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Do Object Affordances affect Hand Identification?

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Abstract: What is the relationship between perception and action? Research on both object affordances and hand mental rotation independently suggest that visual perception produces motor resonance in some regions recruited during action execution. Together, this literature suggests that viewing incompatible object-hand pairs might result in conflicting motor representations. To explore this possibility, we asked participants to first view a rotated image of an object affording a particular grip (precision, power, none) at a particular orientation (angled upright, angled downward), followed by an image of a hand producing a particular grip (precision, power) at a particular orientation (angled upright, angled downward). The degree of congruence between the object and hand affects how quickly participants are able to determine whether the hand is a left hand or right hand. This study provides insights into the precision and automaticity of motoric representations brought about by simply viewing objects.