

Supplemental Material S1. Details of the best-fitted binomial generalized linear models for the identification task, with associated power analysis for the fixed effects (powersim function of the SIMR package).

Auditory status effect					
<i>Random effect</i>	<i>Variance</i>	<i>Std error</i>			
Subject	1.55	1.245			
<i>Fixed effect</i>	<i>Estimate</i>	<i>Std. Error</i>	<i>z value</i>	<i>Pr(> z)</i>	<i>Power</i>
(Intercept)	2.0582	0.3911	5.262	<.0001	
TH group	1.8323	0.5883	3.114	0.002	96%
Oral vowel	0.4044	0.24	1.685	0.092	36.50%
TH group * Oral vowel	2.2705	0.6625	3.427	0.001	82.50%
Chronological (TH)/Auditory (CI) age effect					
<i>Random effect</i>	<i>Variance</i>	<i>Std error</i>			
Subject	0.7641	0.8747			
<i>Fixed effect</i>	<i>Estimate</i>	<i>Std. Error</i>	<i>z value</i>	<i>Pr(> z)</i>	<i>Power</i>
(Intercept)	1.7727	0.4378	4.049	<.0001	
Age group 2	0.5198	0.664	0.783	0.434	15.50%
Age group 3	0.4677	0.8986	0.521	0.603	7.50%
Oral vowel	0.891	0.3489	2.553	0.011	72.50%
TH group	0.1479	0.6182	0.239	0.811	9%
Age group 2 * Oral vowel	-1.0257	0.5295	-1.937	0.053	49.50%
Age group 3 * Oral vowel	-0.7722	0.7325	-1.054	0.292	19%
Age group 2 * TH group	2.052	1.0366	1.98	0.048	55.50%
Age group 3 * TH group	3.3185	1.459	2.275	0.023	32.50%
Oral vowel * TH group	2.7271	1.0901	2.502	0.012	53.50%
Age group 2 * Oral vowel * TH group	-0.6297	1.6051	-0.392	0.695	4%
Age group 3 * Oral vowel * TH group	-2.5567	1.9003	-1.345	0.179	6%
Cued speech exposure effect (CI)					
<i>Random effect</i>	<i>Variance</i>	<i>Std error</i>			
Subject	0.1	0.3164			
<i>Fixed effect</i>	<i>Estimate</i>	<i>Std. Error</i>	<i>z value</i>	<i>Pr(> z)</i>	<i>Power</i>
(Intercept)	1.625	0.1985	8.186	<.0001	
CS/CS+	1.018	0.3046	3.342	0.0008	93%
Implantation group effect (CI group)					
<i>Random effect</i>	<i>Variance</i>	<i>Std error</i>			
Subject	0.2417	0.4916			
<i>Fixed effect</i>	<i>Estimate</i>	<i>Std. Error</i>	<i>z value</i>	<i>Pr(> z)</i>	<i>Power</i>
(Intercept)	3	0.2903	9	<.0001	
CI - late implantation group	-0.659	0.373	-2	0.077	49%