

In pursuit of comprehension: Law, meet Linguistics

Janet Randall Professor · Linguistics Program & English Department



Northeastern University



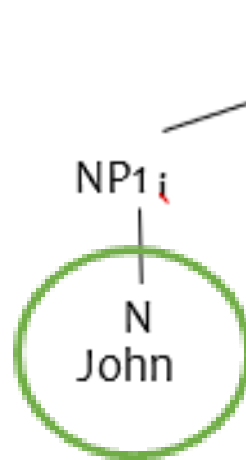


Some background

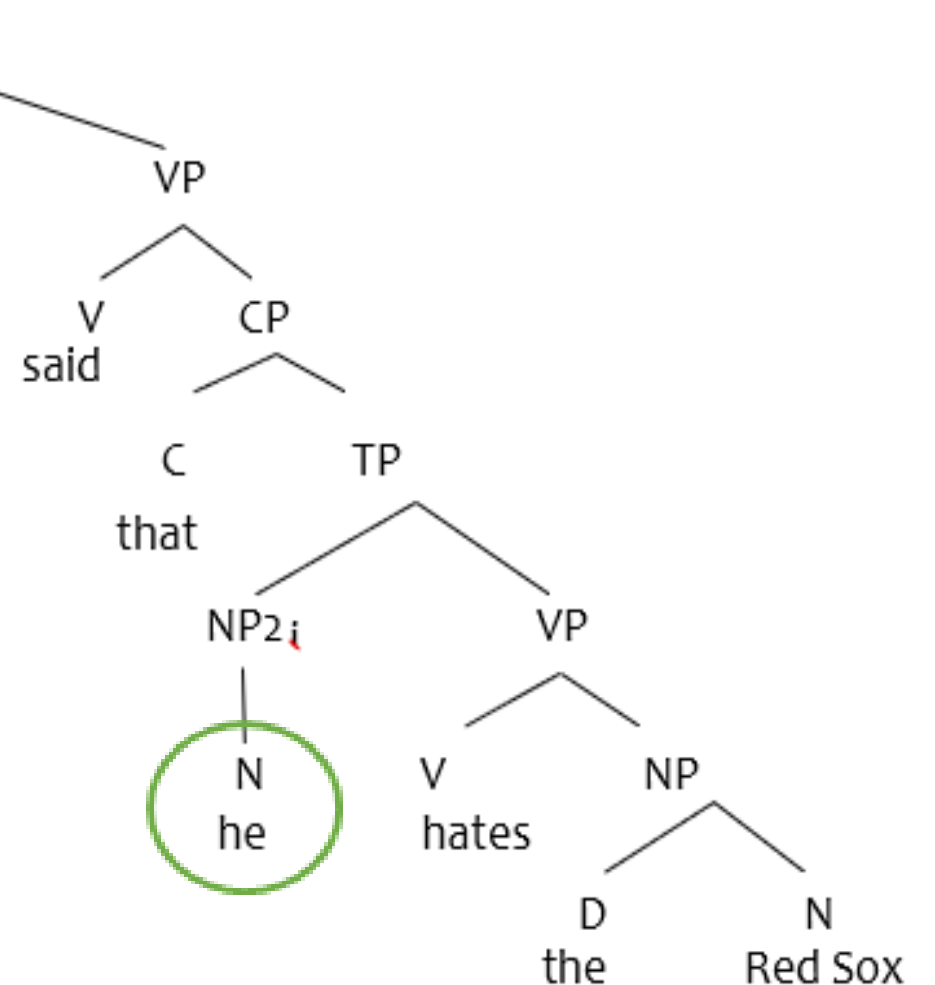


PhD, Linguistics
Professor, NU

Syntax



Semantics



Some background





Plain English Jury Instruction Task Force

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

California Book of Approved Jury Instructions (BAJI), 2.21.

Judicial Council of California Civil Jury Instruction (CACI, 2003)

http://www.courts.ca.gov/partners/documents/caci_2012_edtion.pdf

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LAW, MEET LINGUISTICS HOW JUST IS JUSTICE?



Photo by Mikhail Pavstvak on Unsplash

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LAW, MEET LINGUISTICS HOW JUST IS JUSTICE?

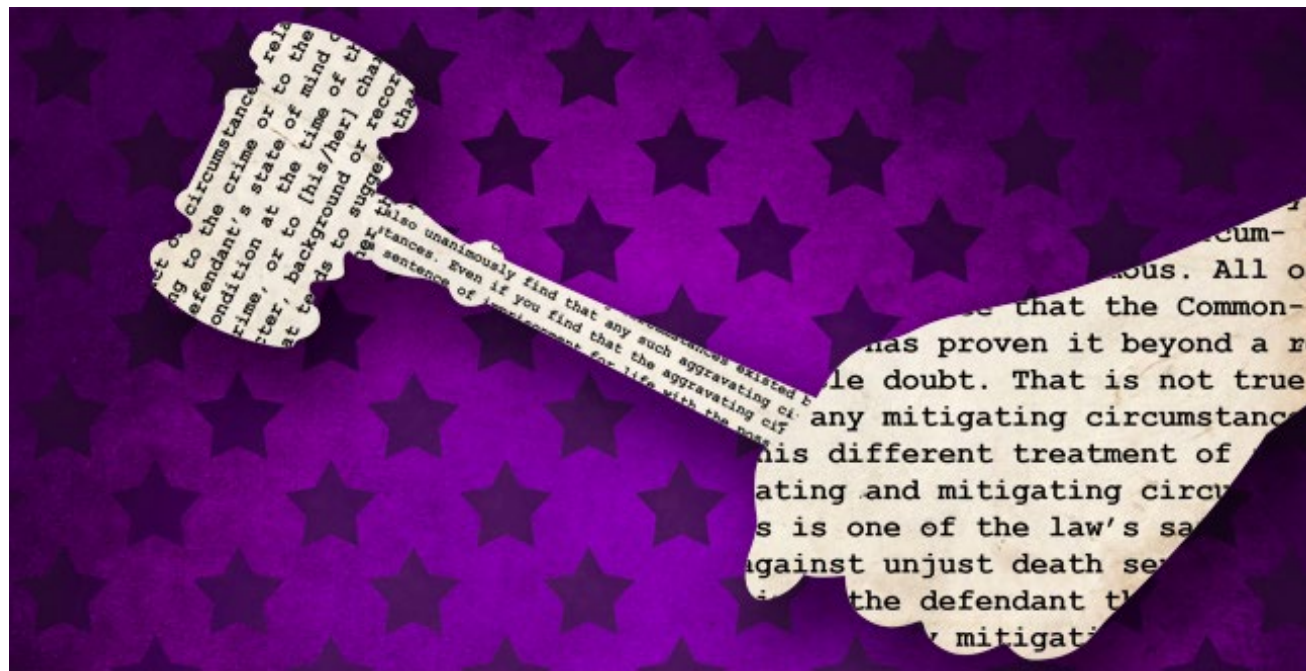


Photo by Mikhail Pavstvak on Unsplash

Today's Roadmap

- Jury instructions: some background
- Zooming in on language: which linguistic factors matter?
- Studies from the Linguistics & Law lab
- Take-aways & next steps

Jury instructions: some background



Diamond (2005)

Marder (2006)

Tiersma (2006)

Shuy (2007)

Tiersma (2009)

Dumas (2012)

Diamond, Murphy & Rose (2012)

Randall & Graf (2014)

Broda-Bahm (2015)

L. Cheng, W. Cheng, & J. Li (2015)

Randall (2015)

Pollack (2017)

Broda-Bahm (2018)

...

In one study of jurors who had served on a trial:

Tiersma (1993)

more than 25% couldn't define

admissible evidence
impeach
burden of proof
inference

more than 50% thought that

meant either

or

a preponderance of the evidence

“a slow, careful, pondering of the evidence”

“looking at the exhibits in the jury room”

Barriers to revising jury instructions

- inertia
- jury instructions are “sacred texts”
- jury instructions should inspire awe & respect for the court
- the empirical studies were wrong
- revising the instructions won't get jurors to listen anyway
- past decisions will be challenged
- **there's really no problem with them**

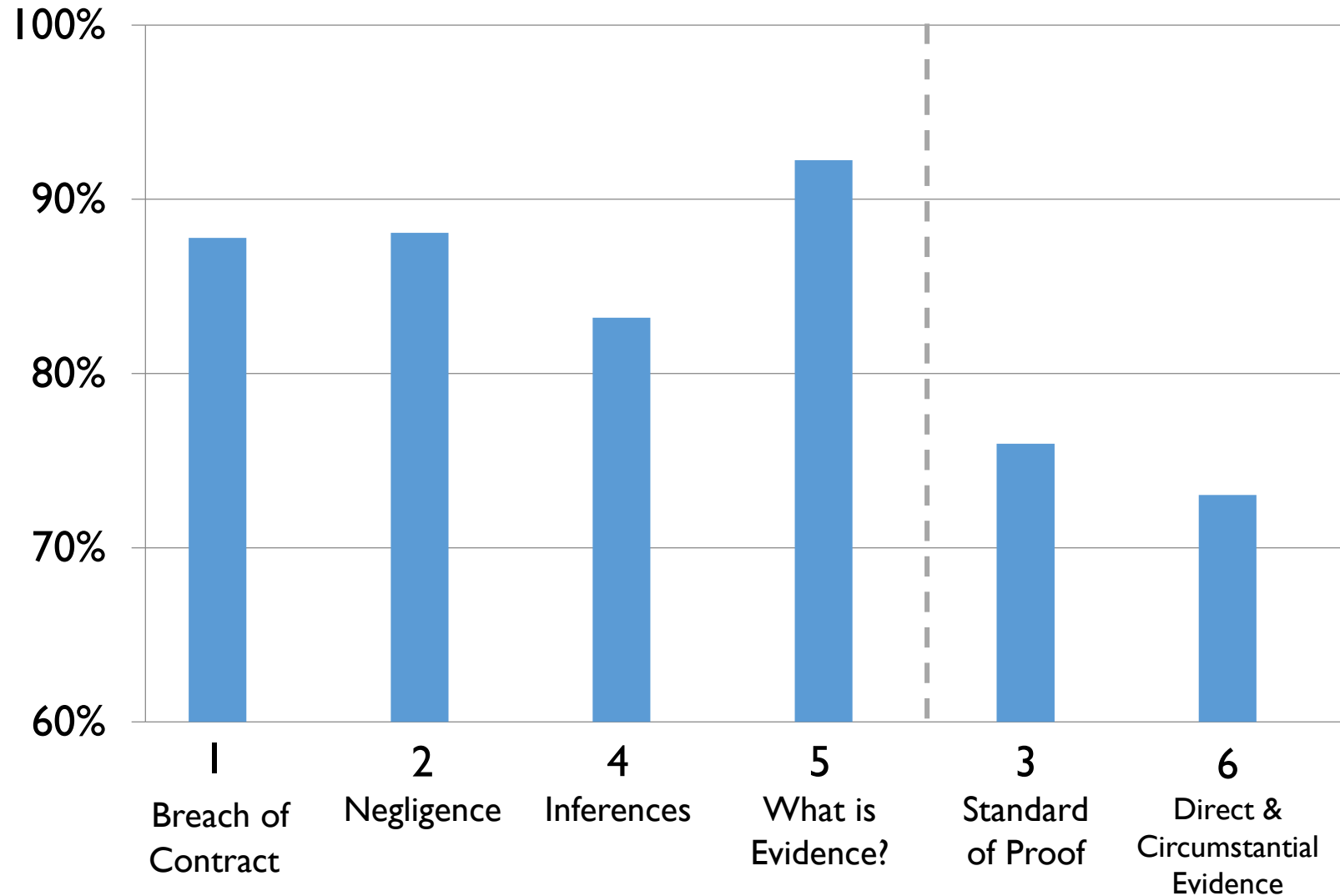
Standard of Proof



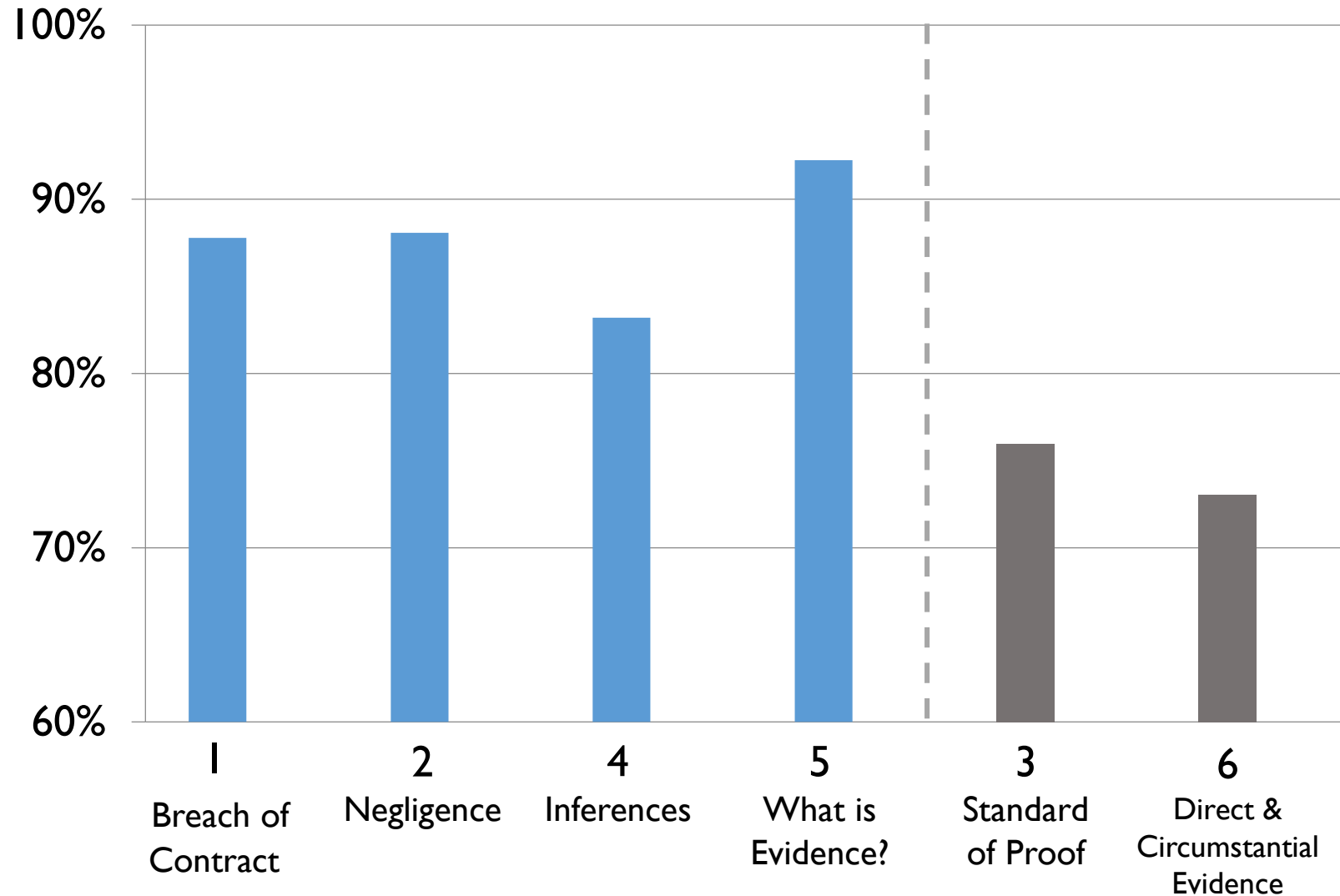
Studies from the Linguistics & Law Lab



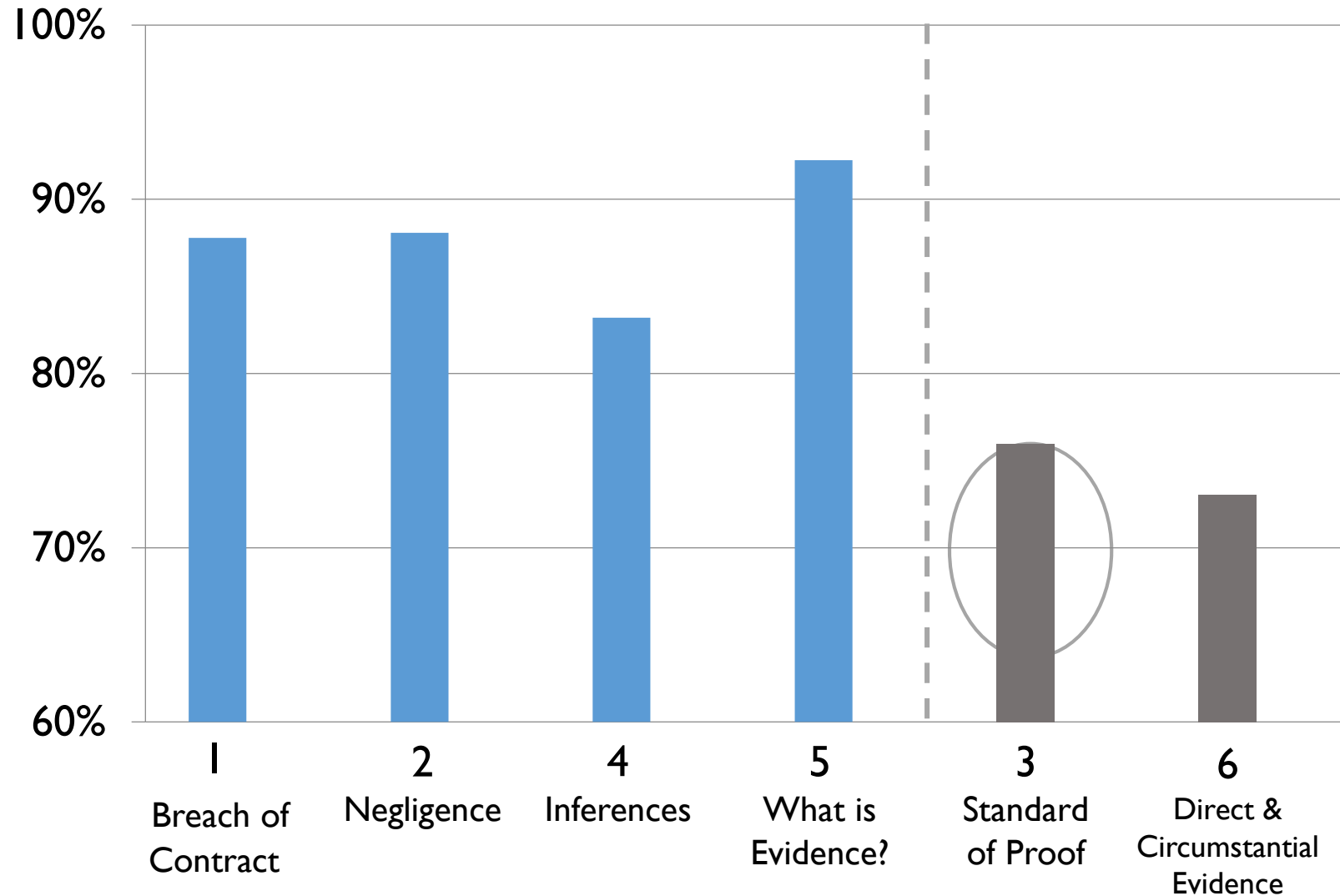
Comprehension Rates: NU students



Comprehension Rates: NU students



Comprehension Rates: NU students



Zooming in on
language:
which
linguistic factors
matter?



Standard of Proof

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**.

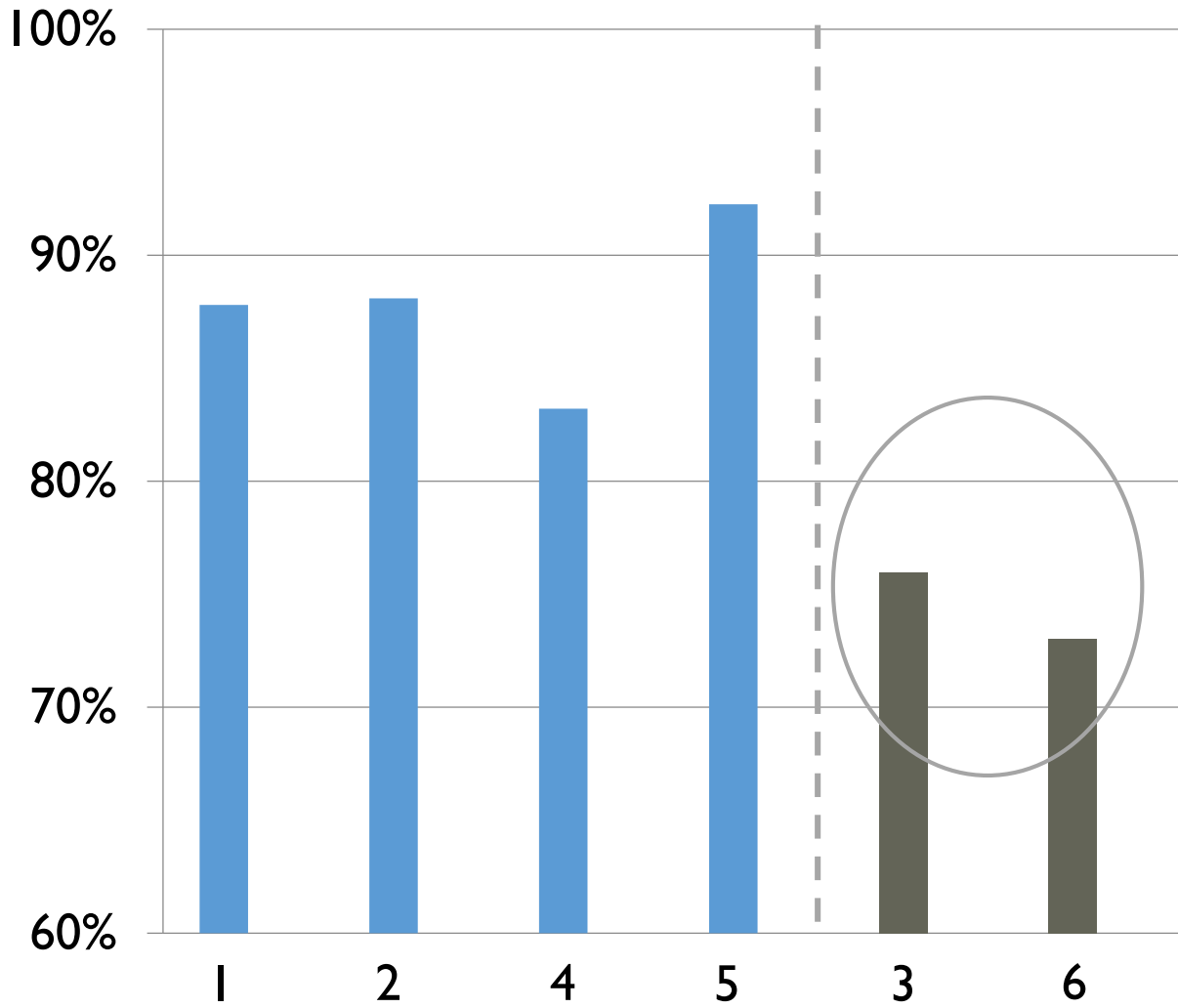
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The standard of **a preponderance of the** means the greater weight of the evidence. **A preponderance of the evidence** is **such evidence** which, when **considered** and **compared** with any opposed to it, has more convincing force and produces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

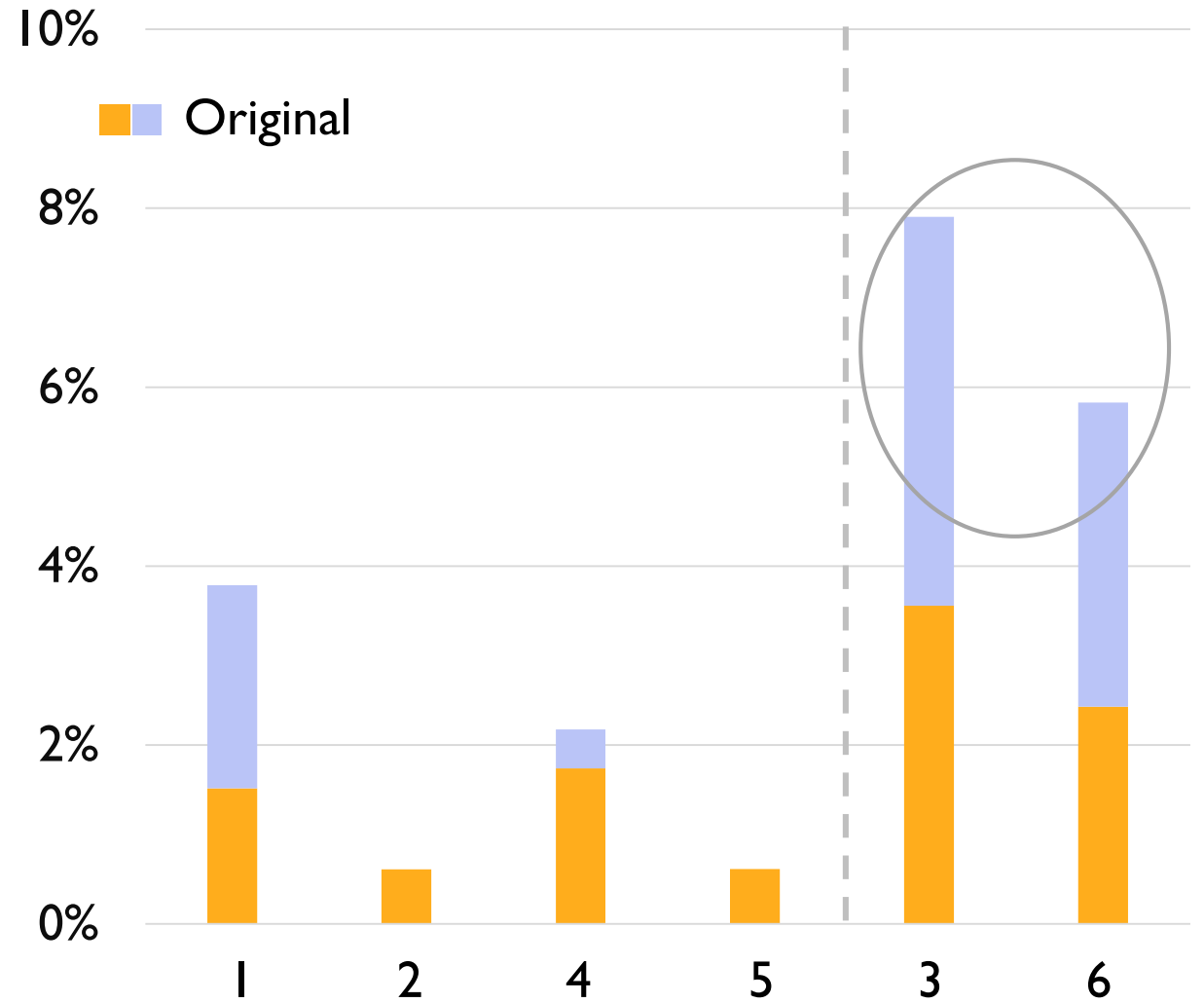
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Simply stated, a matter **has been proved** by a **preponderance of the evidence** if you determine, after you have weighed all of the evidence, that that matter is more probably true than not true.

Comprehension Rates: NU students



Rates of **Passive verbs** & **Legalese**



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Standard of Proof

Syntax

- Negatives
- Nominals
- Multiple embeddings
- Interjected phrases
- **Passives**

Ferreira (2003)

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Passives

Active: **[The jury]** must consider **[all of the evidence]**.

Passive: **[All of the evidence]** must **be considered**
by [the jury].

Standard of Proof

Legalese

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Legalese

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- **Legal terms, not defined**
*civil v. criminal case
plaintiff
beyond a reasonable doubt
party, bearing, burden, meets*

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- **Legal terms, defined too late**
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Syntax

- **Passives**

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Plain English

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.

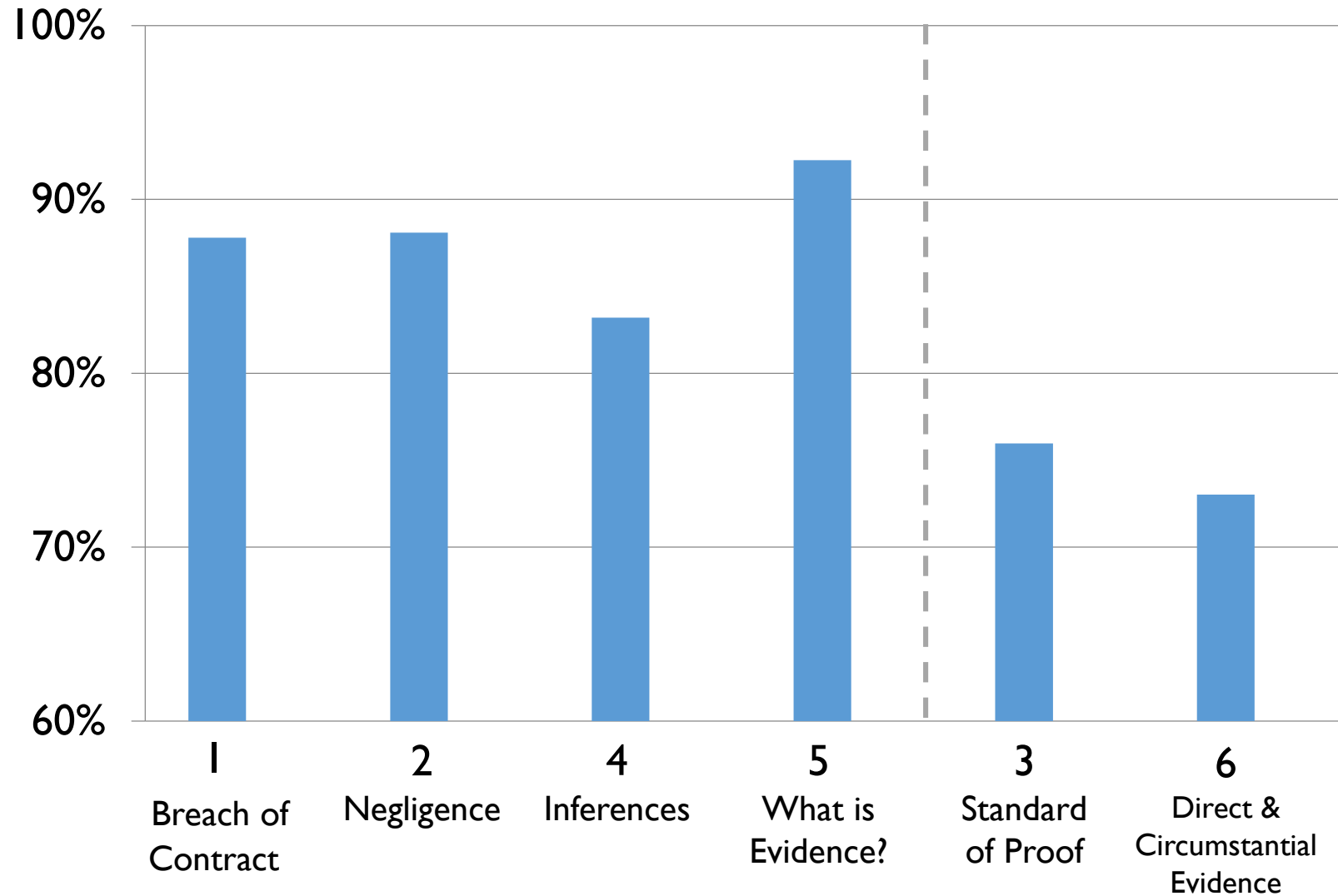
But if you find that the evidence is stronger on the defendant's side, or the evidence on the two sides is equal, 50/50, then you must decide in favor of the defendant.

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.

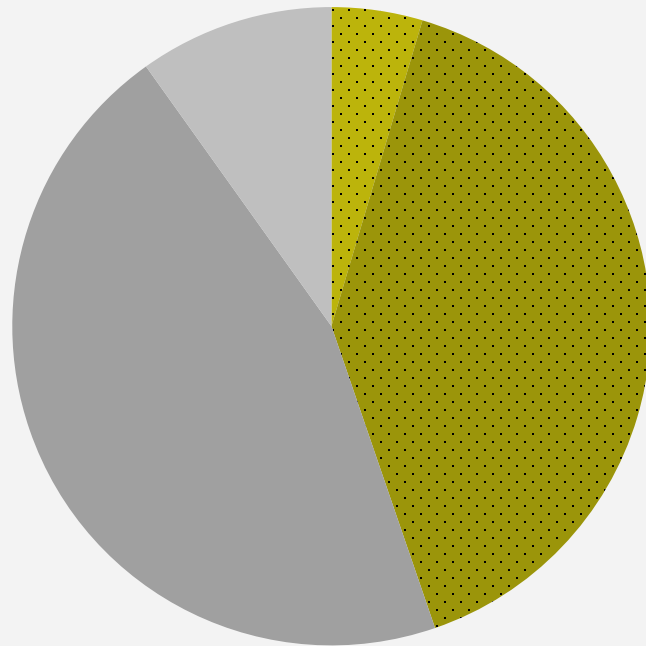
Stronger evidence does not mean more evidence. It is the quality or strength of the evidence, not the quantity or amount, that matters.

Comprehension Rates: NU students



Consider this:

Education Levels in Massachusetts




2013 U.S. Census Data

 K - 8th Grade

 High School

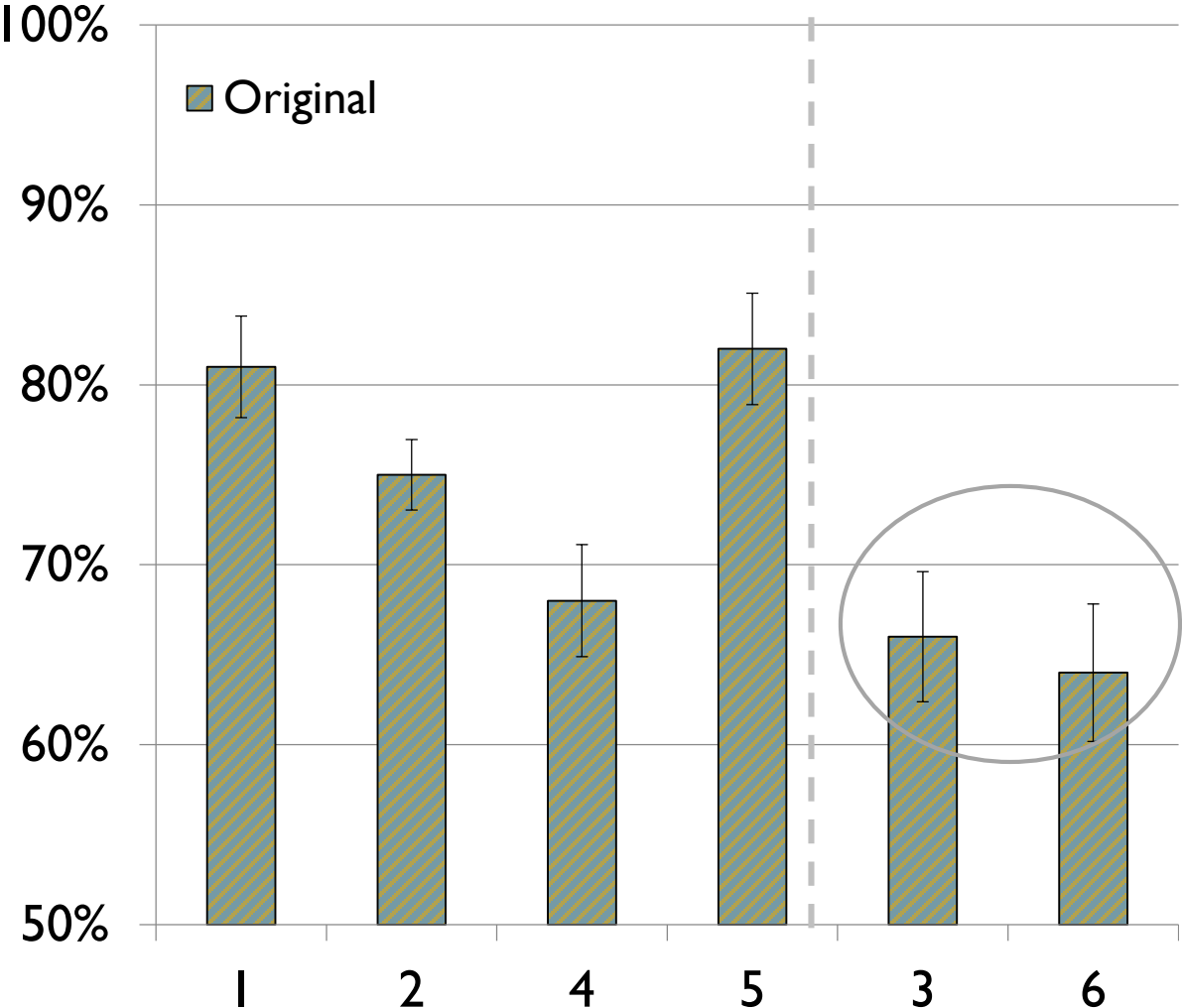
 College

 Graduate School

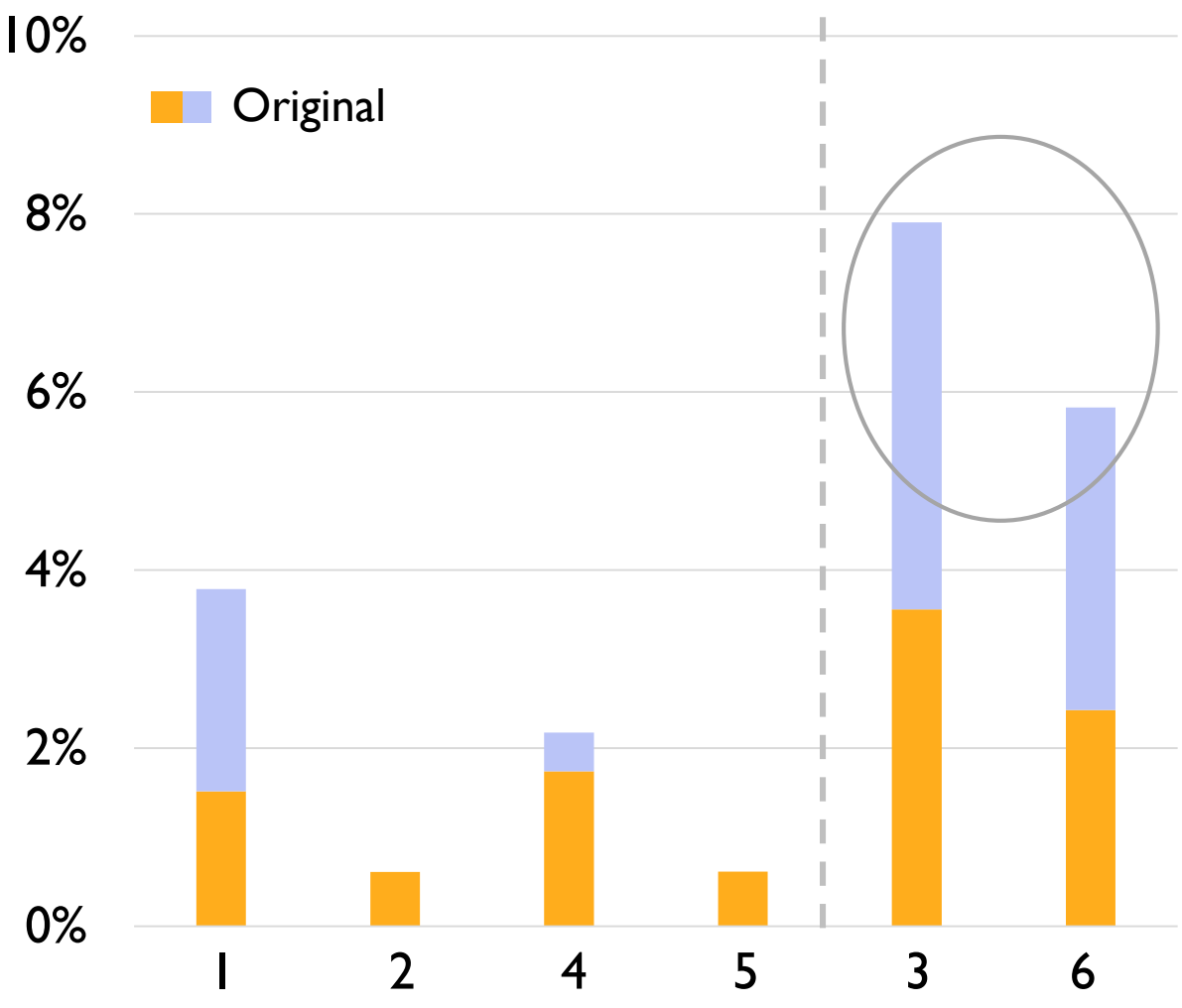
A new subject pool



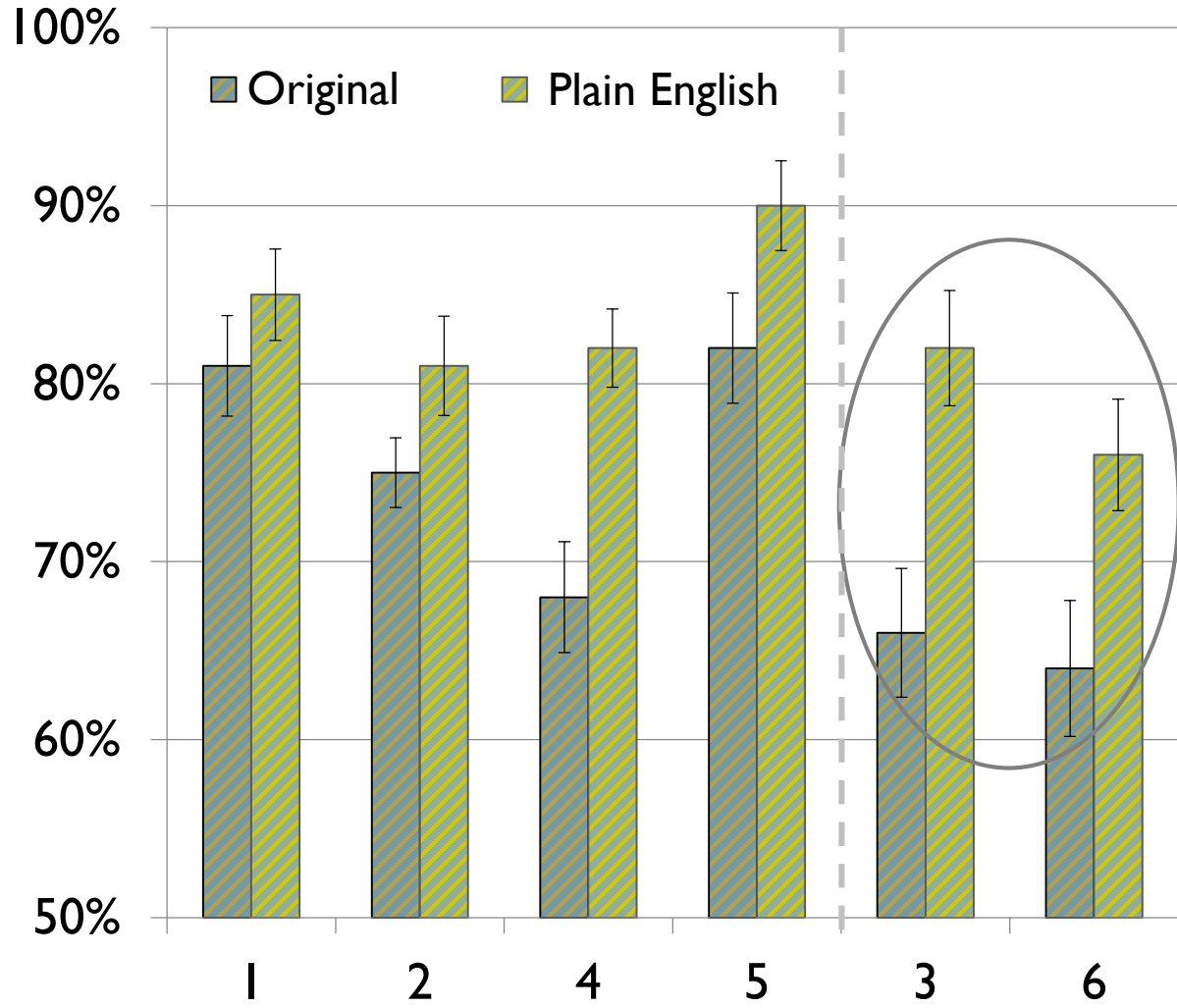
Comprehension Rates: MTurk Subjects



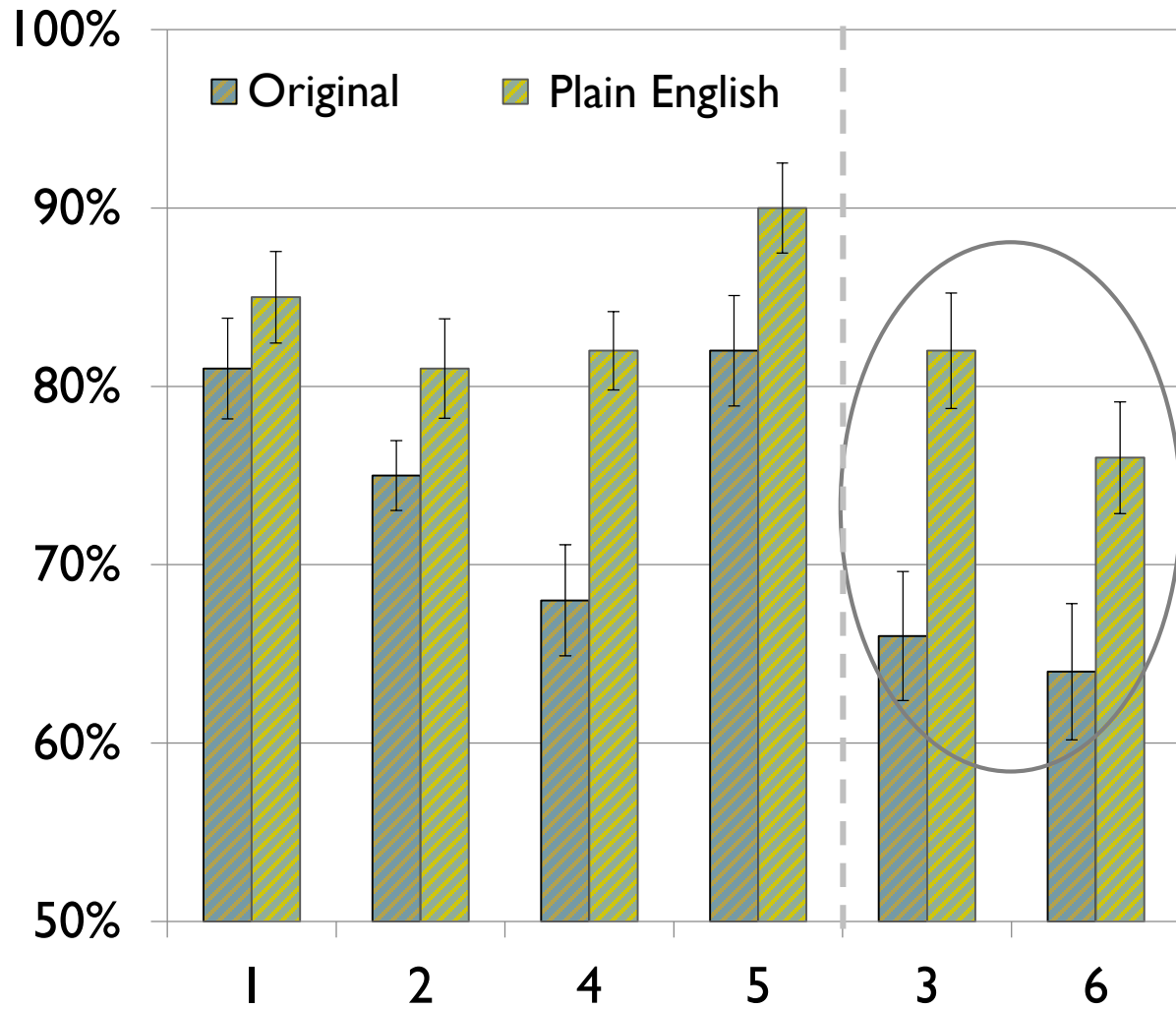
Rates of **Passive verbs** & **Legalese**



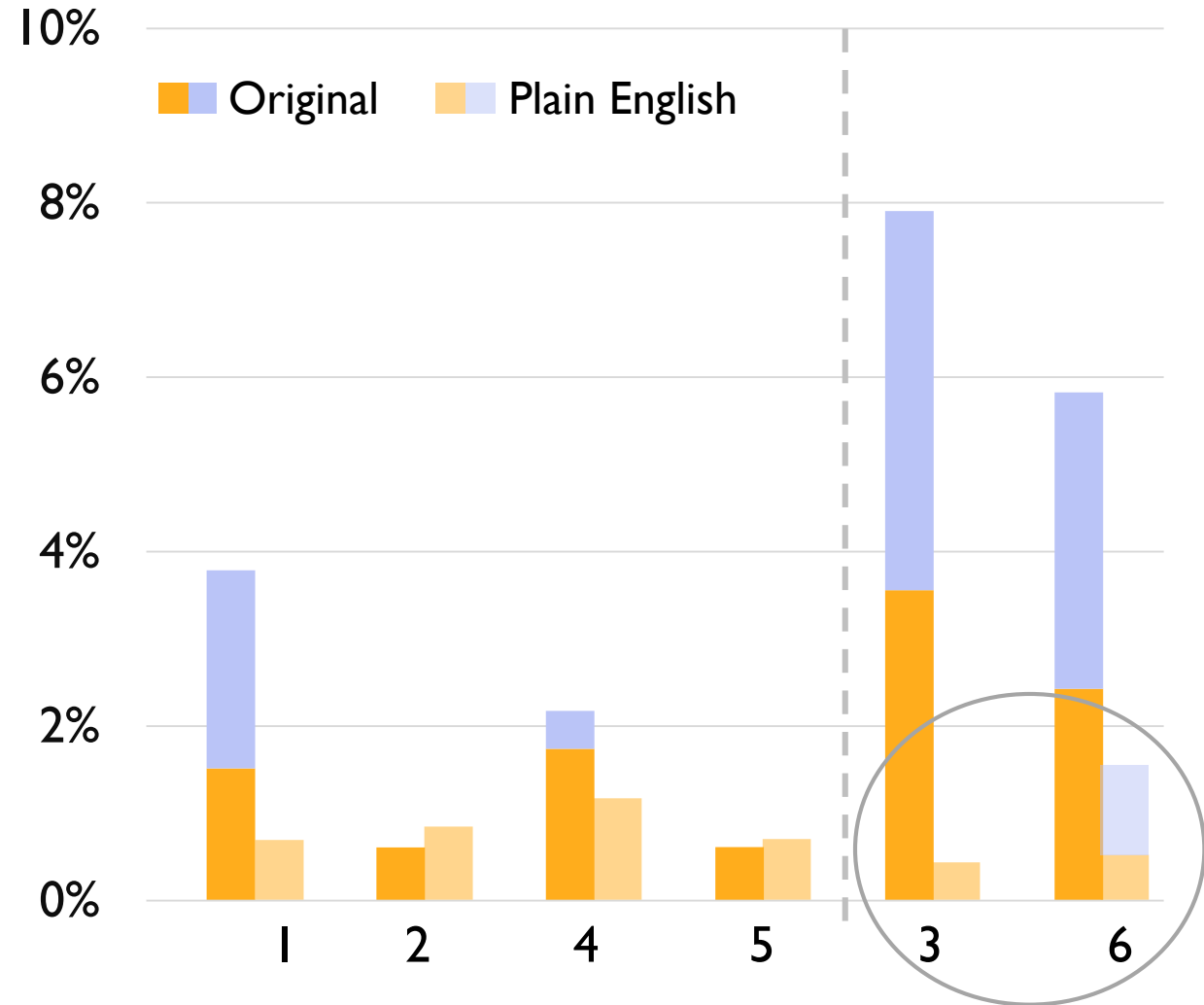
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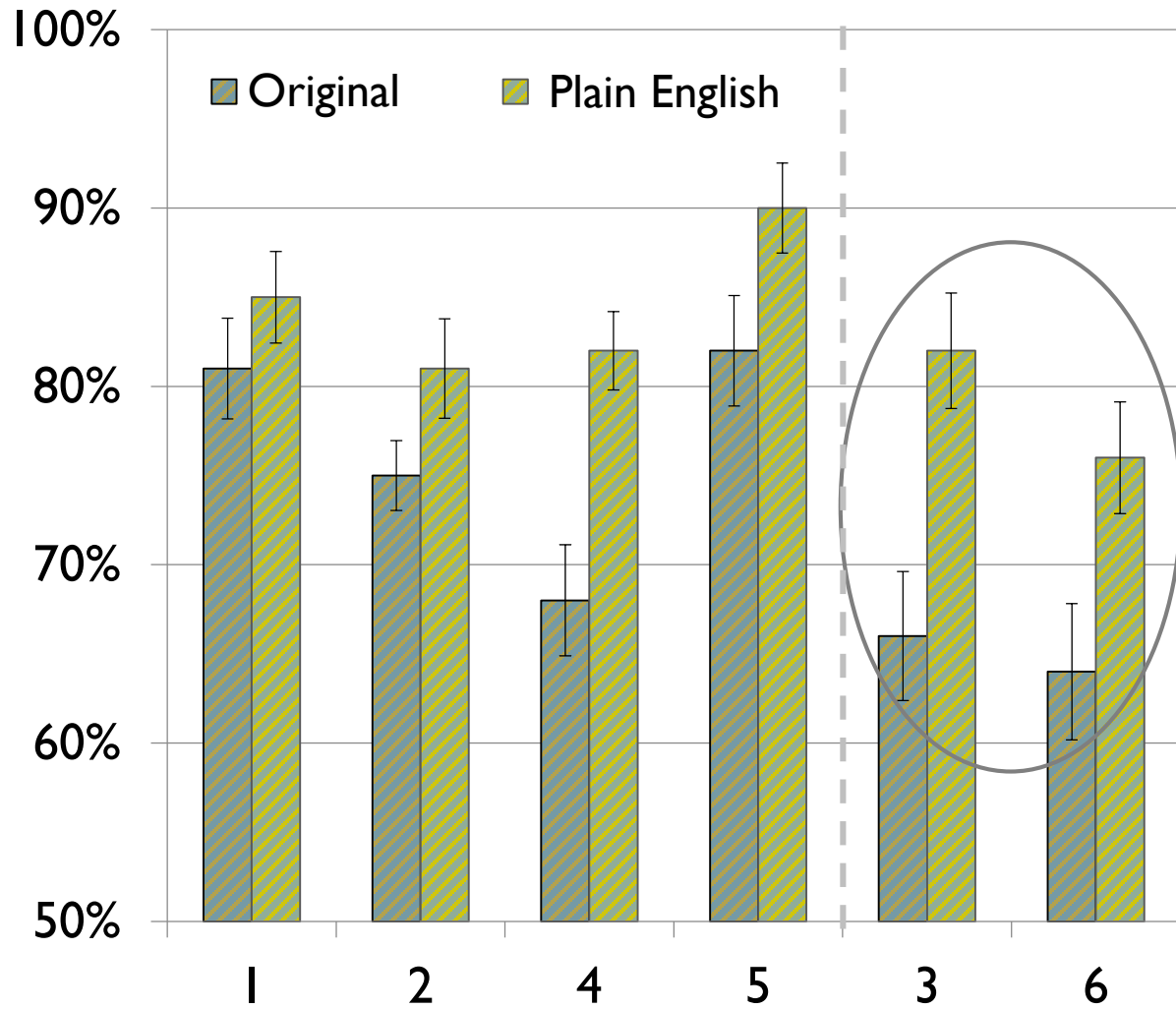
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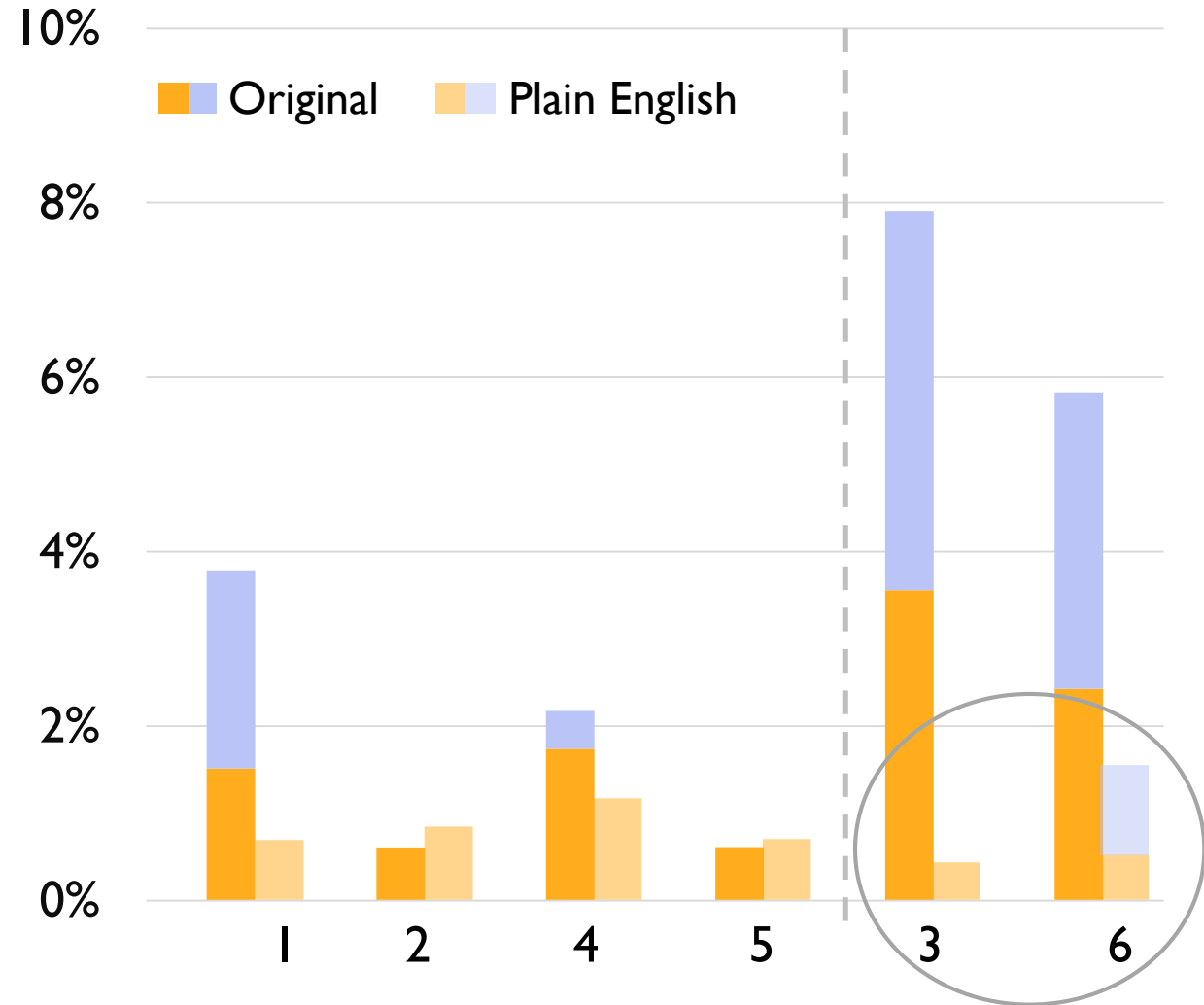
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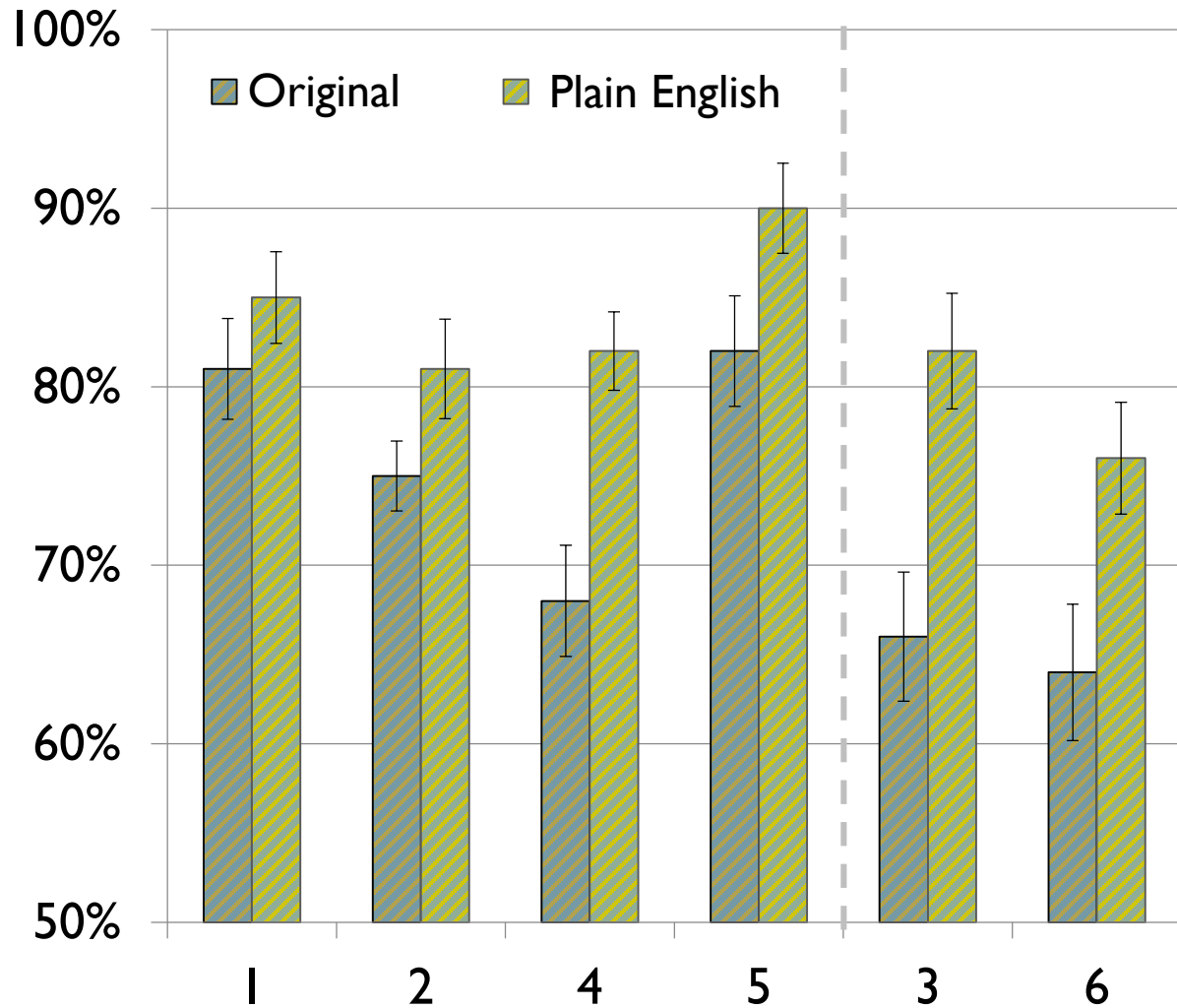
Comprehension Rates: MTurk Subjects



Rates of Passive verbs & Legalese



One more factor: Reading

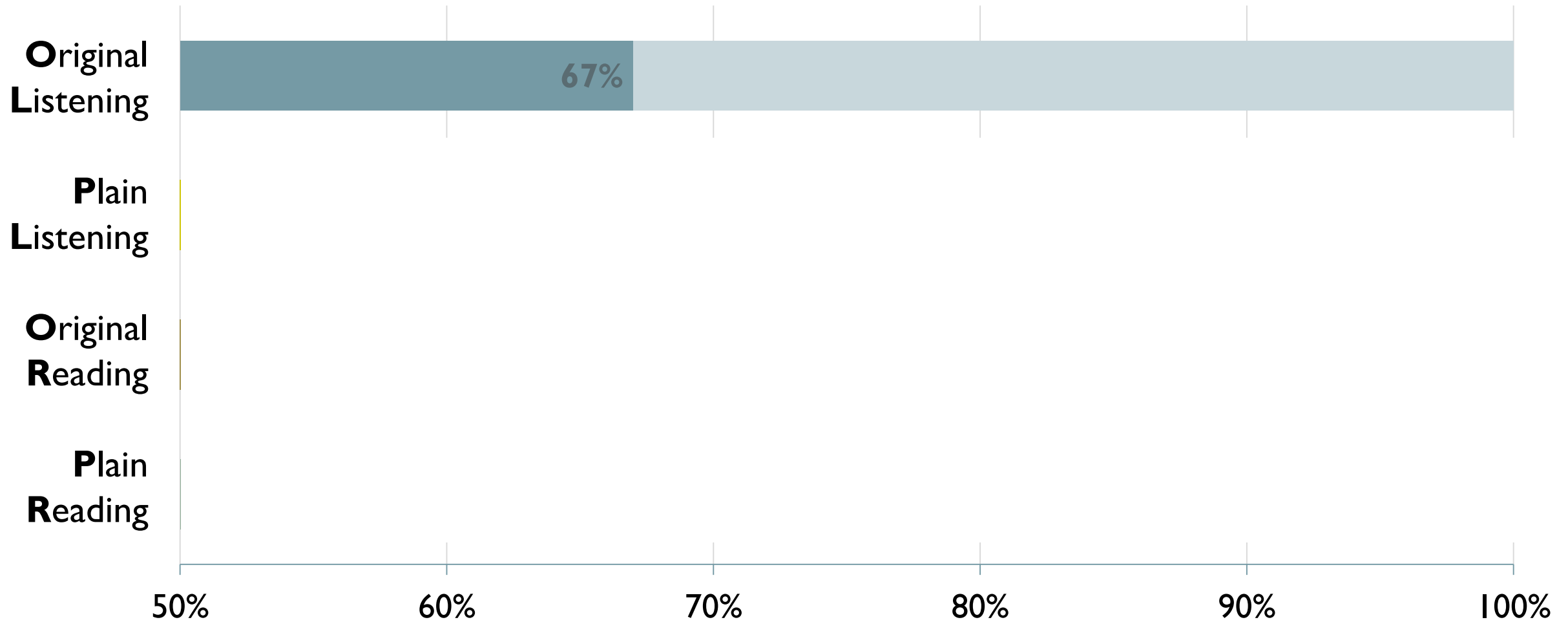


- Original + Listening**
- Plain English + Listening**
- Original + Reading**
- Plain English + Reading**

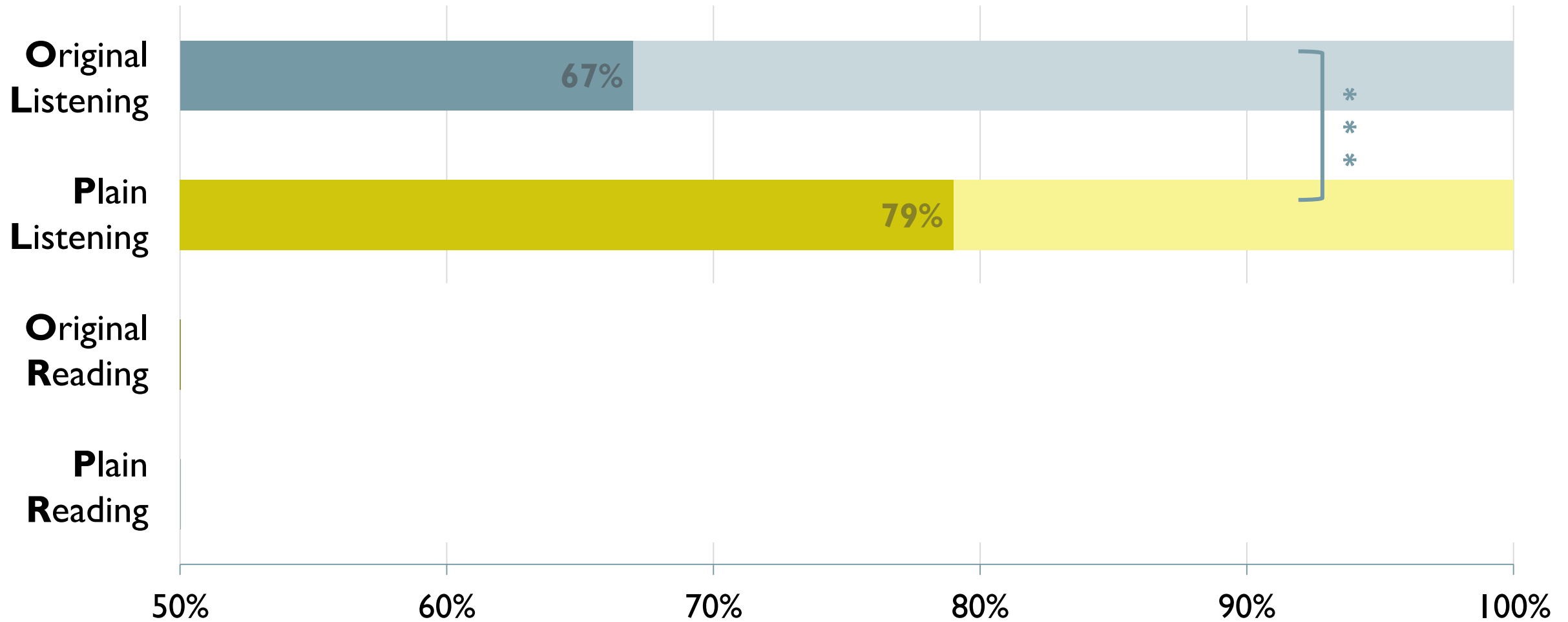
Method & Design

MTurk subjects n=389	O riginal	P lain English
L istening Only	125	99
Listening + R eading	66	99

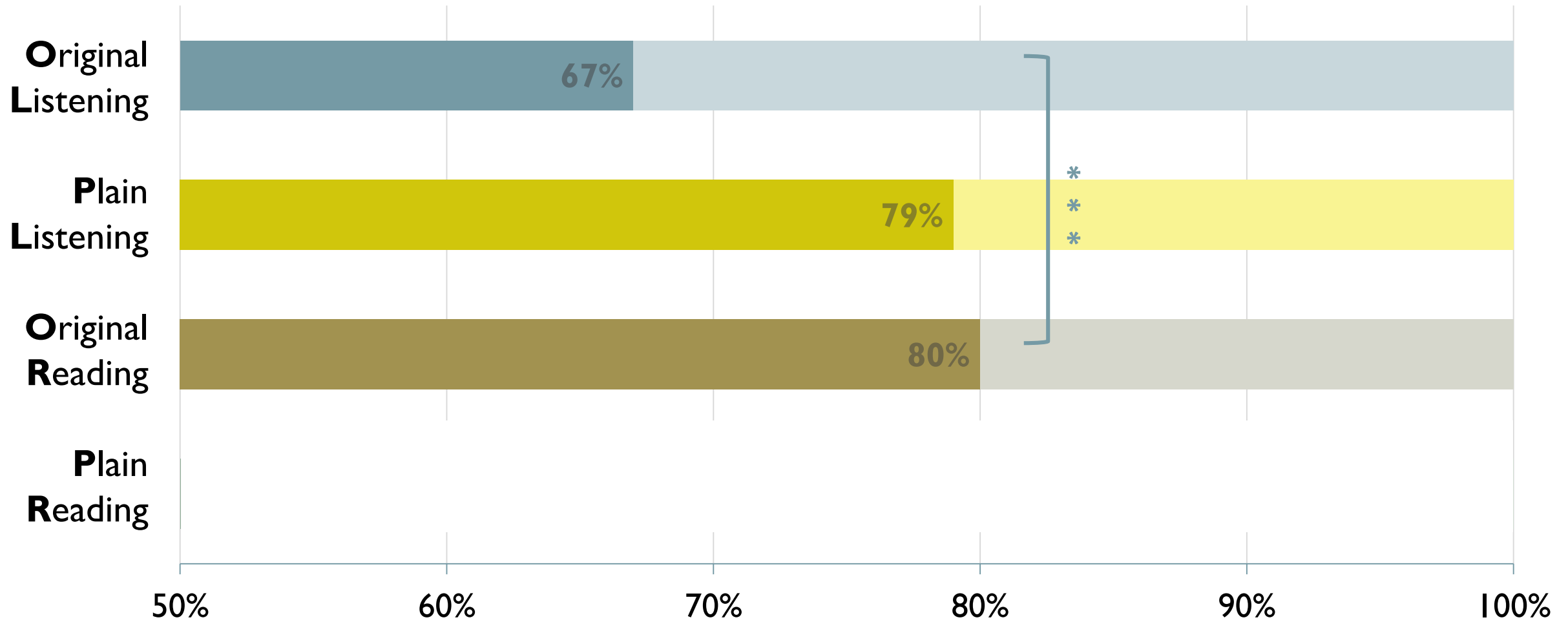
Two Factors: Plain English & Reading



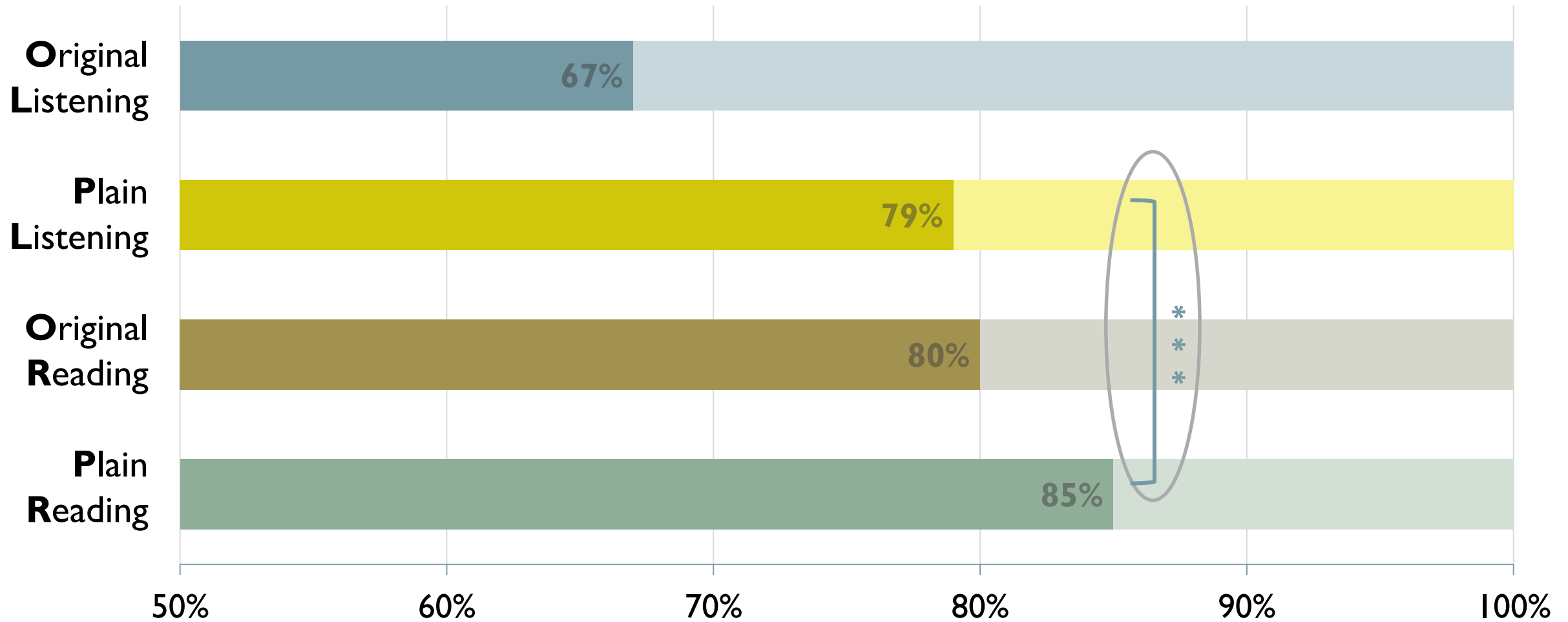
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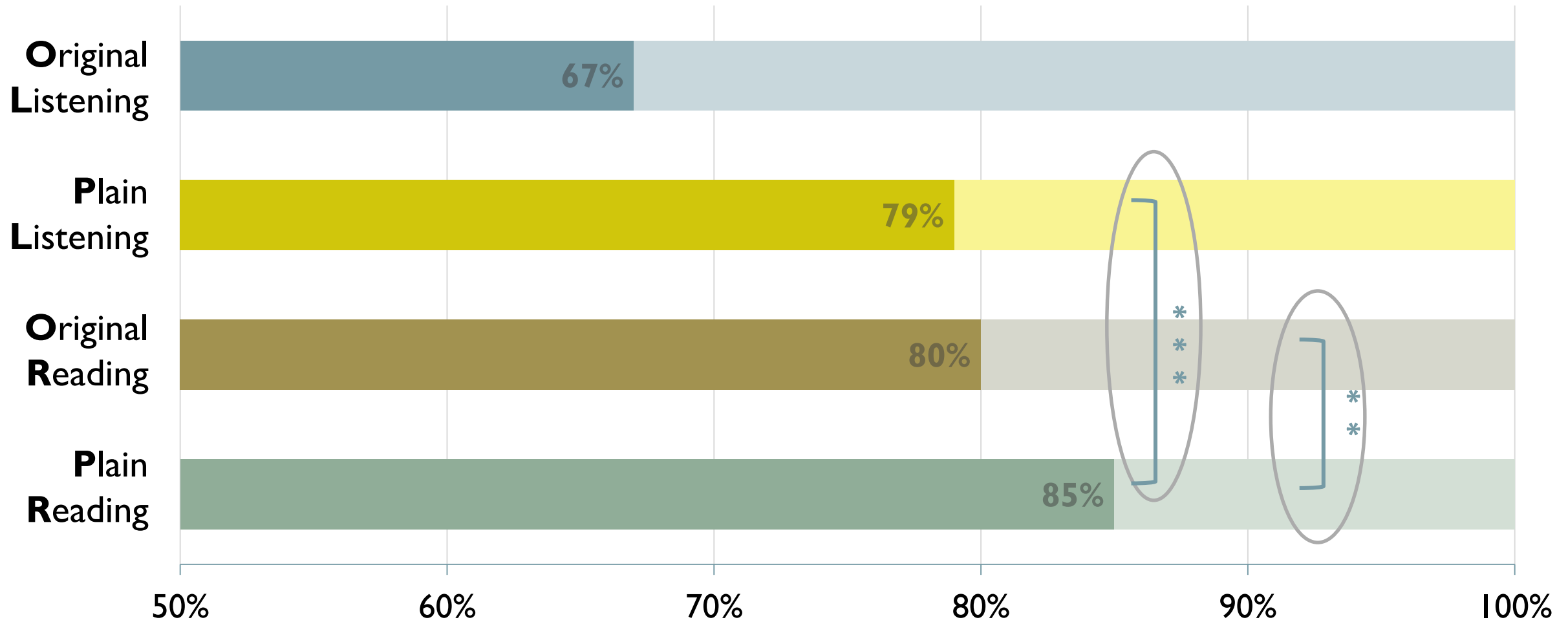
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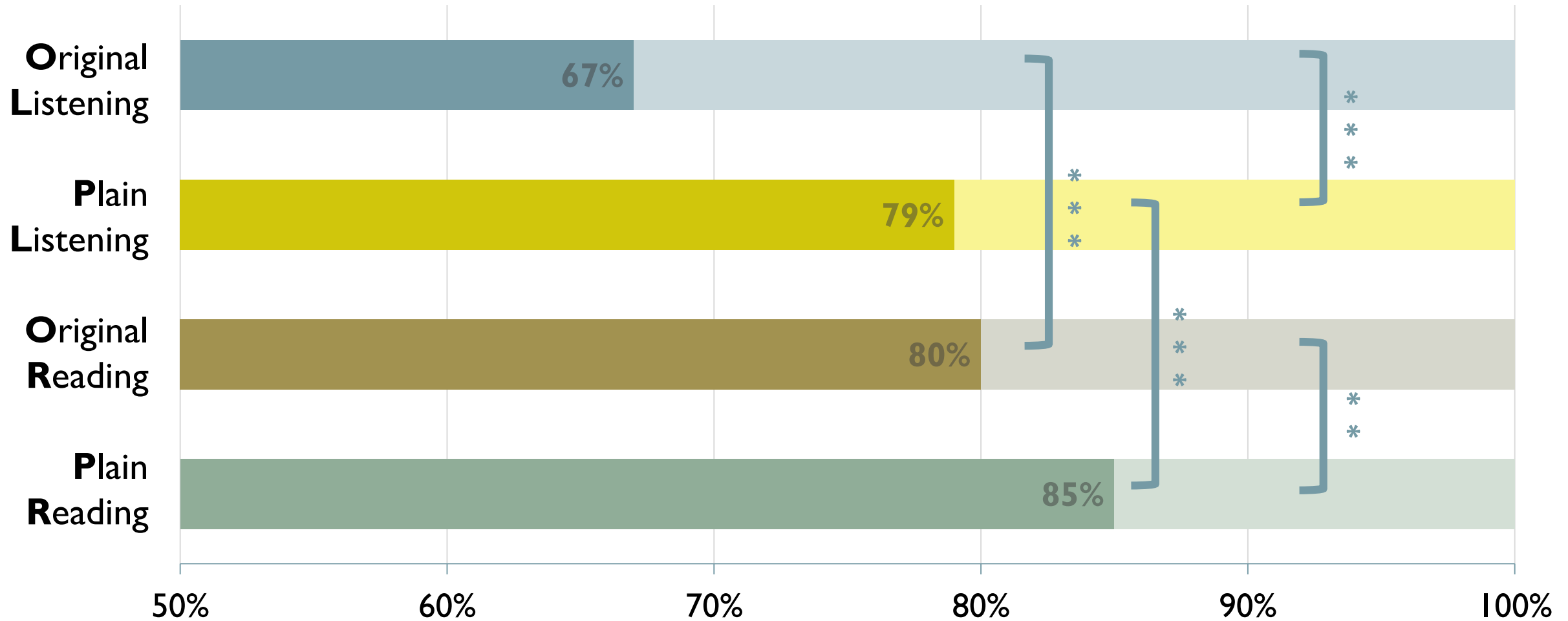
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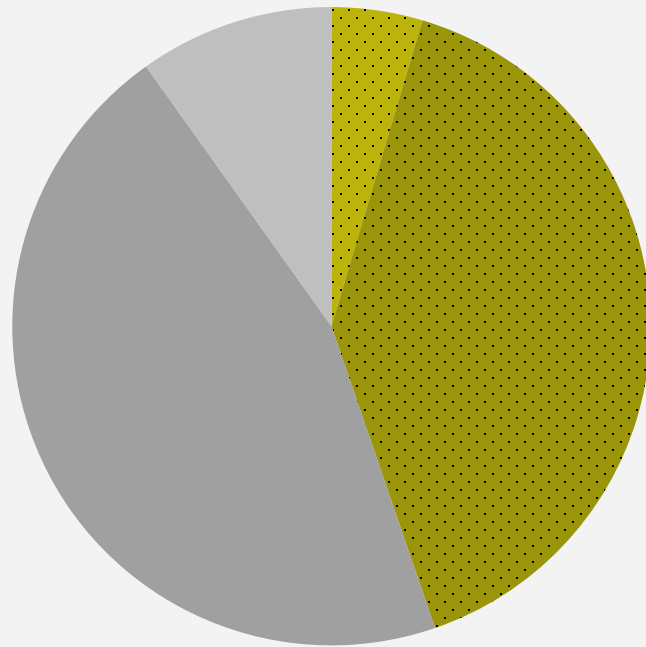


Next steps & Take-aways







How would real jurors perform?

Education Levels in Massachusetts

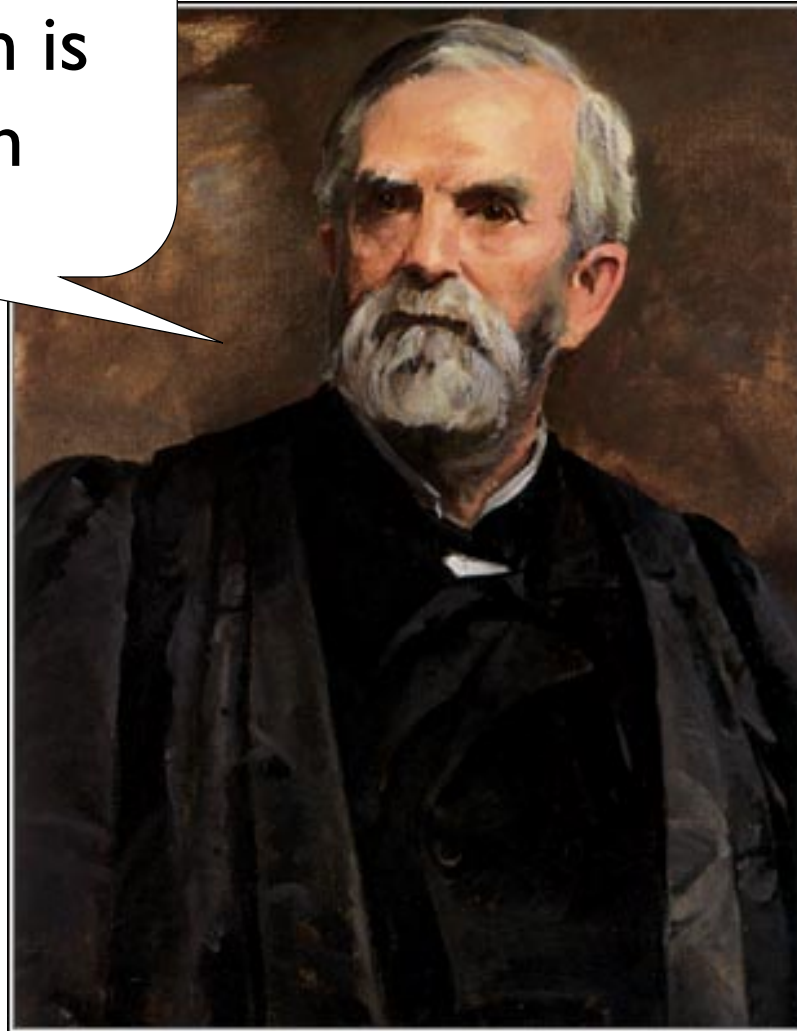


2013 U.S. Census Data

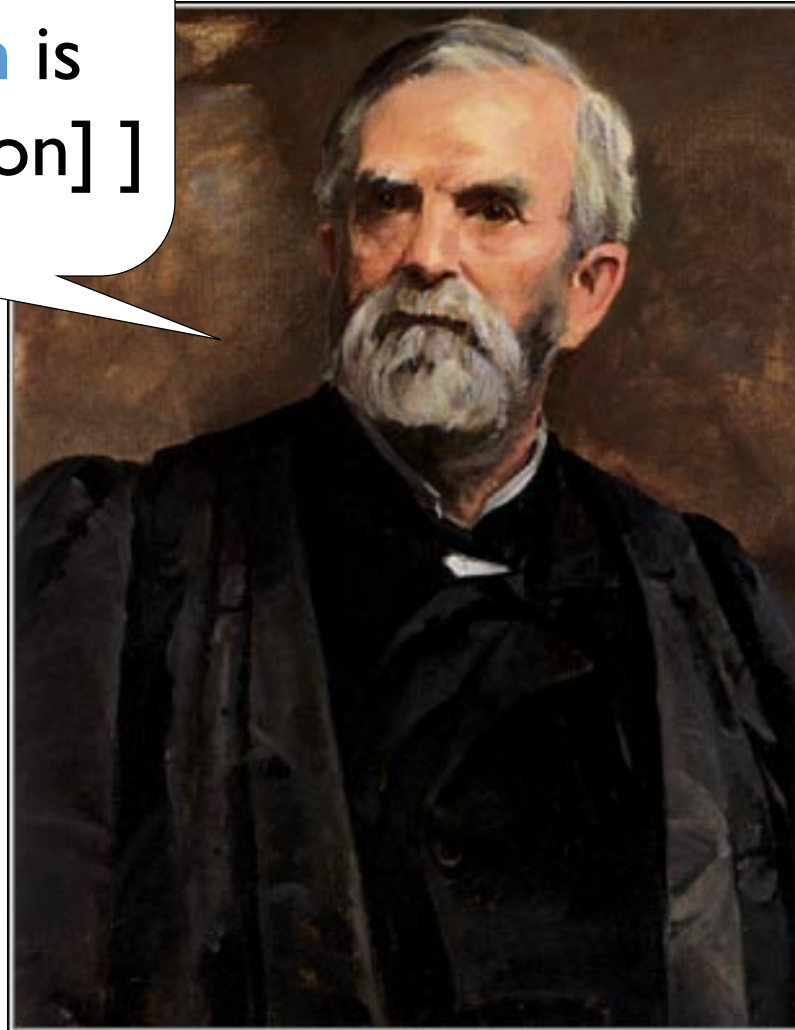
-  K - 8th Grade
-  High School
-  College
-  Graduate School

And now for some take-aways.

Innocent
misrecollection is
not uncommon



Innocent
misrecollection is
[not [uncommon]]



The **moral** of the story:

wherever there is **legal language**

aimed at an audience of **non-experts**

look at the language from a **linguistic** point of view.

Standard of Proof: Original Instruction

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The standard of a **preponderance of the** 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.

Standard of Proof: Plain English 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.

Translating Unclear (aka 'bad') Writing into Plain English

(legal and academic - from a psycholinguistics journal)

Original	Plain English
A [re-examination of] the evidence led prosecutors to [a reconsideration of] the defendant's guilt.	<i>Prosecutors</i> [re-examined] the evidence and [reconsidered] the defendant's guilt.
A [reduction] in <i>employee</i> [compensation] for teaching and research was the [result] of [failure] in [stimulation] of [legislation] for [support] for the University.	The administration [cut] faculty [salaries] because legislators [failed] [to support] the University.
Participants read [assertions] whose veracity was either affirmed or denied by the subsequent [presentation] of an [assessment] word.	We [presented] participants with a [sentence], followed by the word TRUE or FALSE.

Nominals	Verbs
be in violation of	violate
provide an illustration of	illustrate
conduct an examination of	examine
make provision for	provide for
make a contribution to	contribute to
provide a description of	describe
submit an application	apply
take into consideration	consider
be in preparation for	prepare for
have a discussion about	discuss
conduct an examination of	examine
is a result of	results from

*Garner, Bryan A. (2013) *Legal Writing in Plain English: a text with exercises*, 2nd ed. U. of Chicago Press, Chicago.

Pinker, Steven (2014) *The Sense of Style*. Viking, New York.

(*Bryan A. Garner is Editor in Chief of Black's Law Dictionary.)

How Just is Justice? Ask a Psycholinguist

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In Carlson, Katy, Charles Clifton Jr. & Janet Dean Fodor (2019) *Grammatical Approaches to Language Processing – Essays in Honor of Lyn Frazier*. Studies in Theoretical Psycholinguistics, Springer, NY.

Abstract

You are a member of a jury. After the trial, the judge reads you and your fellow jurors a set of instructions. One of them begins: *Failure of recollection is common. Innocent misrecollection is not uncommon...* Confused? Now imagine that your native language is not English or that you never finished high school. Or both. Our justice system depends on jurors making informed decisions to reach a verdict, so when jury instructions are too challenging, jurors not only disengage but return misinformed verdicts. Courtroom practices make jurors' jobs even harder. Many states don't provide copies of the instructions and some don't permit jurors to ask questions. Can we make instructions easier for jurors, and in so doing, improve justice? In two studies, we show that jury instruction comprehension significantly improves (a) when subjects read the texts of the instructions while listening to them and (b) when the instructions are rewritten in Plain English, minimizing two linguistic factors: passive verbs and unfamiliar legal expressions, or "legalese". Improvements were even greater for Study 2's MTurk subjects than Study 1's undergraduates. Since these new subjects are closer demographically to jurors, this new data provides even more evidence that current jury instructions need to be rewritten. Taken together, the studies lay the groundwork for reform, psycholinguistics providing judiciaries the evidence they need to implement change.

How Just is Justice? Ask a Psycholinguist

Janet Randall, Abbie MacNeal, Haley Emerson, Katherine Fiallo, Samantha Laureano & Yian Xu | Northeastern University

"A preponderance of the evidence is such evidence which, when considered and compared with any opposed to it..."*

Abstract When jurors are confused by the opaque jury instructions that they hear before deliberating, they not only disengage but return misinformed verdicts (Charrow & Charrow 1979; Diamond et al. 2012; Benson 1984; Marder 2006). Our earlier studies (Randall et al. 2015) showed that listeners comprehended jury instructions significantly better (1) when they could **read while listening** and (2) when the instructions were rewritten in **Plain English**, minimizing two linguistic factors: **passive verbs** (Ferreira 2003) and unfamiliar legal expressions, or "**legalese**" (Diana & Reder 2006). These improvements, while significant, were smaller than expected, possibly because the subjects were undergraduates. We would expect larger improvements for jurors, whose education level is lower, on average. The current study tests subjects who are demographically closer to the jury pool, drawn via Amazon's MTurk. The results confirm our expectations; these subjects show greater gains for both (1) **reading while listening** and (2) **Plain English** instructions with minimized **passive verbs** and **legalese**. This new evidence, both stronger and more relevant, may better convince skeptical judiciaries to implement change.

Study 1: Undergraduate student subjects

Hypotheses

1. **Reading while listening** will improve comprehension over **listening only**.
2. **Plain English** instructions with minimized **passive verbs** & **legalese** will improve comprehension over **Original** instructions.

Subjects + 4 Conditions

Undergraduate students

	Original	Plain English
n = 214		
Listening-Only	43	86
Reading + Listening	36	49

Materials, Design, & Procedure

Four groups of subjects heard recordings of either six **Original (OL&OR)** or six **Plain English (PL&PR)** Massachusetts civil jury instructions. Half of the subjects were in a **Listening-only** condition (OL&PL), half were in a **Reading+Listening (OR&PL)** condition and were supplied with the text of each instruction. After each instruction, all subjects answered true/false questions in a printed test booklet.

Results

Figure 1 Undergraduate Subjects Overall Comprehension Rates

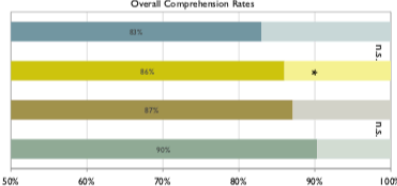
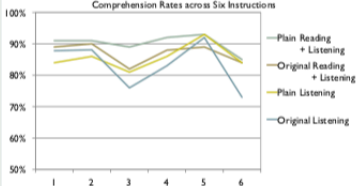


Figure 2 Undergraduate Subjects Comprehension Rates across Six Instructions



As predicted by **Hypothesis 1**, there was an overall main effect (Figs. 1&2) of **Reading** ($F_{1,197}=10.980, p=.001, \eta^2=.053$): comprehension scores for **Reading+Listening (OR&PR, m=89.0%)** were significantly higher than for **Listening-Only (OL&PL, m=84.5%)**. As predicted by **Hypothesis 2**, there was an overall main effect (Figs. 1&2) of **Plain English** ($F_{1,197}=3.937, p=.049, \eta^2=.020$): comprehension scores for **Plain English** instructions (**PL&PR, m=87.4%**) were significantly higher than those for **Original** instructions (**OL&OR, m=84.9%**). However, further t-tests found that only 2 out of the 6 instructions showed a significant difference (Fig. 2), Instructions 3 & 6.

Figure 3a Rates of Passive Verbs & Legalese Original and Plain English Instructions

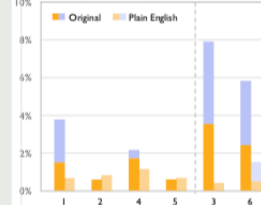
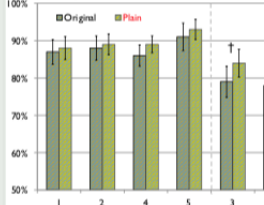


Figure 3b Undergraduate Subjects Comprehension Scores: Six Instructions, Reordered

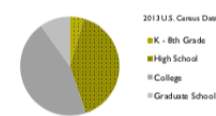


Original instructions' (OL&OR) rates of passive verbs & legalese (Fig. 3a, left columns) inversely correlated with comprehension (Fig. 3b, left columns): instructions with lower rates of these linguistic factors (1, 2, 4 & 5) were better understood than those with higher rates (3 & 6). And the **Plain English** instructions (**PL&PR**) that showed significant comprehension boosts (3 & 6, Fig. 3b) were the same two in which these linguistic factors were minimized most (Fig. 3a).

Consider this:

Nearly half of the Massachusetts jury pool (40%+5%) has not gone beyond high school (Fig. 4). In order to more closely mirror this population, Study 2 replicated Study 1 using subjects drawn via Amazon's MTurk.

"The standard of proof in a civil case is that a plaintiff must prove his or her case by a preponderance of the evidence. This is a less stringent standard that 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..."



Study 2: MTurk subjects

Hypotheses

1. As in Study 1, **Reading while listening** will improve comprehension over **listening only**.
2. As in Study 1, **Plain English** instructions with minimized **passive verbs** & **legalese** will improve comprehension over **Original** instructions.
3. The comprehension boosts for **Reading+Listening** over **Listening-Only** and **Plain English** over **Original** will be greater for MTurk subjects, who more closely mirror the jury pool, than for student subjects.

Subjects + 4 Conditions

Subjects were recruited and paid via MTurk, Amazon's online crowdsourcing platform.

All subjects were U.S. citizens over 18, from a variety of education levels and geographic regions across Massachusetts.

Materials, Design, & Procedure

MTurk subjects

	Original	Plain English
n = 389		
Listening-Only	125	99
Reading + Listening	66	99

The design matched Study 1's, using the same six Massachusetts civil jury instructions and the same four conditions: Original Listening (OL), Plain English Listening (PL), Original Reading (OR), and Plain English Reading (PR). Subjects signed on to the MTurk website, listened to the instructions and answered true/false questions after each one. Subjects in the two **Reading+Listening** conditions (**OR&PR**) had the texts to read along. FluidSurveys (later, SurveyMonkey) recorded their responses.

Results

Figure 5 MTurk Subjects Overall Comprehension Scores

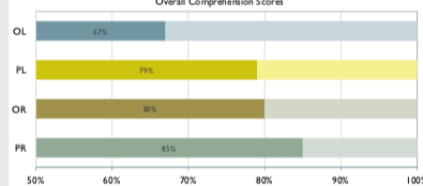


Figure 6 MTurk Subjects Comprehension Scores across Six Instructions

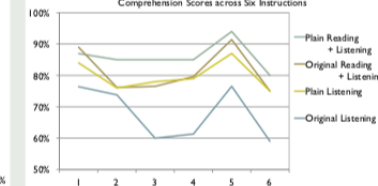
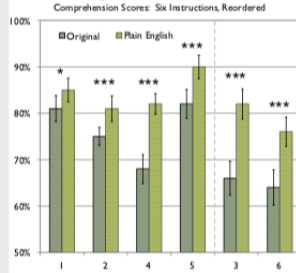


Figure 7 MTurk Subjects Comprehension Scores: Six Instructions, Reordered



Discussion & Conclusions

Hypotheses 1 and 2 were both confirmed (Figs. 5&6): **reading while listening (OR&PR)** improved comprehension over **listening only (OL&PL)** ($F_{1,385}=50.246, p<.001, \eta^2=.115$); **Plain English** instructions (**PL&PR**) improved comprehension over **Original** instructions (**OL&OR**) ($F_{1,385}=39.515, p<.001, \eta^2=.093$). As predicted by **Hypothesis 3**, the comprehension boosts for **Reading+Listening** over **Listening-Only** and for **Plain English** over **Original** instructions were greater for MTurk subjects (Figs. 5&6) than for students (Figs. 1&2), as seen in the increases in effect sizes from Study 1 to Study 2. Looking at the instructions individually (Figs. 6&7), all six instructions – not just 3 & 6 as in Study 1 – saw significant gains when they were rewritten in **Plain English (PL&PR > OL&OR)**. Since MTurk subjects are demographically closer to the jury pool, these new results suggest that (1) **reading while listening** and (2) confronting fewer difficult linguistic factors (specifically, **passive verbs** & **legalese**) will boost comprehension, allowing jurors to engage more fully and reach better-informed verdicts. Most importantly though, this new evidence may present a more compelling argument to skeptical judiciaries that it is time to implement change.

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We are grateful to the Massachusetts Bar Association for providing grant support and for sponsoring Professor Janet Randall as a Visiting Research Fellow. The MBASH Undergraduate Research Initiative and the MBU Office of the Provost provided additional research funding. Thanks also go to CSJH Associate Dean for Research Jack McDevitt, the members of the MBA Plain English Jury Instruction Task Force, and our student research team for their comments and suggestions.



LAW, meet LINGUISTICS

§1.20 The standard of proof in a civil case is that a plaintiff must prove his or her case by a preponderance of the evidence. This is a less stringent standard that 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...

Janet Randall (the *lingwist*), Samantha Laureano, Matthew Monjarrez, Katie Fiallo, Abbie MacNeal, Yian Xu, Shaughna Jones, Avery Isaacs, Ben Rubin, Alex Jones, Rachel Smith, Fran Reis | Northeastern University

2012: **Massachusetts Bar Association** contacts a *lingwist* to help them improve jury instructions.

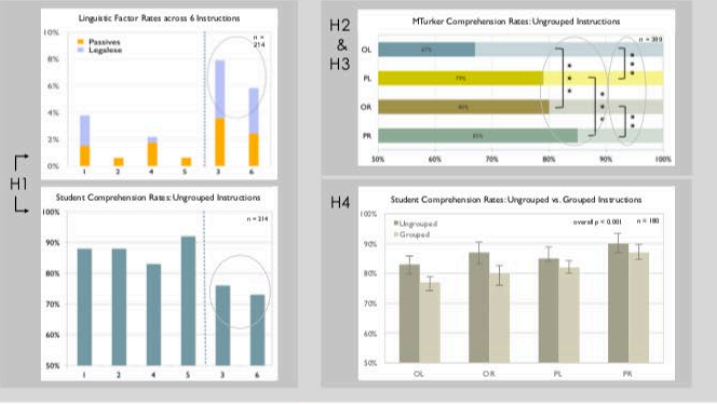
The *lingwist* forms a student research team to investigate.

Hypotheses

- Two linguistic factors, **passive verbs** and **legalese**, decrease comprehension of jury instructions.
- Comprehension will improve if instructions are written in "Plain English."
- Comprehension will improve if jurors read the instructions as they listen.
- Comprehension will worsen when instructions are presented in one group, as they are in an actual trial.

Testing

Results



Collaborations

We ran a continuing-education workshop for 35 Massachusetts judges.



We spoke at a national conference for trial consultants.



We hosted a conference with our law school on linguistics/law issues.



The End

Thank you.

Our Team



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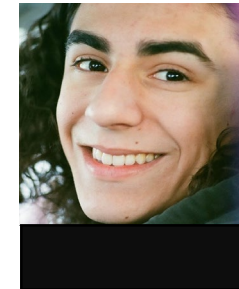
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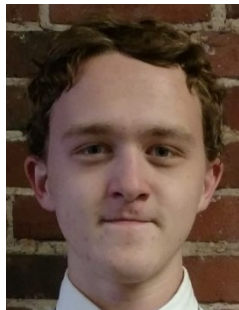
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Questions?

Comments?

Thank you.

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