

## **UC Merced**

### **Proceedings of the Annual Meeting of the Cognitive Science Society**

#### **Title**

What does learning look like?: Visual recognition of epistemic intent

#### **Permalink**

<https://escholarship.org/uc/item/2dk7d4dh>

#### **Journal**

Proceedings of the Annual Meeting of the Cognitive Science Society, 45(45)

#### **Authors**

Croom, Sholei  
Zhou, Hanbei  
Firestone, Chaz

#### **Publication Date**

2023

Peer reviewed

# What does learning look like?: Visual recognition of epistemic intent

**Sholei Croom**

Johns Hopkins University, Baltimore, Maryland, United States

**Hanbei Zhou**

Johns Hopkins University, Baltimore, Maryland, United States

**Chaz Firestone**

Johns Hopkins University, Baltimore, Maryland, United States

## Abstract

Can one person tell, just from observing how another person's body moves, what that person is trying to learn? Here, we explore this question through several experiments on "epistemic action recognition". We filmed volunteers playing a box-shaking game in which they attempted to determine either (a) the number of objects hidden in an opaque box, or (b) the shape of the objects hidden in the opaque box. Then, independent subjects watched these videos and were asked to determine which videos came from which task: Who was shaking for number and who was shaking for shape? Across 3 experiments, observers successfully determined what an actor was trying to learn about the contents of the box, based only on their observed actions (i.e., how they shook it). These results demonstrate that humans have the ability to infer epistemic intent from physical behaviors, adding a new dimension to research on action understanding.