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Edition IV

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Evidence transformation and accumulation in the parietal cortex

Abstract: The brain makes decisions by accumulating evidence, which comes from the sensory system. It is not well studied how sensory information is transformed into accumulable evidence in the brain. We trained macaque monkeys to perform a two-stage probabilistic reasoning task in which the evidence for accumulation had to be first assembled from sensory signals. We show that posterior parietal cortex neural activity reflected the transformation from sensory inputs to accumulable evidence and the accumulation of evidence for decision making. The presence of both computational stages indicates that evidence accumulation signal in the parietal cortex is computed locally.

Brief Bio: *Dr. YANG Tianming obtained his B.S. degree in the Department of Biochemistry at Fudan University. He received his Ph. D. in neuroscience at the Baylor College of Medicine, Houston, Texas, investigating the neural plasticity in visual cortices under the advice of Dr. John Maunsell. He had his postdoc training at HHMI and University of Washington with Michael Shadlen. Since 2013, Dr. YANG works at the Institute of Neuroscience as Investigator and Head of the Laboratory of Neural Mechanisms of Decision Making and Cognition.*