INTRODUCTION

- When we need to reach an object, we have an expectation regarding its reachability. Are these expectations consistent with our actual motor abilities?
- According to the learned helplessness theory, (Seligman, 1975), in depression, action appears to be ineffective, ungratifying and inhibited.
- This study investigates the link between depressive symptoms, reachability expectations and actual motor performance (Fig. 1).

METHOD

- Reachability boundary was computed with $\pi_c$.
- Participants were allocated to either healthy or likely-depressive groups according to their Beck Depression Inventory-Fast Screen-France scores (Table 1).
- Frequentist and Bayesian analyses

RESULTS

- Expectations of reachability can differ from actual capacities.
- Participants with depressive symptoms perceive motor action possibilities that are decreased in comparison with healthy participants.
- When depressive symptoms’ level increases, the overestimation decreases.

DISCUSSION

- Fig 3. Critical point ($\pi_c$) as a function of assessment modality (actual [i.e., motor, estimation] and participants state [healthy, likely-depressive]. Error bars represent standard errors. * indicates $p$-holm < .001. BF$_{10}>1$ indicates an evidence for H1

REFERENCES


Table 1. Study Sample

<table>
<thead>
<tr>
<th>Likely-Depressive</th>
<th>Healthy</th>
<th>Entire sample</th>
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<td>(n = 7, including 5 women)</td>
<td>(n = 11, including 4 women)</td>
<td>(n = 18, including 9 women)</td>
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Fig 4. Linear regression between BDI-FS-Fr and difference between estimated $\pi_c$ and actual $\pi_c$ ($\Delta \pi$). Analysis showed a significant link between both variables ($b$ = −.006, t(16) = −3.119, $p = .007$). No outliers were detected (Cook’s distance < .5 for each observation). $R^2 = .378$, adjusted $R^2 = .339$, meaning that BDI-FS-Fr scores explained 37.8% of $\Delta \pi$, variation.

Fig 5. Hypothetical model of links between expectations, actual reachability and depression.