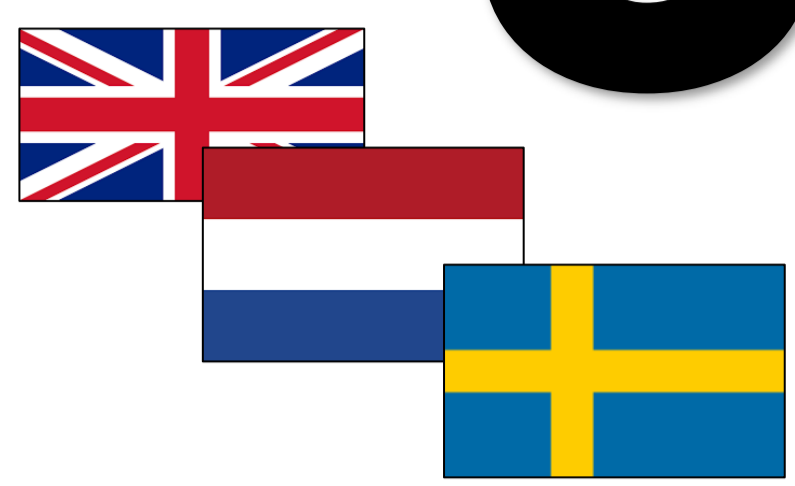


Signs of reduction



Frequency, duration, and signing rate in three sign language corpora

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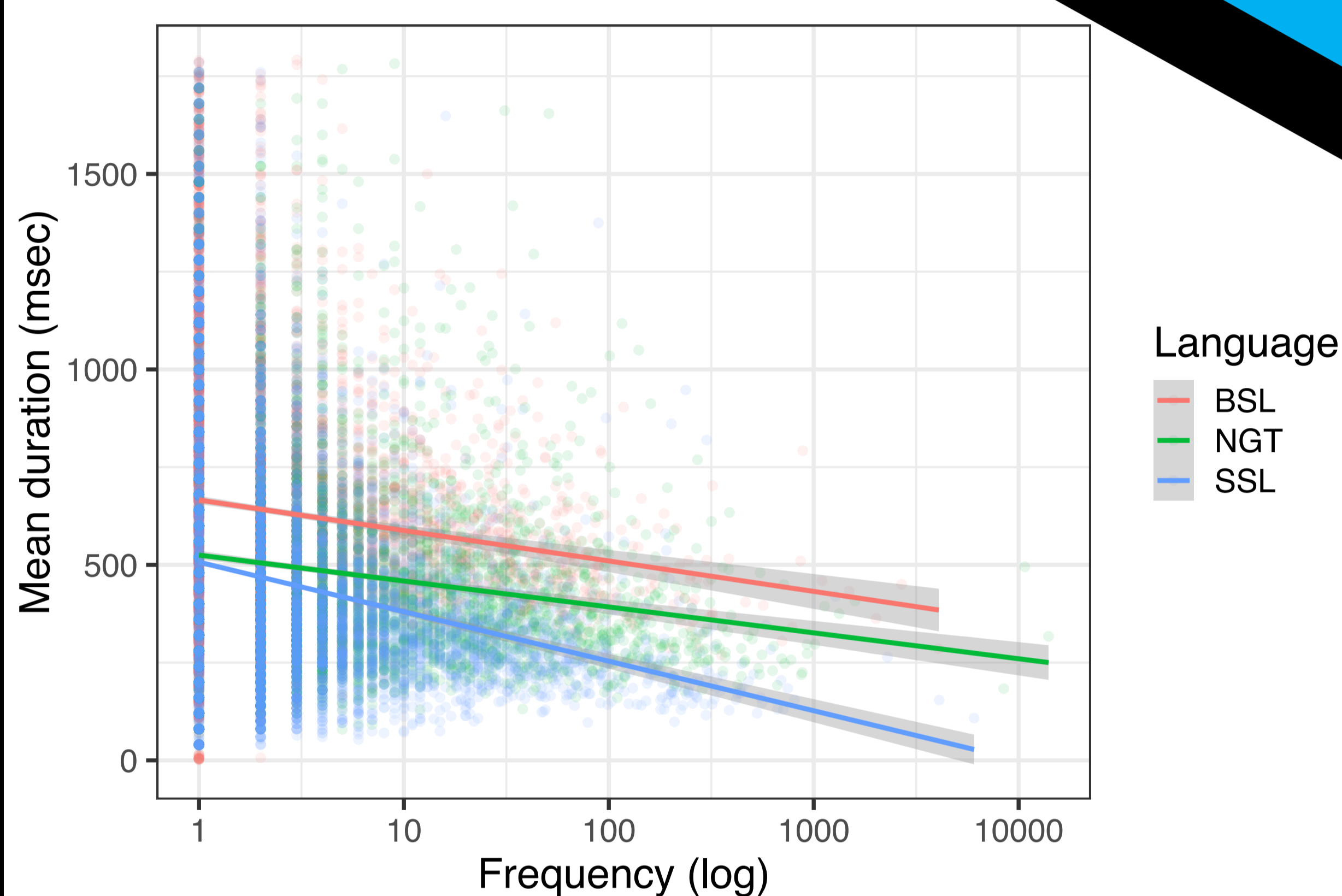
UNIVERSITY OF BIRMINGHAM

Aim

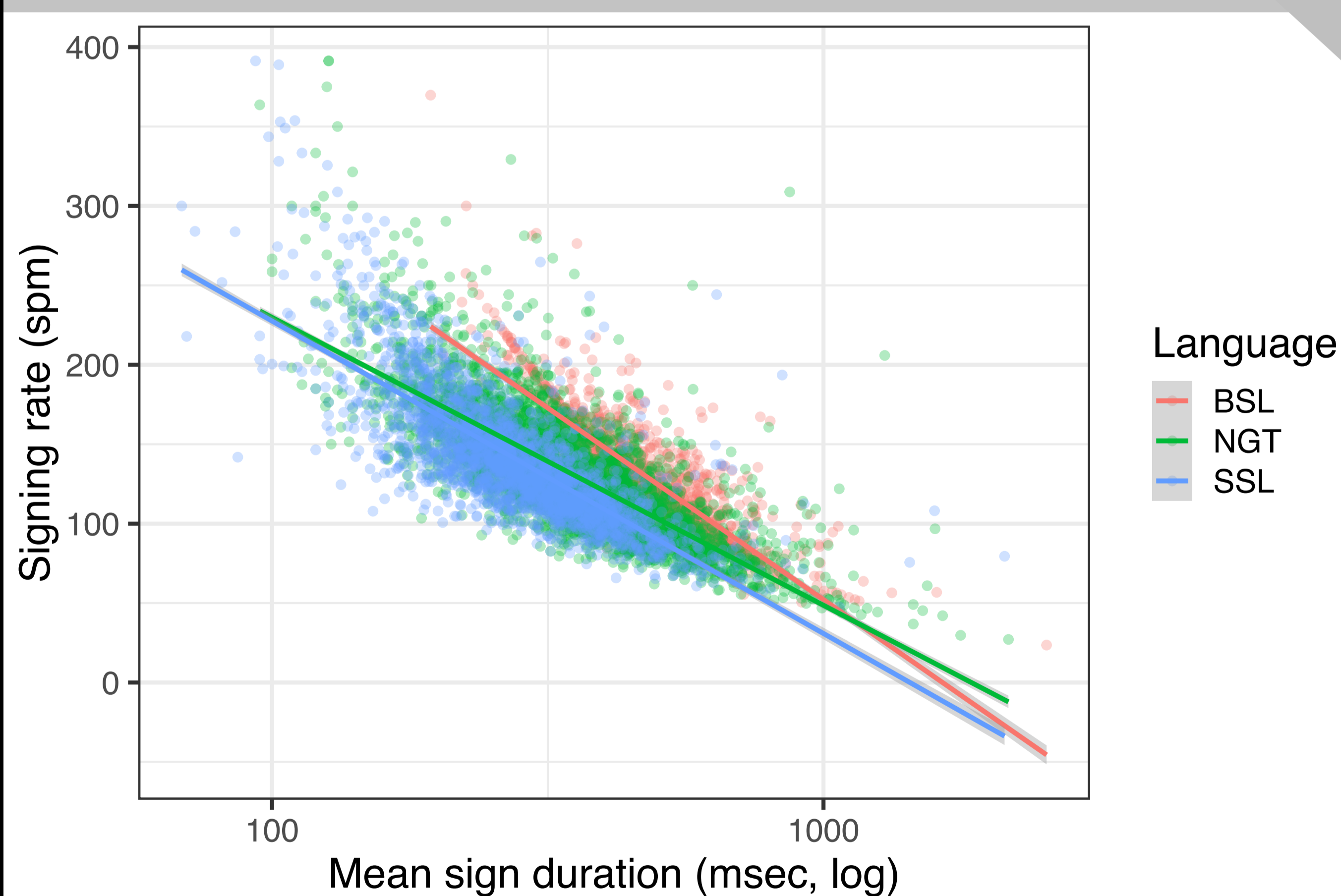
What affects signing rate & duration?

Previous work: frequency & age effects.^{1,3,9}

Results: frequency



Sign mean duration decreases with frequency
 $(\beta = -41.254, t(19892) = -24.98, p < .0001)$



Inverse correlation between signing rate (signs/min) and mean duration of signs – that is, duration decrease is a strategy for rate increase
 $(\beta = -2.584, t(10790) = -76.74, p < .0001)$

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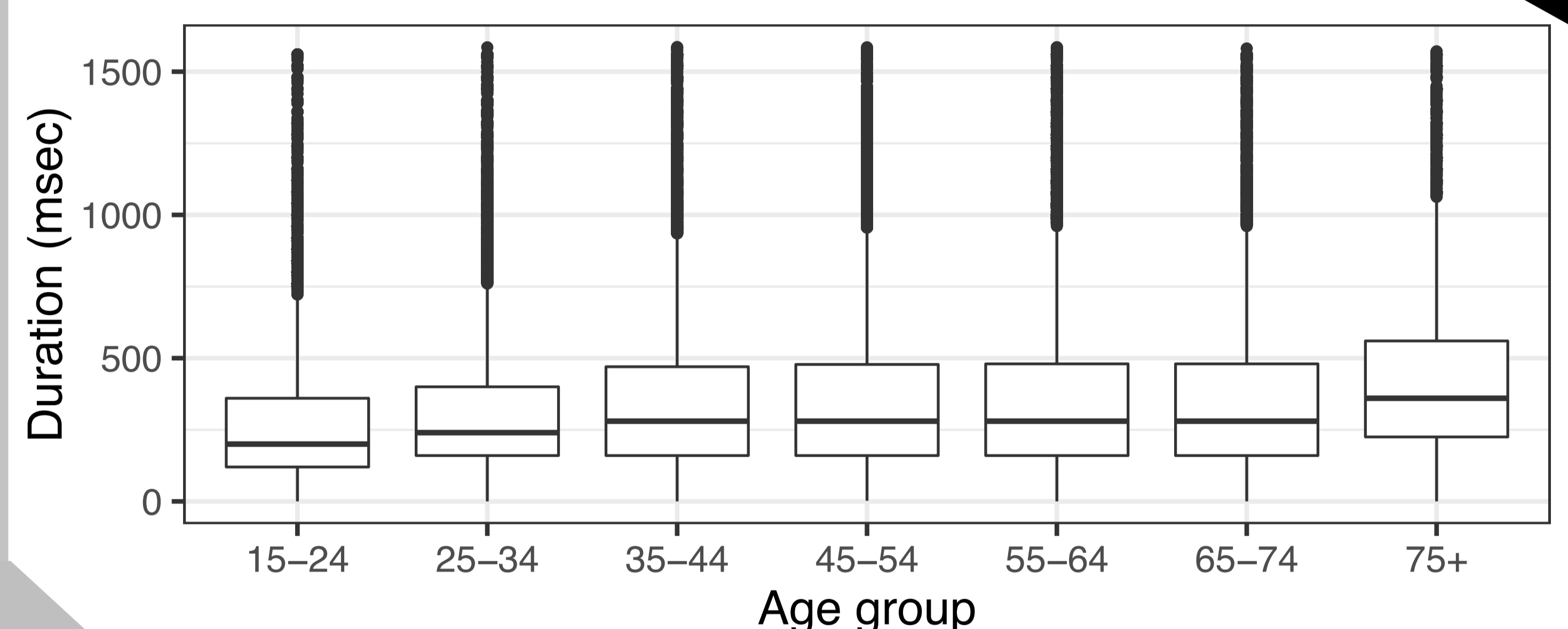
Data & Method

| Corpus | Sign types | Sign tokens |
|-------------------------|------------|-------------|
| BSL Corpus ⁷ | 5,480 | 54,2019 |
| Corpus NGT ² | 4,693 | 122,881 |
| STS Corpus ⁵ | 9,776 | 93,224 |

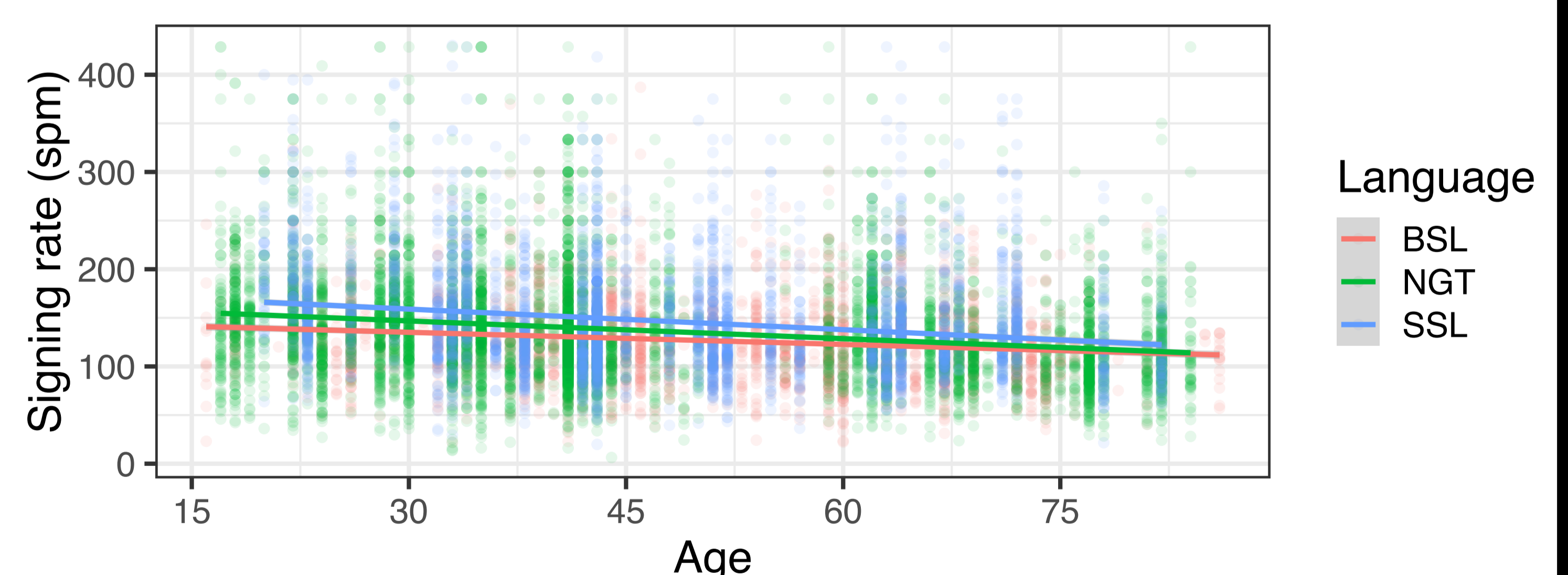
Pauses > 1000 msec → sentence segmentation → ≈270,000 sign glosses; ≈12,000 utterances

Results: age

With age, sign **duration** increases
 $(\beta = 1.1134, t(8859) = 13.351, p < .0001)$



... and signing **rate** decreases
 $(\beta = -0.50546, t(493.8) = -8.052, p < .0001)$



KEY FINDINGS:

- Frequent = shorter
- Duration ↔ rate
- Age ↔ duration/rate

