: CALIFORNIA’S OLD AND NEW INSTRUCTIONS ON CIRCUMSTANTIAL EVIDENCE

Peter Tiersma and Mathew Curtis*

In 2003 and 2005 the Judicial Council of California approved new pattern civil and criminal jury instructions. This article reports on research comparing comprehension of the new civil instruction on circumstantial evidence with comprehension of the old circumstantial evidence instruction. The authors, one of whom was a member of California’s Task Forces on Jury Instructions, conducted a study in which research participants were given either the new or old instruction and then asked to state whether each of 16 different scenarios described direct or circumstantial evidence. The authors conclude that the new instruction is more effective than the old one at overcoming the common understanding of “circumstantial evidence” as “weak evidence.” They argue that successful instructions on circumstantial evidence would emphasize the importance of strong as compared to weak evidence rather than attempting to educate jurors about the distinction between direct and circumstantial evidence.

Introduction

During the past few decades, the American legal system has paid increasing attention to improving the jury system.1

* Peter Tiersma is Professor of Law and Joseph Scott Fellow, Loyola Law School, Los Angeles, Ca. Mathew Curtis is Professor, Annenberg School for Communication, University of Southern California.

One focus of inquiry has been jury instructions. Standardized or pattern jury instructions began to appear in the 1930s and 1940s. They are now commonly used throughout the United States. There is little doubt that standard instructions save judges time and effort. They also tend to be accurate statements of the law. Yet studies suggest that jurors do not understand traditional instructions very well, especially when more difficult points of law are involved.

Many states have endeavored to make their pattern instructions more comprehensible, while at the same time being accurate statements of the law. A notable attempt has been made by California, which revised all of its civil and criminal instructions with the specific goal of making them more user-friendly for jurors.

The creation of new plain-language jury instructions has made it possible to investigate the extent to which instructions written to be more comprehensible and approved for use in the courts do, in fact, lead to greater understanding by jurors. We decided to examine California’s new instruction on circumstantial evidence. We chose this instruction for a number of reasons. First, anecdotal and experimental evidence suggested that this instruction is particularly difficult for jurors to grasp. In addition, there appears to be a common belief among ordinary citizens that circumstantial evidence refers to weak or unreliable proof, rather than being simply an alternative way to prove a fact (which is how the law understands it). Finally, California’s new plain language jury instruction on circumstantial evidence attempts to explain the concept by means of an example, so we could study whether the use of examples or illustrations promotes comprehension.

3. Id. at 12.
5. The new civil jury instructions were approved in 2003; the new criminal jury instructions were approved in 2005. Updated as of 2008, both are available at http://www.courtinfo.ca.gov/jury/juryinst.htm.
2008] C OMPREHENSIBILITY OF JURY INSTRUCTIONS 233

Based on results from our study, we conclude that the common understanding of the term “circumstantial evidence” does indeed interfere with the ability of jurors to correctly grasp the legal meaning of the concept. California’s old instruction did little to counteract the jurors’ misconceptions on this issue. Aided by the presence of an example, the new instruction is more effective at dispelling the common misunderstanding of the term. Even so, comprehension was far from universal. Given the difficulty of the concept, judges might be better served by not trying to distinguish between direct and circumstantial evidence, focusing instead on the basic notion that both types of evidence are perfectly valid methods of proof.

Background

The institution of the jury in the common-law system arose in medieval England. When they needed to decide a factual dispute, judges began to call twelve juratores (“persons who have been sworn”) to court. They were summoned from the area where the crime or incident had happened, placed under oath, and ordered to tell the judges what had taken place. Unlike today’s jurors, they were expected to have personal knowledge of the facts. Only much later did the notion arise that jurors should determine what happened based not on their own knowledge, but on evidence presented during trial.6

Originally, English judges gave no instructions, leaving it up to jurors to decide for themselves the rules or principles that would guide their decisions. This practice continued in the English colonies of North America. Allowing jurors to determine the law was viewed as a means of limiting the oppression that acts of Parliament could inflict.7 After the Revolutionary War, the jury retained the power to decide the law. Thomas Jefferson and many of his contemporaries trusted the common sense of citizens, arguing that jurors should be able to decide not only

---

the facts of a case, but also the rules of law that were necessary to reach a verdict.8

During the nineteenth century this state of affairs began to change. As the country became more industrialized, people began to place greater value on predictable legal principles. Consequently, courts started expressly instructing jurors on the law, particularly in commercial cases. The jury’s prerogative to determine the law receded in criminal trials also, as consistency of outcome became a more pressing concern than the danger of harsh legislation. In the words of Justice Story: “every person accused as a criminal has a right to be tried according to . . . the fixed law of the land; and not by the law as a jury may understand it, or choose, from wantonness, or ignorance, or accidental mistake, to interpret it.”9

By the end of the nineteenth century, the Supreme Court held that “it is the duty of juries in criminal cases to take the law from the court and apply that law to the facts. . . .”10 Appellate courts began overruling cases if they believed the trial judge had misstated the law. The exact wording of the law grew in importance, and lawyers began to argue for instructions that favored their client’s case. Consequently, trial judges devoted more time and energy to preparing instructions.11

Largely because of the effort needed to prepare instructions on a case-by-case basis, as well as reversals by higher courts because of errors in wording, a committee of judges and lawyers in California began drafting what are now called standard or pattern instructions during the 1930s and 1940s.12 They eventually produced a set of instructions for the most common civil causes of action, and soon thereafter another committee created a set of pattern instructions for criminal cases.13 The committees also monitored legal developments and kept the instructions current.14 Many states followed this model. Today,

---

8. LEVY, supra note 6, at 69-76.
13. Id.
14. Id. at 1083-84.
most state and federal courts in the United States use pattern or standardized jury instructions.\textsuperscript{15}

Standardized instructions have proven very successful in saving the time of judges and lawyers. Instead of having to research cases and statutes to determine the elements of a tort or crime, judges can usually find an appropriate instruction in a book or computer database. Also, because these instructions are usually drafted by committees of judges and lawyers, they tend to be more accurate and more balanced statements of the law than the work product of a single judge would be. Thus, pattern instructions have reduced the number of appeals for instructional error.\textsuperscript{16}

Another objective of the pattern jury instruction movement was to improve comprehension.\textsuperscript{17} Unfortunately, accomplishing this goal has proven more elusive.

**Research on Comprehensibility**

The earliest substantial study in the United States on how well jurors understand instructions was conducted by Robert and Veda Charrow in the 1970s.\textsuperscript{18} In the first of two related studies, the Charrows received the cooperation of 35 people who had been called to jury duty but had not yet served. The Charrows had previously recorded a set of 14 California pattern civil instructions on audio tape. They played the tape twice to each subject. Study participants were then asked to paraphrase the instructions; these paraphrases were tape-recorded and analyzed.

The Charrows divided each of the instructions into meaning-bearing parts or segments. They then analyzed each paraphrase to determine how many of these segments the participants had correctly included in their paraphrase. On average, only about one-third of the information contained in these meaning-bearing segments (.386) found its way into the paraphrases (the Charrows called this the \textit{full performance} measure).

\begin{itemize}
\item \textsuperscript{15} Nieland, \textit{supra} note 2.
\item \textsuperscript{16} Schwarzer, \textit{supra} note 11, at 737.
\item \textsuperscript{17} Id.
\item \textsuperscript{18} Charrow, \textit{supra} note 4.
\end{itemize}
Using the same tape-recorded paraphrases, the Charrows conducted a further analysis of the data in which they counted only those segments that contained legally more important information, thus ignoring some of the less relevant segments of information in the instructions (they called this the approximation measure). Here, they found participants accurately paraphrasing somewhat better than half (.540) of these more significant aspects of the instructions.

The educational level of the participants in the Charrows’ study ranged from 12th grade through the doctoral level. It was the only demographic factor that influenced the result in a significant way. As expected, higher educational levels correlated to greater comprehension. Factors like the order of instructions and sentence length had little or no effect on the amount of information in the instructions that was correctly paraphrased.

The Charrows did not provide participants with a written copy of the instructions—they simply read them twice to each participant. So they effectively tested both retention and comprehension. Nonetheless, their results suggest that traditional pattern instructions do a poor job in communicating important legal information to jurors (many of whom, even today, do not receive a written copy). After hearing the instructions twice, participants could repeat in their own words only about one-third of the information they had been given. Even when the Charrows limited their analysis to the legally more important information in the instructions, participants could remember and paraphrase, on average, just slightly more than half of the material that had been read to them.

Concentrating more closely on the issue of comprehension, the Charrows identified a number of linguistic features that seemed to make the instructions more difficult to process, including the use of technical terminology, convoluted word order, complicated sentence structure, and the use of passive verbs in subordinate clauses. The improved language resulted in an increase of 41% in

19. Id. at 1317-1325.
2008] COMPREHENSIBILITY OF JURY INSTRUCTIONS 237

the full performance measure (from 31.9% to 42.7%) and an increase of 35% in the approximation measure (from 44.7% to 59.2%).

The committee charged with drafting and updating California’s standard instructions largely ignored the Charrows’ research. This was true even after the California Supreme Court, in Mitchell v. Gonzales, cited the study approvingly and suggested that the committee use the Charrows’ conclusions to improve the language of an “admittedly confusing instruction” on causation.

Of several studies on comprehensibility conducted since then, the most substantial and recent research is that of Bradley Saxton. With the cooperation of the Wyoming courts, Saxton gave questionnaires to jurors when they were discharged from service on actual trials. Jurors reported that they had spent around 31% of the time during deliberations discussing the instructions, indicating that they took them quite seriously. Ninety-seven percent believed that they understood the instructions either “pretty well” or “completely.”

Yet the reality was different from the jurors’ self-reporting. When participants were asked true/false questions about specific legal rules on which they had been instructed, only about 70% of their responses were correct. Surprisingly, only 60% of the participants who had already served on a criminal jury correctly responded that the fact that the state brought a charge against the defendant was not evidence that he or she had committed the crime. And approximately 31% of these former criminal jurors believed that once the state produced evidence that the defendant committed the crime, the burden shifted to the defendant to prove otherwise.

Turning to the topic of circumstantial evidence, Saxton’s research revealed that at least 35% of jurors did not understand (or may not have remembered) the instruction that circumstantial evidence should receive the same weight as direct evidence. Likewise, an earlier study of Michigan’s instructions found that

20. Id. at tbls. 12, 14.
only around 65% of former jurors knew that facts can be proved through circumstantial evidence. Similarly, Strawn and Buchanan reported that in one of their experiments, 43% of participants were skeptical of or uncertain about circumstantial evidence despite instructions.

In part, the low comprehension of instructions relating to circumstantial evidence may result from a common perception that it is a less valid or reliable type of proof. Vicki Smith has done extensive work on the ability of a judge’s charge to dispel jurors’ preconceptions that conflict with legal principles. She has concluded that traditional standardized jury instructions, as a general matter, do not very well overcome incorrect prior knowledge. She did find, however, that a judge’s charge is more likely to dispel incorrect prior knowledge if it explains or points out how legal and ordinary concepts differ.

California’s New Jury Instructions

As mentioned, the committees that previously drafted California’s pattern jury instructions were reluctant to take comprehensibility into account. Their guiding philosophy was that the only way to guarantee the legal accuracy of their work product was to repeat, word for word, the language of the relevant statute or judicial opinion.

Oddly enough, the catalyst for change was the infamous murder case against O. J. Simpson. After Simpson was acquitted of killing his former wife, a popular perception arose in California that it was a less valid or reliable type of proof. Vicki Smith has done extensive work on the ability of a judge’s charge to dispel jurors’ preconceptions that conflict with legal principles. She has concluded that traditional standardized jury instructions, as a general matter, do not very well overcome incorrect prior knowledge. She did find, however, that a judge’s charge is more likely to dispel incorrect prior knowledge if it explains or points out how legal and ordinary concepts differ.

---

27. Id. at 532.
28. Id. at 533.
29. Most of the information presented here about the California experience is based on the notes and personal experience of one of the authors (Tiersma), who from its inception was a member of California’s Task Force on Jury Instructions. See also Nancy McCarthy, Plain English Instructions are Coming to Juries, CAL. BAR. J., July 2003, http://www.calbar.ca.gov/state/calbar/calbar_cbj.jsp?CategoryPath=/Home/Attorney%20Resources/California%20Bar%20Journal/July2003&CatHtmlPath=cbj/07_TH_01_Plain-English.html&sCatHtmlTitle=Top%20Headlines.
ifornia that the criminal justice system (especially the jury) was not working very well. This caused the state’s Judicial Council to establish a blue ribbon commission to study the situation. The commission made its report in 1996. One of its recommendations related to jury instructions:

The Judicial Council should appoint a Task Force on Jury Instructions to be charged with the responsibility of drafting jury instructions that accurately state the law using language that will be understandable to jurors. Proposed instructions should be submitted to the Judicial Council and the California Supreme Court for approval.

Pursuant to this recommendation, the Judicial Council did indeed set up a task force, which was split into two subcommittees, civil and criminal. The two subcommittees proceeded in roughly the same fashion.

The civil committee started its work in 1997. There were 18 members, mostly judges and lawyers, who were appointed by Chief Justice Ronald George. The committee had the services of a staff attorney employed by the Judicial Council. The attorney conducted research and did much of the preliminary drafting. Members met in person several times a year to discuss proposed instructions. The instructions were projected to a screen from a laptop computer. The committee edited as a group during the course of the meeting, with changes being

---


32. We concentrate here on the civil instructions because they were the object of the Charrows’ experiment, and also because the criminal instructions had not been finalized when we began our study. Charrow, supra note 4.

33. The committee originally included several members of the committee, which had drafted the state’s old instructions. They resigned after attending a few meetings. Part of their stated reason for resigning was adherence to the philosophy that the instructions had to copy the language of statutes and judicial opinions verbatim. In addition, the BAJI committee was part of the Los Angeles Superior Court, which meant that copyright fees accrued to that court, rather than the state judicial system. The committee also had a member of the public who was not a lawyer. She stopped attending after a few meetings.
made directly on the laptop, so that everyone could monitor the result of the edits on the screen.

The original plan was to review all of California’s current instructions, revising only those that presented comprehension difficulties. It was decided early in the process not to revise the old instructions, but to draft a completely new set from scratch. This decision led to a better product in the end, but it also made the project substantially more expensive and time-consuming.

Over the course of about six years, the committee drafted hundreds of new instructions. All of them were circulated for public comment. The committee received a large amount of feedback, not just from individual lawyers and judges (including several justices on the state supreme court), but also from lawyers representing trade and advocacy groups. On occasion lawyers who made comments hoped to slant the instructions in favor of the interests they represented, but for the most part they made valid points that led to revisions in the committee’s work. Eventually, in 2003, the full set of new instructions was approved by the California Judicial Council for use in the courts.34

Old vs. New Instructions: Examples

We now present a few examples of old and new instructions, along with some comments on how they differ. In each case the old (BAJI) instruction is the version that was in effect at the time the new instructions were approved by the Judicial Council,35 and the new (CACI) instruction is the version that was approved by the Council for future use.36 To facilitate comparison, in some cases only part of the relevant instruction is quoted. Brackets have been omitted to promote readability.

34. Use of the new instructions is not required. Although the BAJI committee has been officially disassociated from the Los Angeles Superior Court, its members continue to revise the old BAJI instructions, and some Los Angeles judges continue to use them.
35. California Jury Instructions: Civil (BAJI) (9th ed. 2002) [hereinafter BAJI].
Old: Instructions to Be Considered as a Whole

If any matter is repeated or stated in different ways in my instructions, no emphasis is intended. Do not draw any inference because of a repetition.

Do not single out any individual rule or instruction and ignore the others. Consider all the instructions as a whole and each in the light of the others.

The order in which the instructions are given has no significance as to their relative importance.

This is not a particularly bad instruction, although the formal and highly impersonal style has the effect of distanc[ing the judge from the jury. It is also likely that many jurors will not understand what it means to “draw an inference” from a repetition.

The new instruction is more conversational while preserving the legal meaning. Notice also that the judge uses the personal pronouns “I” and “you”:

New: Duties of the Judge and Jury

Pay careful attention to all the instructions that I give you. All the instructions are important because together they state the law that you will use in this case. You must consider all of the instructions together.

If I repeat any ideas or rules of law during my instructions, that does not mean that these ideas or rules are more important than the others are. In addition, the order of the instructions does not make any difference.

Another instruction given in almost every trial relates to evidence and trial objections:

37. BAJI No. 1.01.
38. CACI No. 5000.
Old: Statements of Counsel—Stipulation to a Fact—Evidence Stricken Out—Insinuations of Questions

Statements of counsel are not evidence; however, if counsel have stipulated to a fact, or a fact has been admitted by counsel, accept that fact as having been conclusively proved.

Do not speculate as to the answers to questions to which objections were sustained or the reasons for the objections.

Do not consider any evidence that was stricken; stricken evidence must be treated as though you had never known of it.

A suggestion in a question is not evidence unless it is adopted by the answer. A question by itself is not evidence. Consider it only to the extent it is adopted by the answer.

The second paragraph ("do not speculate. . .") in particular is syntactically quite complex. Consider now the new instruction:

39. BAJI No. 1.02.
New: Evidence

The attorneys’ questions are not evidence. Only the witnesses’ answers are evidence. You should not think that something is true just because an attorney’s question suggests that it is true. However, the attorneys for both sides can agree that certain facts are true. This agreement is called a stipulation. No other proof is needed and you must accept those facts as true in this trial.

Each side has the right to object to evidence offered by the other side. If I do not agree with the objection, I will say it is overruled. If I overrule an objection, the witness will answer and you may consider the evidence. If I agree with the objection, I will say it is sustained. If I sustain an objection, you must ignore the question. If the witness did not answer, you must not guess what he or she might have said or why I sustained the objection. If the witness has already answered, you must ignore the answer.

Sometimes an attorney may make a motion to strike testimony that you have heard. If I grant the motion, you must totally disregard that testimony. You must treat it as though it did not exist.

Another important instruction relates to the burden of proof. Here is the old definition of “preponderance of the evidence”:

Old: Burden of Proof and Preponderance of Evidence

“Preponderance of the evidence” means evidence that has more convincing force than that opposed to it. If the evidence is so evenly balanced that you are unable to say that the evidence on either side of an issue preponderates, your finding on that issue must be against the party who had the burden of proving it.

40. CACI No. 106.
41. BAJI No. 2.60.
The verb “preponderate” is a very unusual word. The new instruction completely dispenses with the term:

**New: Obligation to Prove—More Likely True Than Not True**

*When I tell you that a party must prove something, I mean that the party must persuade you, by the evidence presented in court, that what he or she is trying to prove is more likely to be true than not true. This is sometimes referred to as “the burden of proof.”*

Not only does the new instruction avoid the verb “preponderate” in favor of the much more understandable “more likely true than not true” language, but it differentiates the civil standard of proof from the criminal standard, which may be familiar to many jurors from television or previous jury service:

**In criminal trials, the prosecution must prove facts showing that the defendant is guilty beyond a reasonable doubt. But in civil trials, such as this one, the party who is required to prove a fact need only prove that the fact is more likely to be true than not true.**

As noted above, Vicki Smith’s research suggests that incorrect prior knowledge or misconceptions are best counteracted by addressing them directly. That is what the instruction tries to accomplish by comparing the civil standard of proof with the more familiar “beyond a reasonable doubt” standard in criminal cases.

Although in some cases plain-language instructions may be longer than those written in legalese, the opposite may also be true. Consider the old instruction on the duty of care of drivers and pedestrians:

---

42. CACI No. 200.
43. Smith *supra* note 26.
2008]  COMPREHENSIBILITY OF JURY INSTRUCTIONS 245

**Old: Amount of Caution Required in Ordinary Care—Driver and Pedestrian**

While it is the duty of both the driver of a motor vehicle and a pedestrian, using a public roadway, to exercise ordinary care, that duty does not necessarily require the same amount of caution from each. The driver of a motor vehicle, when ordinarily careful, will be alert to and conscious of the fact that in the driver’s charge is a machine capable of causing serious consequences if the driver is negligent. Thus the driver’s caution must be adequate to that responsibility as related to all the surrounding circumstances. A pedestrian, on the other hand, has only his or her own physical body to manage to set in motion a cause of injury. Usually that fact limits the capacity of a pedestrian to cause injury, as compared with that of a vehicle driver. However, in exercising ordinary care, the pedestrian, too, will be alert to and conscious of the mechanical power acting on the public roadway, and of the possible serious consequences from any conflict between a pedestrian and such forces. The caution required of the pedestrian is measured by the danger or safety apparent to the pedestrian in the conditions at hand, or that would be apparent to a person of ordinary prudence in the same position.

In contrast, the new instruction gets to the point much more quickly:

**New: Duties of Care for Pedestrians and Drivers**

The duty to use reasonable care does not require the same amount of caution from drivers and pedestrians. While both drivers and pedestrians must be aware that motor vehicles can cause serious injuries, drivers must use more care than pedestrians.

---

44. BAJI No. 5.51.
45. CACI No. 710.
Instructing on Circumstantial Evidence

We have seen above that traditional jury instructions tend to create processing difficulties for jurors, and that the concept of circumstantial evidence is particularly hard for jurors to grasp. One reason for this difficulty is that, legally speaking, both direct and circumstantial evidence are equally valid ways of proving a fact, in contrast to the common perception that circumstantial evidence is of little value. People often seem to equate circumstantial evidence with weak evidence. In reality, direct evidence can sometimes be quite weak (e.g., an eyewitness identifying the defendant as having been present at the scene of the crime, even though it was very dark and the witness was far away and not wearing her glasses). And circumstantial evidence can be quite strong (a reliable witness hears a woman scream “don’t kill me,” hears a shot in the next room, opens the only door to the windowless room, and clearly sees a man—the only living person in the room—holding a smoking gun with the woman lying dead on the floor).

Furthermore, the distinction between direct and circumstantial evidence can be a subtle one. Direct evidence results from a sensory perception (seeing, hearing, smelling something or someone), without requiring any inferential reasoning to establish the fact in question. Circumstantial (or indirect) evidence also rests on a sensory perception, but the fact in question can be established only via inferences based on that perception. Now consider that a person’s intent is usually critical to convict someone of a crime. Suppose that a woman told someone, “I intend to kill my husband tomorrow.” Is that statement direct or circumstantial evidence of her intent? Even experts can disagree.

Let’s see how the old instructions attempted to explain this difficult concept:

46. Saxton, supra note 4; Strawn & Buchanan, supra note 25.
Old: Direct and Circumstantial Evidence—Inferences

Evidence consists of testimony, writings, material objects or other things presented to the senses and offered to prove whether a fact exists or does not exist.

Evidence is either direct or circumstantial.

Direct evidence is evidence that directly proves a fact. It is evidence which by itself, if found to be true, establishes that fact.

Circumstantial evidence is evidence that, if found to be true, proves a fact from which an inference of the existence of another fact may be drawn.

A factual inference is a deduction that may logically and reasonably be drawn from one or more facts established by the evidence.

It is not necessary that facts be proved by direct evidence. They may be proved also by circumstantial evidence or by a combination of direct and circumstantial evidence. Both direct and circumstantial evidence are acceptable as a means of proof. Neither is entitled to any greater weight than the other.

This sounds more like a college philosophy lecture than a genuine attempt to explain a difficult concept to a group of ordinary citizens.

In our experience as teachers, we have found that when explaining a complicated topic, it is often very helpful to illustrate a point by giving students an example or two. This is the approach taken by the new instruction:

47. BAJI No. 2.00.
Evidence can come in many forms. It can be testimony about what someone saw or heard or smelled. It can be an exhibit admitted into evidence. It can be someone’s opinion.

Some evidence proves a fact directly, such as testimony of a witness who saw a jet plane flying across the sky. Some evidence proves a fact indirectly, such as testimony of a witness who saw only the white trail that jet planes often leave. This indirect evidence is sometimes referred to as “circumstantial evidence.” In either instance, the witness’s testimony is evidence that a jet plane flew across the sky.

As far as the law is concerned, it makes no difference whether evidence is direct or indirect. You may choose to believe or disbelieve either kind. Whether it is direct or indirect, you should give every piece of evidence whatever weight you think it deserves.

Testing Comprehensibility

It is not practical to test the hundreds of pattern instructions current in any jurisdiction. Nor is it necessary. Linguists have identified certain types of syntactic complexity that interfere with or reduce comprehension.49 We also know that unusual words create difficulties in understanding, and we now have tools available, such as word frequency dictionaries, that help determine exactly how unusual a word is.50 Nonetheless, even when instructions have been drafted using principles intended to make them more comprehensible, it seems a good idea to test a sample of such instructions to determine whether they are in fact conveying the law in a way that is correct and

50. A word frequency dictionary lists the absolute and usually also relative frequency with which a particular word occurs in a corpus of texts, and is thus a means of determining how common a word is in that corpus (and by extension, how common the word is in the language represented by the texts in the corpus).
Id.
understandable. We have already explained why we decided in this project to focus on circumstantial evidence.\textsuperscript{51}

Methodology
The participants in our experiment were 66 undergraduate psychology students at the University of Southern California (USC).\textsuperscript{52} Most of the students were either white or Asian, and their average age was around 20 years old. There were significantly more females than males (the ratio was approximately 3 to 1), but this is typical for a college psychology department. None had served on a jury. Somewhat under 10\% had taken a law course, but their responses were similar to those of the rest. The students participated in the study to obtain course credit.

Participants were asked to imagine that they were members of a jury. They were told that at the end of a trial, jurors must reach a verdict and that in order to do so, the judge gives them instructions on the law.

Participants were randomly assigned to receive one of two written versions of the test instrument. One version contained the old instruction on circumstantial evidence. The other version had the new instruction. Participants were each given a written copy of the instruction and were told they were free to refer to it at any time. The instruction was followed by 16 factual scenarios. For instance, the first scenario was the following:

A witness, who is a college biology professor, testifies that she saw mountain lion tracks in the mud behind her house. This testimony is direct evidence/circumstantial evidence that a mountain lion had been behind her house.

For each scenario, participants were asked to identify the type of evidence in question by circling “direct evidence” or “circumstantial evidence.” Of the 16 scenarios, eight described circumstantial evidence and eight described direct evidence (see Appendix A). The results are summarized in Table 1.

\textsuperscript{51} See supra pp. 1002-03.

\textsuperscript{52} The number and nature of participants in a study depends on practical considerations such as the availability of participants and, more importantly, the need to achieve statistical significance. In this case, we were able to show that the new circumstantial evidence instruction was significantly more comprehensible than the old instruction using the results obtained from 66 participants. By way of comparison, the Charrows’ study had 35 subjects. Charrow, supra note 4.
Table 1: Percentage of Correct Responses for Each Statement by Instruction Received

<table>
<thead>
<tr>
<th>Question</th>
<th>BAJI (old)</th>
<th>CACI (new)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1 (c)*</td>
<td>64</td>
<td>85</td>
</tr>
<tr>
<td>Q2 (c)</td>
<td>61</td>
<td>64</td>
</tr>
<tr>
<td>Q3 (d)**</td>
<td>09</td>
<td>12</td>
</tr>
<tr>
<td>Q4 (d)</td>
<td>27</td>
<td>45</td>
</tr>
<tr>
<td>Q5 (c)</td>
<td>27</td>
<td>55</td>
</tr>
<tr>
<td>Q6 (d)</td>
<td>36</td>
<td>70</td>
</tr>
<tr>
<td>Q7 (d)</td>
<td>67</td>
<td>76</td>
</tr>
<tr>
<td>Q8 (c)</td>
<td>73</td>
<td>67</td>
</tr>
<tr>
<td>Q9 (c)</td>
<td>85</td>
<td>85</td>
</tr>
<tr>
<td>Q10 (d)</td>
<td>58</td>
<td>73</td>
</tr>
<tr>
<td>Q11 (c)</td>
<td>15</td>
<td>30</td>
</tr>
<tr>
<td>Q12 (d)</td>
<td>36</td>
<td>64</td>
</tr>
<tr>
<td>Q13 (d)</td>
<td>56</td>
<td>36</td>
</tr>
<tr>
<td>Q14 (d)</td>
<td>76</td>
<td>97</td>
</tr>
<tr>
<td>Q15 (c)</td>
<td>94</td>
<td>88</td>
</tr>
<tr>
<td>Q16 (c)</td>
<td>36</td>
<td>55</td>
</tr>
<tr>
<td>All circumstantial evidence questions</td>
<td>46</td>
<td>59</td>
</tr>
<tr>
<td>All direct evidence questions</td>
<td>56</td>
<td>66</td>
</tr>
<tr>
<td>Total</td>
<td>51</td>
<td>62</td>
</tr>
</tbody>
</table>

*Correct answer was circumstantial evidence.
**Correct answer was direct evidence.

Analysis

The overall comprehension rate for both groups is 57% correct. The difference between the groups receiving the old instruction (51% of all questions answered correctly) and the new instruction (62% correct) is statistically significant.\(^53\) The same pattern holds if we compare those questions where the evidence was circumstantial (46% correct for the old instruction versus 59% for the new instruction) with those where the evidence was direct (56% correct for the old instruction versus 66% correct for the new instruction).

\(^53\) An independent-samples t test showed the mean score for the new instructions (M=62.5, SD=15.7) was significantly higher than for the old instructions (M=51.2, SD=16.2), t(64) = 2.88, p<.01.
for the new instruction). We have no explanation for why participants generally performed better when the scenarios presented direct evidence. It is interesting to observe that the overall score of participants receiving the old instruction is just over 50% correct. Because there were only two possible answers to each question, this group of participants could have done as well by randomly guessing or by circling the same answer for each question.

Yet when examining answers to individual questions, we found a great deal of variation. Although a majority of participants who received the old instruction gave the wrong answer to just under half of the questions (7 out of the 16), they did relatively well on some of the other questions. For instance, 94% circled the correct response for scenario 15, 85% were correct for scenario 9, and 76% were correct for scenario 14. Thus, their individual responses were most likely not the result of pure guessing.

Subjects receiving the new instruction did significantly better overall (62% correct). Given that the participants were students at a highly selective research university, the overall score of 62% correct (after receiving plain-English instructions) may seem disappointing. It should be borne in mind, however, that the difference between direct and circumstantial evidence is conceptually difficult. Moreover, few people in ordinary life sit back to contemplate whether evidence is one type or the other. We normally tend to be far more concerned with the strength of the evidence, not its classification as direct or indirect.

Although the new jury instruction on circumstantial evidence does indeed appear to increase juror understanding of this difficult concept, questions remain. As mentioned above, one issue is why participants who received the old instructions performed quite well with respect to certain scenarios. In particular, they had high correct response rates for scenarios 9, 14, and 15. Why might this be the case?

We begin with scenarios 14 and 15, which share a common fact pattern:

A witness testifies in court that she was walking down the street and heard a loud crash (metal against metal) behind her. When she turned around, she saw Mr. Smith drive past her with a panicked look on his face. There were no other cars driving on the street. The witness walked in the direction of where she heard the
sound and, about 100 feet back, discovered that a car parked on the street had a large dent on the driver’s door.

The highest correct response rate for the participants who received the old instruction was for scenario 15:

The witness’s testimony is direct evidence/circumstantial evidence that Mr. Smith caused the damage to the parked car.

Of the participants who received the old instruction, 94% correctly responded that the testimony was circumstantial evidence, as compared to a similar but somewhat lower 88% for those who received the new instruction.

Notice that the evidence presented in this scenario is not just circumstantial, but it also is not very convincing. The damaged car might already have had a dent in it. Perhaps Mr. Smith crashed into some other metal object. In addition, the witness’s testimony involves hearing. It may be that people regard seeing as more reliable than hearing, which (as we explore below) may cause them to associate hearing with circumstantial evidence. Question 14 is based on the same fact pattern:

The witness’s testimony is direct evidence/circumstantial evidence that Mr. Smith was driving down the street.

Of the participants who had the old instruction, 76% correctly identified the testimony as direct evidence of the conclusion, while 97% of those who received the new instruction answered correctly. In this scenario the witness’s testimony is based on what she saw (not what she heard) and there is no indication that she was under any visual impairment. Thus, the testimony is not just direct, but is relatively strong proof supporting the conclusion that Smith was driving down the street.

The last of the three scenarios for which the participants who received the old instructions had relatively high correct response rates is number 9. Here the underlying issue is whether Mr. Williams, who lives in Los Angeles, was in San Diego on July 1.

Mr. Williams’s boss testifies that Williams did not show up for work on July 1, which was a normal work day. The testimony is direct evidence/circumstantial evidence that Williams was in San Diego on July 1.

In both groups, 85% correctly responded that the evidence in support of the conclusion was circumstantial. As with scenario 15, the evidence is not just circumstantial, being based on an inference, but it is weak because there are several possible com-
peting conclusions that might explain Mr. Williams’ absence from work. He could have been sick in bed at home, or he might have gone fishing at a location other than San Diego.

Based on these examples, it appears that participants, whether they received the old or new instruction, performed well with scenarios involving either weak circumstantial evidence or strong direct evidence. Scenarios 9 and 15 presented weak circumstantial proof, while 14 involved strong direct proof.

We previously mentioned that there seems to be a popular misconception that circumstantial evidence is equivalent to weak or less reliable proof (“that’s just circumstantial evidence” is often said in a derogatory manner). The correlate would be that direct evidence is generally associated with stronger or more reliable proof. This is inconsistent with the legal standard, which holds that circumstantial evidence can be quite strong in some cases, and that direct evidence can be relatively weak.

If this is indeed the popular understanding of the term “circumstantial evidence,” we would expect that participants will receive the highest correct scores in response to scenarios where the legal and popular meanings of the term circumstantial evidence lead to the same conclusion (i.e., weak circumstantial evidence or strong direct evidence). This, of course, is the situation with the scenarios (9, 14, and 15), which we analyzed above. Of course, some participants likely reached the correct conclusion with respect to these scenarios because they understood and were able to apply the instruction. Others, however, seem to have responded correctly because—purely by happenstance—the popular misconception led to the right outcome in these cases.

Another question raised by the study is why participants performed so poorly on some of the other scenarios. We would expect that participants will perform poorly in scenarios where the legal and popular conceptions of circumstantial evidence come into conflict (and where the popular definition would thus lead to the wrong result). We would also expect that participants who receive the old instruction, which is less effective in educating jurors on the legal meaning, would be more susceptible to providing wrong answers in this situation. We
therefore turn to those scenarios that received the lowest correct responses. Here, participants performed much worse than they would by random guessing.

The first and most dramatic example of a low correct response rate involves scenario 3:

A witness testifies that she heard some geese honking overhead. She looked up but could not see them because it was too dark. This testimony is direct evidence/circumstantial evidence that geese had flown by.

The correct response—that hearing geese honk is direct evidence that geese had flown by—was given by only 9% of those who had the old instruction and 12% of those with the new instruction.

As with scenario 15, this question involves hearing something. We hypothesized in that case that some participants believe that seeing something constitutes direct evidence, whereas hearing something (or perceiving it with another non-visual sense) constitutes circumstantial evidence. Interestingly, the old instruction addresses this very issue by declaring that evidence consists of anything “presented to the senses.” But the instruction seems to have had little effect: participants who had the old instruction seem just as susceptible to this visual bias as those who had the new instruction.

Recall that the new instruction uses an example to clarify the distinction between the two types of evidence (seeing the jet plane versus seeing the trail that it leaves behind). The overall higher correct response rate for those who had the new instruction suggests that illustrations can indeed increase comprehension. But because the example involves seeing, participants may not have applied the lesson to other types of sensory perception.

The second lowest correct response rate was achieved with scenario 11:

The issue in a trial is whether Mr. Williams, who lives in Los Angeles, was in San Diego on July 1. An employee of a cell phone service provider testifies that according to the company’s records, Mr. Williams’s cell phone placed a call at 11:57am on July 1st from a location in San Diego. The testimony is direct evidence/circumstantial evidence that Williams was in San Diego on July 1.

Only 15% of the participants who received the old instruction knew that this example constituted circumstantial evidence of
Mr. Williams’s whereabouts. In contrast, 30% of participants who had the new instruction answered correctly.

In this scenario we have quite strong evidence that Mr. Williams was in San Diego on the date in question, because cell phone records are usually very reliable. But as proof that Williams was in San Diego, it clearly is circumstantial. The conclusion depends on an inference based on cultural knowledge about current American society (that a person and his cell phone are not soon parted).

Because the evidence is indirect, it must be categorized—according to the instructions—as circumstantial. But because the proof is strong, participants relying on the ordinary meaning of the phrase *circumstantial evidence* will classify it as direct. This scenario thus seems to confirm Vicki Smith’s suggestion that it is not easy to overcome prior knowledge. The new instruction appears to do a somewhat better job in educating participants on the legal distinction between the two types of evidence, but it also falls short.

Our hypothesis also predicts low correct response rates for weak direct evidence, since the ordinary understanding will again conflict with the legal meaning. The next lowest correct response rates for participants who had the old instructions are scenarios 4 and 5. Scenario 4 follows:

A witness testifies that she saw a bear behind her house. She also testifies that it was dark, that she did not have her glasses on, and that the animal was a fair distance away. This testimony is *direct evidence/circumstantial evidence* that a bear had been behind her house.

Only 27% of participants who had the old instruction answered correctly that this is direct evidence. By contrast, 45% of those with the new instruction answered correctly. Since the witness saw the bear, participants should have recognized that this was direct (though weak) proof of the bear’s presence. Nonetheless, most participants thought it was circumstantial evidence.

The final scenario that we will consider is number 5:

A police officer testifies that when he was at the scene of an accident, he measured skid marks that were 100 feet long. It is undisputed that Jill caused the accident and that her car caused the skid marks. This testimony is *direct evidence/circumstantial evidence* that Jill applied her brakes before the accident.

54. Smith, *supra* note 26 at 507.
Again, only 27% of participants who had the old instruction correctly identified the evidence as circumstantial, while 55% of those who had the new instruction responded correctly. The conclusion in statement 5 requires an inference that the presence of skid marks suggests braking, and is thus circumstantial. But the evidence of braking is relatively strong.

There is little doubt that participants are heavily influenced by the ordinary meaning of circumstantial evidence as referring to less reliable proof. The old instruction counteracted the ordinary meaning to a limited extent. The new instruction is more effective, but the ordinary meaning still has a strong impact.

Discussion

We can draw a number of conclusions from this study. With respect to the instruction on circumstantial evidence, the new instruction is more effective overall than the old instruction. As previously noted, overall 51% of responses from participants who had the old instruction were correct, as compared to 62% of responses from those who received the new instruction. There are some scenarios where the participants who had the old instruction did quite well, but in most cases this seems to have been because both the legal and the ordinary definition of circumstantial evidence supported the same result.

Regardless of the instruction received, participants performed substantially worse when their prior knowledge or preconceptions concerning the meaning of “circumstantial” and “weak” evidence conflicted with the legal definition. The distracting effect of the ordinary meaning was quite a bit stronger on those participants who received the old instructions. The new instruction generally did a better job counteracting this influence, but nonetheless the effect was substantial.

We believe that the superior results obtained by the new instruction are due both to its more ordinary phrasing and to the fact that it presents jurors with an example or illustration. Nonetheless, using only a single example that is based on seeing with the eyes may not be effective when the evidence is perceived through the ears.
Given the problematic nature of circumstantial evidence and the distracting effect of the ordinary meaning of the term, it is worth asking why courts—especially but not exclusively in criminal cases—seem determined to try to teach jurors to properly classify evidence as one type or the other. The need to categorize the evidence seems especially bizarre because courts then proceed to tell jurors that what really matters is the strength of the evidence, not its classification as direct or circumstantial. Thus, the real point of these instructions seems to be that it doesn’t matter how evidence is classified, as long as it reliably proves the fact at issue.

It is therefore tempting to recommend that juries not be instructed on circumstantial evidence at all, relying instead on general instructions relating to the burden of proof and strength of evidence. Yet the existence of the popular misconception that circumstantial evidence is weak suggests that judges should try to counteract this preconception by drawing explicit attention to it.

Thus, judges might instruct jurors that despite what they may have heard from other sources, circumstantial evidence is as valid a way to prove a fact as any other type of evidence. What matters is how strong or weak the evidence is, not whether it is direct or circumstantial.

If a judge or jury instruction committee decides that it is essential to try to educate jurors on the legal distinction between the two types of evidence, it should be done in ordinary language. And it will be helpful to include some examples. The lesson from this study is that it is best to have more than one example, illustrating different modes of perception, such as hearing or smelling. In any event, the example should be similar enough to the facts at issue to cause jurors to draw the appropriate connection.

Finally, our results suggest that even when instructions are drafted in accordance with plain-language drafting principles, it is worth testing them to determine whether and how well jurors are likely to understand them. The legal concepts that a

55. We are doing additional testing of the new California instructions, including additional work on circumstantial evidence. We encourage other researchers to do the same.
judge conveys to the jury can be quite complex, so it may not be realistic to expect perfect comprehension. Yet it is clear that we can do better than we have in the past.
2008] COMPREHENSIBILITY OF JURY INSTRUCTIONS 259

APPENDIX A
Statements and scenarios used in the authors’ study.

1. A witness, who is a college biology professor, testifies that she saw mountain lion tracks in the mud behind her house. This testimony is direct evidence/circumstantial evidence that a mountain lion had been behind her house.

2. A witness testifies that she saw a man enter a room wearing a rain coat and holding an umbrella, both of which were dripping wet. This testimony is direct evidence/circumstantial evidence that it had been raining.

3. A witness testifies that she heard some geese honking overhead. She looked up but could not see them because it was too dark. This testimony is direct evidence/circumstantial evidence that geese had flown by.

4. A witness testifies that she saw a bear behind her house. She also testifies that it was dark, that she did not have her glasses on, and that the animal was a fair distance away. This testimony is direct evidence/circumstantial evidence that a bear had been behind her house.

5. A police officer testifies that when he was at the scene of an accident, he measured skid marks that were 100 feet long. It is undisputed that Jill caused the accident and that her car caused the skid marks. This testimony is direct evidence/circumstantial evidence that Jill applied her brakes before the accident.

6. A police officer testifies that he saw a man throw a pistol into a deep lake. Divers later cannot find any pistol. The officer’s testimony is direct evidence/circumstantial evidence that the man had a pistol.

7. A president of a private club testifies that the board has repeatedly decided that they would not admit racial minorities as members. The testimony is direct evidence/circumstantial evidence that the club has a membership policy that discriminates on the basis of race.

8. An executive in a large company testifies that no member of a racial minority has ever become a manager at the company, although many have applied for such a position. The testimony
is *direct evidence/circumstantial evidence* that the company discriminates on the basis of race.

We will now ask you to read two scenarios. Following each scenario there will be four questions regarding a statement made by a witness in the case. *Assume that the witness in each statement is telling the truth.* After reading each statement, please indicate whether you think the statement involves direct evidence or circumstantial evidence by circling what you believe to be the correct answer. As before we also ask that you indicate the confidence you have that your answer is the correct answer and that you do not change your answer after you have made it. Remember, if you wish you may make reference back to the instructions at the start of this packet explaining the difference between direct and circumstantial evidence.

**Scenario A**

The issue in a trial is whether Mr. Williams, who lives in Los Angeles, was in San Diego on July 1.

9. Mr. Williams’s boss testifies that Williams did not show up for work on July 1, which was a normal work day. The testimony is *direct evidence/circumstantial evidence* that Williams was in San Diego on July 1.

10. A clerk in a hotel in San Diego appears as a witness at trial, has a chance to see Mr. Williams in the courtroom, and testifies that she is "pretty sure" that on July 1, Mr. Williams came into her hotel, asked about a room, and left. The testimony is *direct evidence/circumstantial evidence* that Williams was in San Diego on July 1.

11. An employee of a cell phone service provider testifies that according to the company’s records, Mr. Williams’s cell phone placed a call at 11.57am on July 1st from a location in San Diego. The testimony is *direct evidence/circumstantial evidence* that Williams was in San Diego on July 1.

12. A woman who went to high school with Mr. Williams, and who has been blind from birth, testifies that she was in San Diego July 1 to visit a friend. As they were eating lunch in a restaurant, she distinctly heard Mr. Williams’s voice. The
testimony is direct evidence/circumstantial evidence that Williams was in San Diego on July 1.

Scenario B
A witness testifies in court that she was walking down the street and heard a loud crash (metal against metal) behind her. When she turned around, she saw Mr. Smith drive past her with a panicked look on his face. There were no other cars driving on the street. The witness walked in the direction of where she heard the sound and, about 100 feet back, discovered that a car parked on the street had a large dent on the driver’s door.

13. The witness’s testimony is direct evidence/circumstantial evidence that there was a crash.

14. The witness’s testimony is direct evidence/circumstantial evidence that Mr. Smith was driving down the street.

15. The witness’s testimony is direct evidence/circumstantial evidence that Mr. Smith caused the damage to the parked car.

16. Suppose that an expert witness testifies that some paint found on Mr. Smith’s front bumper is identical to the paint of the damaged car, and that only 1 percent of all cars have this kind of paint. The expert’s testimony is direct evidence/circumstantial evidence that Mr. Smith caused the damage to the parked car.