APPENDIX: SUPPLEMENTARY TABLES AND FIGURES

Table S1. Models: Condition – Binary Language Groups

	Full Model Estimate (SE)	Final Model Estimate (SE)
(Intercept)	1.928	1.482
	(2.143)	(1.757)
Language Group (Monolingual vs. Bilingual)	-0.019	0.207
	(3.293)	(3.274)
Condition (0 = Baseline vs. 1 = Test)	41.054***	41.066***
	(2.121)	(2.120)
L3 % Exposure	0.156	0.157
	(0.324)	(0.326)
Child's Age in Months (Centered)	0.961*	0.955*
	(0.470)	(0.471)
Language Group × Condition	2.585	2.560
	(3.826)	(3.826)
Child's Sex (Male = 0; Female = 1)	-0.759	
	(2.461)	
Avg. Parental Education (Centered)	-1.092	
	(0.930)	
Income (Centered)	-3.120e-05	
	(4.041e-05)	
SD (Intercept)	7.954	8.135
SD (Observations)	24.102	24.098
Num.Obs.	755	755
R2 Marg.	0.409	0.407
R2 Cond.	0.467	0.468
AIC	7029.8	7025.6
BIC	7080.7	7062.6
RMSE	23.37	23.35

Note. The income variable is based on the median household income zip code for the family's postcode at the time of participation. *** $p < 0.001$

Table S2. Models: Condition – Language Profiles

	Full Model Estimate (SE)	Final Model Estimate (SE)
(Intercept)	1.696	1.242
	(2.265)	(1.915)
Multilingual Exposure Profiles (Low vs. Medium)	1.873	1.982
	(3.362)	(3.385)
Multilingual Exposure Profiles (Low vs. High)	-0.671	-0.109
	(4.140)	(4.090)
Condition (0 = Baseline vs. 1 = Test)	40.314***	40.349***
	(2.338)	(2.337)
Avg. Parental Education (Centered)	0.897+	0.891+
	(0.468)	(0.470)
Language Profile (Medium) × Condition	4.368	4.327
	(4.103)	(4.102)
Language Profile (High) × Condition	2.082	1.987
	(5.043)	(5.043)
Child's Sex (Male = 0; Female = 1)	-0.683	
	(2.436)	
Avg. Parental Education (Centered)	-1.071	
	(0.922)	
Income (Centered)	-3.662e-05	
	(4.028e-05)	
SD (Intercept)	7.794	7.992
SD (Observations)	24.096	24.091
Num.Obs.	755	755
R2 Marg.	0.412	0.409
R2 Cond.	0.468	0.468
AIC	7029.6	7025.5
BIC	7085.1	7067.2
RMSE	23.38	23.36

Note. The income variable is based on the median household income zip code for the family's postcode at the time of participation. + $p < 0.1$, *** $p < 0.001$

Table S3. Models: Condition – L2 % Exposure

	Full Model Estimate (*SE*)	**Final Model Estimate (*SE*)**
(Intercept)	1.868	1.397
	(2.321)	(1.978)
L2 % Exposure	0.002	0.010
	(0.104)	(0.103)
Condition (0 = Baseline vs. 1 = Test)	40.985***	41.015***
	(2.406)	(2.405)
L3 % Exposure	0.164	0.165
	(0.323)	(0.325)
Child's Age in Months (Centered)	0.961*	0.956*
	(0.470)	(0.471)
L2 % Exposure × Condition	0.064	0.062
	(0.122)	(0.122)
Child's Sex (Male = 0; Female = 1)	-0.722	
	(2.456)	
Avg. Parental Education (Centered)	-1.090	
	(0.930)	
Income (Centered)	-3.189e-05	
	(4.039e-05)	
SD (Intercept)	7.954	8.136
SD (Observations)	24.106	24.102
Num.Obs.	755	755
R2 Marg.	0.409	0.407
R2 Cond.	0.467	0.467
AIC	7030.0	7025.8
BIC	7080.9	7062.8
RMSE	23.38	23.35

Note. The income variable is based on the median household income zip code for the family's postcode at the time of participation. * $p < 0.05$, *** $p < 0.001$

Table S4. Models for Exploratory Analysis: Load – Binary Language Groups

	Full Model Estimate (*SE*)	**Final Model Estimate (*SE*)**
(Intercept)	48.386***	46.271***
	(4.249)	(3.463)
Language Group (Monolingual vs. Bilingual)	-3.404	-3.308
	(6.496)	(6.440)
Cognitive Load (0 = Low, 1 = High)	-8.324*	-8.250*
	(4.022)	(4.022)
L3 % Exposure	0.331	0.364
	(0.653)	(0.655)
Child's Age in Months (Centered)	1.738+	1.694+
	(0.955)	(0.955)
Language Group × Cognitive Load	11.366	11.225
	(7.368)	(7.371)
Child's Sex (Male = 0; Female = 1)	-3.978	
	(5.015)	
Avg. Parental Education (Centered)	-1.668	
	(1.944)	
Income (Centered)	-5.299e-05	
	(8.245e-05)	
SD (Intercept)	17.238	17.471
SD (Observations)	31.222	31.231
Num.Obs.	355	355
R2 Marg.	0.034	0.026
R2 Cond.	0.259	0.259
AIC	3545.0	3540.5
BIC	3587.6	3571.5
RMSE	28.90	28.87

Note. The income variable is based on the median household income zip code for the family's postcode at the time of participation. + $p < 0.1$, * $p < 0.05$, *** $p < 0.001$

Table S5. Models for Exploratory Analysis: Load – Language Profiles

	Full Model Estimate (*SE*)	Final Model Estimate (*SE*)
(Intercept)	48.794***	46.624***
	(4.505)	(3.796)
Multilingual Exposure Profiles	-0.447	-0.350
(Low vs. Medium)	(6.616)	(6.652)
Multilingual Exposure Profiles	-5.548	-4.881
(Low vs. High)	(8.161)	(8.044)
Cognitive Load (0 = Low, 1 = High)	-10.562*	-10.417*
	(4.425)	(4.426)
Child's Age in Months (Centered)	1.635+	1.592+
	(0.955)	(0.956)
Language Profile × Cognitive Load (High vs. Low Load)	13.077+	12.940+
	(7.771)	(7.773)
Language Profile × Cognitive Load (High vs. High Load)	13.954	13.493
	(9.899)	(9.894)
Child's Sex (Male = 0; Female = 1)	-3.983	
	(4.978)	
Avg. Parental Education (Centered)	-1.696	
	(1.935)	
Income (Centered)	-6.241e-05	
	(8.238e-05)	
SD (Intercept)	17.080	17.349
SD (Observations)	31.171	31.179
Num.Obs.	355	355
R2 Marg.	0.039	0.031
R2 Cond.	0.261	0.260
AIC	3545.1	3540.8
BIC	3591.5	3575.7
RMSE	28.87	28.84

Note. The income variable is based on the median household income zip code for the family's postcode at the time of participation. + $p < 0.1$, * $p < 0.05$, *** $p < 0.001$

Table S6. Models for Exploratory Analysis: Load – L2% Exposure

	Full Model Estimate (*SE*)	**Final Model Estimate (*SE*)**
(Intercept)	48.749***	46.576***
	(4.605)	(3.914)
L3 % Exposure	-0.109	-0.100
	(0.205)	(0.204)
Cognitive Load (0 = Low, 1 = High)	-9.076*	-8.896+
	(4.584)	(4.584)
L3 % Exposure	0.352	0.383
	(0.651)	(0.654)
Child's Age in Months (Centered)	1.732+	1.690+
	(0.955)	(0.955)
L2 % Exposure × Cognitive Load	0.317	0.305
	(0.238)	(0.238)
Child's Sex (Male = 0; Female = 1)	-3.930	
	(5.004)	
Avg. Parental Education (Centered)	-1.709	
	(1.945)	
Income (Centered)	-5.629e-05	
	(8.226e-05)	
SD (Intercept)	17.210	17.457
SD (Observations)	31.264	31.272
Num.Obs.	355	355
R2 Marg.	0.032	0.025
R2 Cond.	0.257	0.256
AIC	3545.6	3541.3
BIC	3588.2	3572.2
RMSE	28.94	28.92

Note. The income variable is based on the median household income zip code for the family's postcode at the time of participation. + $p < 0.1$, * $p < 0.05$, *** $p < 0.001$

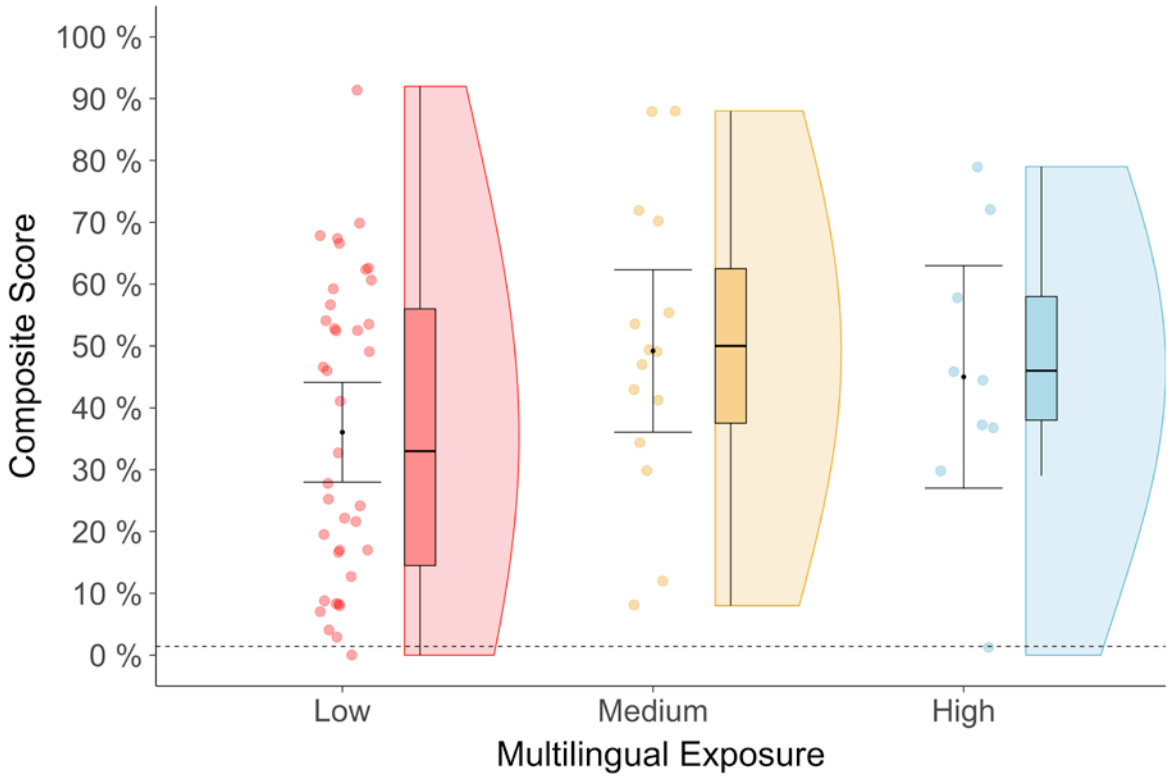


Figure S1. Distribution of Total Composite Scores by Condition and Multilingual Exposure Profile-Approach 1. Dashed line represents the average mean composite score in the Baseline condition (*M* = 1.41, *SD* = 5.56)

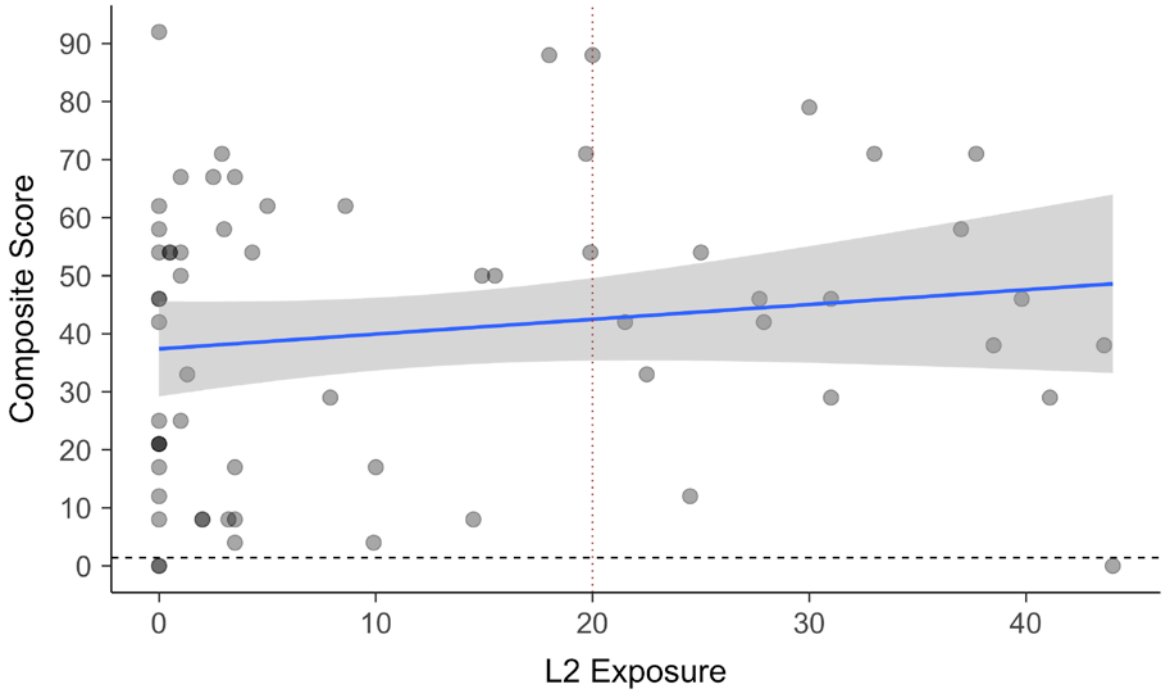


Figure S2. Distribution of Total Composite Scores by Condition and Percent L2 Exposure - Approach 1. The dotted vertical line represents the bilingual cutoff for our Binary Language Group classification. The horizontal dashed line represents the average mean composite score in the Baseline condition (M = 1.41, SD = 5.56)

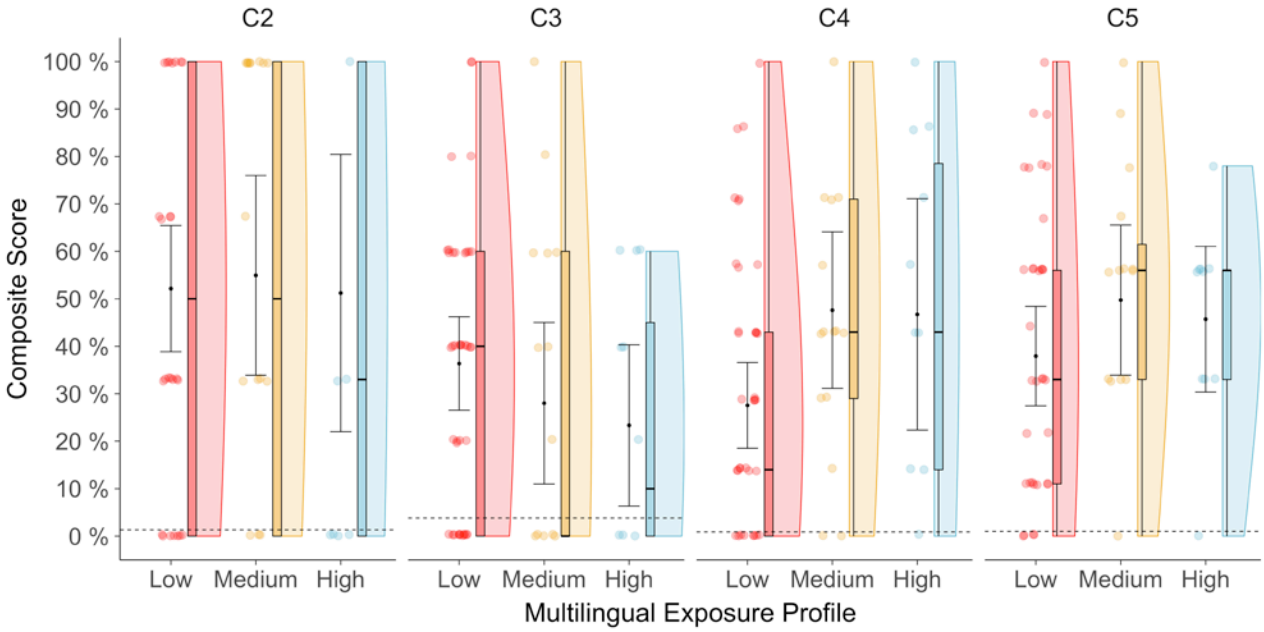


Figure S3. Distribution of Composite Scores by Multilingual Exposure Profile per Pose – Approach 2. The horizontal dashed lines represent the average mean composite score in the Baseline condition per pose ($M_{2\text{-step}} = 1.32$; $M_{3\text{-step}} = 3.80$; $M_{4\text{-step}} = 0.86$; $M_{5\text{-step}} = 0.99$)

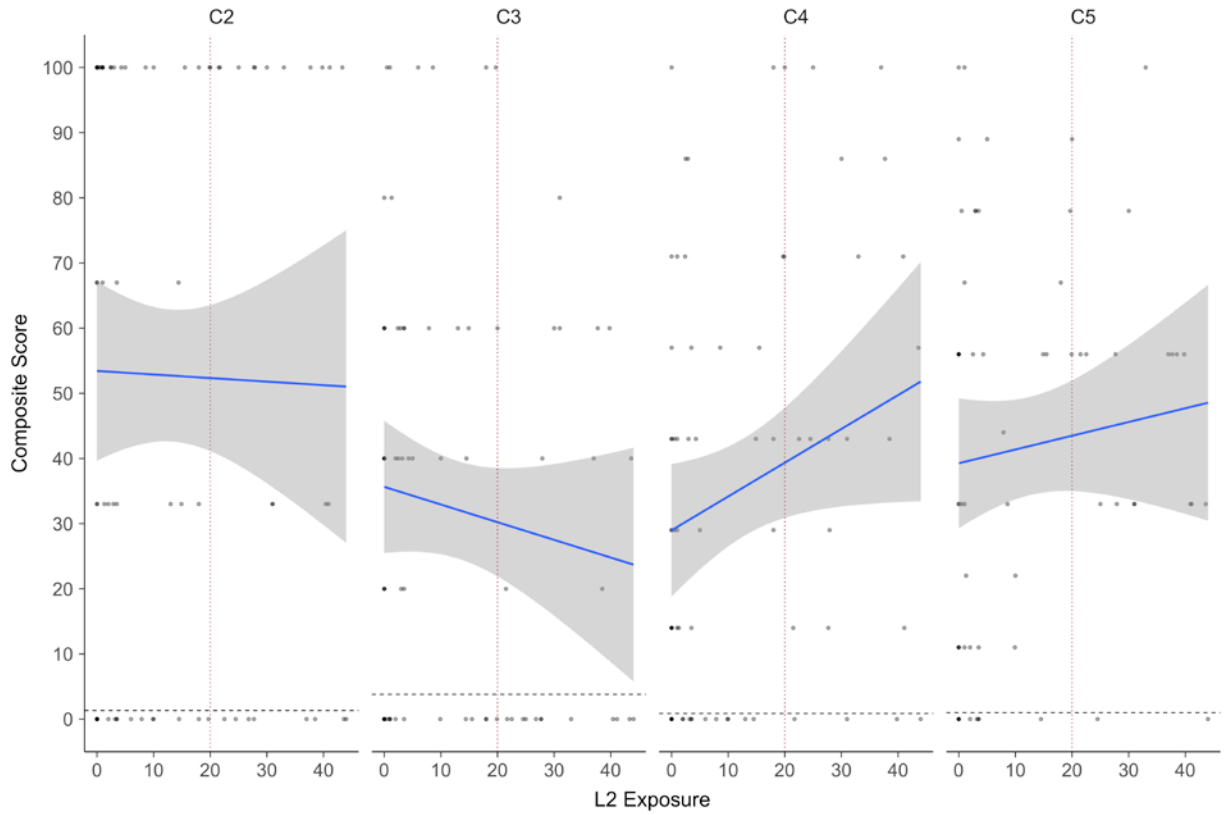


Figure S4. Distribution of Composite Scores by Condition and Percent L2 Exposure per Pose Sequence – Approach 2. The horizontal dashed lines represent the average mean composite score in the Baseline condition per pose ($M_{2\text{-step}} = 1.32$; $M_{3\text{-step}} = 3.80$; $M_{4\text{-step}} = 0.86$; $M_{5\text{-step}} = 0.99$)