Imitation is impaired in schizophrenia

Imitation is the ability to observe another person’s actions and then, when needed, reproduce from memory what was seen. This ability plays an important role in many different common forms of cognitive and social behaviors. Now, research supported by CELEST, an NSF-funded Science of Learning Center, reveals that individuals with schizophrenia have a greatly compromised ability to imitate.

Understanding how diminished capacity to imitate undermines schizophrenics’ social interactions could have a major impact on identifying strategies would help schizophrenics deal more effectively with the challenges of everyday living.

Robert Sekuler and Brian Gold, a faculty member and a student at Brandeis University, partnered with Vanderbilt University’s Sohee Park to examine a simple form of imitation in schizophrenic adults and age-matched, normal controls. Participants in the study viewed computer-generated series of hand gestures and then tried to imitate them. Schizophrenics were considerably slower to plan and then initiate imitations, and they also made more errors than normal control subjects did.

The deficits were particularly striking in those schizophrenic individuals whose symptoms included social deficits. Sekuler and colleagues believe that those social deficits and the deficits in imitation arise from a common source.

Caption: Subject imitating a hand gesture while wearing a special glove that records the positions and movements of the subject’s fingers.