

Neurological structure

[Psychology](#)



Experiments with monkeys have concluded that some brain cells multitask mirroring actions that have been previously taken. This proves that imitation that babies use to learn from people around them is the key to social behavior that in turn hones cognitive skills.

Mirror Neurons

Mirror neurons have been identified as tiny neurological structures in the brain that have revolutionized the way psychologists perceive the human brain. Mirror neurons were discovered by a scientist working at the University of Parma in Italy in the mid-1990s.

Günther Knoblich, of Rutgers University, remarks that “ the striking implication of mirror neurons is that the same brain region that controls action also supports perception.” (Knoblich, 2007) He goes on to explain that if the behavior we observe takes place in the same region as that in which the actual act of behaving does, then interacting socially would play a greater role in cognition than was thought previously possible. It possibly also explains why sometimes viewers become so emotionally involved while watching movies, or the behavior of spectators at various sporting events that seemed inexplicable till now. In fact, until the 1970s and 1980s psychologists believed that seeing and doing came from the same source.

Recent studies in functional imaging lend credence to linking the social aspect in human beings to cognition, although this has not yet been as accurately pinpointed in humans as it has in monkeys. Research teams found that the same regions of the brain were activated while imitating and

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observing facial expressions, or if one is actually experiencing pain or observing a loved one go through it. Many researchers are of the opinion that these observations show the link between mirror neurons and empathy. Andrew Meltzoff of the University of Washington had pointed in this direction long before mirror neurons were discovered. He had stated that “ A key mechanism is learning from social others by observing...Babies don't become social, they're social at birth.” (Meltzoff, 2007)