

# Motivational influences on perceptual judgments: What we want changes what we see

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## Introduction

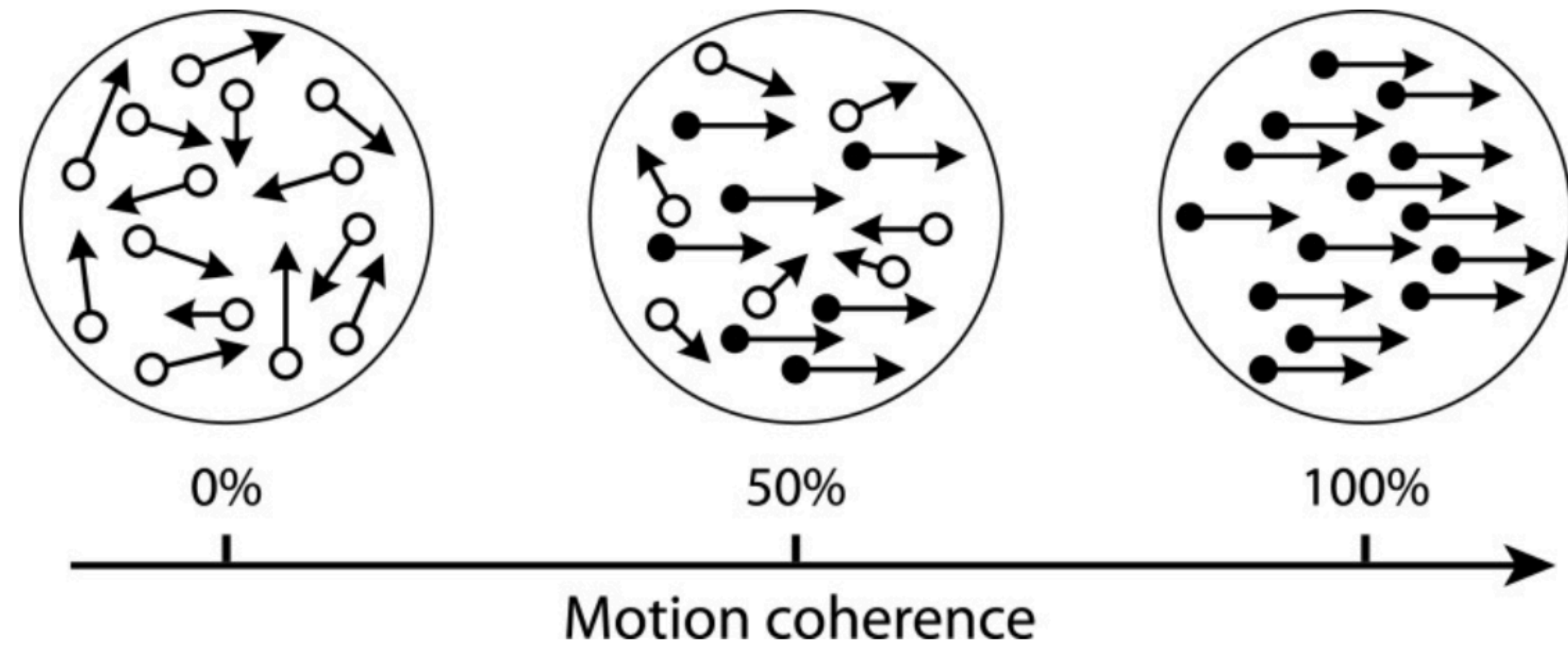
- We often assume that our perception is a veridical account of the physical world.
- Yet, previous research suggests what we want to see can bias our perceptual judgments.

### Hypothesis:

Our wants and desires can influence how we interpret what we see, especially when the situation is ambiguous.

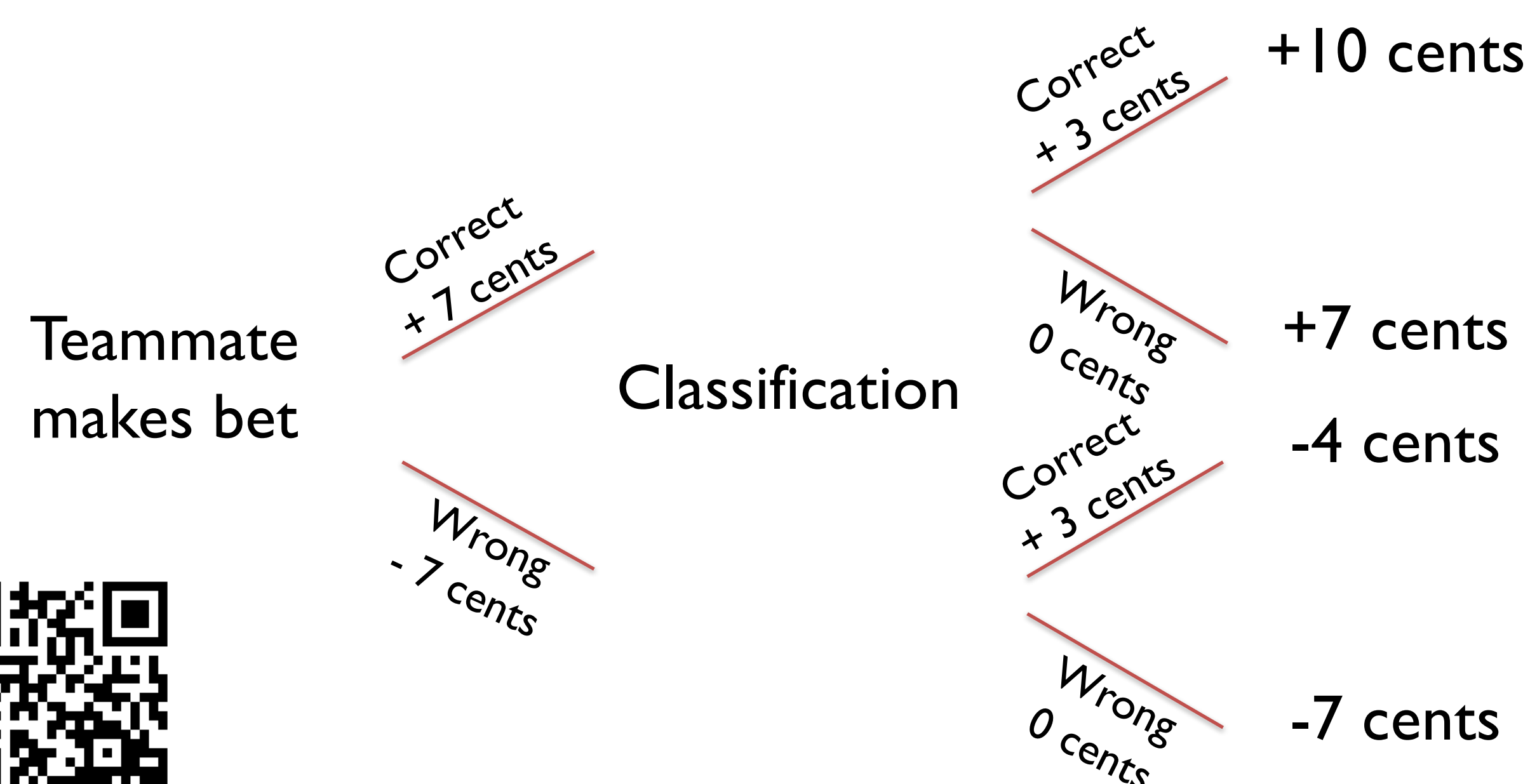
## Methods

- We recruited 60 participants through mTURK. Participants performed 120 trials of the random dot motion task and received a bonus for correctly classifying. This task was used because of its difficulty and its ability to manipulate the ambiguity of each image.

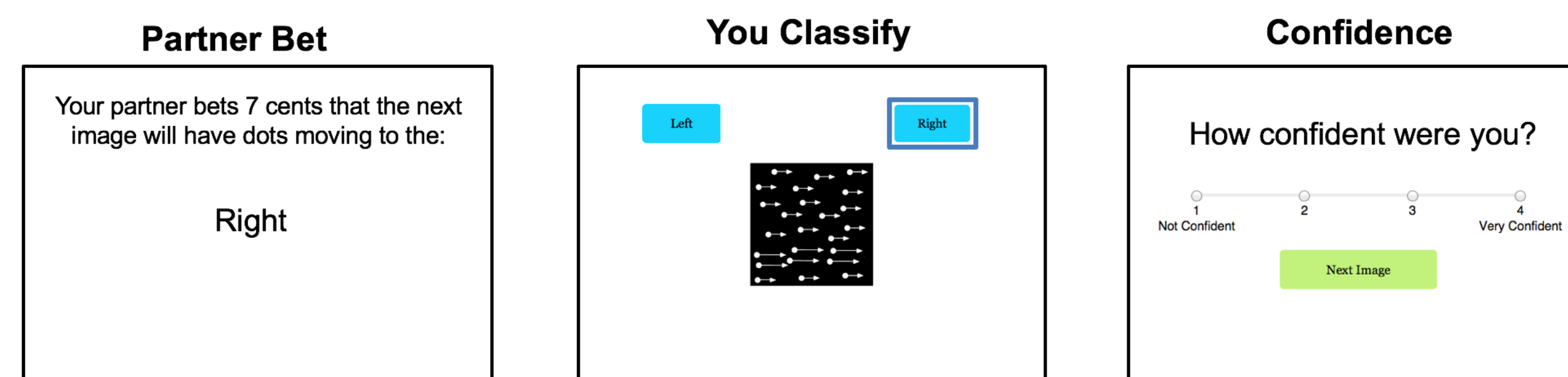


Block	0%	15%	25%	30%	80%	Total
No motivation	10	10	10	6	4	40
Motivation	20	20	20	12	8	80

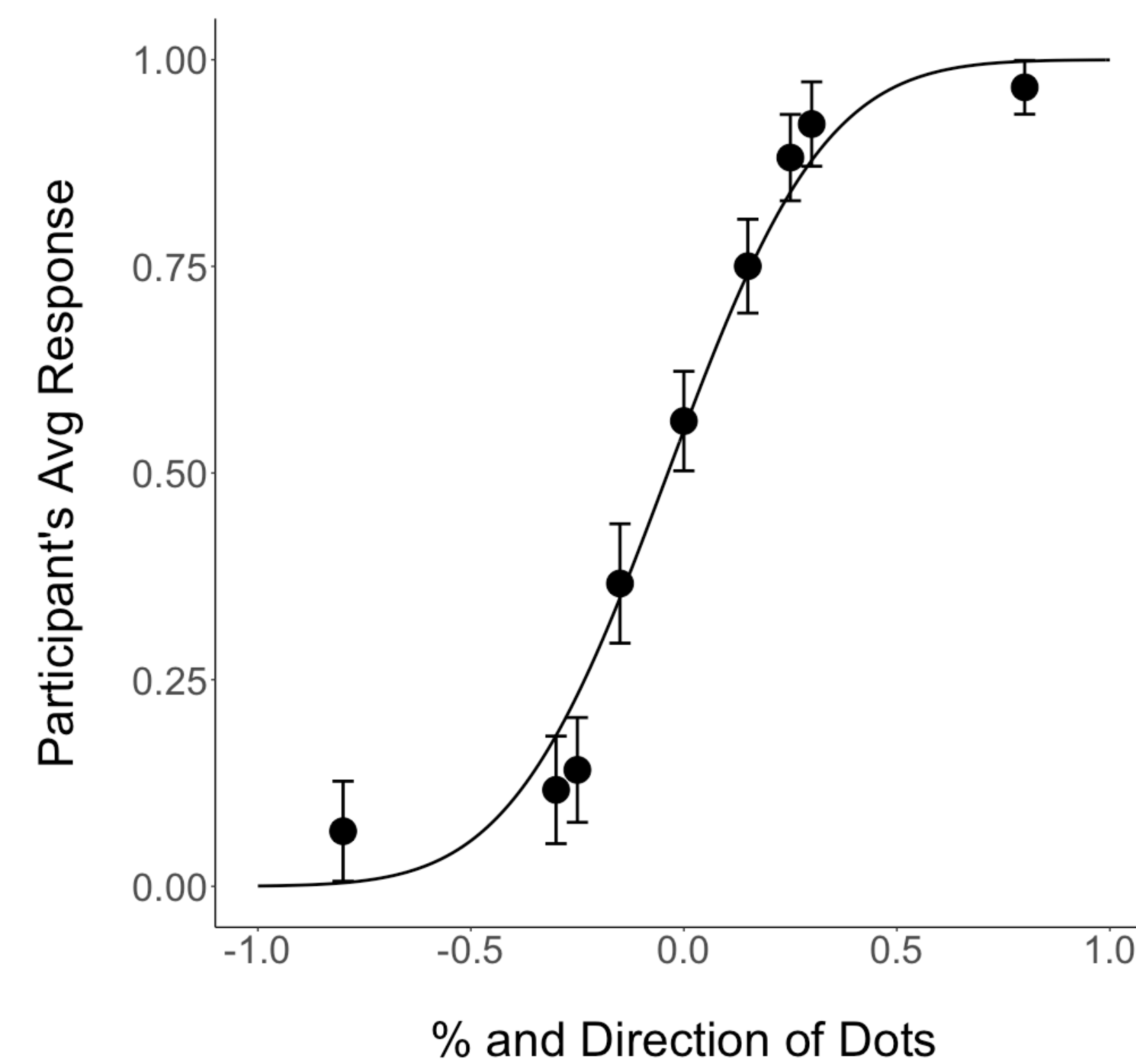
- We used a financial incentive to motivate participants to see the dots move in a particular direction. Crucially, it was in participants' best interest to correctly classify each image.



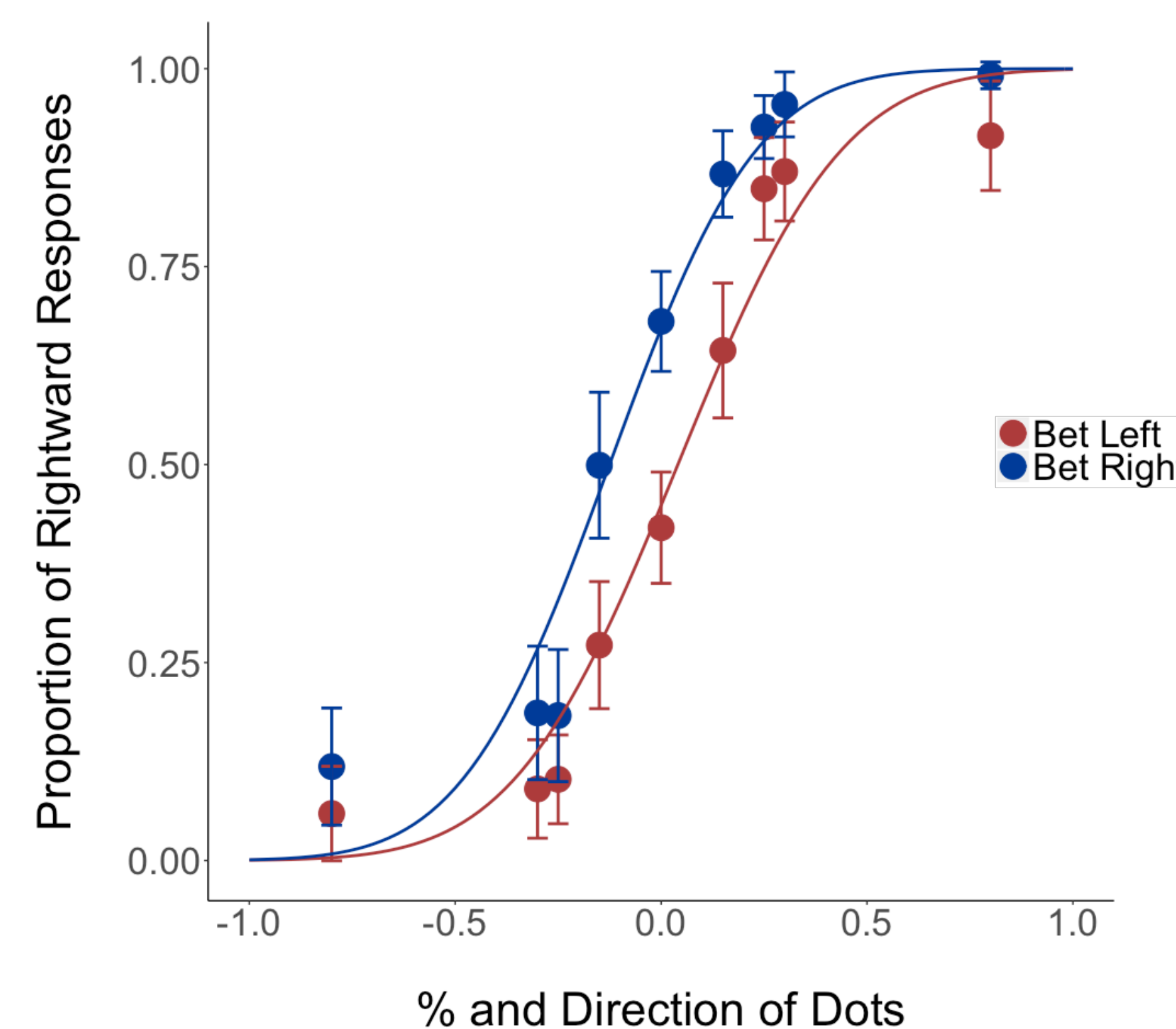
## Methods



## Results

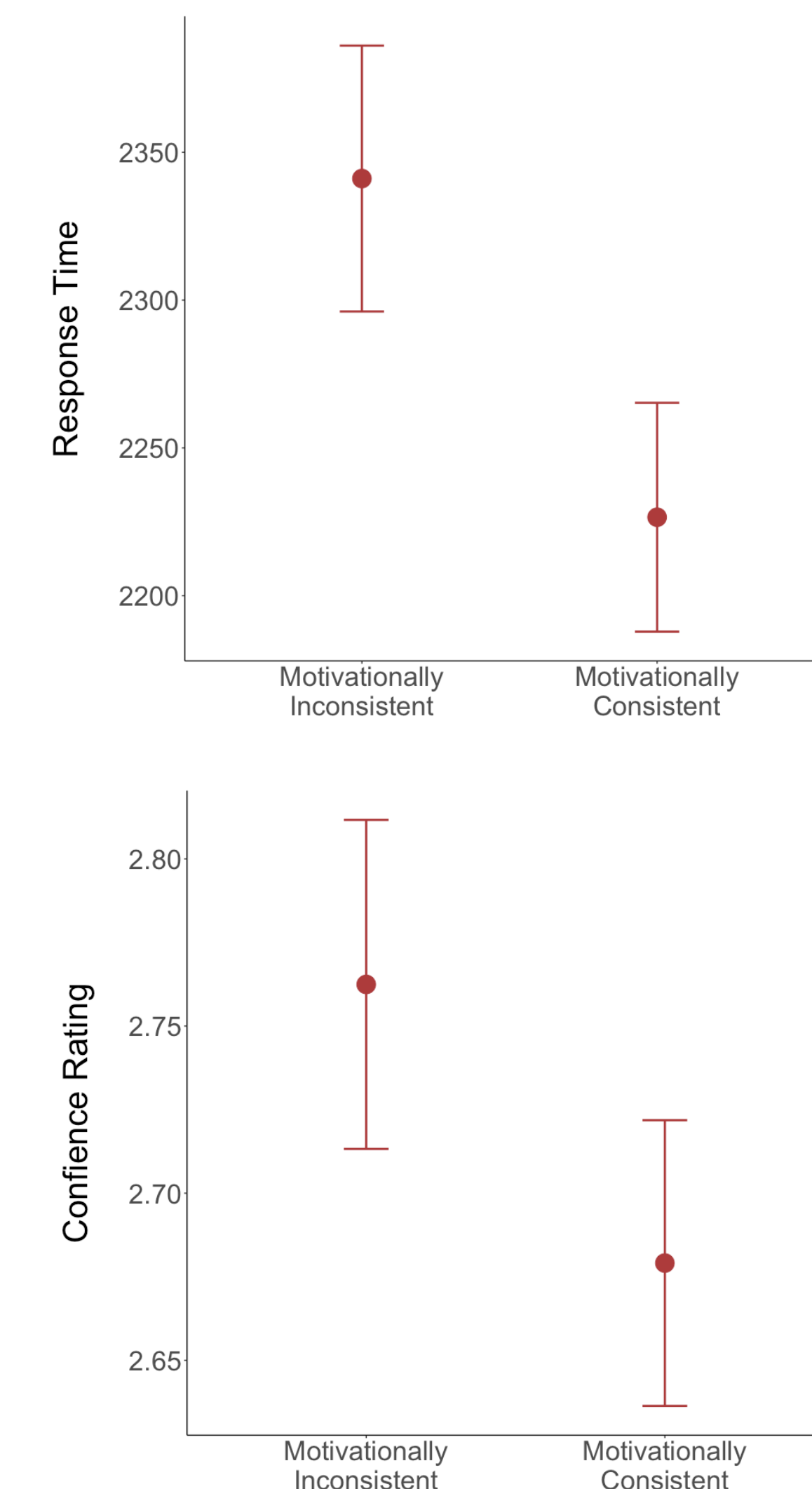


- Without motivation, as more dots moved to the right, participants were more likely to indicate that the dots were moving to the right.



- In contrast to their best interest, when participants were motivated to see the dots move to the right, they were more likely to report seeing dots move to the right.

## Results



Participants were faster to respond when the image was moving in a direction that they wanted to see.

Participants confidence response did not vary between motivationally consistent and inconsistent trials.

## Conclusions

- These findings indicate that motivation can influence our perceptual judgments, and these judgments might not be as objective as we think.
- One limitation of this work is that we cannot differentiate between what people reported and what they actually saw.
- Our future work will use computational modeling to uncover the mechanism for this phenomenon and introduce a competition condition. Additionally, we will investigate this effect under different motivational contexts (e.g., prosocial and epistemic motives).

