

Supplementary Materials

Full Model Outputs

Table S1. *Model 1 output: vMMN in short-stay bilinguals and English monolinguals.*

Fixed Effects	<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>
Intercept	3.44	0.40	8.56	< .001
Trial Type	-0.36	0.04	-7.31	< .001
Word Type	0.04	0.07	0.55	<i>ns</i>
Participant Group	0.28	0.40	0.69	<i>ns</i>
Trial Type x Word Type	0.06	0.04	1.52	<i>ns</i>
Trial Type x Participant Group	-0.01	0.04	-0.40	<i>ns</i>
Word Type x Participant Group	-0.11	0.07	-1.56	<i>ns</i>
Trial Type x Word Type x Participant Group	-0.08	0.04	-2.04	.04
Random Effects	Intercepts		Slopes	
	Variance	<i>SD</i>	Variance	<i>SD</i>
Subjects	8.97	2.99		
Trial Type			0.03	0.17
Word Type			0.19	0.44

Table S2. *Model 2 output: vMMN in long-stay bilinguals and English monolinguals.*

Fixed Effects	<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>
Intercept	3.43	0.40	8.38	< .001
Trial Type	-0.34	0.07	-4.84	< .001
Word Type	-0.02	0.08	-0.26	<i>ns</i>
Participant Group	0.29	0.40	0.72	<i>ns</i>
Trial Type x Word Type	0.01	0.05	0.19	<i>ns</i>
Trial Type x Participant Group	-0.04	0.07	-0.57	<i>ns</i>
Word Type x Participant Group	-0.05	0.08	-0.56	<i>ns</i>
Trial Type x Word Type x Participant Group	-0.03	0.05	-0.61	<i>ns</i>
Random Effects	Intercepts		Slopes	
	Variance	<i>SD</i>	Variance	<i>SD</i>
Subjects	9.20	3.03		
Trial Type			0.11	0.33
Word Type			0.27	0.52

Table S3. *Model 3 output: vMMN in short-stay bilinguals and long-stay bilinguals.*

Fixed Effects	<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>
Intercept	3.14	0.36	8.60	< .001
Trial Type	-0.32	0.07	-4.57	< .001
Word Type	0.09	0.07	1.29	<i>ns</i>
Participant Group	-0.01	0.36	-0.04	<i>ns</i>
Trial Type x Word Type	0.10	0.07	1.42	<i>ns</i>
Trial Type x Participant Group	0.02	0.07	0.29	<i>ns</i>
Word Type x Participant Group	-0.06	0.07	-0.91	<i>ns</i>
Trial Type x Word Type x Participant Group	-0.05	0.07	-0.79	<i>ns</i>
Random Effects	Intercepts		Slopes	
	Variance	<i>SD</i>	Variance	<i>SD</i>
Subjects	7.22	2.68		
Trial Type			0.00	0.003

Table S4. *Model output: Effect of Current English Exposure on vMMN in bilinguals.*

Fixed Effects	<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>
Intercept	3.87	0.78	4.94	< .001
Trial Type	-0.52	0.14	-3.67	< .001
Word Type	0.14	0.19	0.78	<i>ns</i>
English Exposure	-0.01	0.01	-1.04	<i>ns</i>
Trial Type x Word Type	0.28	0.11	2.53	.01
Trial Type x English Exposure	0.005	0.003	1.58	<i>ns</i>
Word Type x English Exposure	-0.001	0.004	-0.34	<i>ns</i>
Trial Type x Word Type x English Exposure	-0.004	0.002	-1.83	.07
Random Effects	Intercepts		Slopes	
	Variance	<i>SD</i>	Variance	<i>SD</i>
Subjects	7.20	2.68		
Trial Type			0.09	0.31
Word Type			0.28	0.53

Table S5. Model 4 output: P1 mean amplitude, standards only in short-stay bilinguals and English monolinguals.

Fixed Effects	<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>
Intercept	4.94	0.37	13.21	< .001
Stimulus Type	0.28	0.07	3.92	< .001
Word Type	-0.19	0.07	-2.68	.008
Participant Group	0.16	0.37	0.44	<i>ns</i>
Stimulus Type x Word Type	-0.28	0.07	2.53	< .001
Stimulus Type x Participant Group	0.28	0.07	3.99	< .001
Word Type x Participant Group	-0.09	0.07	-1.34	<i>ns</i>
Stimulus Type x Word Type x Participant Group	0.05	0.07	0.74	<i>ns</i>
Random Effects	Intercepts			
	Variance	<i>SD</i>		
Subjects	7.56	2.75		

Table S6. Model 5 output: P1 mean amplitude, standards only in long-stay bilinguals and English monolinguals.

Fixed Effects	<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>
Intercept	4.78	0.39	12.24	< .001
Stimulus Type	0.31	0.08	3.89	< .001
Word Type	-0.21	0.08	-2.64	.009
Participant Group	0.33	0.39	0.84	<i>ns</i>
Stimulus Type x Word Type	-0.25	0.08	-3.15	.001
Stimulus Type x Participant Group	0.26	0.08	3.24	.001
Word Type x Participant Group	-0.07	0.08	-0.99	<i>ns</i>
Stimulus Type x Word Type x Participant Group	0.02	0.08	0.25	<i>ns</i>
Random Effects	Intercepts			
	Variance	<i>SD</i>		
Subjects	8.20	2.86		

Figure S1: Waveforms for 15 Individual Electrodes: Short-Stay Bilinguals

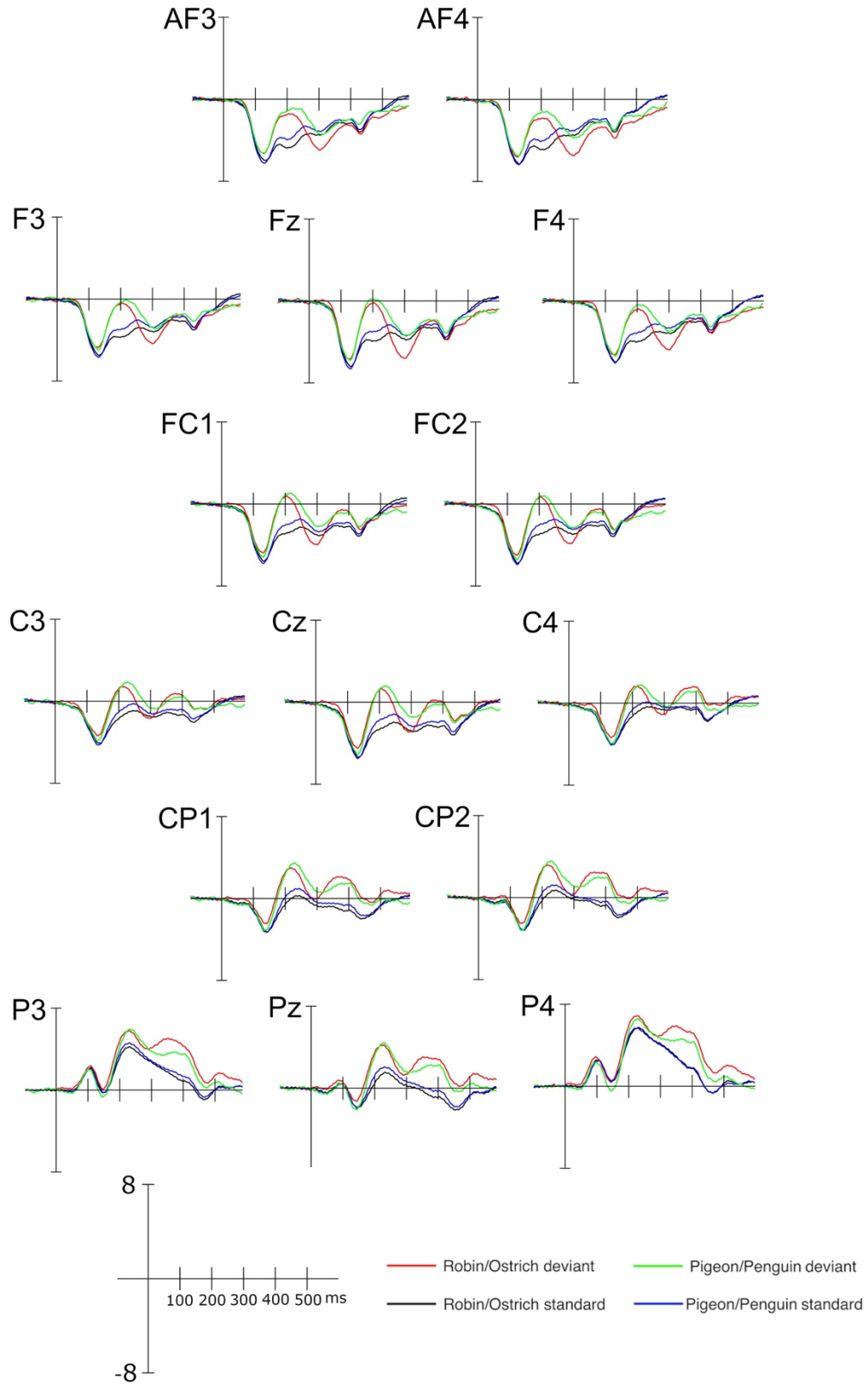


Figure S2: Waveforms for 15 Individual Electrodes: Long-Stay Bilinguals

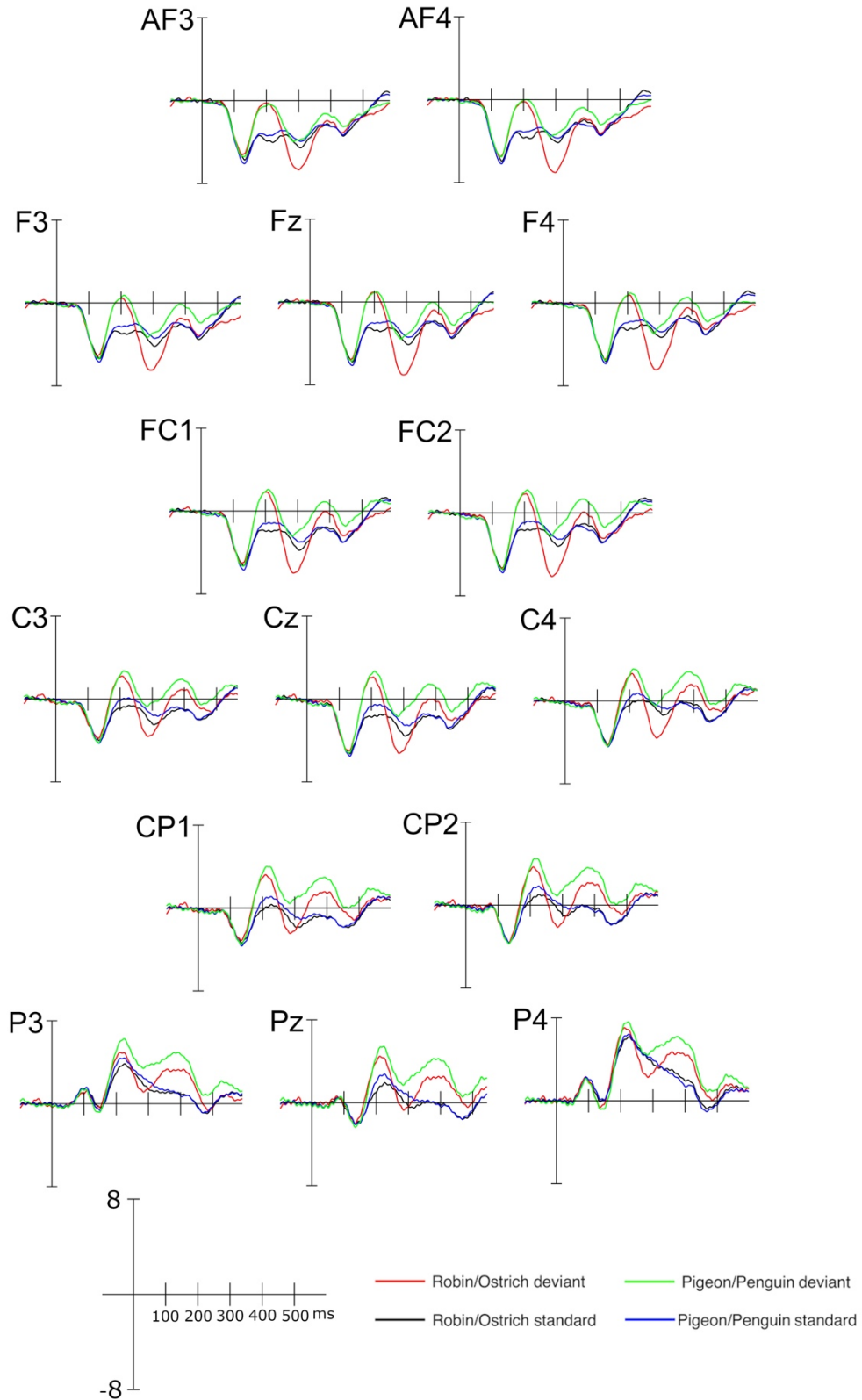


Figure S3: Waveforms for 15 Individual Electrodes: Monolinguals

