

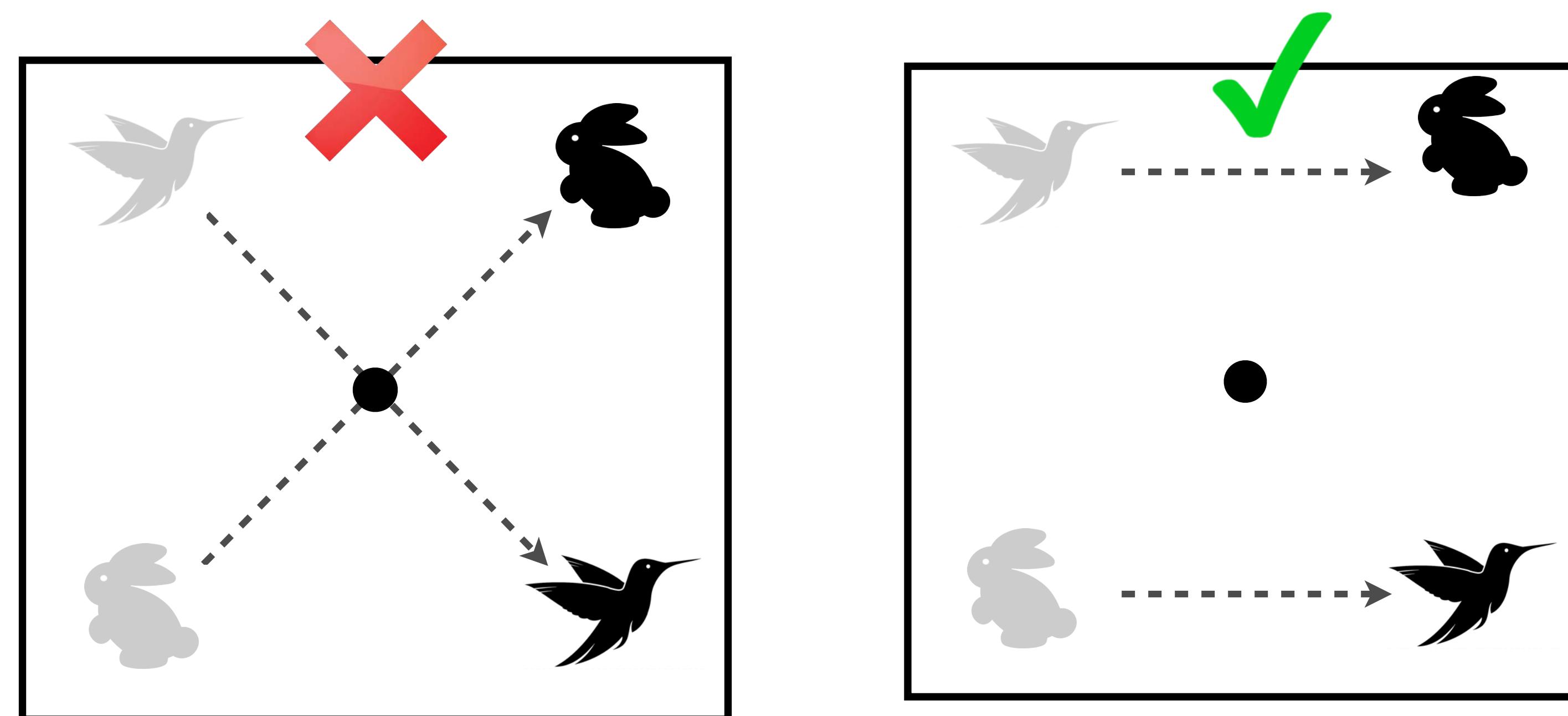
# Conscious perception travels with early visual paths

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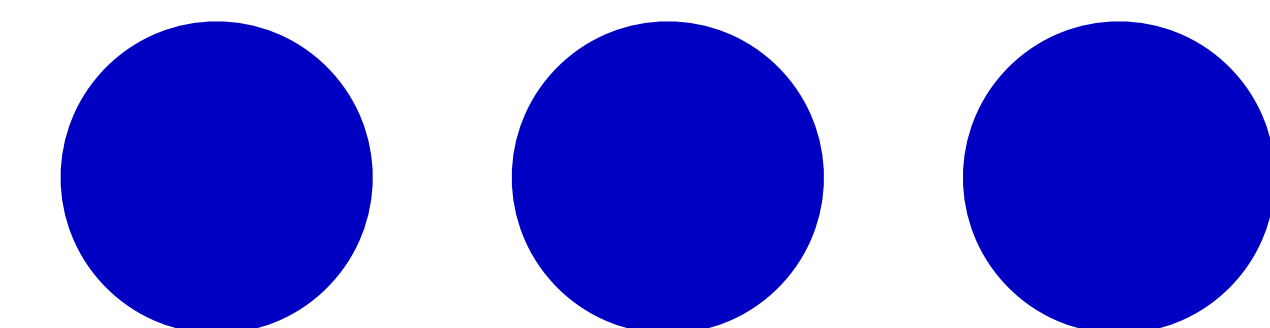
## Object tracking

The object tracking system prioritizes **spatiotemporal proximity**.

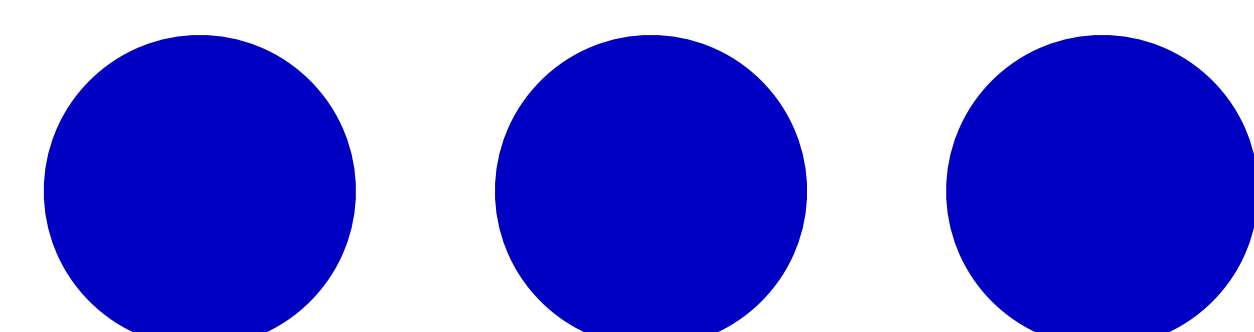


## The Ternus illusion

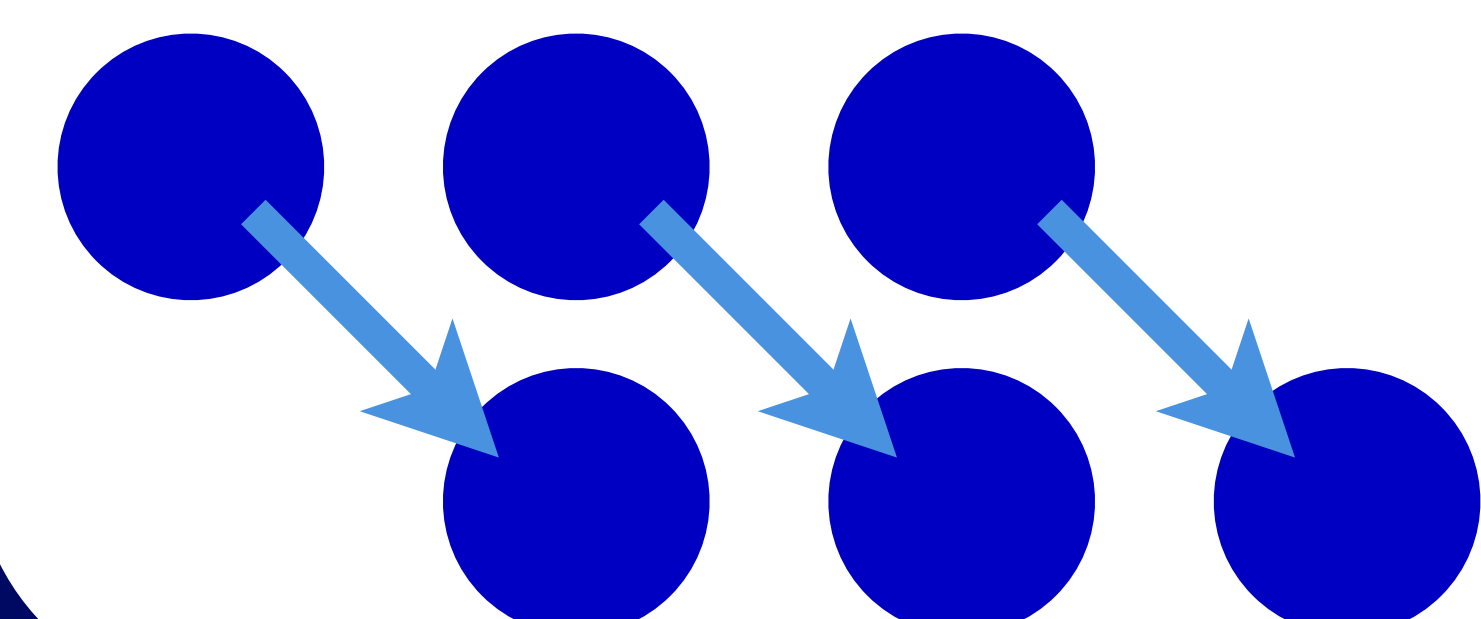
Frame 1:



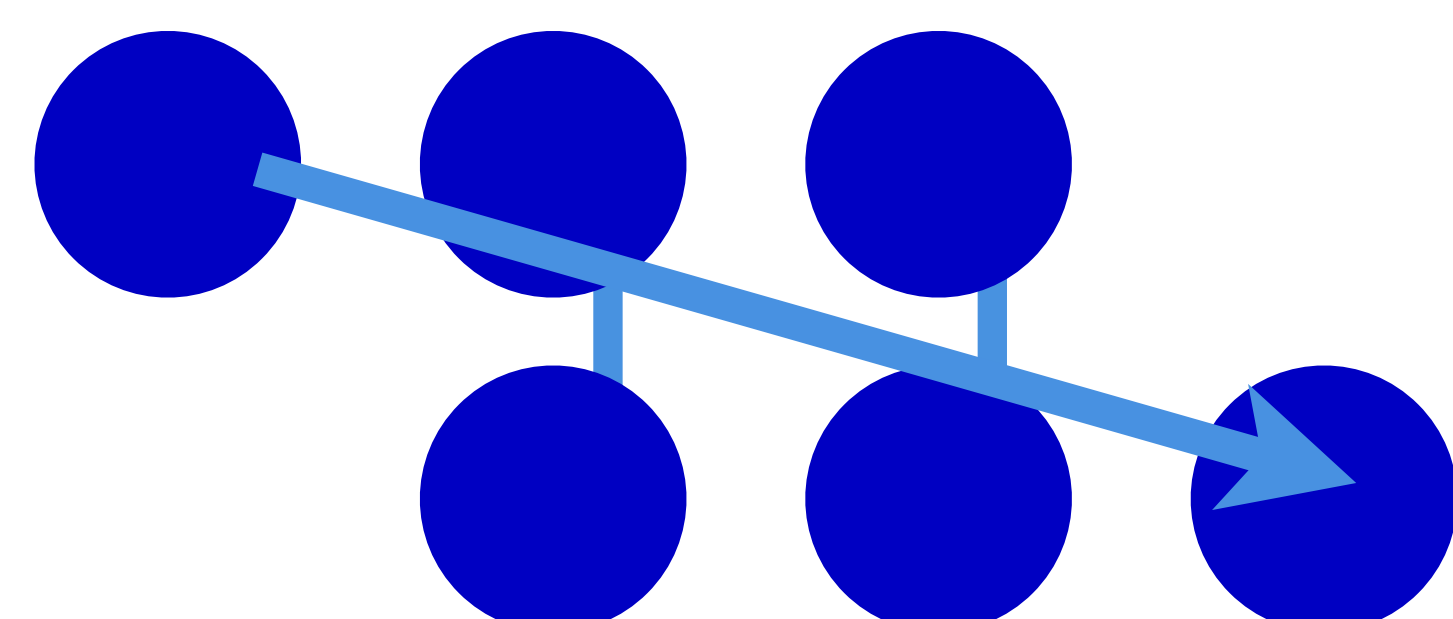
Frame 2:



**Group-wise motion**  
Long (60 ms) ISI



**Element-wise motion**  
Short (0 ms) ISI

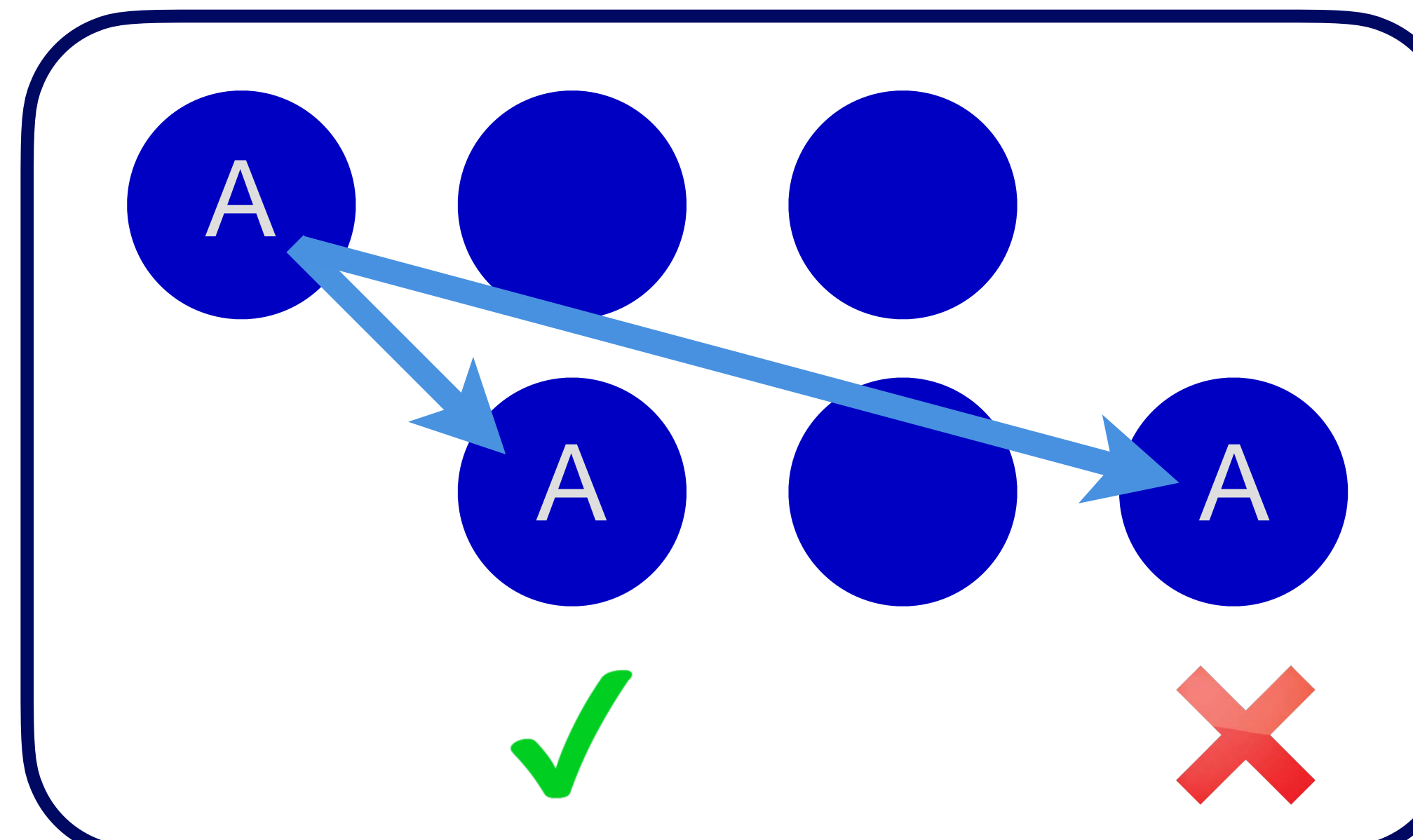


Does the object tracking system follow induced conscious percepts, even when they violate principles of spatiotemporal proximity?

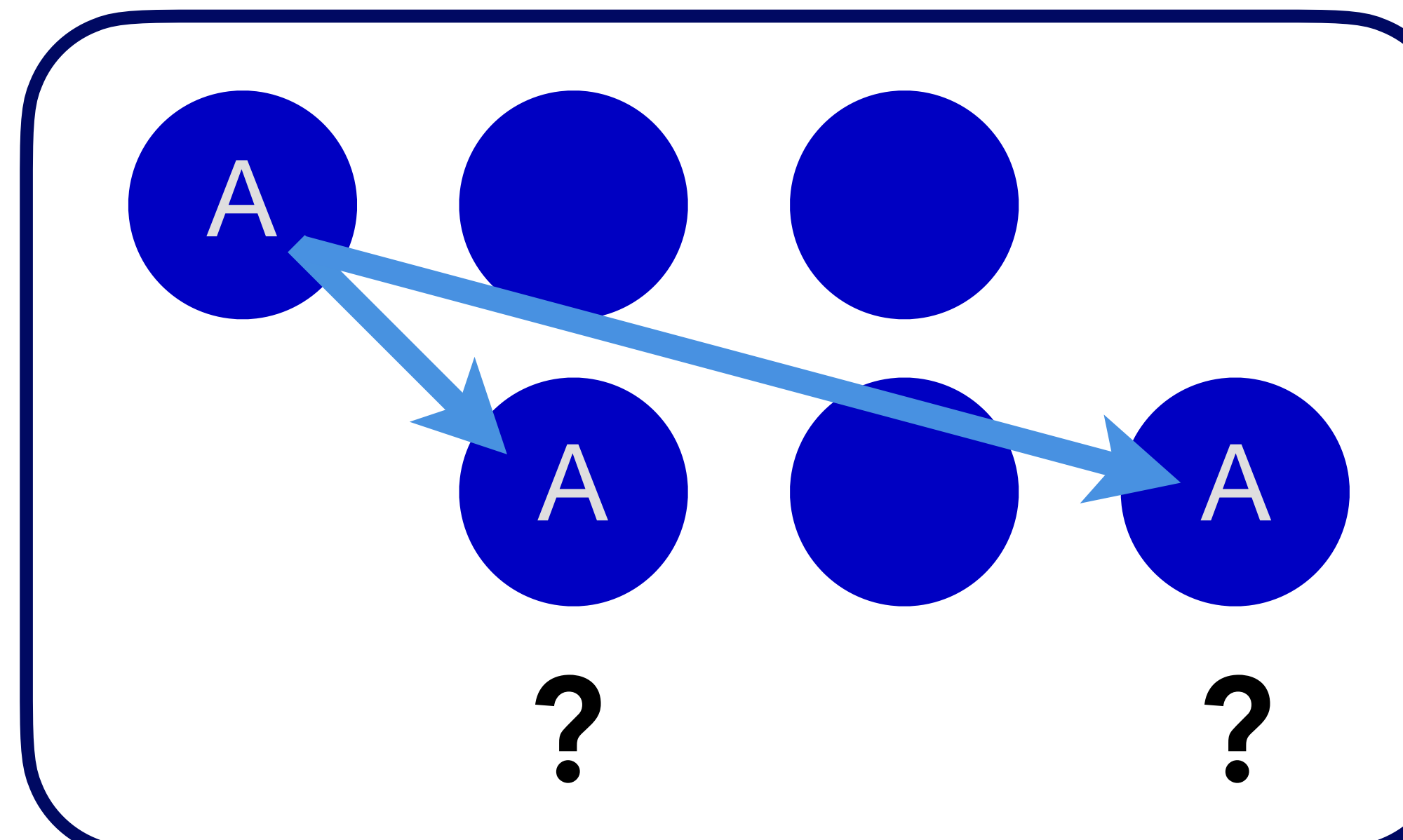
## The object-specific preview benefit (OSPB)

Information specific to an object is retrieved faster when it is presented again on the same object as opposed to a different object.

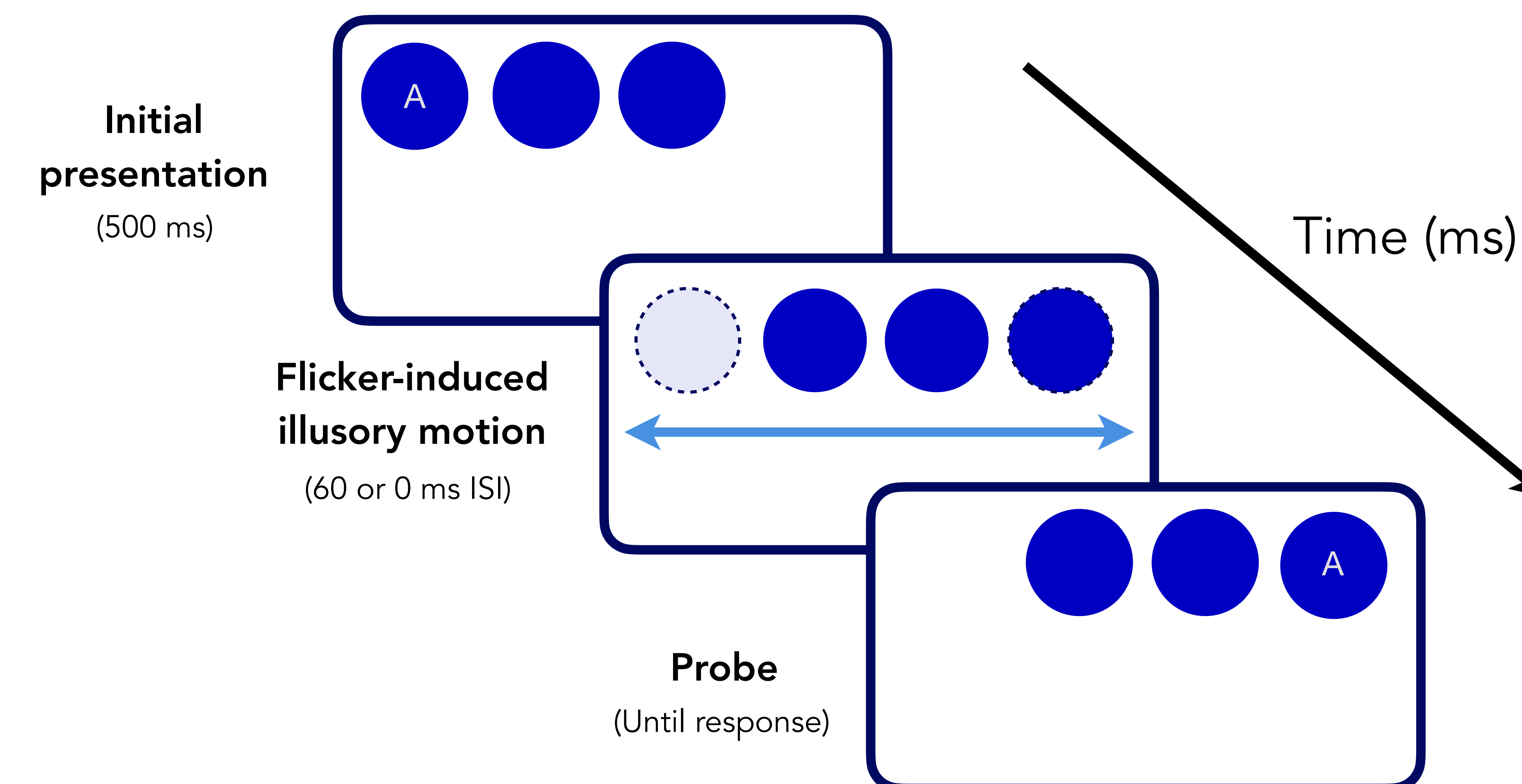
**Translating:** Conscious percept **obeys** proximity



**Jumping:** Conscious percept **violates** proximity



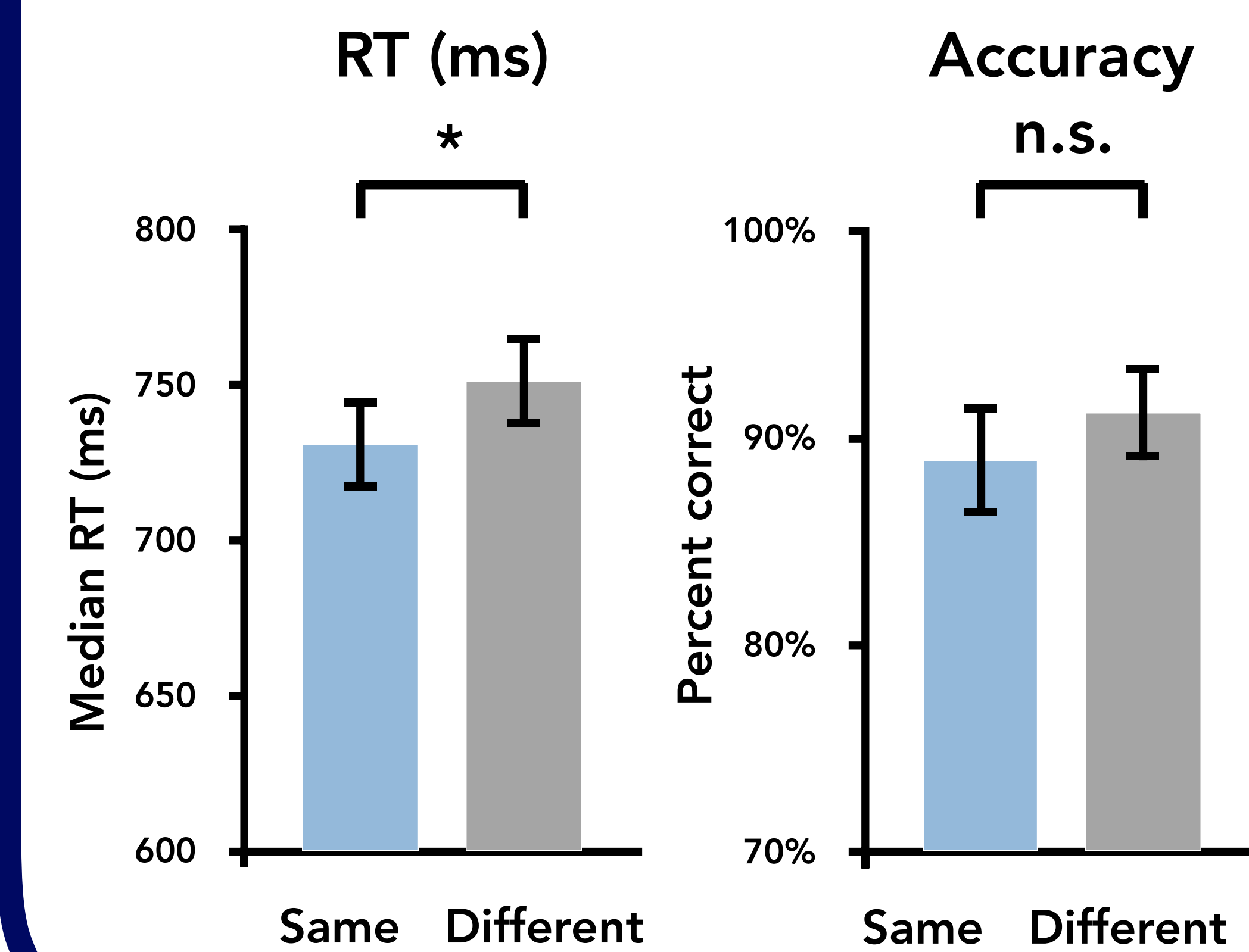
## Task & trial sequence



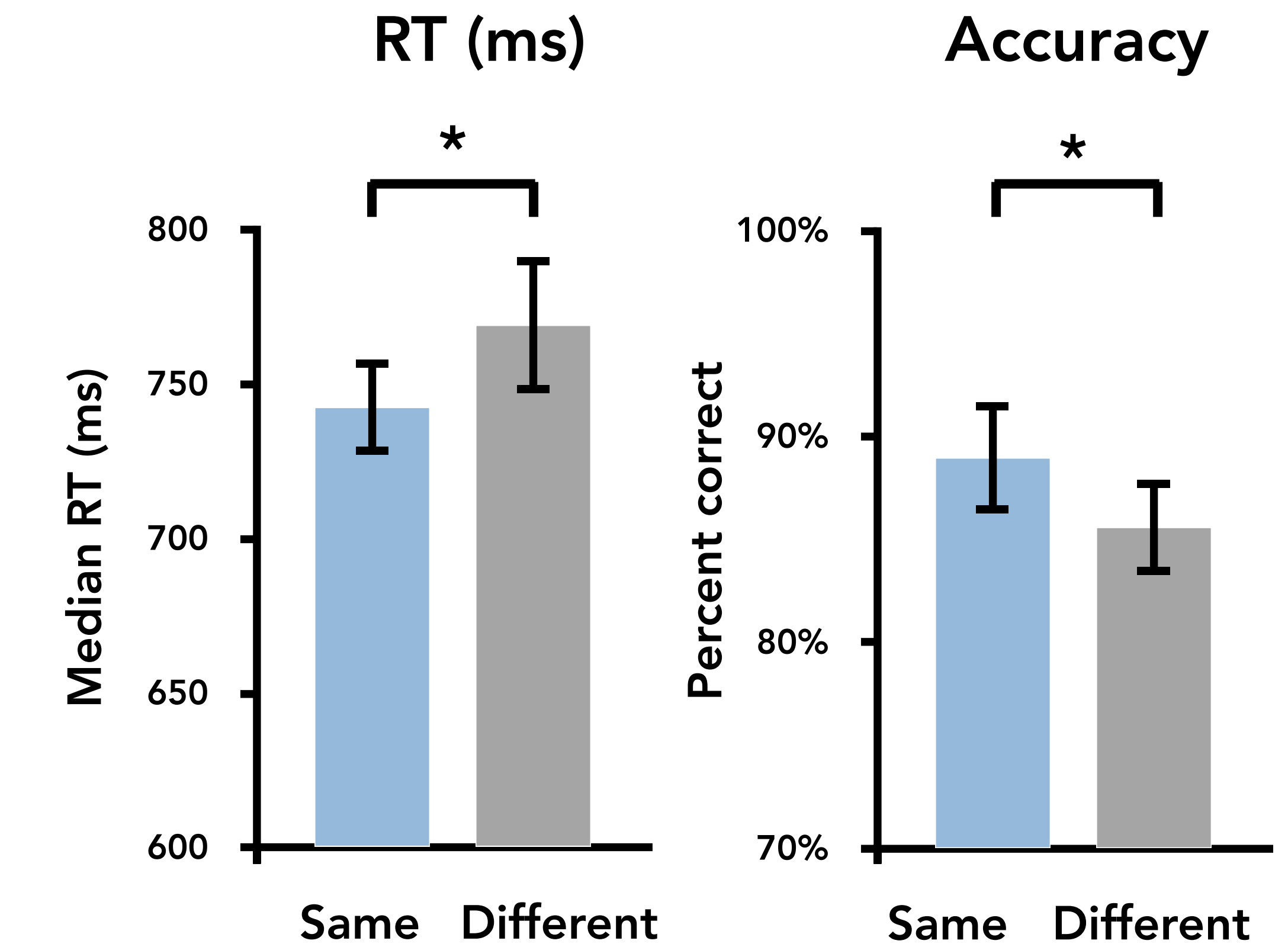
“Is the second letter the same as the first letter you saw?”

## OSPB follows conscious percept

**Translating:** Benefit follows conscious percept and spatial proximity



**Jumping:** Benefit follows conscious percept, violating spatial proximity

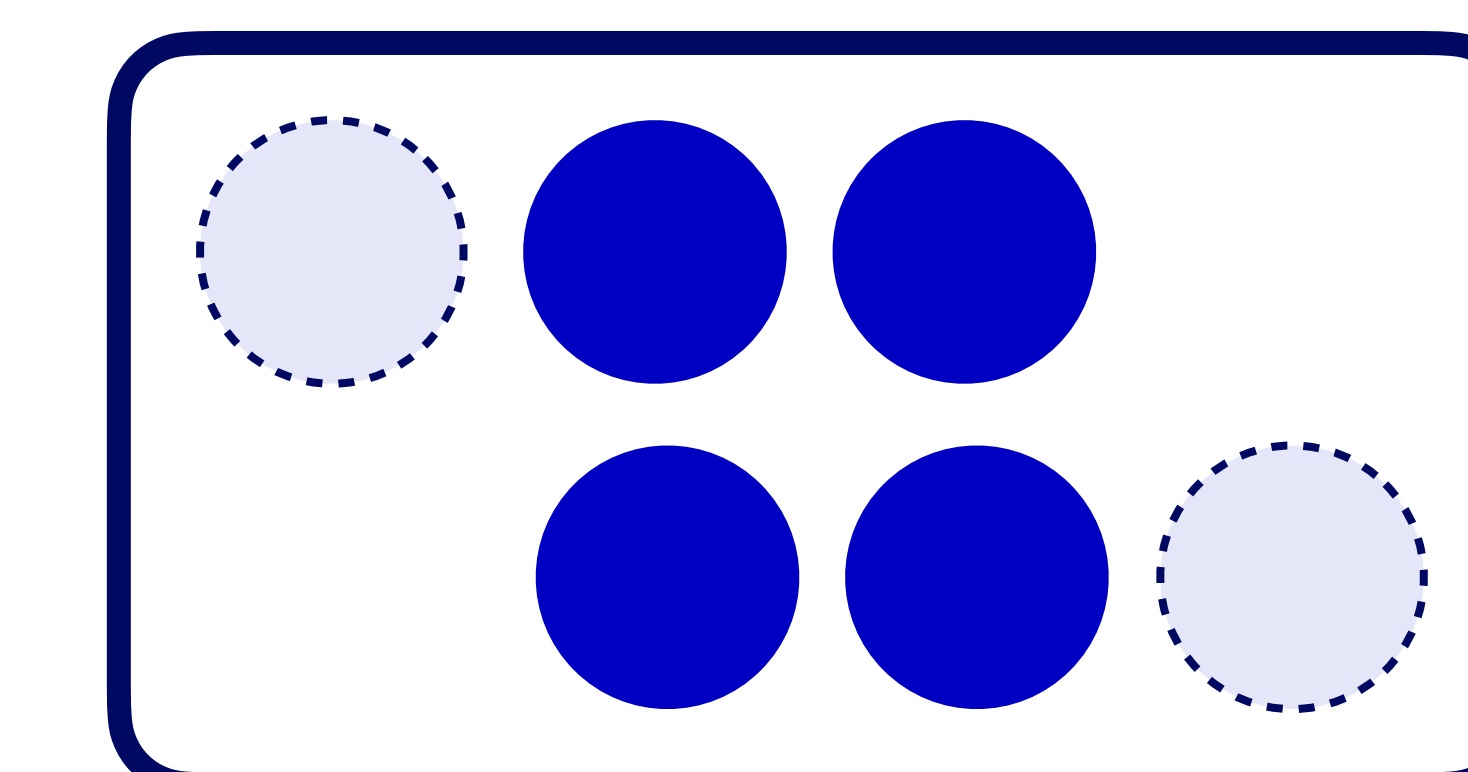


## Conclusions

The object tracking system parallels conscious perception, even when percepts violate principles of spatiotemporal proximity.

**So what's happening here?**

Conscious perception prioritizes information that changes across time. At short ISIs, conscious perception filters out unchanging discs...



... preserving spatiotemporal proximity after all!