

To understand the brain, we must understand how its unique function – generation of first-person internal sensations of perception, memory, and thought processes is taking place. Associative learning between two stimuli is expected to produce certain changes (in a few milliseconds (see FAQ for explanation)) that allow one of the associatively learned stimuli (cue stimulus) to generate the internal sensation of memory of the second stimulus (also, in a few milliseconds). For this to occur, changes during associative learning are expected to take place at the locations of convergence of sensory stimuli within the brain. Here, we need to ask the following questions, “Is there a possible cellular location where the processes of neurons through which associatively learned sensory input signals arrive can converge and make some signature changes during learning?” “If associative learning can produce certain changes at this location (in a few milliseconds), can it be used by one of the stimuli (the cue stimulus) to generate internal sensation of memory of the second stimulus (in a few milliseconds)?” “At what structural location and by what mechanism does the cue stimulus spark internal sensation as a first-person property?” “What is necessary to spark internal sensation?” “What is the basis of sensory features or qualia of internal sensation?” “What holds the system together so that the internal sensations generated from different locations of convergence of sensory stimuli can allow the cue stimulus to generate first-person internal sensation of the second stimulus?” “How can the mechanism that holds the system together relate to the narrow range of frequency of oscillating extracellular potentials (as evidenced by EEG findings) at which both learning, and memory retrieval take place?” “In other words, is there a mechanism that integrates internal sensations induced at different points of convergence to provide memory?” “How does the mechanism of generation of internal sensations relate to behavioral motor activity?” “Can the derived mechanism be extended to explain different brain functions in an inter-connectable manner?” If we look hard enough, we are expected to find a mechanism that can explain all the above features at the location of convergence of sensory input signals. When an inquiry was made to solve this puzzle, it was possible to derive a solution. This testable hypothesis was named “semblance hypothesis”.