

## **Action understanding in an object context: the affordance matching hypothesis**

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Action observation lies at the heart of our social life. It allows us to attribute intentions, emotions, beliefs and attitudes to other people, to predict what they are going to do next, and to coordinate our own actions with theirs. This ability is typically understood in terms of a direct route from vision to action: the actions of others can be understood because they "resonate" with our own motor system. In my talk, I will argue that such a simple mechanism cannot account for the understanding of humans actions. Human action is defined by the efficient use of objects, and the meaning of any motor act is defined by the objects it is performed with. I will therefore argue that action knowledge carried by objects - how they are used and what they are for - is a primary contributor to how human actions are interpreted. Object context determines an action's motor and sensory-tactile representations, as well as guiding inferences about their goals, and predictions of their future paths. In many instances, object-based rather than motor-based processes may therefore be a primary driver of action understanding in humans.