

Tackling “Legalese”: How Linguistics Can Simplify Legal Language and Increase Access to Justice

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Abstract: In US courtrooms, judges read jurors a set of “jury instructions” to help them reach a verdict. One Massachusetts instruction concerns jurors’ memories: “Failure of recollection is common. Innocent misrecollection is not uncommon.” Since most jurors find this – and many instructions – nearly incomprehensible, a task force of judges, lawyers, and linguists has started a project for reform. The project began by testing how well a sample of instructions is understood. In one experiment, subjects heard six sample jury instructions and answered true/false questions about them. The results showed that comprehension varied with linguistic complexity, significantly worse on instructions containing passive verbs and presupposed information, factors known to increase processing load. A second experiment used Plain English versions that eliminated these factors, and comprehension improved significantly. The results suggest that though legal language is entrenched and reform is difficult, psycholinguistic research can help diagnose problems and suggest a course of action toward improving verdicts – and justice – overall.

Keywords: language and law; psycholinguistics; linguistic structure and text comprehension

1. Introduction

This paper is about a problem in one area of language and law, specifically, the area of “jury instructions.” To provide some context, let me first introduce some facts about the jury system in the United States, which is unlike many European systems.

The definition of *jury* is given in (1).

(1) **ju·ry**

n. pl. ju·ries

a body of persons selected to decide a verdict in a legal case, based upon the evidence presented, after being given instructions on the applicable law (*The American Heritage Dictionary* 2011)

The key phrase here is “after being given instructions.” Juries, which are composed of ordinary citizens and not legal experts, must be instructed on the law that applies in the particular cases that they are hearing. But how did ordinary citizens come to serve on juries? A chronology of the US jury system, shown in (2), begins in the 1600s, when colonists brought the British jury system to the colonies. Under Britain’s rule, however, the mother country took away the colonist’s right to a jury trial.

- (2) 1600s British colonists bring the jury system to the colonies
 1764 Britain revokes the colonists’ right to a jury trial
 1776 the Declaration of Independence blames the King “for depriving us, in many cases, of the benefit of Trial by Jury”
 1791–today the US Constitution, Sixth Amendment: “In all criminal prosecutions, the accused shall enjoy the right to a speedy and public trial, by an impartial jury.”

Jury trials were reinstated when America became independent in 1776, and since 1791, when the right to a jury trial was enshrined in the US Constitution, the US has used jury trials and jurors.

Now consider what jurors must do. After they have listened to the case, and just before they go into the jury room to deliberate and reach a verdict, the judge reads them a set of instructions. One instruction that they might hear, shown in (3), concerns their memories:

- (3) *Failure of recollection is common. Innocent misrecollection is not uncommon.*
 [California Book of Approved Jury Instructions (BAJI), 2.21]

Don’t be surprised if you have trouble understanding this instruction. Most native English speakers find it challenging (Tiersma 1999). But this is an official instruction that, until recently, was used in California and it is similar to instructions used in other states. But now compare (3) to (4):

- (4) *People often forget things or make mistakes in what they remember.* [Judicial Council of California Civil Jury Instruction (CACI), 2003]

This new version comes from the revised *California Civil Jury Instructions*, adopted in 2003, the result of a project to rewrite that state’s instructions into Plain English. California was not the first state to rewrite its jury instructions; a movement had been spreading as the result of a mounting body of research on the comprehension – actually, the *miscomprehension* – of jury instructions. The classic study by Charrow and Charrow (1979) was followed by more research that all reached the same conclusion: jury instructions are too difficult for the average juror to understand (Elwork, Sales, and Alfini 1982; Reifman, Gusick, and Ellsworth 1992; Saxton 1998).

In one study, for example, conducted with jurors who had served on a trial, more than a quarter could not define *burden of proof*, *impeach*, *admissible evidence*, or *inference*; more than half could not define *speculate* and thought that *a preponderance of the evidence* meant either “a slow, careful, pondering of the evidence” or “looking at the exhibits in the jury room” (Tiersma 1993; see also Diamond and Levi 1996; Diamond 2003; Tiersma 1999, 2001, 2009). But the problem is not only in defining the specialized terminology that instructions contain (sometimes referred to as “legalese”). Recall that the example in (3) above contained no legal terms at all. So the difficulty must come from something else.

2. Linguistic Factors in Comprehending Jury Instructions: A Study

We know from research in two fields, psycholinguistics and reading, about linguistic factors – semantic and syntactic – that influence comprehension. One semantic factor that operates in (3)

is the presence of negatives, which are more difficult to process than positive statements, whether they are overt negatives, such as *not* and the affixes *mis-* and *un-* (Wason 1959; Just and Carpenter 1976) or inherent negatives, such as *failure* (Just and Clark 1973). Processing load is increased even more when negatives are syntactically nested, as in [not [uncommon]] (Cutler 1983).

Another factor is the use of nominals, such as *failure* and *recollection*, which are harder to process than their underlying verbs, *fail* and *recollect* (Klare 1976). One problem is that they use nouns to express actions usually expressed by verbs. But what is even more challenging is that they omit the verb's arguments. As shown in (5), the subjects and objects of both verbs are missing. We do not know who is failing to recollect or misrecollect what.

- (5) [x's] failure of recollection [of y] is common.
 [x's] innocent misrecollection [of y] is not uncommon.

The cumulative effect of the negatives, nominals, and missing arguments leads to a problem in clarity, which Grice (1975) characterized in his "Maxim of Manner," shown in (6). The problem is specifically with clause (a) "Avoid obscurity of expression." And notice that the two sentences in (3) are much more obscure than their counterpart in (4), despite the fact that they are one word shorter (10 vs. 11 words).

- (6) Maxim of Manner: Clarity ("Be Perspicuous")
 (a) Avoid obscurity of expression.
 (b) Avoid ambiguity.
 (c) Be brief (avoid unnecessary prolixity).
 (d) Be orderly.

With such problems being the rule in jury instructions, and not the exception, there is a lot of justification for revising them.

California began a full-scale revision of its jury instructions in 1997, and the project included linguists in addition to legal professionals. But the revision movement faces barriers. For one, judges and lawyers are often blind to the problems with the instructions, since they are so familiar with them. Inertia also makes change slow. Some feel that jury instructions are "sacred texts" and should not be altered. Others think that they do an important job: inspiring awe and respect for the court. Many claim that the empirical studies were wrong. Others think that the problem is not with the instructions but with jurors paying attention to them, and that revising the instructions would not change that. And some harbor the fear that if the instructions were changed, past decisions would be challenged. This, in fact, is not true. According to an official of the California Civil Jury Instructions Legal Services Office, Bruce Greenlee (pers. comm., January 24, 2013),

on the civil side we have had a few reversals (less than five in 10 years now), [but] *none of these reversals or criticisms had anything to do with plain language*. They were all about the underlying legal premise. In short, there is absolutely no reason to hesitate with plain-language civil jury instructions based on a fear that appellate courts will require the verbatim iteration of legalistic language found in civil statutes and case law. It just doesn't happen.

Despite these roadblocks, the Massachusetts movement was not deterred. In 2007, a group of Massachusetts judges and lawyers formed the Plain English Jury Instruction Task Force, and in 2010, they invited two linguists to join. We studied the literature and determined that a rewriting project would require funding, which in turn would require two more things: 1) evidence that our current instructions need rewriting and 2) data showing that rewriting will actually improve comprehension. So in 2012, after finding an appropriate test methodology, we began our empirical research.

2.1 Research Questions

Our research addresses the research questions in (7):

- (7) (a) Do people have trouble understanding the current Massachusetts jury instructions?
- (b) If so, why?
- (c) Will Plain English jury instructions be easier to understand?
- (d) What factors influence comprehension?

And, to investigate (7d), in addition to negatives, nominals, and missing arguments, we considered the effect of a range of other linguistic factors, both semantic and syntactic.

2.1.1 Semantic Factors

Lexical choices could influence comprehension: low-frequency and formal register words and phrases that we saw in (3), repeated in (8a) below, such as *failure of recollection*, *misrecollection*, and *uncommon*, might pose more difficulties than their high-frequency synonyms such as *forget*, *make mistakes*, and *often* in (4), repeated in (8b) below.

- (8) (a) *Failure of recollection* is common. Innocent *misrecollection* is not *uncommon*.
- (b) People *often forget* things or *make mistakes* in what they remember.

Expressions whose meanings are presupposed and not given anywhere in the instruction, or are supplied only much later in the instruction, could also tax comprehension. Also potentially challenging are words with special legal meanings that differ from their everyday definitions.

2.1.2 Syntactic Factors

Certain syntactic constructions are known to cause the processor to work harder than others. Sentences with passive verbs are more difficult to comprehend than those with active verbs (Gough 1966; Slobin 1966; Olson and Filby 1972; Ferreira 2003) since they not only reverse the standard subject-verb-object order of the participants but are often used without a *by*-phrase, which omits one participant altogether and can obscure the grammatical relations. The excerpt in (9a), with the passive form italicized, comes from the same California instruction as (3), and is certainly more challenging than its rewritten active-verb counterpart in (9b).

- (9) (a) Whether a discrepancy pertains to an important matter or only to something trivial should *be considered by you*. [BAJI 2004]
- (b) You should *consider* whether a discrepancy pertains to an important matter or only to something trivial. [CACI 2003]

Phrases interjected in the middle of sentences can also increase processing load, because they delay the semantic integration of the arguments with the verb. This example, from Massachusetts Continuing Legal Education (MCLE) instruction §1.20 “Burden of Proof” (Brady, Lipchitz, and Anderson 2008), interjects a long phrase (containing a series of passives) *when considered and compared with any opposed to it*:

- (10) A preponderance of the evidence is such evidence which, *when considered and compared with any opposed to it*, has more convincing force and produces in your minds a belief that what is sought to be proved is more probably true than not true.

Other features of this sentence tax the process even further: a missing constituent and a constituent moved from its expected position. The missing constituent is the second half of a comparative structure: *such evidence which . . . has more convincing force*. More convincing than what? Presumably, than some other evidence, but the *than*-phrase never arrives. And as we wait for it, holding it in memory, we must simultaneously process the rest of the sentence. This is where we are challenged by a moved constituent, which, by not appearing in its expected position, also adds to processing load. Following the transitive verb [produces], we expect the obligatory Noun Phrase object. But that NP, [a belief that . . .], does not come right away. As a “heavy NP,” it undergoes the rule of “Heavy NP Shift” and is moved to the right of the Prepositional Phrase, [in your minds]. The result: two challenging delays to the processor, one nested within the other.

Sentences that contain multiply embedded structures can also challenge the parser, especially if the embedded material is in a left branch, as (11a) illustrates. Such subject-relative clauses are much more difficult to parse than their right-branching object-relative versions in (11b) (Chomsky and Miller 1963).

- (11) (a) The rat [the cat [the dog chased] bit] died.
 (b) The dog chased the cat [that bit the rat [that died]].

The left-branch problem occurs in the sentence in (10), with its subject relative clause modifying [a belief]. Moreover, that NP, [a belief [that [what is sought [to be proved]]]], is three clauses deep and is itself inside the relative clause headed by *which*, giving the sentence four nested levels of embedding.

2.2 Experimental Design

We designed the three-factor study in (12) to test the research questions in (7), varying Current Jury Instructions versus Plain English Instructions (written by our Task Force), College Students vs. Jurors, and Listening Only vs. Listening plus Reading. All eight experiments in the study use the same six instructions recorded by the same judge and the same six sets of true/false questions.¹ In what follows we report on Experiments 1 and 2.

¹ Two sample instructions, Instruction 3, Burden of Proof, and Instruction 6, Direct and Circumstantial Evidence, are given below, in both Current and Plain English versions. The complete list of the six sample Jury Instructions plus a seventh, warm-up, instruction, is given in Appendix 1. The true-false questions for Instruction 6 are given in Appendix 2.

(12) Experimental Design

LISTENING		
	Current Jury Instructions	Plain English Jury Instructions
Students	Experiment 1	Experiment 2
Jurors	Experiment 3	Experiment 4
LISTENING + READING		
	Current Jury Instructions	Plain English Jury Instructions
Students	Experiment 5	Experiment 6
Jurors	Experiment 7	Experiment 8

2.3 Hypotheses

Our main hypotheses are given in (13):

- (13) (a) Current Jury Instructions are harder to understand than Plain English Jury Instructions.
 (b) Students will perform better on a comprehension test than jurors.
 (c) Reading with listening will improve comprehension over listening alone.

In addition, we hypothesize that linguistic complexity contributes to comprehension. This study focuses on (13a) and on (13d), below. Of the many factors discussed above that may play a role, we focus on two: one syntactic, passive verbs, and one semantic, presupposed, undefined words and phrases:

- (13) (d) Linguistic factors play a role in comprehension.
 (i) Passive verbs cause more processing difficulties than active verbs.
 (ii) Presupposed, undefined words and phrases cause more processing difficulties than those whose definitions are known.

Recall that Experiments 1 and 2 involved only students and not jurors, and did not include Reading, so we will not be discussing hypotheses (b) or (c).

2.4 Method

2.4.1 Subjects

Our subjects were undergraduate students at Northeastern University. To be included in our study, a student had to meet our “student subject criteria,” by being: a) a US citizen, b) at least 18 years of age, and c) a native speaker of English. Juror subjects must meet a) and b) but not c), since non-native speakers are permitted to be jurors in Massachusetts. There were 58 students who qualified; 29 in Experiment 1 and 29 in Experiment 2, about equally balanced between males and females.

2.4.2 Materials

The study used six instructions (plus one practice, “warm-up” instruction) from the MCLE *Massachusetts Superior Court Civil Practice Jury Instructions* (Brady, Lipchitz, and Anderson 2008), the

recommended civil jury instructions used throughout the state of Massachusetts. (The state does not *require* that any specific instructions be used, either civil or criminal.) Experiment 1 used the instructions verbatim. Experiment 2 used Plain English versions written by our project team, which included Massachusetts judges and lawyers who are all familiar with the current civil instructions. This team also constructed a set of 72 true-false comprehension questions, which were used in both experiments, the number for each instruction varying with the length of the instruction. Current Jury Instruction, Massachusetts MCLE §1.20 “Burden of Proof” (Brady, Lipchitz, and Anderson 2008) and the Plain English version of that instruction are in Figure 1.

Jury Instruction 3: Burden of Proof

Current Jury Instruction

The standard of proof in a civil case is that a plaintiff must prove (his/her) case by a preponderance of the evidence. This is a less stringent standard than is applied in a criminal case, where the prosecution must prove its case beyond a reasonable doubt.

By contrast, in a civil case such as this one, the plaintiff is not required to prove (his/her) case beyond a reasonable doubt. In a civil case, the party bearing the burden of proof meets the burden when (he/she) shows it to be true by a preponderance of the evidence.

The standard of a preponderance of the evidence means the greater weight of the evidence. A preponderance of the evidence is such evidence which, when considered and compared with any opposed to it, has more convincing force and produces in your minds a belief that what is sought to be proved is more probably true than not true.

A proposition is proved by a preponderance of the evidence if, after you have weighed the evidence, that proposition is made to appear more likely or probable in the sense that there exists in your minds an actual belief in the truth of that proposition derived from the evidence, notwithstanding any doubts that may still linger in your minds.

Simply stated, a matter has been proved by a preponderance of the evidence if you determine, after you have weighed all of the evidence that that matter is more probably true than not true.

Plain English Jury Instruction

This is a civil case. In a civil case, there are two parties, the “plaintiff” and the “defendant.” The plaintiff is the one who brings the case against the defendant. And it is the plaintiff who must convince you of his case with stronger, more believable evidence. In other words, it is the plaintiff who bears the “burden of proof.”

After you hear all the evidence on both sides, if you find that the greater weight of the evidence – also called “the preponderance of the evidence” – is on the plaintiff’s side, then you should decide in favor of the plaintiff.

But if you find that the evidence is stronger on the defendant’s side, or the evidence on the two sides is equal, 50/50, then you must decide in favor of the defendant.

Now, you may have heard that in some cases, the evidence must convince you “beyond a reasonable doubt.” That’s only true for criminal cases.

For civil cases like this one, you might still have some doubts after hearing the evidence, but even if you do, as long as one side’s evidence is stronger – even slightly stronger – than the other’s, you must decide in favor of that side.

Stronger evidence does not mean more evidence. It is the quality or strength of the evidence, not the quantity or amount, that matters.

Figure 1

Audio recordings of the fourteen instructions – the six Current Instructions, six Plain English Instructions, and two warm-up instructions – were made by the Honorable Judge Judith Fabricant of the Massachusetts Superior Court.

2.4.3 Procedure

Each subject was given a stack of seven sheets, face down, and was asked to listen as a member of the research team read a brief paragraph explaining the procedure: 1) listen to the audio recording

of each instruction, 2) turn over the top sheet to find a set of questions about each instruction (in the form of true/false statements), 3) circle all the statements that you think are true, and 4) move the sheet to the bottom of the stack. Recall that in these experiments, the text of the instructions was not supplied; the subjects simply listened to the recordings.

2.5 Results and Discussion

Hypothesis (13a) states that subjects will perform better on the Plain English Jury Instructions than on the Current Instructions, and Figure 2 confirms this, showing the proportion of questions that at least 90% of the subjects answered correctly, a level of understanding that we considered our “comprehension criterion” for an instruction. For the Current Jury Instructions, 30% of the questions were answered correctly by 90% or more of our subjects, in comparison to 52% for the Plain English Jury Instructions. The 22% difference was shown to be statistically significant, as analyzed using a mixed-effect logistic regression model ($z = -2.08, p < .05$). So overall, the subjects performed better on the Plain English than on the Current Instructions.

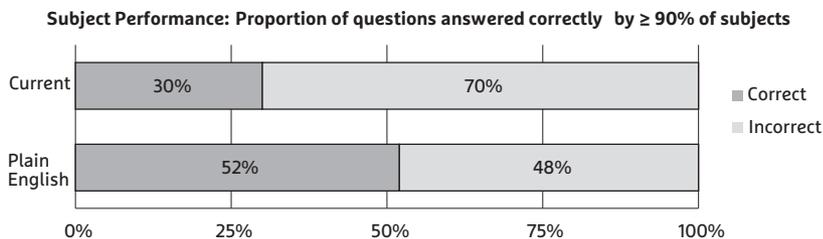


Figure 2

Interestingly, however, correct answers were not distributed uniformly across the instructions. Focusing on the Current Jury Instructions, Figure 3 shows that the comprehension scores ranged from a low score of 61% on Instruction 6 to nearly 90% on Instructions 1 and 2.

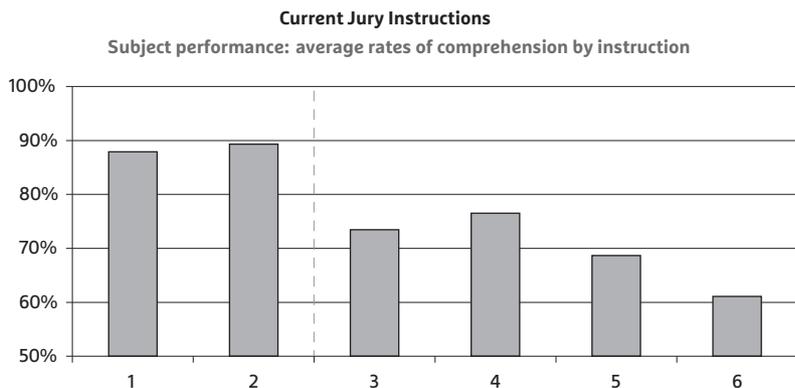


Figure 3

In other words, the subjects performed significantly better on Instructions 1–2 than on Instructions 3–6 ($z = -3.12, p < .01$). Why this was the case is addressed by hypothesis (13d).

Hypotheses (di) and (dii) (repeated here) address two linguistic factors that may contribute to this variation across the instructions, passive verbs and presupposed terms.

(13) (d) Linguistic factors play a role in comprehension

- (i) Passive verbs cause more processing difficulties than active verbs.
- (ii) Presupposed, undefined words cause more processing difficulties than words whose definitions are known.

Figure 4 shows the proportion of passive verbs across the six Current Instructions: Instructions 1–2 contain the lowest rates of passives; Instructions 3–6 contain higher rates. Figure 5 shows the proportion of presupposed terms across the six instructions: again, Instructions 1–2 contain the lowest percentages of presupposed terms, Instructions 3–6, higher percentages.

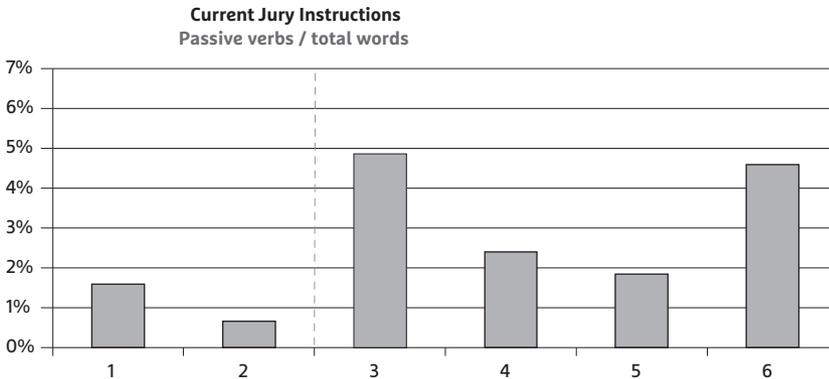


Figure 4

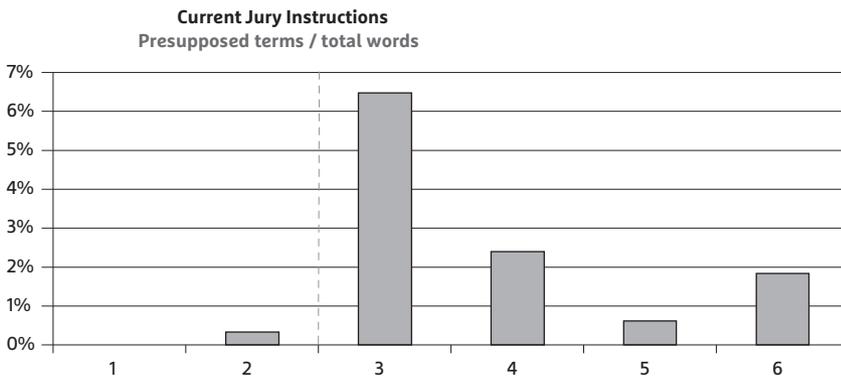


Figure 5

A striking correlation emerges when Figures 3, 4, and 5 are considered together, in Figure 6. For the instructions in which the rates of both passive verbs and presuppositions were lowest, Instructions 1–2, subject performance was highest; for those instructions in which the rates of passives and presuppositions were high, 3–6, comprehension was low. This suggests that hypothesis (13d) is correct: these two linguistic factors may be at least partly responsible for how well the subjects understood the Current Jury Instructions.

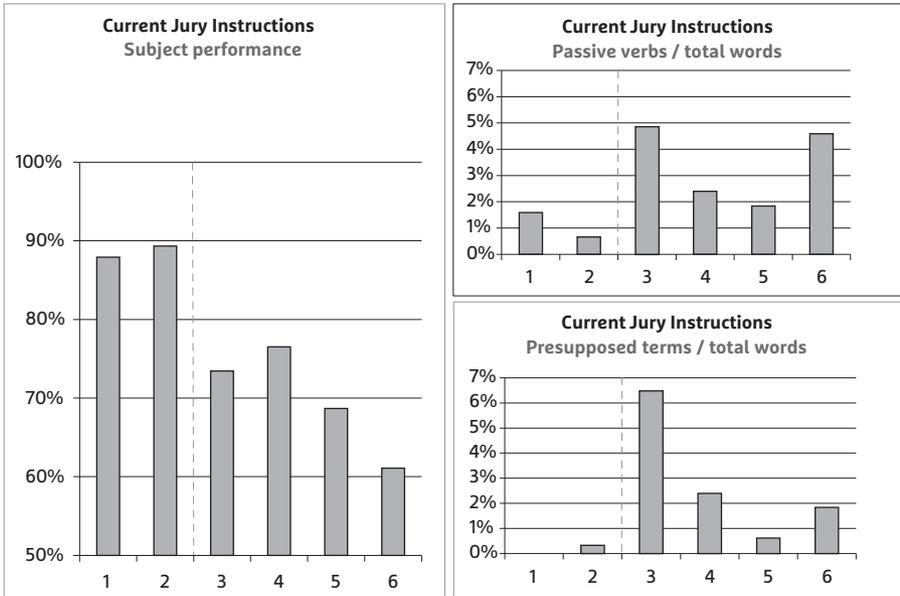


Figure 6: *A Correlation?*

This correlation is even more revealing when we consider the instructions individually, as in Figure 7.

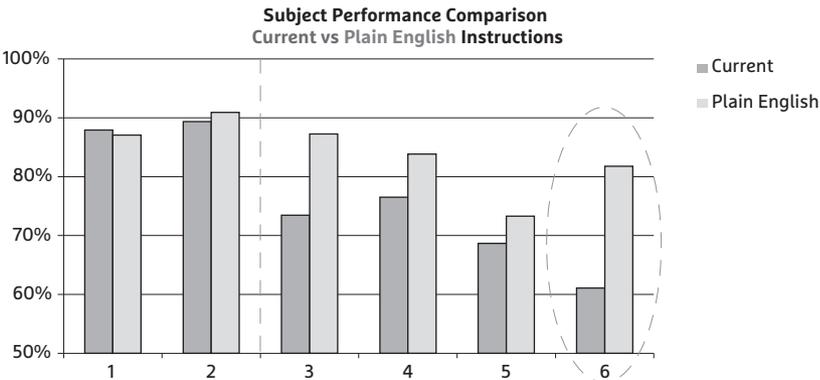


Figure 7

The darker, left-hand bars of each pair are the individual comprehension scores of the Current Instructions, repeated from Figure 3. The lighter, right-hand bars are the comprehension scores of the Plain English Instructions. In the Current Instructions with the highest rates of comprehension, Instructions 1–2, the Plain English versions led to little or no improvement, because there was little room to improve: the scores were already near 90%. Instructions 3–5 showed more significant improvements, which ranged from 5% to 14%. However, the largest improvement was on instruction 6, from 61% to 82%, a highly significant difference of 21% ($z = -2.86, p < .01$). What accounted for this large difference? Given the correlation that emerged across the Current Jury Instructions between linguistic complexity and comprehension, in Figure 6, we might expect linguistic complexity – the rates of passive verbs and presupposed terms – to be playing a role. And they are.

The two versions of Jury Instruction 6, “Direct and Circumstantial Evidence,” are in Figure 8.

Jury Instruction 6: Direct and Circumstantial Evidence

Current Jury Instruction

There are two types of evidence that you may use to determine the facts of a case: direct evidence and circumstantial evidence.

*You have direct evidence where a witness **[testifies directly]** about the fact that is to be proved, based on what (he/she) claims to have seen or heard or felt with (his/her) own senses, and the only question is whether you believe the witness.*

*You have circumstantial evidence where no witness can **[testify directly]** about the fact that is to be proved, but you are presented with evidence of other facts and then asked to draw reasonable inferences from them about the fact that is to be proved.*

Plain English Jury Instruction

You have heard evidence that you must use to decide what the facts are in this case. There are two types of evidence. One type is called direct evidence, which is what a witness claims to have seen or heard or smelled. So, a witness saying that she saw a mailman put mail into her mailbox is direct evidence that the mailman delivered her mail.

The other type of evidence is indirect or “circumstantial” evidence. A witness saying that she saw that her mailbox was empty when she left the house, and full when she came home is indirect evidence that the mailman delivered her mail.

Indirect evidence allows you to reach the same conclusion as direct evidence, but you have to make an inference -- a logical connection -- to get there. It makes no difference whether evidence is direct or indirect. One is not better than the other.

Figure 8

Current Jury Instruction 6 contains five passive verbs (underlined) and two presupposed terms (in brackets), out of a total of 109 words. In contrast, in the longer, 150-word, Plain English version, there are no presupposed terms and only one passive verb. Figure 9 shows the inverse correlation for this instruction. The subjects scored 61% correct responses on the Current instruction, which had high rates of passives and presupposed terms; they scored significantly better, 82%, on the Plain English instruction, which had lower rates of passives and presupposed terms.

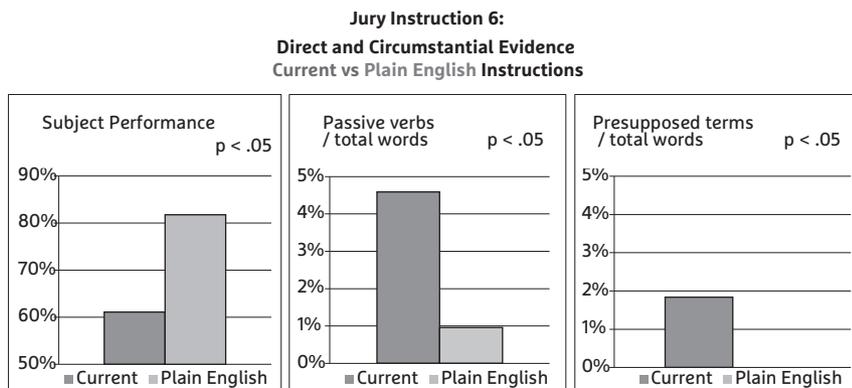


Figure 9

What this suggests is that it is possible to change jury instructions to improve jurors’ comprehension by considering those linguistic factors that increase processing load and doing our best to eliminate them.

3. Conclusions

Three striking results have emerged from this study, and they begin to answer the research questions that we began with in (7).

- (7) Research Questions
 - (a) Do people have trouble understanding our current Massachusetts jury instructions?
 - (b) If so, why?
 - (c) Will Plain English Jury Instructions be easier to understand?
 - (d) What factors influence comprehension?

Yes, our subjects did have trouble understanding current Massachusetts jury instructions overall, as Figure 2 illustrated, but the degree to which they understood them varied from instruction to instruction, as we saw in Figure 3. Their relative difficulty appears to be attributable, at least in part, to linguistic complexity. We focused on two factors that are known to cause difficulties in processing, one syntactic factor, passive verb forms, and one semantic factor, presupposed terms. As Figures 4, 5, and 6 showed, the “easiest” instructions for the subjects to comprehend, Instructions 1–2, contained the lowest rates of both passive verbs and presupposed terms. The “hardest” instructions for the subjects to comprehend had the highest rates of these linguistically complex factors. In other words, we found an inverse correlation between how well the subjects performed in comprehension and the occurrence of the linguistic complexity contributed by these two linguistic elements.

We also found strong evidence that the Current Jury Instructions were harder to understand than the Plain English versions, as Figure 7 showed. And again, linguistic complexity played a role. Where the improvement with the Plain English Instruction was greatest, in Instruction 6, “Direct and Circumstantial Evidence,” we found the same reverse correlation between high improvement and low rates of passives and presupposed terms. Looking at these findings in

terms of our hypotheses, repeated here from (13), they suggest strong support for (a) and (d), both (di) and (dii):

(13) Hypotheses

- (a) Current Jury Instructions are harder to understand than Plain English Jury Instructions.
- (b) Students will perform better on comprehension than jurors.
- (c) Reading with listening will improve comprehension over listening alone.
- (d) Linguistic factors play a role in comprehension.
 - (i) Passive verbs cause more processing difficulties than active verbs.
 - (ii) Presupposed, undefined words cause more processing difficulties than words whose definitions are known.

Our approach to the problem of jury instructions builds on research showing subjects' difficulties in comprehending jury instructions in many states across the US (Charrow and Charrow 1979; Elwork, Sales, and Alfini 1982; Reifman, Gusick, and Ellsworth 1992; Saxton 1998; Diamond and Levi 1996; Diamond 2003; Tiersma 1993, 1999, 2001, 2009). And our results are consistent with theirs. And though we have so far tested only students, we anticipate that many actual jurors would have even more difficulty, because they may not have the language skills or education of the college students in our study.

In Massachusetts, the Supreme Judicial Court states:

Not only should the ideal jury pool reflect the ethnic diversity of the community, but it should also reflect a cross-section of residents from all the member towns of that judicial district
When all eligible citizens participate in jury duty, they guarantee the fundamental right to a fair trial to all those who appear before the court. (Massachusetts Judicial Branch 2011)

These two statements express two important expectations about representative juries: 1) jurors should represent the state's ethnic and geographic diversity, and 2) representative juries are necessary to guarantee fair trials. But these expectations are met only if every one of the diverse group of jurors can actively participate, whatever their first language and level of education. Unclear instructions that shut certain jurors out deprive them of their right to take part equally with other jurors. At the same time, they deprive "those who appear before the court" of a diverse group of jurors to hear and judge their case.

As linguists, we are in a position to change the situation. Our studies demonstrate that unclear jury instructions can be effectively rewritten. Our linguistic analyses reveal some of the factors that matter. Our hope, after completing all of our experiments, is that the results of our research will lead to new jury instructions that will make courtroom verdicts more reliable and improve the administration of justice in Massachusetts and beyond.

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Appendix 1

The Jury Instructions used in the studies

Warm-Up	Negligence
Instruction 1	Breach of Contract
Instruction 2	Credibility of Witnesses
Instruction 3	Standard of Proof
Instruction 4	What Is Evidence?
Instruction 5	Inferences
Instruction 6	Direct and Circumstantial Evidence

Appendix 2

True-false questions for Instruction 6: Direct and Circumstantial Evidence

- (1) Suppose a convenience store owner arrives at his store one morning and sees fresh graffiti on the store window. Later that day, he sees two teenagers with cans of spray paint pass outside the store. Which of the following is direct evidence that these teenagers sprayed the graffiti on his storefront? (Circle all that apply.)

- (a) A witness said that she was walking her dog that night and saw two teens running away from the store.
 - (b) A video recording taken by a security camera showed the teens spraying the graffiti.
 - (c) A 6-year-old boy watching from his window across the street said that he saw the two teens using spray paint on the storefront.
 - (d) A classmate said he heard the two teens boasting about the graffiti at school the next morning.
- (2) Indirect or circumstantial evidence is evidence that:
(circle all that apply)
- (a) requires you to make an inference
 - (b) depends on other evidence
 - (c) must be confirmed by direct evidence
 - (d) is just as strong as direct evidence