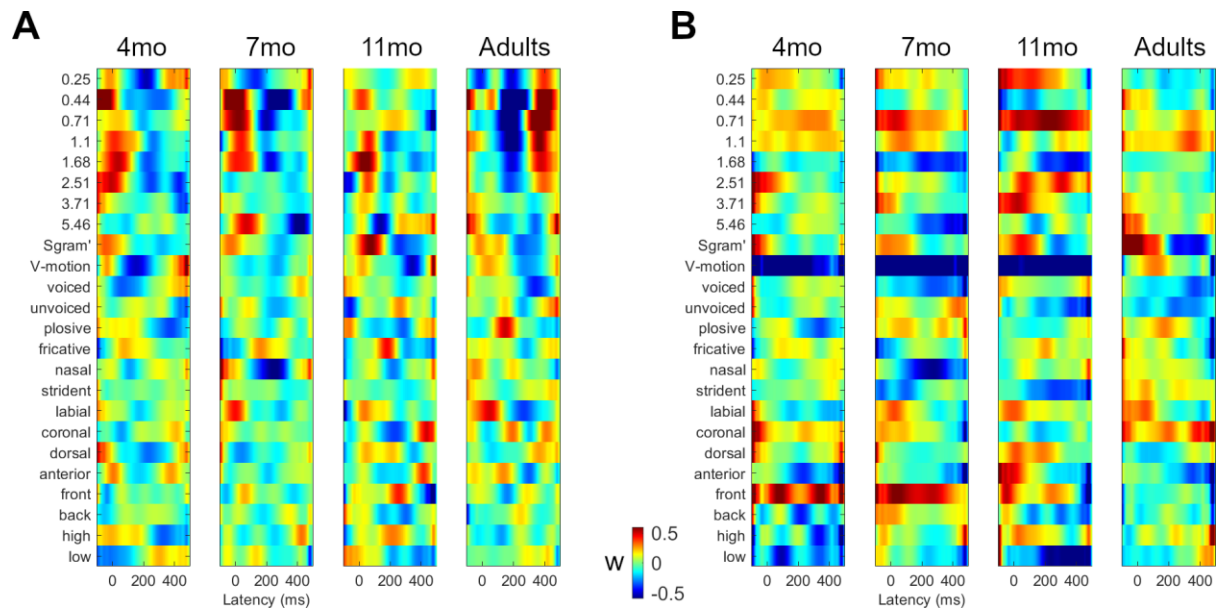


Supplementary information



Supplementary Figure 1: TRF weights for the acoustic-phonetic model including all features, averaged across all channels, **(A)** in the Δ - and Θ -band (1-8 Hz) and **(B)** in the 0.1-8 Hz band. Each panel reports the average model weights for the $n=50$ infant participants and the $n=17$ adult participants. Colours indicate the value of the regression weights, reported on a symmetrical colour-scale from blue (negative weight) to red (positive weight).

A

S-model			
	lowΔ-band	Δ-band	Θ-band
4mo	$p < 0.001$, $r = 0.63$, $CI = [0.05, 0.11]$	$p < 0.001$, $r = 0.63$, $CI = [0.03, 0.05]$	$p = 0.004$, $r = 0.43$, $CI = [0.001, 0.003]$
7mo	$p = 0.002$, $r = 0.47$, $CI = [0.01, 0.04]$	$p = 0.007$, $r = 0.41$, $CI = [0.003, 0.02]$	$p < 0.001$, $r = 0.58$, $CI = [0.001, 0.003]$
11mo	$p = 0.011$, $r = 0.38$, $CI = [0.01, 0.04]$	$p = 0.011$, $r = 0.38$, $CI = [0.003, 0.02]$	$p = 0.054$, $r = 0.28$, $CI = [-1.8e-5, 0.003]$
Adults	$p = 0.017$, $r = 0.36$, $CI = [0.01, 0.04]$	$p = 0.003$, $r = 0.46$, $CI = [0.01, 0.05]$	$p = 0.003$, $r = 0.45$, $CI = [0.001, 0.01]$

F-model			
	lowΔ-band	Δ-band	Θ-band
4mo	$p < 0.001$, $r = 0.62$, $CI = [0.02, 0.05]$	$p = 0.001$, $r = 0.53$, $CI = [0.01, 0.02]$	$p = 0.170$, $r = 0.20$, $CI = [-0.3e-4, 0.002]$
7mo	$p < 0.001$, $r = 0.59$, $CI = [0.02, 0.06]$	$p < 0.001$, $r = 0.67$, $CI = [0.02, 0.03]$	$p < 0.001$, $r = 0.67$, $CI = [0.001, 0.003]$
11mo	$p < 0.001$, $r = 0.78$, $CI = [0.02, 0.04]$	$p < 0.001$, $r = 0.77$, $CI = [0.02, 0.04]$	$p < 0.001$, $r = 0.63$, $CI = [0.002, 0.004]$
Adults	$p = 0.027$, $r = 0.33$, $CI = [0.003, 0.05]$	$p = 0.001$, $r = 0.52$, $CI = [0.02, 0.05]$	$p = 0.001$, $r = 0.49$, $CI = [0.004, 0.01]$

B

S-model			
	lowΔ-band	Δ-band	Θ-band
4 vs. 11mo	$p = 0.024$, $r = -0.40$, $CI = [-0.09, -0.02]$	$p = 0.025$, $r = -0.38$, $CI = [-0.04, -0.01]$	$p = 0.788$, $r = -0.06$, $CI = [-0.002, 0.001]$
4 vs. 7mo	$p = 0.011$, $r = -0.47$, $CI = [-0.08, -0.02]$	$p = 0.007$, $r = -0.52$, $CI = [-0.04, -0.01]$	$p = 0.721$, $r = 0.08$, $CI = [-0.001, 0.002]$
7 vs. 11mo	$p = 0.89$, $r = 0.03$, $CI = [-0.02, 0.03]$	$p = 0.881$, $r = 0.04$, $CI = [-0.01, 0.02]$	$p = 0.472$, $r = -0.14$, $CI = [-0.002, 0.71e-4]$

F-model			
	lowΔ-band	Δ-band	Θ-band
4 vs. 11mo	$p = 0.933$, $r = -0.01$, $CI = [-0.02, 0.02]$	$p = 0.011$, $r = 0.44$, $CI = [0.01, 0.02]$	$p = 0.011$, $r = 0.45$, $CI = [8.5e-4, 0.004]$
4 vs. 7mo	$p = 0.393$, $r = 0.17$, $CI = [-0.01, 0.03]$	$p = 0.195$, $r = 0.25$, $CI = [-0.002, 0.02]$	$p = 0.077$, $r = 0.32$, $CI = [1.7e-4, 0.003]$
7 vs. 11mo	$p = 0.335$, $r = -0.19$, $CI = [-0.03, 0.01]$	$p = 0.45$, $r = 0.15$, $CI = [-0.01, 0.02]$	$p = 0.355$, $r = 0.19$, $CI = [-5.1e-4, 0.003]$

Supplementary Table 1: Table with the post hoc statistical significance results corresponding to the effect sizes in Figure 1B. **(A)** A post hoc one-sample two-tailed Wilcoxon rank sum test was run to assess if the EEG prediction correlations for each model, group, and frequency-band were greater than zero. The table reports the p -values of that test after FDR-correction, the effect-size of each test, and the confidence interval before FDR-correction. Note that all results were above chance. **(B)** EEG prediction correlations were compared between groups for each model and frequency-band. The tables report the p -values of two-tailed Wilcoxon rank sum tests after FDR-correction.