

**Supplemental Material S2.** Details of the best-fitted binomial generalized linear models for the identification task, including associated power analyses (calculated using the powersim function in the SIMR package).

<b>Auditory status effect</b>						
<i>Random effect</i>		<i>Variance</i>	<i>Std error</i>			
Subject	(Intercept)	0.1758	0.4193			
Residual		0.3719	0.6098			
<i>Fixed effect</i>	<i>Estimate</i>	<i>Std Error</i>	<i>df</i>	<i>t value</i>	<i>Pr(&gt; z )</i>	<i>Power</i>
(Intercept)	4.0646	0.1352	36	30.054	<.0001	
TH group	0.3427	0.1667	36	2.055	0.0472	56.50%
<b>d' without ceiling scores</b>						
<u>Phonological pairs</u>						
<i>Fixed effect</i>	<i>Estimate</i>	<i>Std Error</i>	<i>df</i>	<i>t value</i>	<i>Pr(&gt; z )</i>	
TH group	0.2679	0.2529	21	1.059	0.302	
<u>Phonetic pairs</u>						
<i>Fixed effect</i>	<i>Estimate</i>	<i>Std Error</i>	<i>df</i>	<i>t value</i>	<i>Pr(&gt; z )</i>	
TH group	0.3591	0.1698	22	2.114	0.04	46.50%
<b>Chronological (TH)/Auditory (CI) age effect</b>						
<i>Random effect</i>		<i>Variance</i>	<i>Std error</i>			
Subject	(Intercept)	0.1924	0.4387			
Residual		0.3719	0.6098			
<i>Fixed effect</i>	<i>Estimate</i>	<i>Std Error</i>	<i>df</i>	<i>t value</i>	<i>Pr(&gt; z )</i>	<i>Power</i>
(Intercept)	4.0962	0.1456	35	28.133	<.0001	
Age group 2	0.2923	0.2059	35	1.419	0.165	5.50%
Age group 3	0.2754	0.1984	35	1.388	0.174	18.50%