

Motor contributions to action perception

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Cognitive psychologists and neuroscientists have long worked under the assumption that perception, action, and cognition are clearly separated. I will defend the view that perception, action, and cognition are closely linked and that we use our own motor system to simulate observed actions. Such an embodied view may help us to better understand how our motor system contributes to perceiving, predicting, and understanding what others do. Numerous recent studies support this view. Motor expertise in a particular action domain can alter our perception of related events. Motor laws that govern our own actions also govern what we perceive as doable for others. We are also better at predicting action outcomes and at coordinating actions when confronted with recordings of our own actions than others'. Finally, the inability to sense one's own body (lack of proprioception) can impair one's understanding of others' actions. All these results suggest that the motor system plays a crucial role in perceiving, predicting, and understanding others' actions. The next challenge is to find out how close perception action links are used to integrate self and other in joint activities.