

Supplementary Materials for:

Temporal dynamics of visual representations in the infant brain

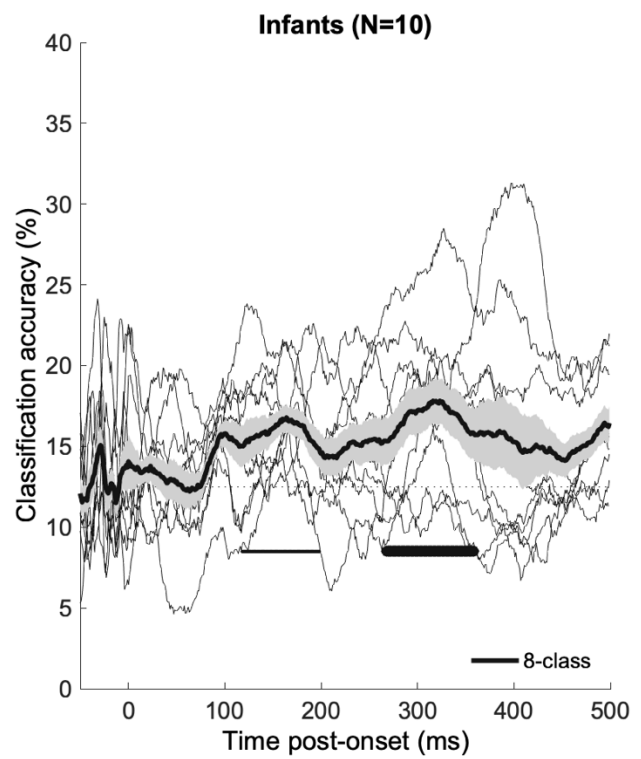
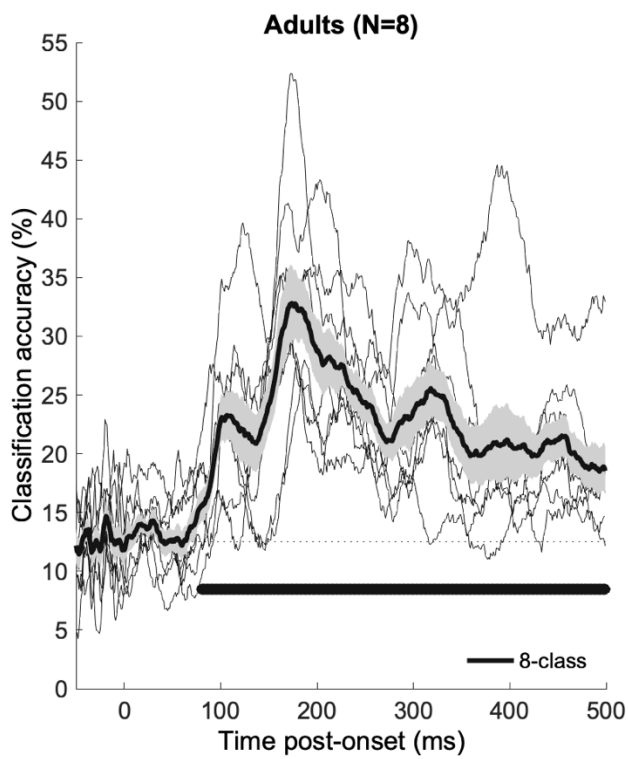
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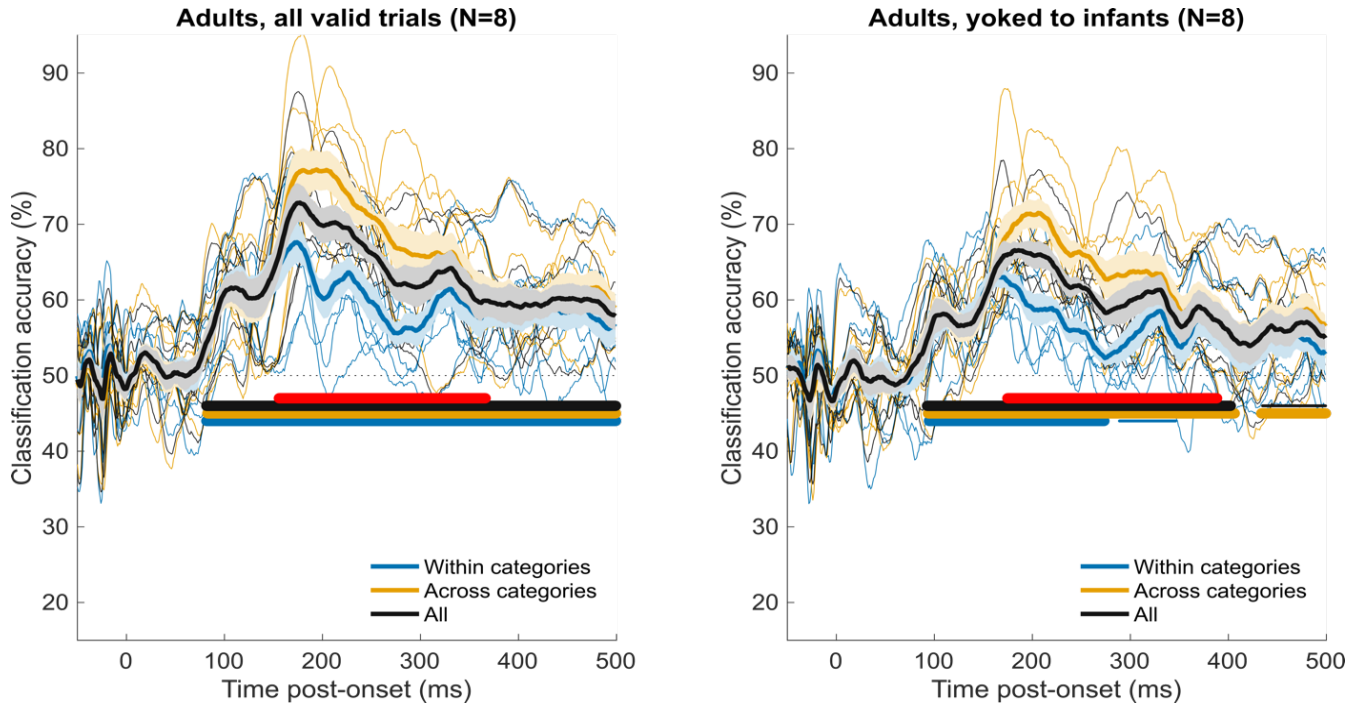
Supplementary Figures and Tables



Supplementary Figure S1. Visual stimuli. Animate visual stimuli consisted in 8 pictures of animals (cat, rabbit, dog, and teddy bear) and parts of the human body (hand, foot, nose, mouth).



Supplementary Figure S2. Average accuracy for the multiclass classification of visual stimuli in infants (12-15-month-olds) and adults. Average \pm s.e.m. accuracy timeseries for 8-class, within-subject classification. Thick (resp. thin) horizontal lines indicate statistically significant (resp. marginally significant) clusters of the difference between accuracy and the chance level of 12.5% (one-tailed).



Supplementary Figure S3. Average accuracy for the pairwise classification of visual stimuli in young adults, estimated from all valid trials (left) or valid trial counts yoked to the infant dataset (right). Average \pm s.e.m. accuracy timeseries for pairwise, within-subject classification within (e.g. cat vs. dog) or across categories (e.g. cat vs. hand). Thick (resp. thin) horizontal lines indicate statistically significant (resp. marginally significant) clusters of the difference between accuracy and the chance level of 50% (one-tailed). Thick (resp. thin) red horizontal lines indicate significant (resp. marginally significant) clusters for the difference in accuracy between classifications across vs. within categories (one-tailed). In the adults' dataset yoked to infants, participant and/or trials were discarded in reverse chronological until numbers of participants and valid trials per participant and condition were exactly equal to (or lower than) that of the infant dataset.

Supplementary Table 1. Summary data from the MacArthur Communicative Development Inventories: Words and Gestures (CDI).

		12-15-month-old infants	
Total N of subsample with CDI data		15	
Also included in EEG analyses		7	
CDI raw scores (Mean \pm SD)			
Words			
Words understood (Max: 396)		107.47 \pm 64.94	
Words produced (Max: 396)		10.60 \pm 8.02	
Total (Max: 792)		118.07 \pm 67.01	
Gestures			
Early gestures (Max: 18)		12.87 \pm 2.29	
Late gestures (Max: 45)		19.60 \pm 7.91	
Total (Max: 63)		32.47 \pm 9.16	
CDI individual word items (% Infants)			
Understands			
Animals	bear	20.00%	
	bunny	26.67%	
	cat	46.67%	
	dog	93.33%	
	kitty	26.67%	
	teddy bear	20.00%	
	At least one of the above 10 words		100.00%
Body parts	foot	46.67%	
	hand	40.00%	
	mouth	53.33%	
	nose	60.00%	
	At least one of the above 10 words		100.00%
	Produces		
	Animals	bear	0.00%
bunny		0.00%	
cat		6.67%	
dog		53.33%	
kitty		0.00%	
teddy bear		0.00%	
Body parts	foot	0.00%	
	hand	0.00%	
	mouth	6.67%	
	nose	0.00%	
At least one of the above 10 words		60.00%	