What's your type? Effects of variable fonts on sentence-level reading



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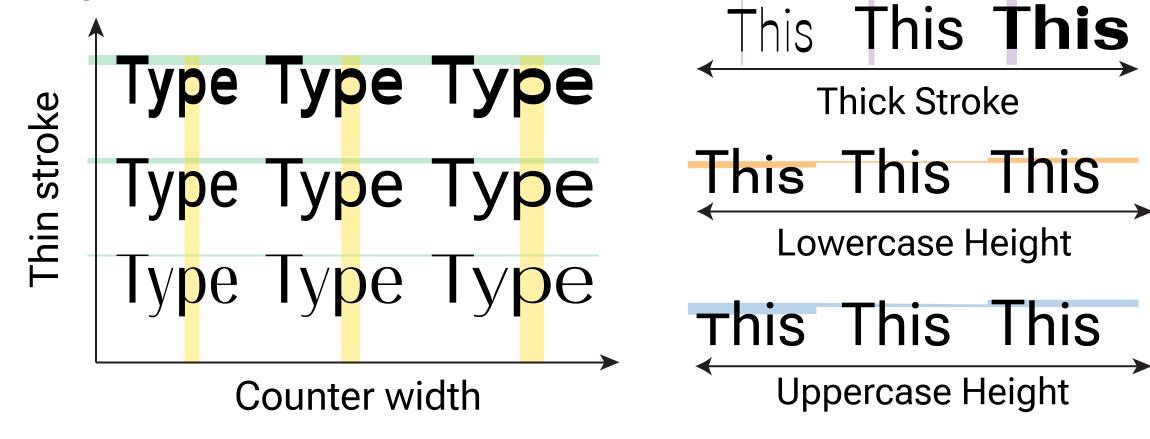
x 5 Font Axes

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APPLY LAB

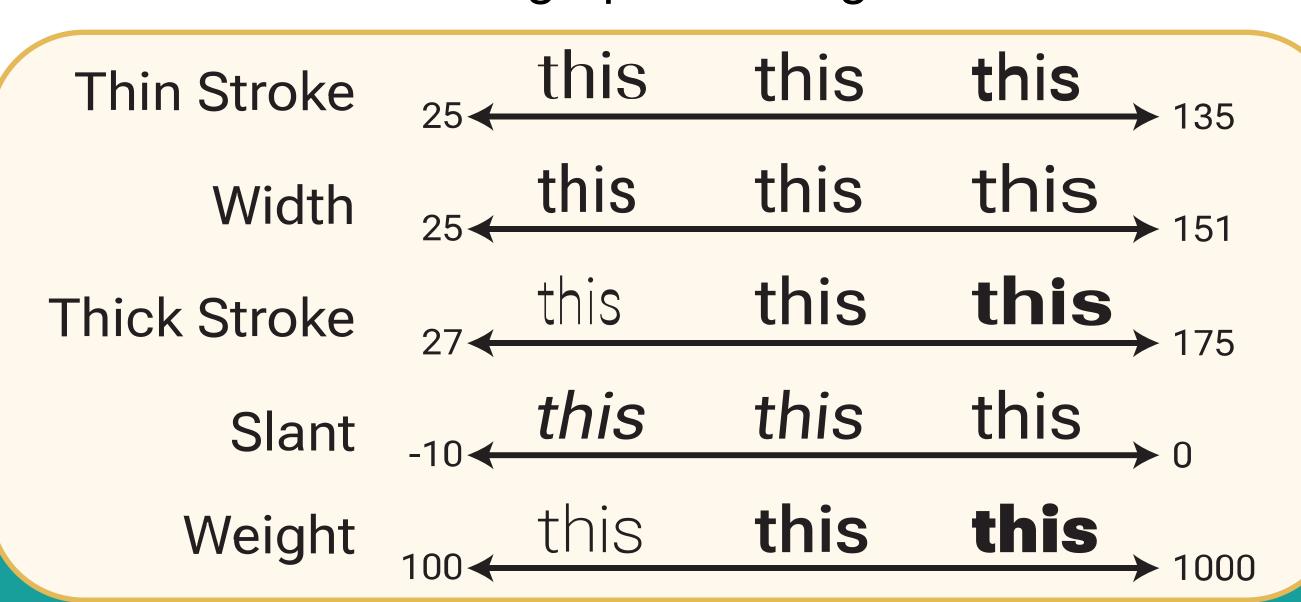
Introduction

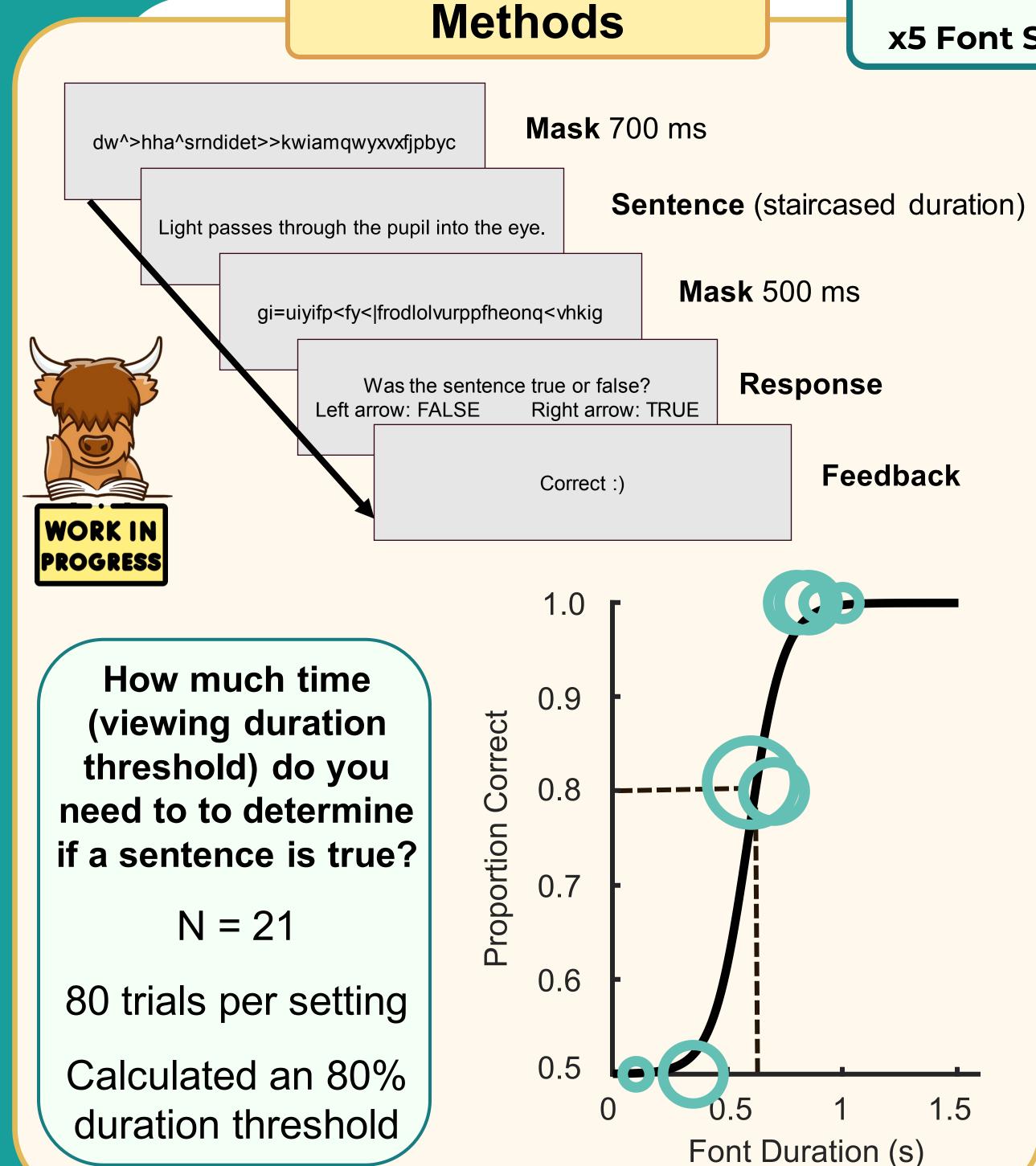
Variable fonts allow users to manipulate how text appears along many continuous axes. These continuous axes lend themselves to psychophysical techniques to investigate how they impact reading performance.

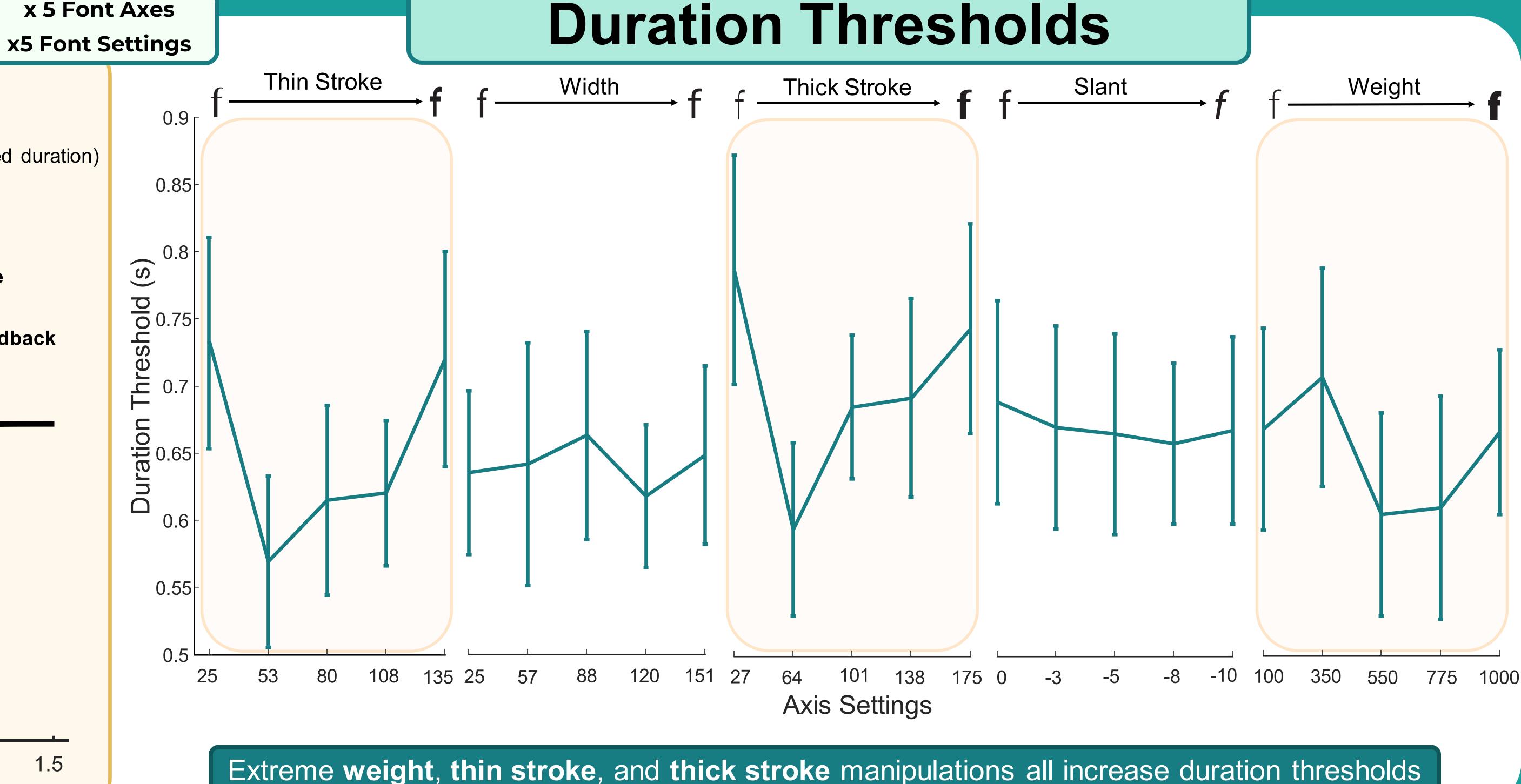


Research Question

Which axes within a variable font have the largest effects on reading speed and gaze measures?

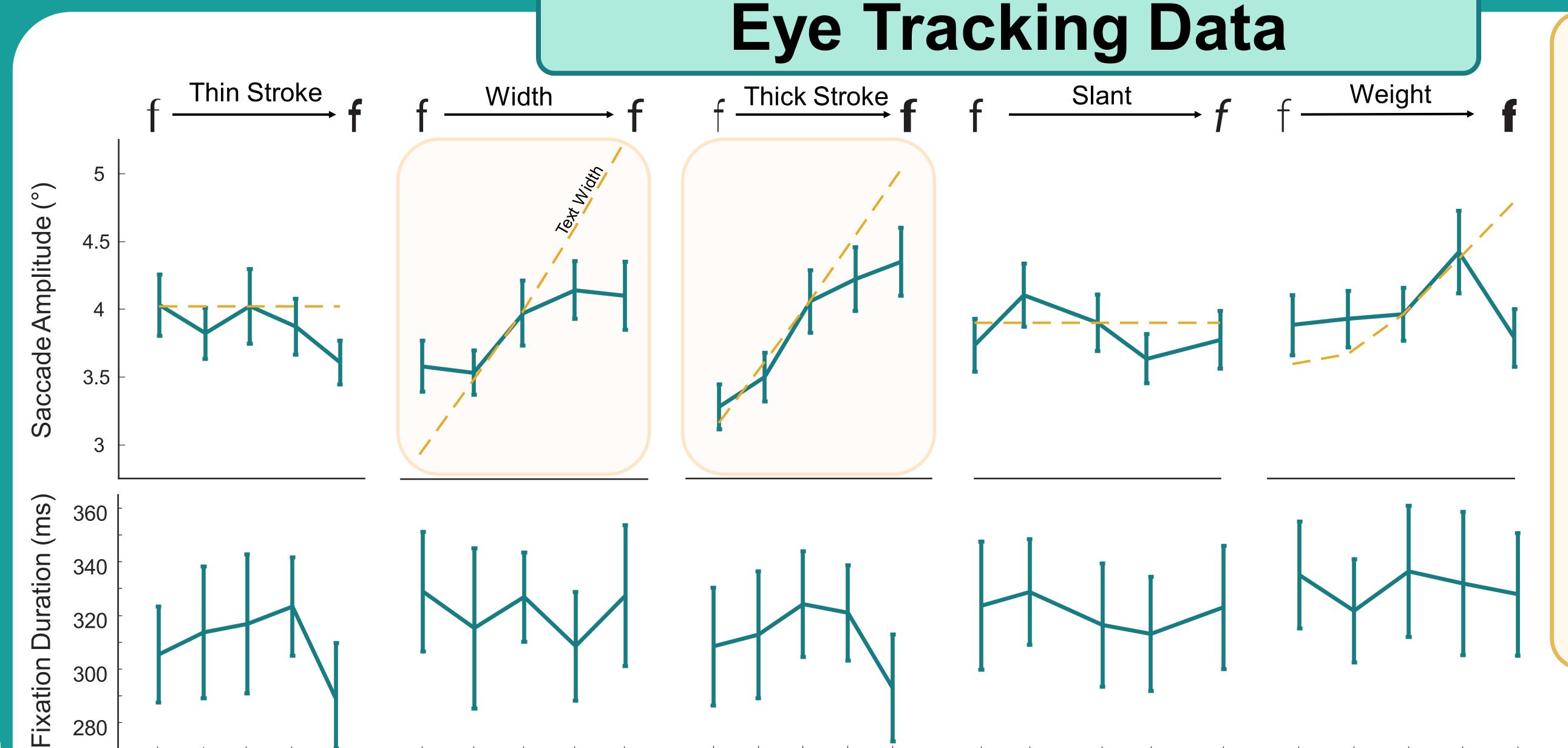






Corpus Generation

Online Validation (Qualtrics) Corpus of generic statements (GenericsKB¹) True-False ratings (N=79) ICC = 0.98 Filtering: Please indicate how universally, objectively true the following statements are. If there is a fact you do not know please mark "I do not know" **35-42 Characters** 6-8 Words grammatically **Classification score** The truck is a source of personal pleasure, too. (General truth) True Sentences: top 25% of **Word Frequency** mean value distribution N = 844False Sentences: bottom 25% of mean value distribution N = 846Scramble **Terms Example Sentences** Cats spend incredible amounts of time napping. True True False Beer is the most basic of human essentials False Sentences Sentences False Companies are the only animals that carry tears.



Axis Setting

Individuals partially compensate for increased text width by increasing saccade amplitude

Conclusions

Axes that change stroke weight have the largest impact on reading speed and saccade amplitude

Consistent with previous work showing extreme weight settings affect reading speed the most

Gaze behavior can partially compensate for changes in font width

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Bhakthavatsalam, S., Anastasiades, C., & Clark, P. (2020, May 2). GenericsKB: A Knowledge Base of Generic Statements. ArXiV Preprint. Acknowledgments: This work was supported by a UTM Undergraduate Award to SG and a SSHRC Insight Grant to BW and AK