Inferring Object Structure from Human Action at 9 Months

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Abstract: This study investigates whether 9-month-olds use action information to make predictions about the hidden structure of an object. Two groups saw an actor repeatedly raise and lower a box. In one group, the box was moved with a hidden handle. In the other group, a box with no handle was grasped along the hidden back face and repeatedly raised and lowered. Following this familiarization, the box was rotated 90 degrees either to reveal a structure consistent or to reveal a structure inconsistent with that suggested by the initial action. Patterns of looking between familiarization and test trials differed for the two familiarization groups, suggesting that 9-month-old infants can infer certain details of an object's structure from human action.