

The influence of postural stability and yoga experience on perceptions of other's postural stability

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**Our abilities and experiences can
influence how we perceive the world...**



Short Report

See the Apparent Ball

Jessica K. Witt and Dena

University of Virginia





ELSEVIER

Perceived distance an

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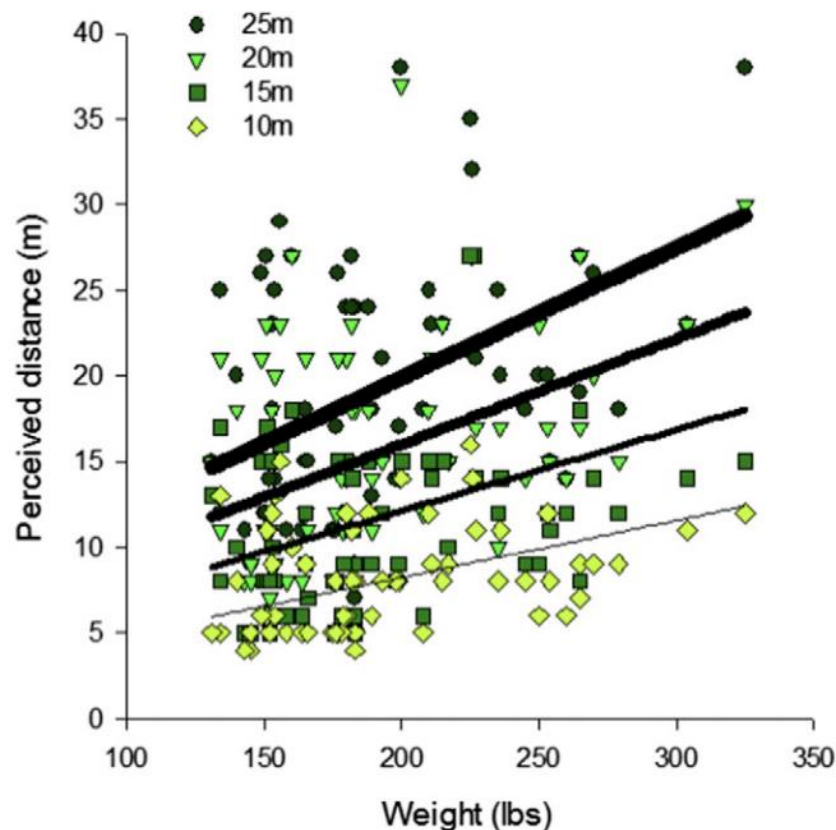
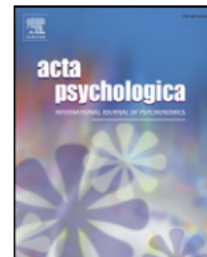


Fig. 4. Verbally estimated distance as a function of body weight and target distance. Each point represents data from one or more participants, and there are 4 points for each participant (1 for each target distance). Lines represent linear regressions from Model 9 with PST set to the mean PST of 6.62. Thicker lines correspond to farther target distances. The graph shows the increased relationship between estimated distance and body weight as target distance increases.



u think★





**Could our abilities and experiences
influence how we perceive the abilities
of other people?**





Introduction





Variables and Hypotheses

- Independent Variable:
 - Yoga experience
 - History of injury
- Dependent Variable:
 - Own postural stability
 - Extent of sway (COBALT)
 - Dynamics of sway (SampEn of quiet stance)
 - Perception of other's postural stability



Hypothesis:

- Perceptions of another's stability will be influenced by the participant's own abilities (e.g., postural stability) and his/her own experience with a stability-specific task (e.g. yoga)



Methods- Overview

- Comparison 1:
 - Current Yoga (2x/week for at least 3 months)
 - Non-Current Yoga
- Comparison 2:
 - History of bodily injury (any)
 - No history of injury

One Minute
Quiet Stance

Anterior-Posterior

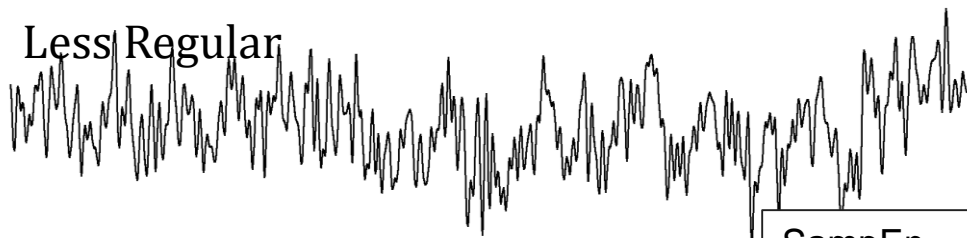


Medial-Lateral

COBALT

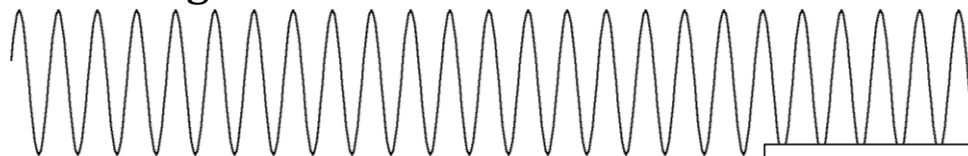
Posture Perceptions

Less Regular



SampEn = .71

More Regular

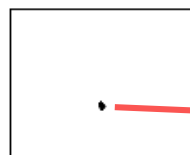


SampEn = .14

One Minute Quiet Stance

COBALT

Posture Perceptions



**Firm
Normal - EC HS**

Trial 1

Sway
score

No. of
Errors

Time to 1st
error (secs)

0.40

0

0.00

Trial 2

0.38

0

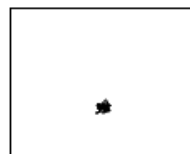
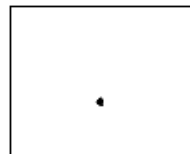
0.00

Average

0.39

0.00

0.00



**Firm
Normal - VMS**

Trial 1

Sway
score

No. of
Errors

Time to 1st
error (secs)

0.79

0

0.00

Trial 2

0.63

0

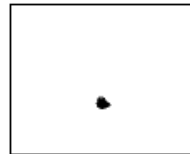
0.00

Average

0.71

0.00

0.00



**Foam
Normal - EC HS**

Trial 1

Sway
score

No. of
Errors

Time to 1st
error (secs)

0.92

0

0.00

Trial 2

1.65

1

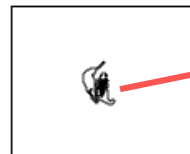
0.00

Average

1.29

0.50

0.00



**Foam
Normal - VMS**

Trial 1

Sway
score

No. of
Errors

Time to 1st
error (secs)

0.89

0

0.00

Trial 2

1.04

0

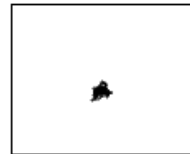
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Average

0.97

0.00

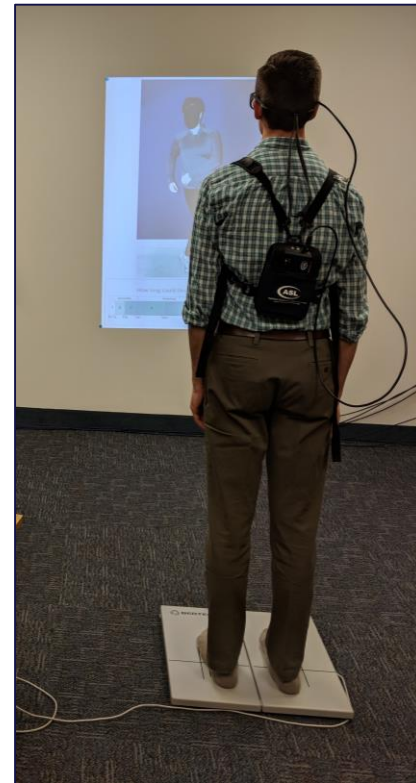
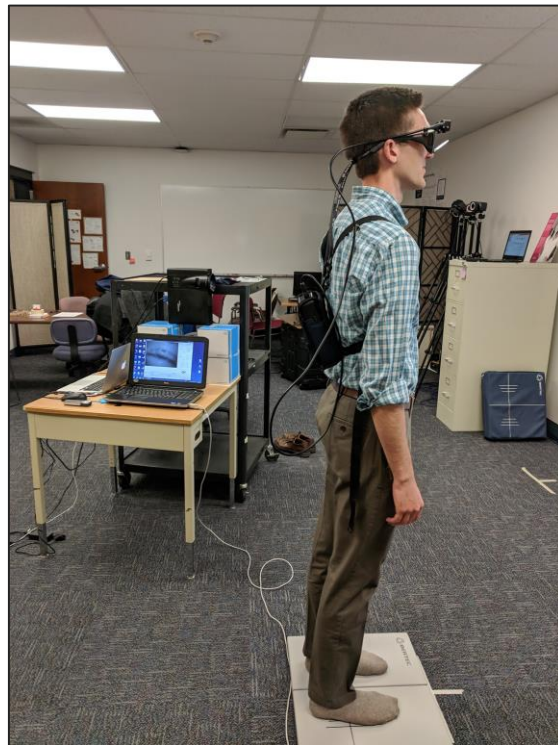
0.00



One Minute Quiet Stance

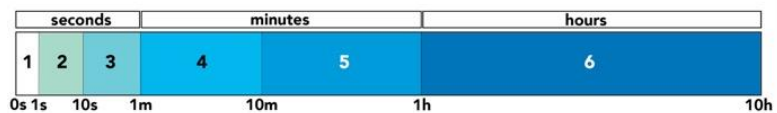
COBALT

Perception of other's stability





How long could this person hold this posture?



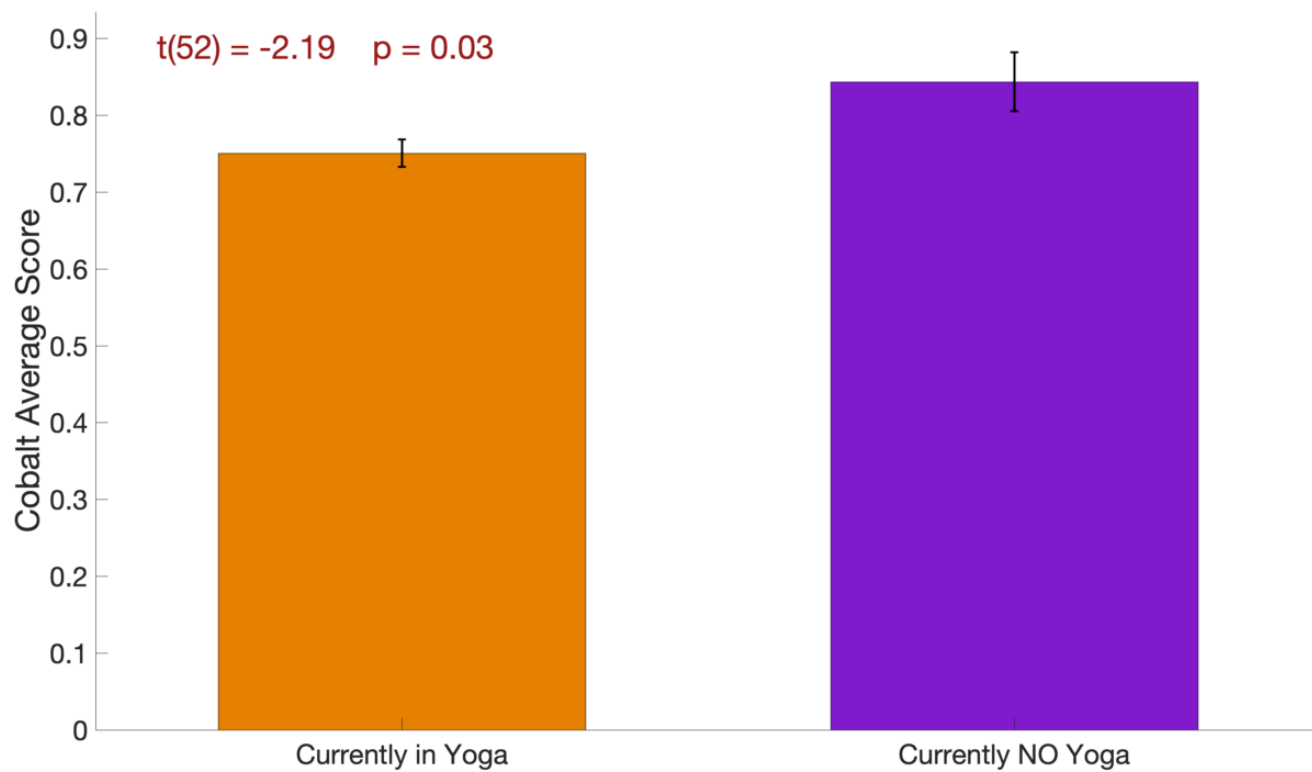


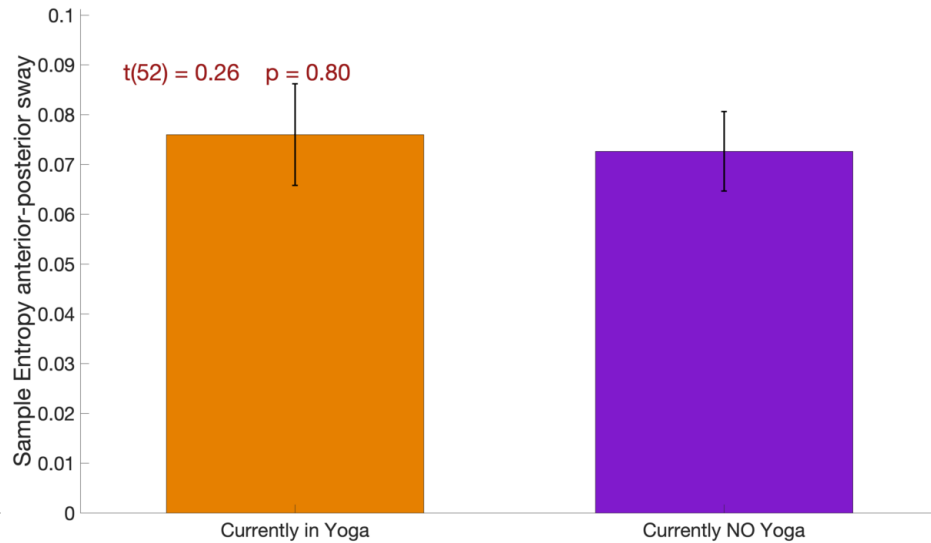
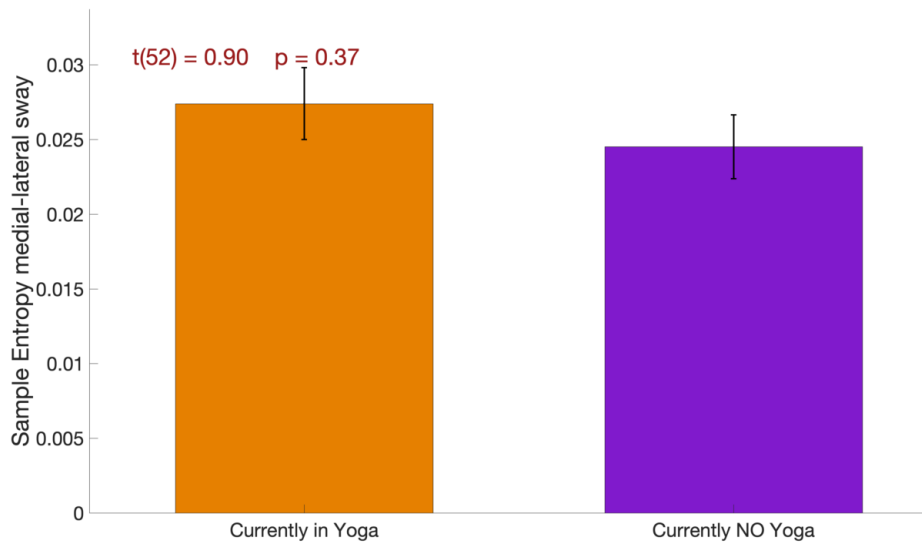
Methods- continued

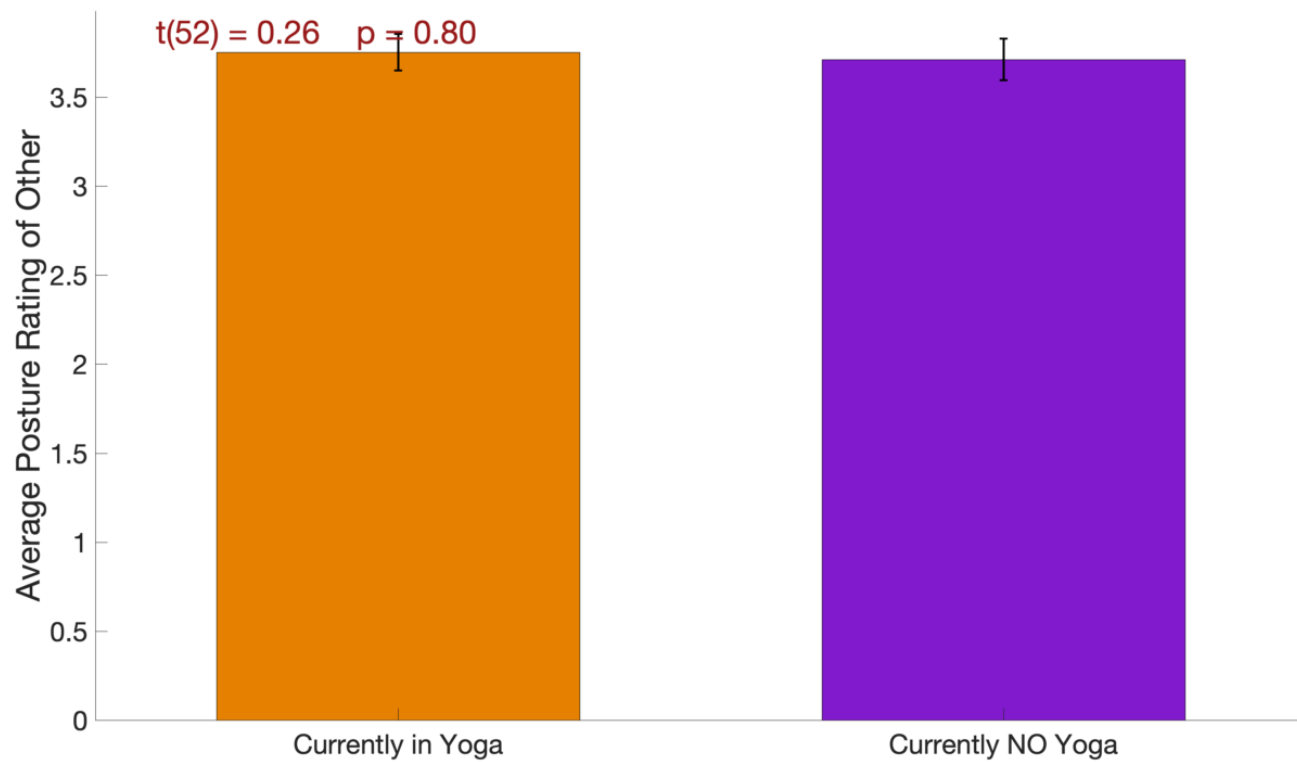
Questions:

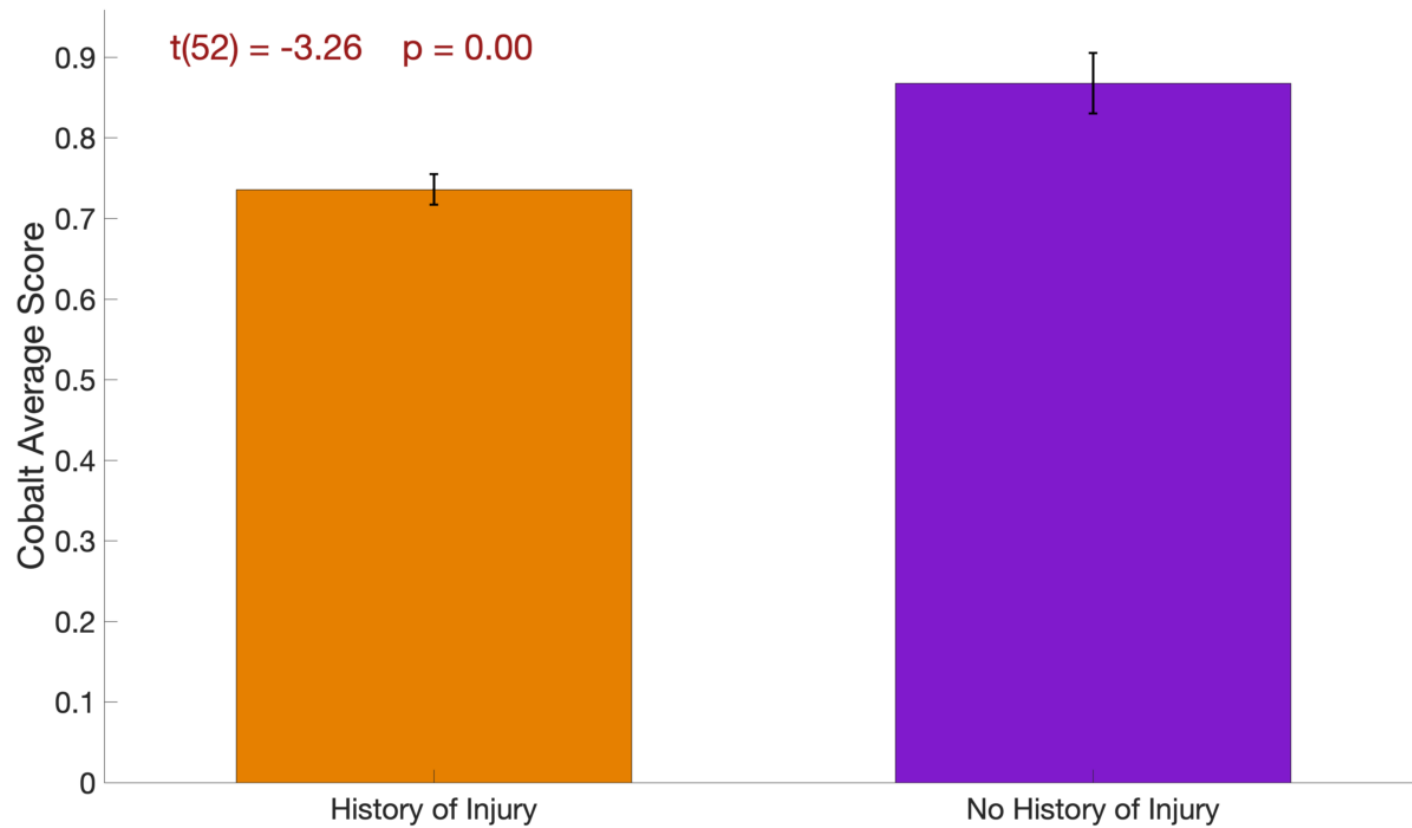
- On a scale from 1-10 how fit was this person?
- On a scale from 1-10 how fit are you?
- Past bodily injuries?

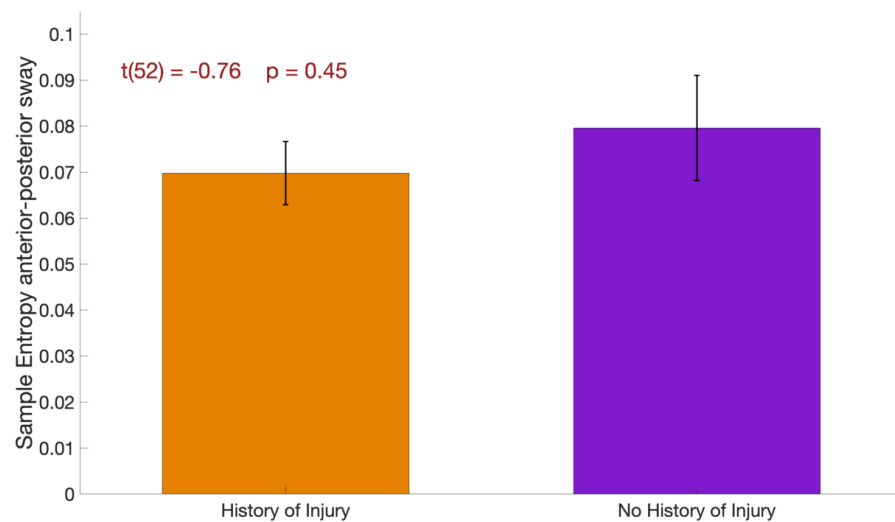
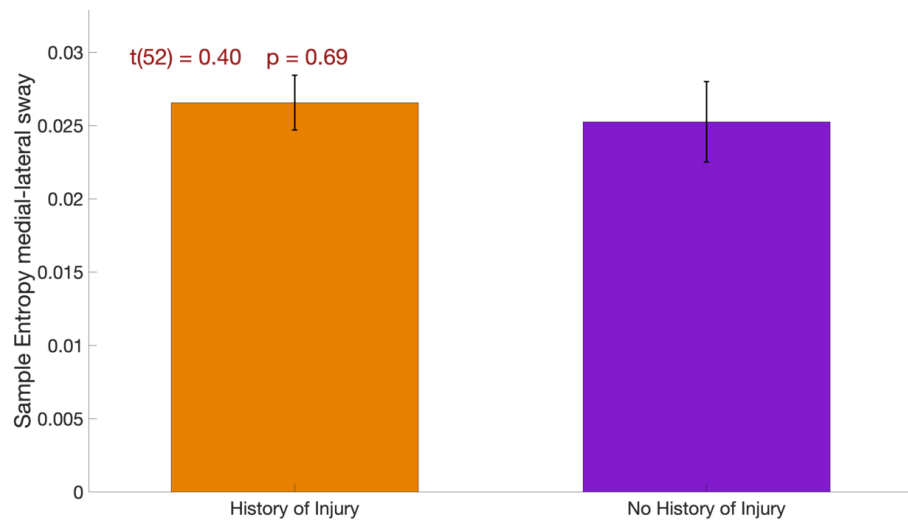
Data and Results

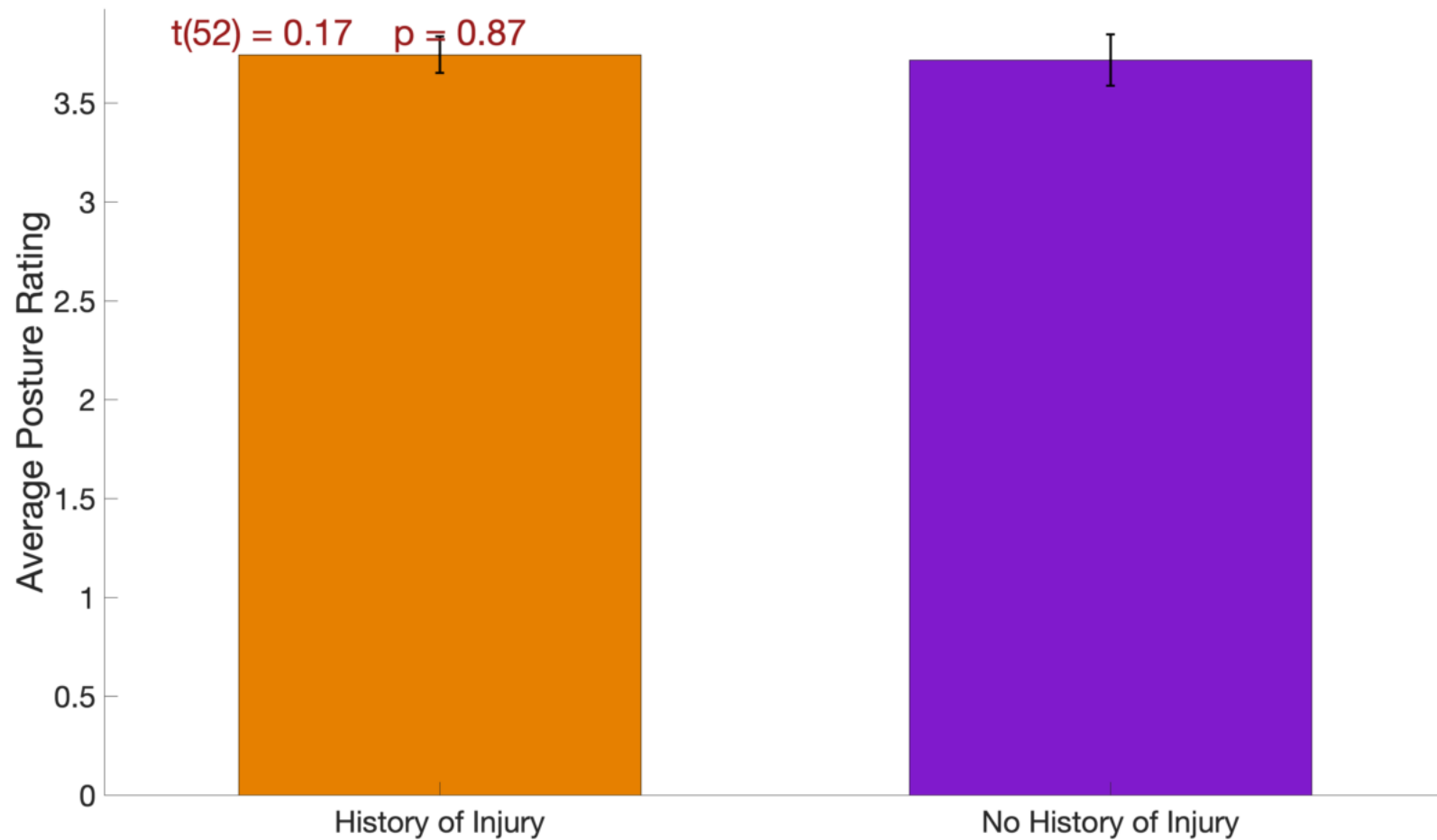


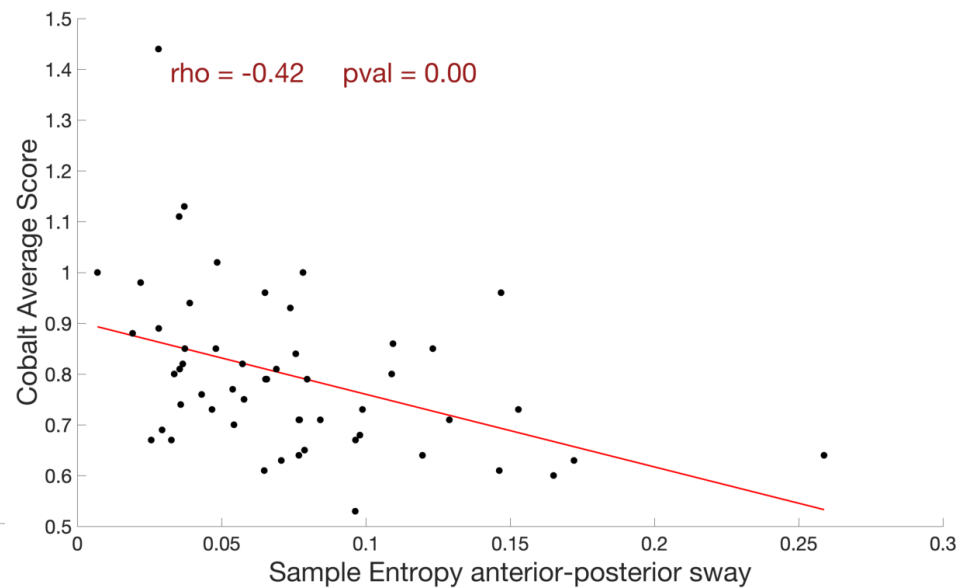
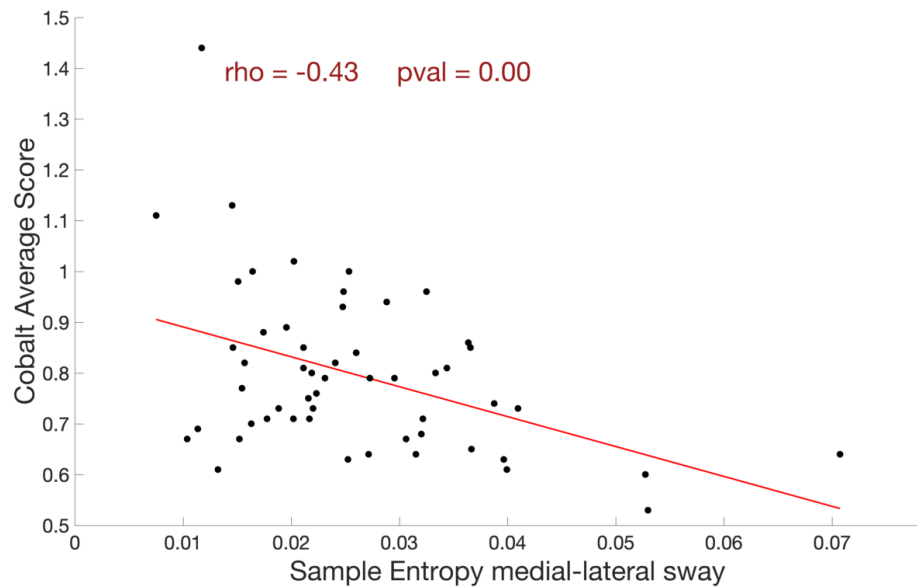


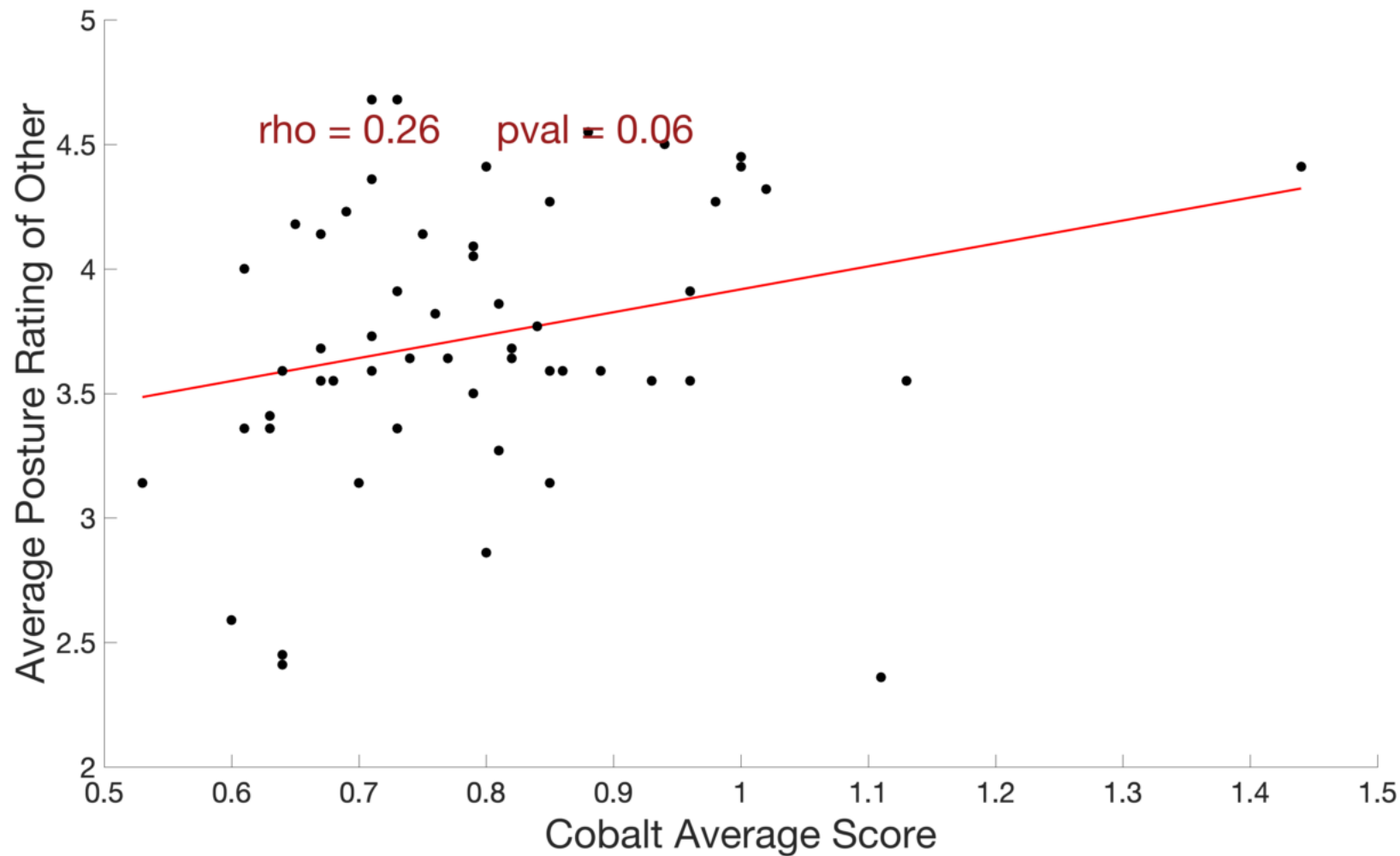


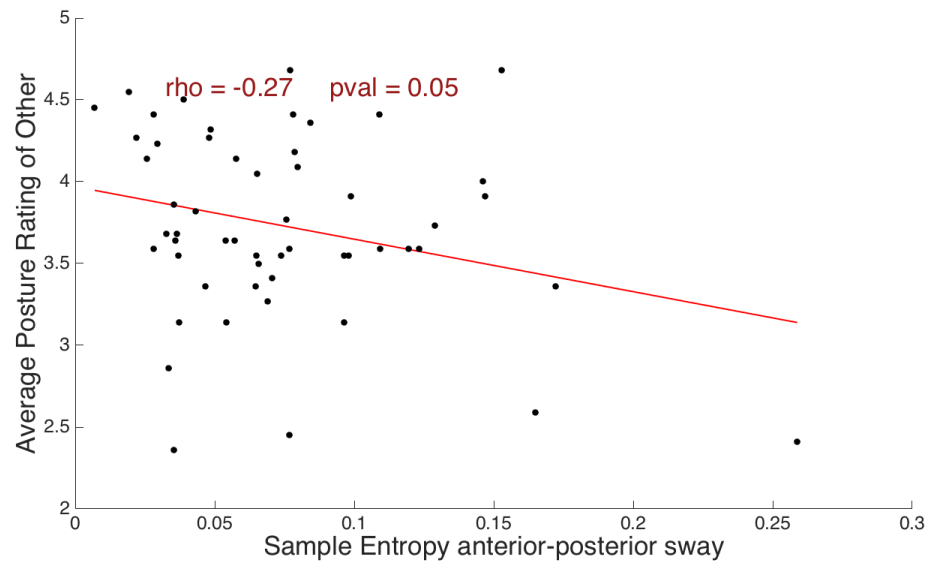
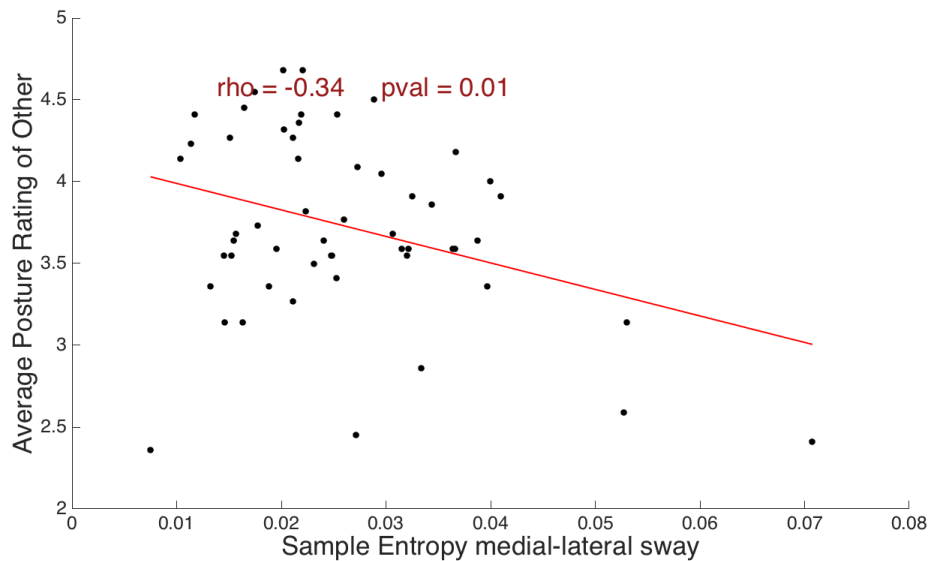


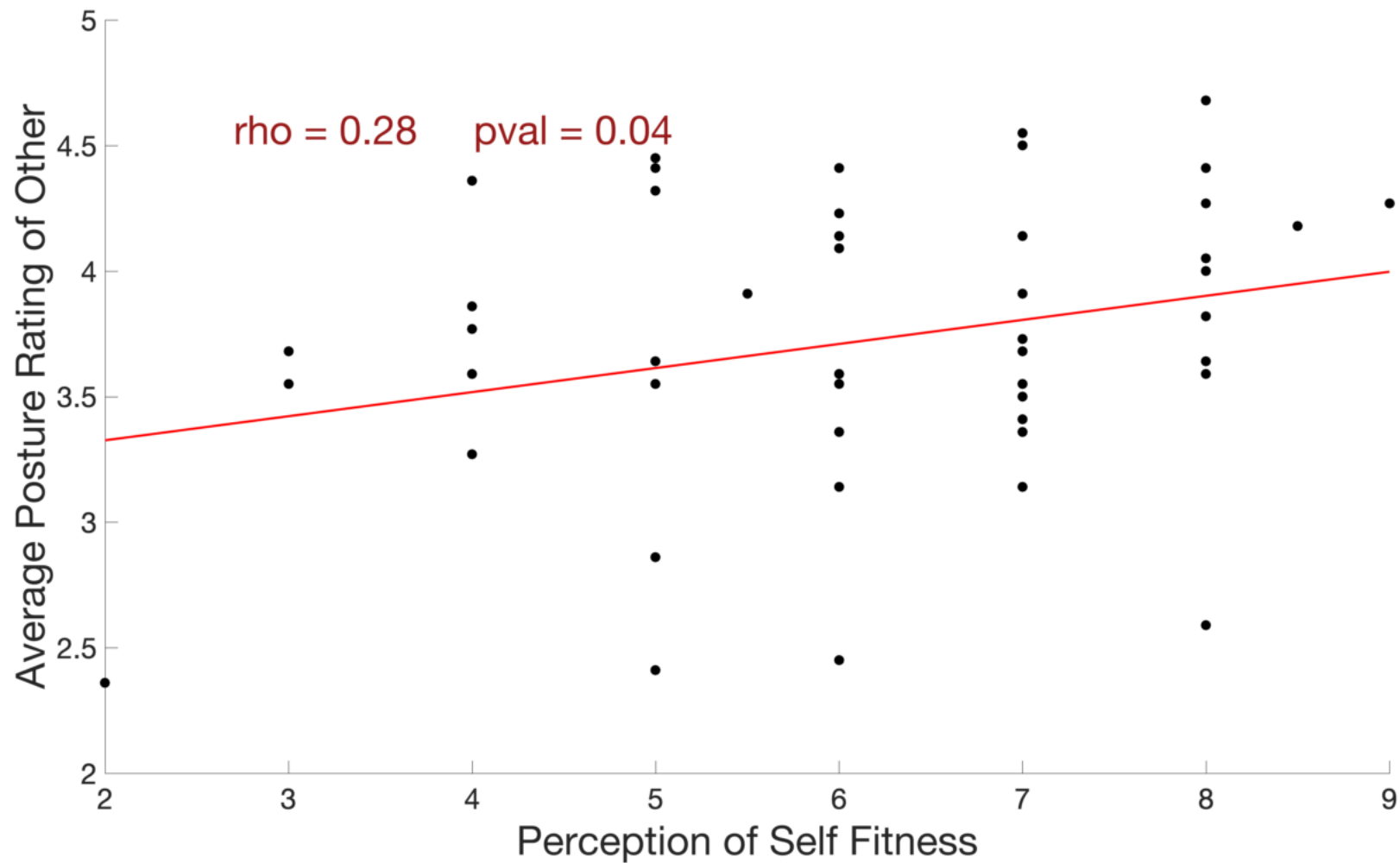




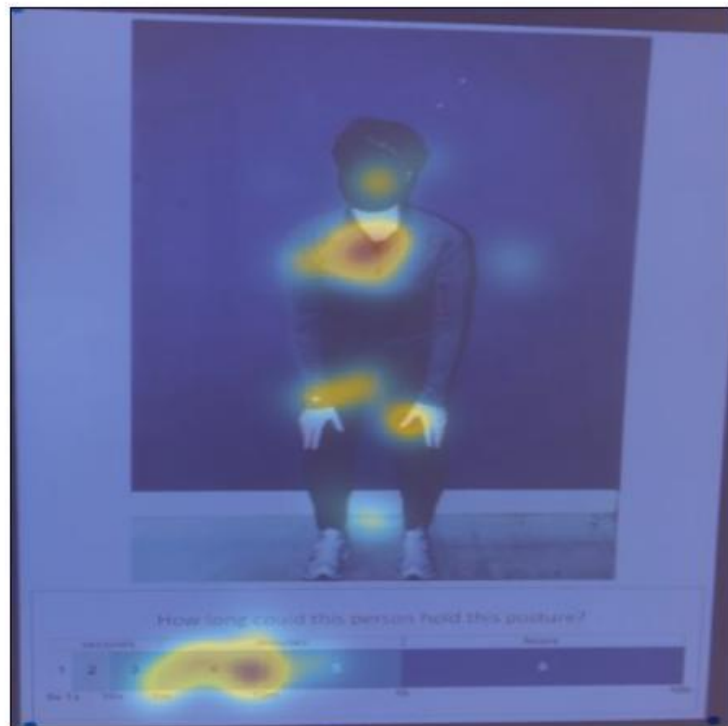




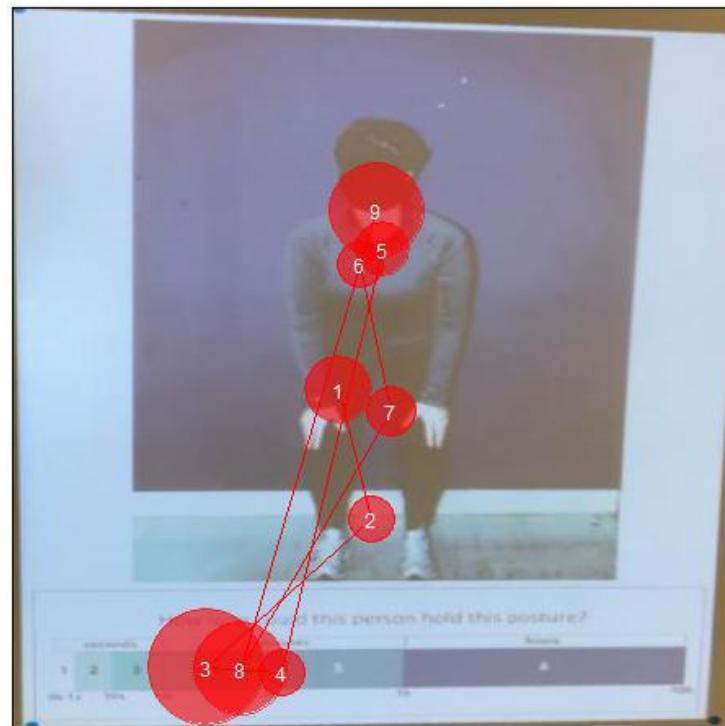




Heatmap



Scanpath





Conclusions:

- Yoga experience didn't influence the perception of another's stability
- Having an injury didn't influence the perception of another's stability
- Relationship between one's own stability score and perception of another's stability
- Significant correlation between one's own fitness perception and the perception of another's stability