

The Link Between Perceiving and Doing

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Common coding theory holds that seeing, hearing, or thinking about an action triggers the same cognitive processes that are activated when we actually perform the action. Experimental psychological scientist Wolfgang Prinz is the founder of that theory, which provided a critical foundation for advances in cognitive neuroscience. The discovery of mirror neurons in macaque monkeys (neurons that fire both when the monkeys perceived another performing an action, such as grabbing a piece of food, and when they actually grasp the food themselves) provided some of the first neurophysiological evidence for common coding. Functional neuroimaging experiments in humans also indicate that the neural circuits involved in action execution partly overlap with those activated when actions are observed. Prinz' work suggests that perception and action are integral and interactive features of overall cognition.