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Poor writing, not specialized concepts, drives processing ...
Despite their ever-increasing presence in everyday life,
contracts remain notoriously inaccessible to laypeople. ...

4:57 PM · Mar 4, 2022



4



49



153



31



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...

Despite their ever-increasing presence in everyday life, online terms of service agreements and other contracts remain notoriously inaccessible to laypeople. Why? 2/11

It is understood by Lessees, standing liable for violating obligations inter se, hereinbefore set forth in Clause 3 of this real estate agreement, that Lessors shall be exempt from liability for any damages, to the maximum extent not prohibited by law, unless Lessors knew of the possibility of such damage and acted with scienter. LESSEES' AGGREGATE LIABILITY INTER SE FOR ALL CLAIMS, INCLUDING THOSE BASED ON TORT OR STATUTORY LIABILITY, IS LIMITED TO \$1000 BY THIS AGREEMENT. PERSONAL INJURY DAMAGES, LIMITATIONS OF LIABILITY OF WHICH, EXCEPTING THOSE FOR EMOTIONAL DISTRESS, THIS JURISDICTION PROHIBITS, ARE NOT AFFECTED BY THE FOREGOING PROVISIONS.

Tenants understand that Landlords will be exempt from liability for any damages, to the extent allowed by law, unless Landlords knew of the possibility of such damage and acted willfully. Tenants will be liable for violating their duties to each other, described in Clause 3 of this real estate agreement, above. This agreement limits Tenants' combined liability to each other for all claims to \$1000. This includes claims based off tort or statutory liability. This jurisdiction prohibits limitations of liability of personal injury damages, except for emotional distress damages. The above section does not affect personal injury damages.

Figure S1: An example stimulus pair in legalese (left) and simple (right) register. The differences in surface properties across registers are depicted by font style. Bold denotes word frequency. Italic denotes embedded clauses. Underlined denotes voice. Unfortunately, we have run out of font styles to make differences in capitalization more apparent.



1



1



6





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We first conducted a corpus analysis to determine to what extent features shown to cause processing difficulty in normal texts and/or reported to be common in legal documents present in contracts relative to more standard language. 3/11



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2



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We found contracts contain startlingly high proportions of certain difficult-to-process features—including low-frequency words, center-embedded clauses, passive voice structures, and non-standard capitalization—relative to nine baseline genres of written and spoken English. 4/11

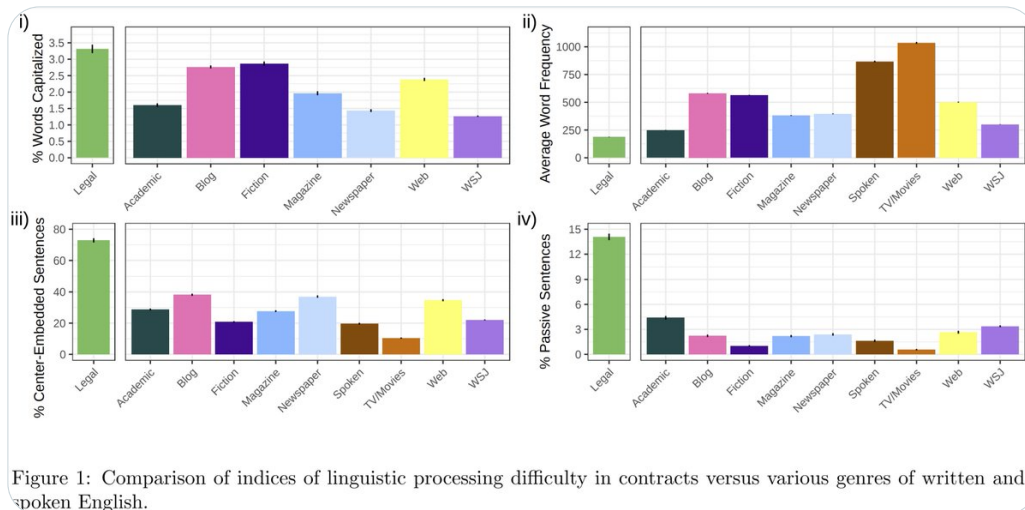


Figure 1: Comparison of indices of linguistic processing difficulty in contracts versus various genres of written and spoken English.



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2



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We next conducted an experiment to determine to what extent these features lead to processing difficulty for laypeople. We compared contracts containing these features (i.e. written in “legalese”) against excerpts with the same meaning drafted without those features. 5/11

<p>It is understood by <i>Lessees</i>, standing liable for violating <i>obligations inter se</i>, <i>hereinbefore set forth</i> in Clause 3 of this real estate agreement, that <i>Lessors</i> shall be exempt from liability for any damages, to the maximum extent not prohibited by law, unless <i>Lessors</i> knew of the possibility of such damage and acted with scienter. LESSEES' AGGREGATE LIABILITY INTER SE FOR ALL CLAIMS, INCLUDING THOSE BASED ON TORT OR STATUTORY LIABILITY, IS LIMITED TO \$1000 BY THIS AGREEMENT. PERSONAL INJURY DAMAGES, LIMITATIONS OF LIABILITY OF WHICH, EXCEPTING THOSE FOR EMOTIONAL DISTRESS, THIS JURISDICTION PROHIBITS, ARE NOT AFFECTED BY THE FOREGOING PROVISIONS.</p>	<p>Tenants understand that Landlords will be exempt from liability for any damages, to the extent allowed by law, unless Landlords knew of the possibility of such damage and acted willfully. Tenants will be liable for violating their duties to each other, described in Clause 3 of this real estate agreement, above. This agreement limits Tenants' combined liability to each other for all claims to \$1000. This includes claims based off tort or statutory liability. This jurisdiction prohibits limitations of liability of personal injury damages, except for emotional distress damages. The above section does not affect personal injury damages.</p>
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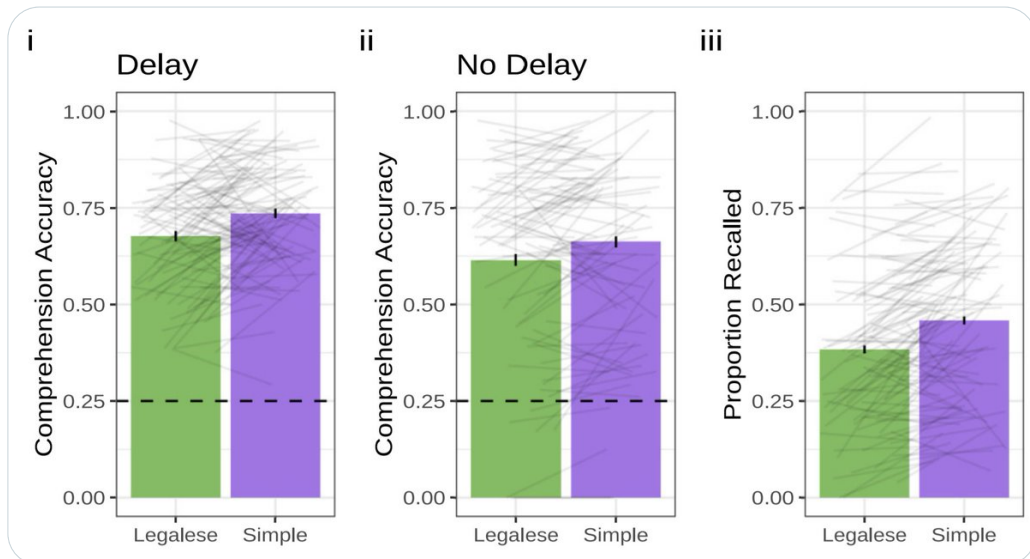
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We found contracts containing these features (i.e., written in “legalese”) were recalled and comprehended at lower rates than excerpts with the same meaning drafted without these features, even for experienced readers. 6/11

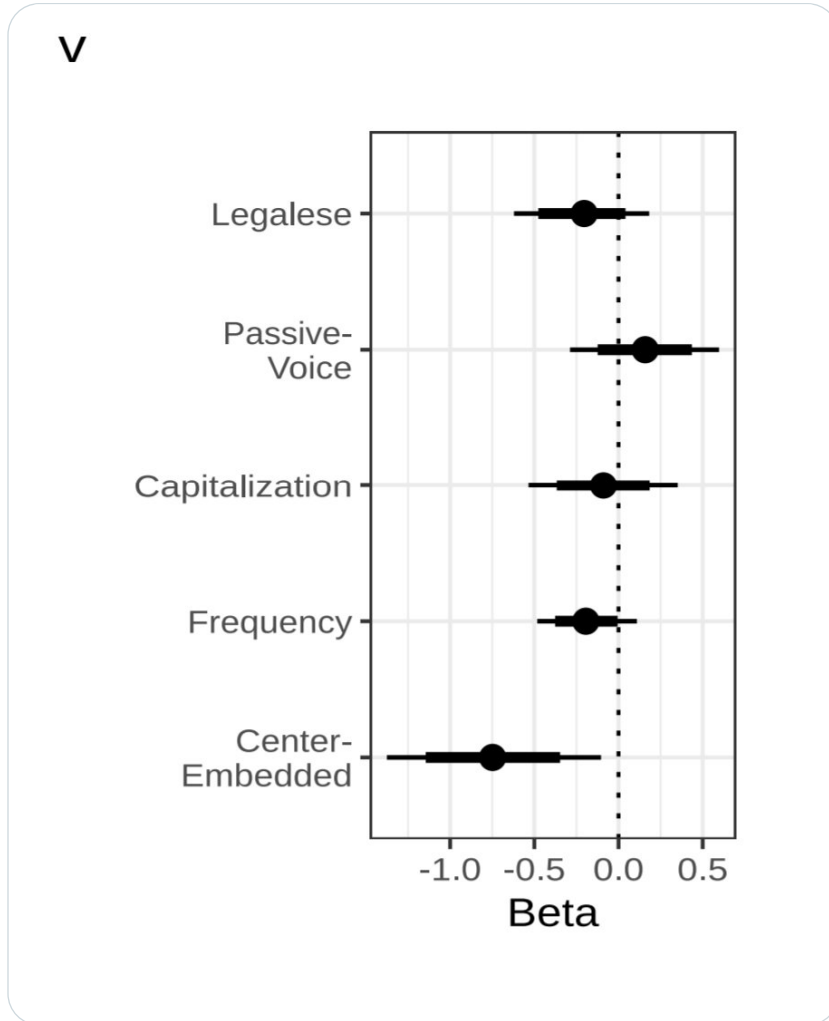




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We also found that center-embedded clauses inhibited recall more-so than other features, such as passive voice and non-standard capitalization. 7/11



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Exp. 2 replicated Exp. 1 in more “real-world” scenarios—contracts in legalese were comprehended at lower rates even when participants were given additional monetary incentives for accuracy and could consult the text when answering questions. 8/11





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From a cognitive science perspective, our results suggest that processing difficulties result largely from working-memory limitations imposed by long-distance syntactic dependencies (i.e., poor writing) as opposed to a mere lack of specialized legal knowledge. 9/11



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From a legal theory perspective, our results undermine the specialized concepts account of the law, according to which legal systems are necessarily built upon expert knowledge of technical concepts. 10/11



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Finally, from a public policy perspective, our results suggest that editing out complex features of contracts and other legal texts may be tractable and beneficial for society at-large. 11/11

