Monkey See, Monkey Do: Literary Imagery And The Mirror Neuron System

Mirror neurons, which were discovered in the early 1990s, are brain cells that reflect others’ actions in one’s own mind. They are thought to have been an advantage in times when humans relied on social groups for survival. The purpose of this experiment was to see if they affect people’s appreciation of imagery in literature. A survey containing eight sentences was written, with the sentences grouped in pairs. In the pairs, one sentence related a non-biological action to a human action, and the other related a non-biological action to an action with no human connotation. Two sentences in a pair were identical except for one word, which determined whether the sentence was associated with humans. Subjects were asked to rate each sentence, on a scale of 0 to 10, on how strongly they reacted to it. They were asked to consider several factors: whether the sentence evoked any feelings or memories, how clearly they could “picture” the sentence, etc. It was found that in combined genders, sentences that referenced human action were rated an average of 14.68% higher than sentences that didn’t. In all three gender groups, the average ratings of human action sentences were always greater than or, in one occurrence, equal to the average ratings of non-human action sentences. The data, therefore, supported the hypothesis. These findings suggest that mirror neurons aid in the interpretation of literature, which raises questions about the evolutionary value of mirror neurons and their role in the development of language.