**Introduction**

Do action-perception dissociations affect prediction? We performed an experiment to evaluate whether prediction is differently realized when it’s aimed at driving a motor act and when instead its purpose is “perceptual-only”. In particular we focused on how dynamical information of target motion is used depending on prediction goal. We compared therefore the results of a previous motor experiment (an interception task) with a predictive task in which no motion was involved.

**Experimental design**

Examples of ball trajectories and representation of the force fields applied to the ball in the three experimental conditions.

**Results**

Fixed dynamics improves prediction in interception

Gravitational like behavior is easier to intercept.

**Conclusions**

Prediction is performed differently when its purpose is a motor act versus a perceptual one. In a motor task humans understand when there is a unifying characteristic among different trials and model this constant parameter to better realize interception. In a perceptual task instead information coming form previous experience doesn’t play a significant role in prediction.

**REFERENCES**


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