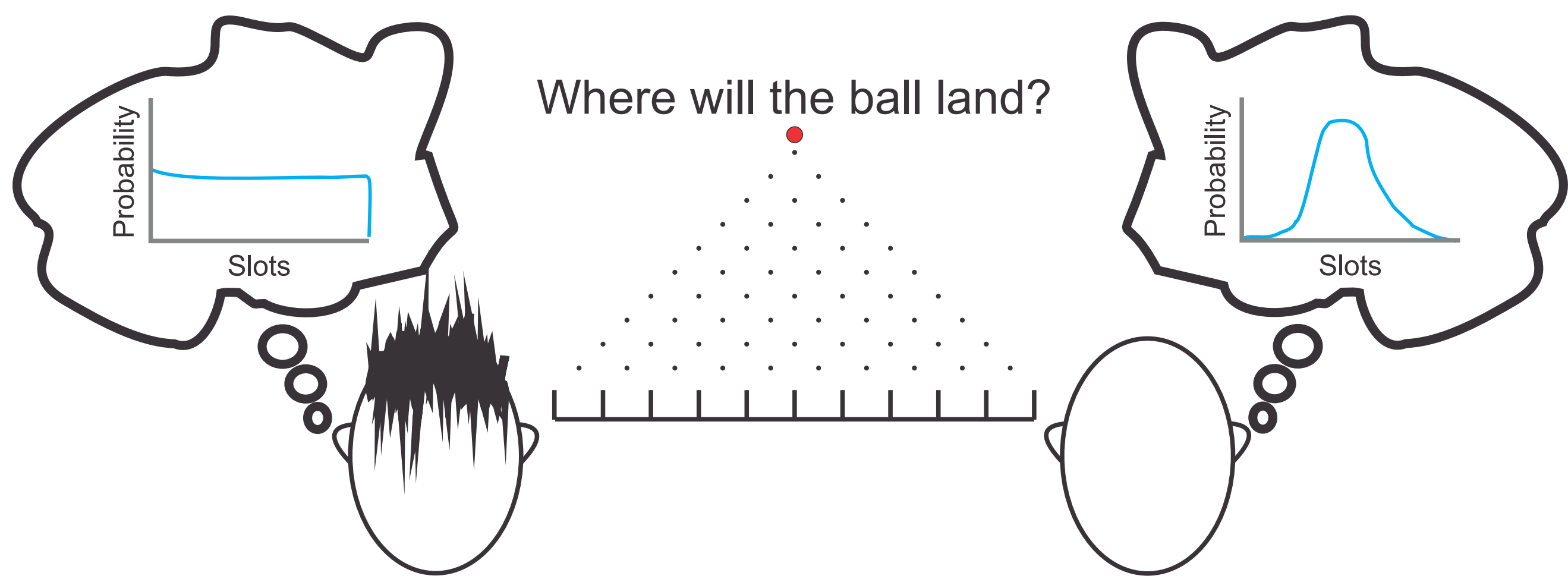
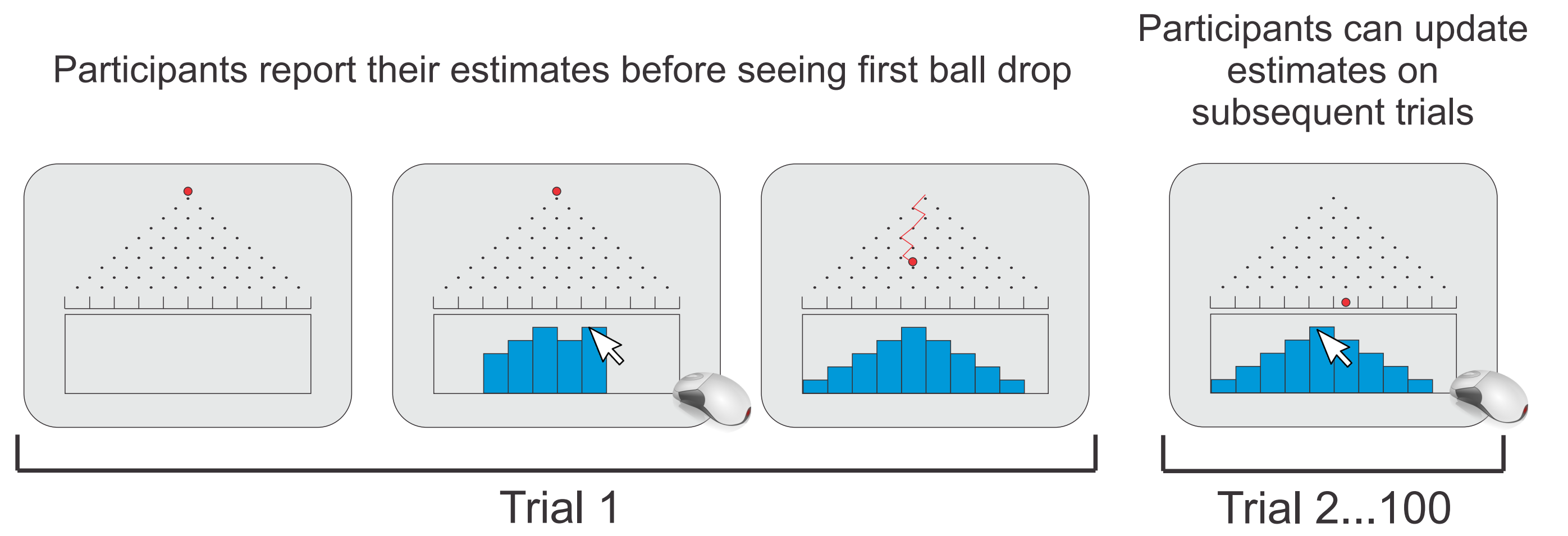


## How do prior beliefs influence learning?

The beliefs we hold can influence the way interpret events in our environment<sup>1,2</sup>.



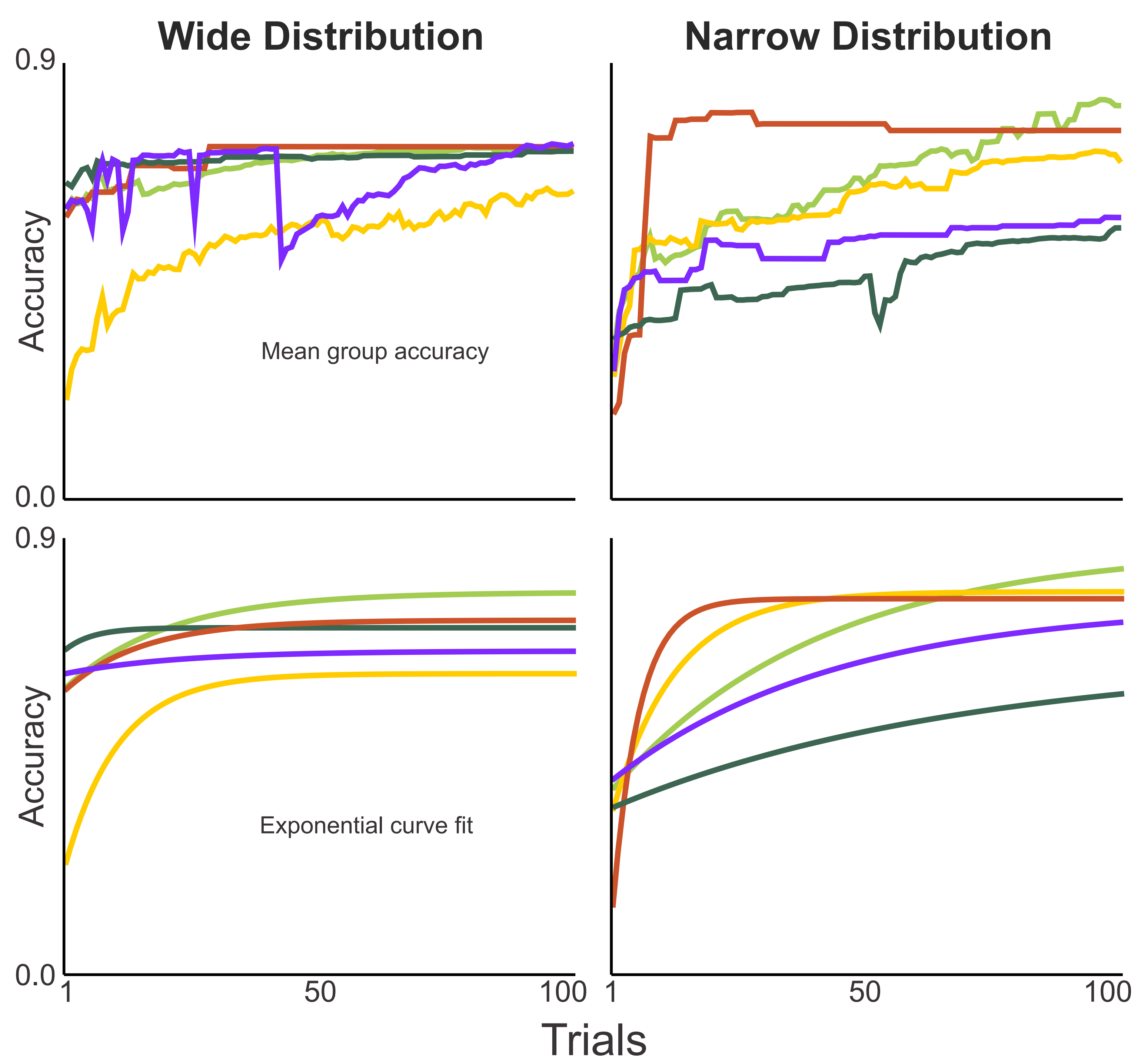
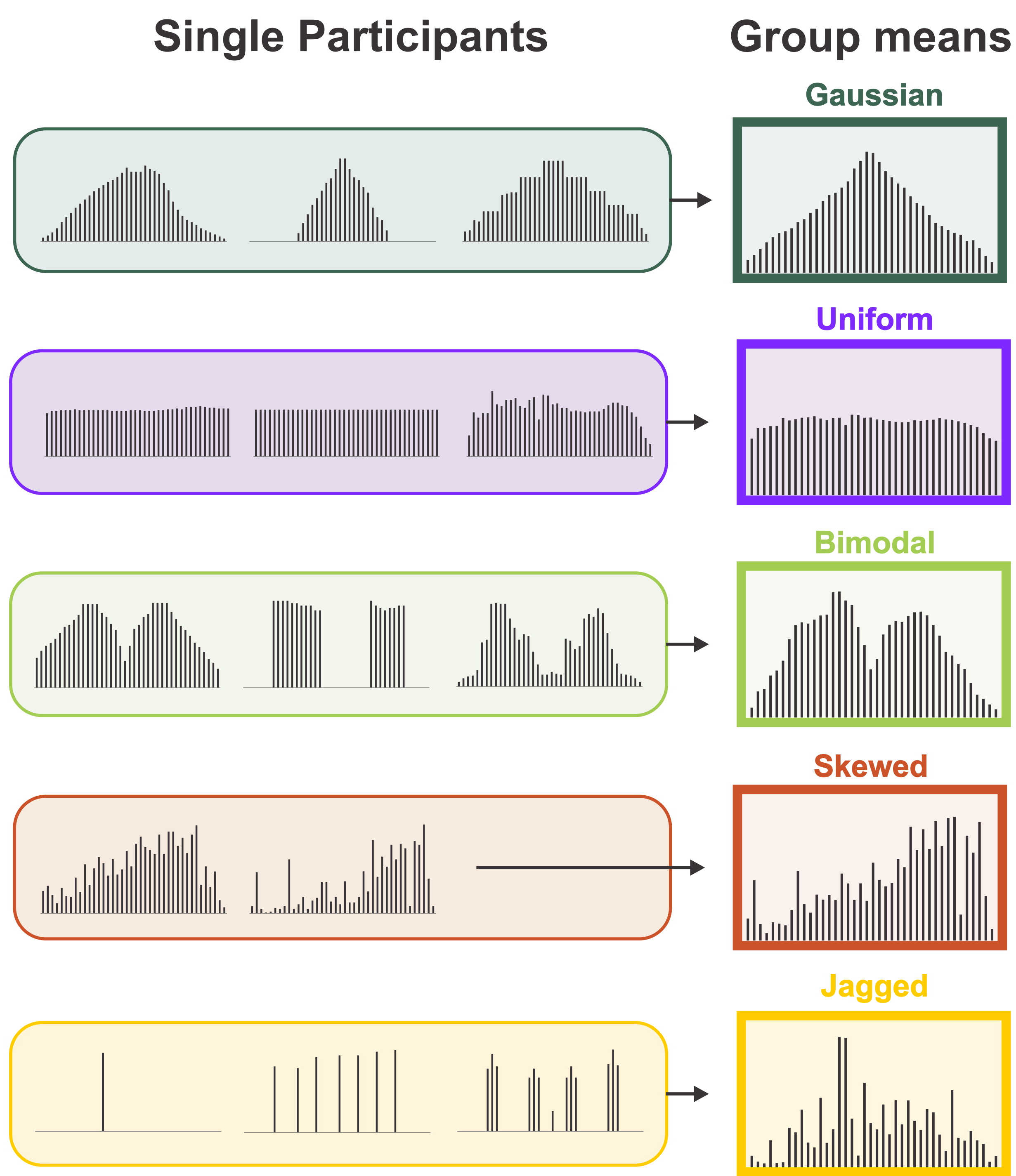
We measured participant beliefs *before* observing events and tracked their representations of new events.



## Prior beliefs influenced accuracy in representing task contingencies

Participants started the task with various prior beliefs.

Prior beliefs influenced how accurately participants estimated distributions of ball drops.



Beliefs are less likely to change when they predict observations.

Salient mismatches result in steepest learning.

Prior beliefs are not always set in stone.

