

Additional Supplementary Material: Pilot Study 2 GLMM Random Effect Structure Selection

Table 1: *Random Effects Model Comparison for Intelligibility Scores (LI recordings)*

Sample size		Total observations = 1920 Subjects = 40; Items = 48									
Selection process	Model No.	Random effects		Model fit			Singular ?	LRT test			
		Subject	Items	AIC	BIC	logLik		Reference model	df	χ^2	p
1. Building a maximal model											
	1	(1 sub)	(1 + Sound*Caption*L1 item)	1665.5	1904.5	-789.7	Yes	-	-	-	-
2. Building a ZCP model											
	2	(1 sub)	(1 + Sound*Caption*L1 item)	1745.5	2206.9	-789.7	Yes	-	-	-	-
3. Simplifying the ZCP model with LRT											
	3	(1 sub)	(1 + Sound:Caption + Sound:L1 + Caption:L1 item)	1665.6	1876.9	-794.8	Yes	-	-	-	-
	4	(1 sub)	(1 + Sound:Caption +Sound:L1 item)	1656	1811.7	-800	Yes	-	-	-	-
	5	(1 sub)	(1 + Sound:Caption + L1 item)	1651.8	1768.6	-804.9	Yes	-	-	-	-
	6	(1 sub)	(1 + Sound + Caption+ L1 item)	1644	1738.5	-805	Yes	-	-	-	-
	7	(1 sub)	(1 + Sound+ Caption item)	1649.6	1727.4	-810.8	Yes	-	-	-	-
	8	(1 sub)	(1 + Sound item)	1645.6	1706.8	-811.8	Yes	-	-	-	-
	9	(1 sub)	(1 item)	1639.6	1684.1	-811.8	No	-	-	-	-
	10	-	(1 item)	1670.8	1709.7	-828.4	No	9	1	33.18	< .001