

Beat perception

Extracting a regular pulse from rhythm

Ontogeny

1 Newborns process the beat

Neurophysiology indicates beat-sensitive prediction, beyond simple interval timing or statistical learning



2 Development refines

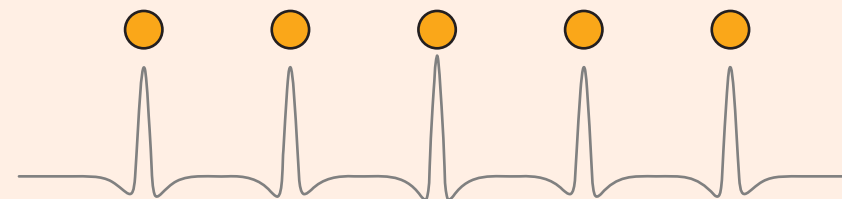
Experience and motor development refine beat perception



Complex rhythm
(*acoustic*)



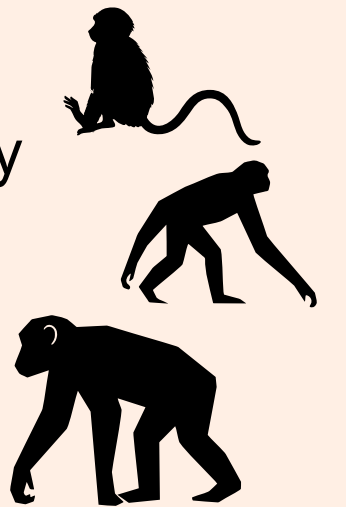
Induced regular pulse (beat)
(*auditory*)



Phylogeny

3 Nonhuman primates

Match tempo of auditory sequences, but do not show robust predictive beat synchronization



4 Species-specificity

Few animals, including humans, have beat perception

