

Supplemental file 2 – Table IV interaction with intelligibility

Table IVb. Linear mixed-effects model accounting for change in pupil size for sentences during window 1 (time -2.2 to 0.7s relative to stimulus offset for slow rate, and between -1.8s to 0.7s for original rate), interacting each model term with dataset (all data versus only-correct-trials dataset).

*Original Rate -1.8s to 0.7s relative to stimulus offset*

		<b>Estimate</b>	<b>st. err.</b>	<b>df</b>	<b>t</b>	<b>p</b>
$\beta$ 1	Intercept (High context)	0.089	0.009	26.71	9.62	< .001
$\beta$ 2	Time (slope)	0.057	0.007	22.72	8.51	< .001
$\beta$ 3	Low-Context	-0.004	0.009	69.14	-0.50	.621
<b><math>\beta</math> 4</b>	<b>\$All Correct</b>	<b>-0.003</b>	<b>0.001</b>	<b>19.04</b>	<b>-2.53</b>	<b>.020</b>
$\beta$ 5	Time : Low-Context	-0.004	0.005	63.59	-0.81	.419
<b><math>\beta</math> 6</b>	<b>Time : \$All Correct</b>	<b>-0.001</b>	<b>0.001</b>	<b>56.41</b>	<b>-1.08</b>	<b>.285</b>
<b><math>\beta</math> 7</b>	<b>Low-Context : \$All Correct</b>	<b>0.004</b>	<b>0.003</b>	<b>14.12</b>	<b>1.35</b>	<b>.198</b>
<b><math>\beta</math> 8</b>	<b>Time : Low-Context: \$All Correct</b>	<b>0.001</b>	<b>0.002</b>	<b>20.86</b>	<b>0.68</b>	<b>.506</b>

*Slower Rate -2.2s to 0.7s relative to stimulus offset*

		<b>Estimate</b>	<b>st. err.</b>	<b>df</b>	<b>t</b>	<b>p</b>
$\beta$ 9	Intercept (High context)	0.082	0.014	26.07	5.75	< .001
$\beta$ 10	Time (slope)	0.035	0.007	24.19	5.11	< .001
$\beta$ 11	Low-Context	0.004	0.010	74.57	0.40	.689
<b><math>\beta</math> 12</b>	<b>\$All Correct</b>	<b>0.000</b>	<b>0.001</b>	<b>18.36</b>	<b>-0.27</b>	<b>.793</b>
$\beta$ 13	Time : Low-Context	0.002	0.005	62.16	0.53	.601
<b><math>\beta</math> 14</b>	<b>Time : \$All Correct</b>	<b>0.000</b>	<b>0.001</b>	<b>32.17</b>	<b>-0.16</b>	<b>.871</b>
<b><math>\beta</math> 15</b>	<b>Low-Context : \$All Correct</b>	<b>-0.001</b>	<b>0.002</b>	<b>13.39</b>	<b>-0.63</b>	<b>.540</b>
<b><math>\beta</math> 16</b>	<b>Time : Low-Context: \$All Correct</b>	<b>0.000</b>	<b>0.001</b>	<b>21.21</b>	<b>-0.31</b>	<b>.760</b>

Note: St.Err is standard error of the mean estimation, df is degrees of freedom estimated using the Satterthwaite approximation (implementation by Kuznetsova et al. 2017)

(Figures on next page)

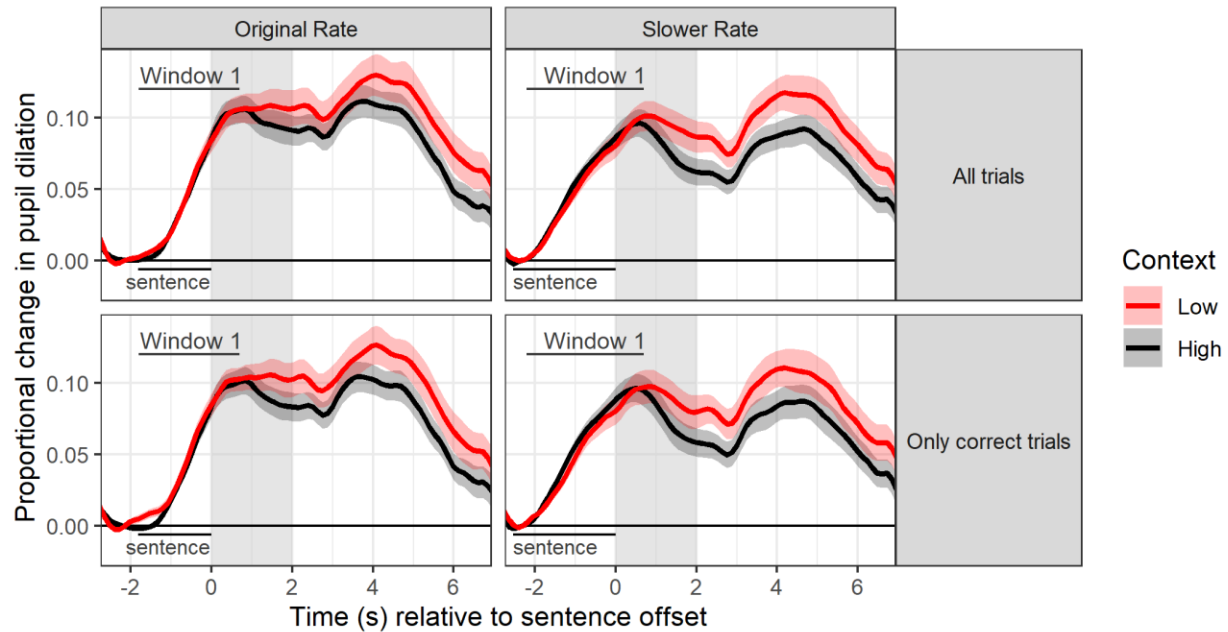


Figure 3b. Proportional change in pupil dilation over time for sentences spoken at the original rate (left panels) or a slower rate (right panels). Low-context sentences are displayed with red lines, and high-context sentences are displayed with black lines. Width of the error ribbon represents  $\pm 2$  standard error of the mean. The gray shaded region represents the silent interval between stimulus offset and the visual prompt for listeners to repeat the sentence. Upper panels include all data (same as in the main manuscript), and lower panels include only trials with correct intelligibility responses.

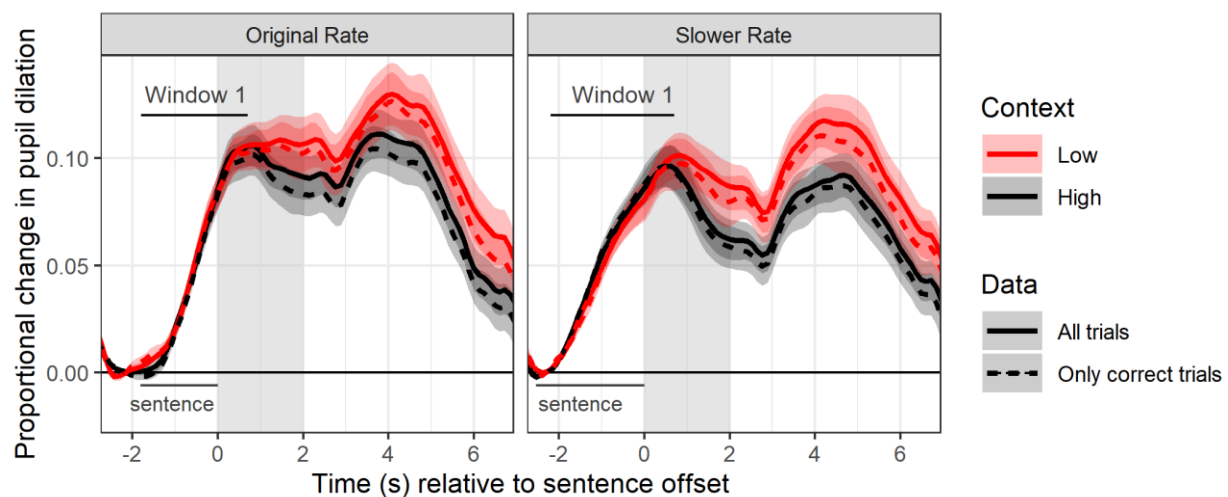


Figure 3c. Same as Figure 3b, but showing both datasets on the same panels to facilitate direct comparison.