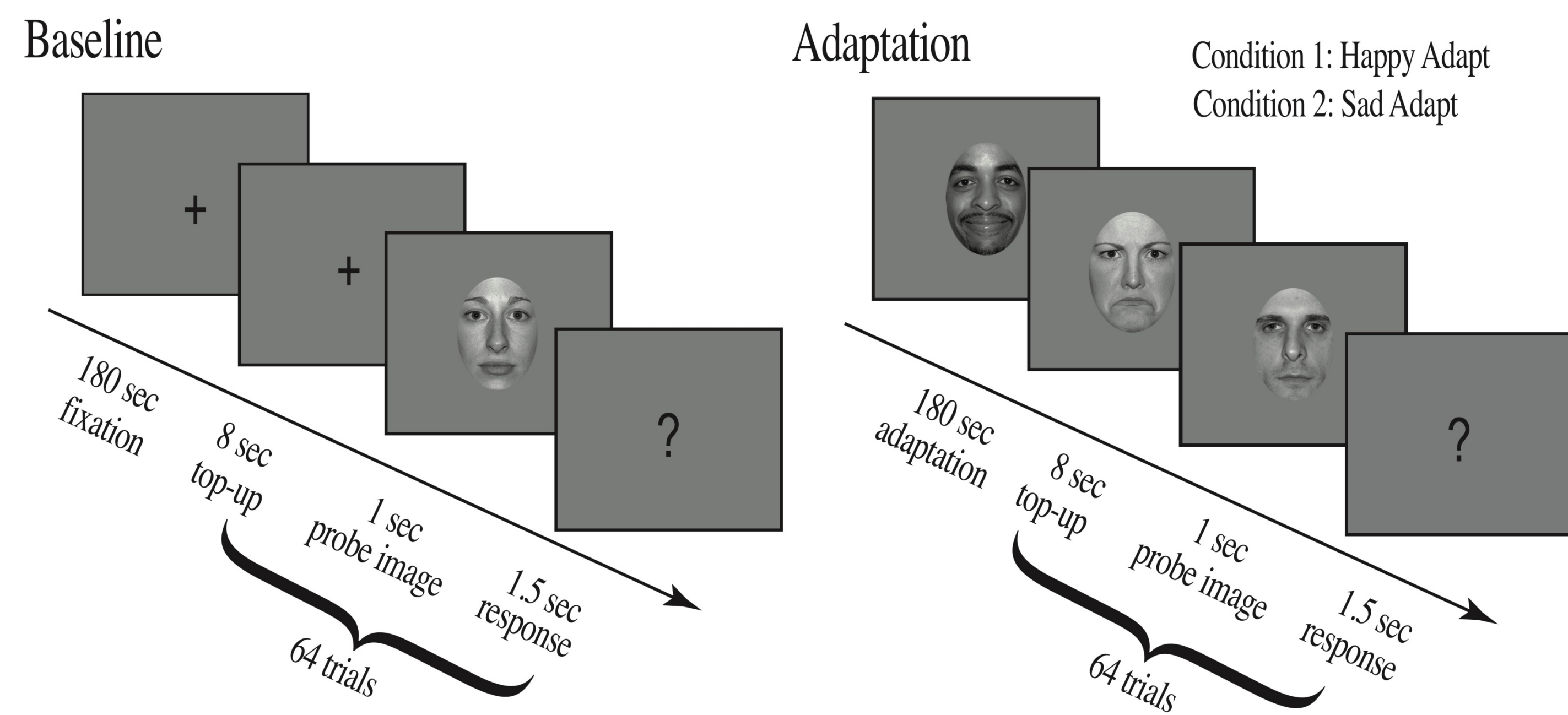


INTRODUCTION

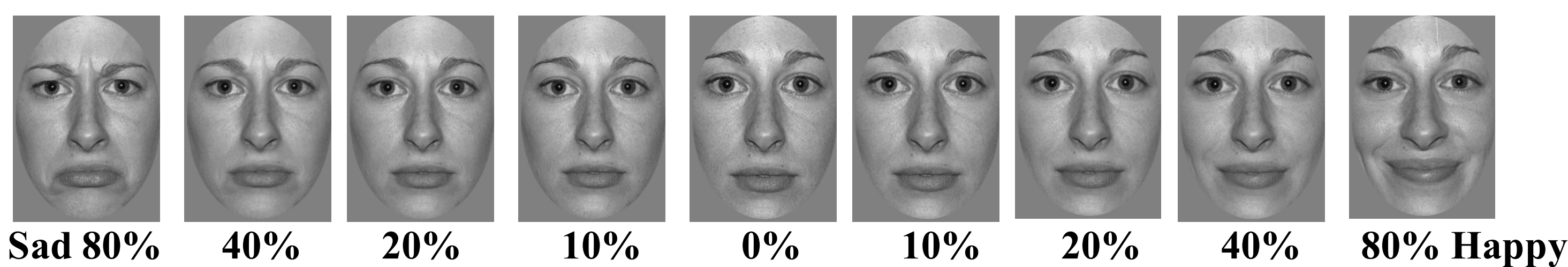
Social anxiety disorder (SAD) is defined as the irrational fear of negative evaluation in social situations. In the past, Buckner, DeWall, Schmidt, and Maner (2010) found that more attention was given toward negative faces in participants with a high BFNE (Brief Fear of Negative Evaluation) score, which indicates higher levels of social anxiety (HSA). Some have questioned what negative emotion is the opposite of happiness, with some evidence suggesting it is sadness (Rutherford et al., 2008). Here we investigate if high social anxiety (HSA) individuals show weaker adaptation to sad faces compared to low social anxiety (LSA) controls. Participants judged faces with varying amounts of sadness and happiness. The strength of adaptation was quantified by measuring the shift in the face judged to be neutral before versus after adaptation to a given emotion. If sadness is indeed the opposite of happiness, it should elicit weaker adaptation compared to LSA controls.

METHODS



Stimuli

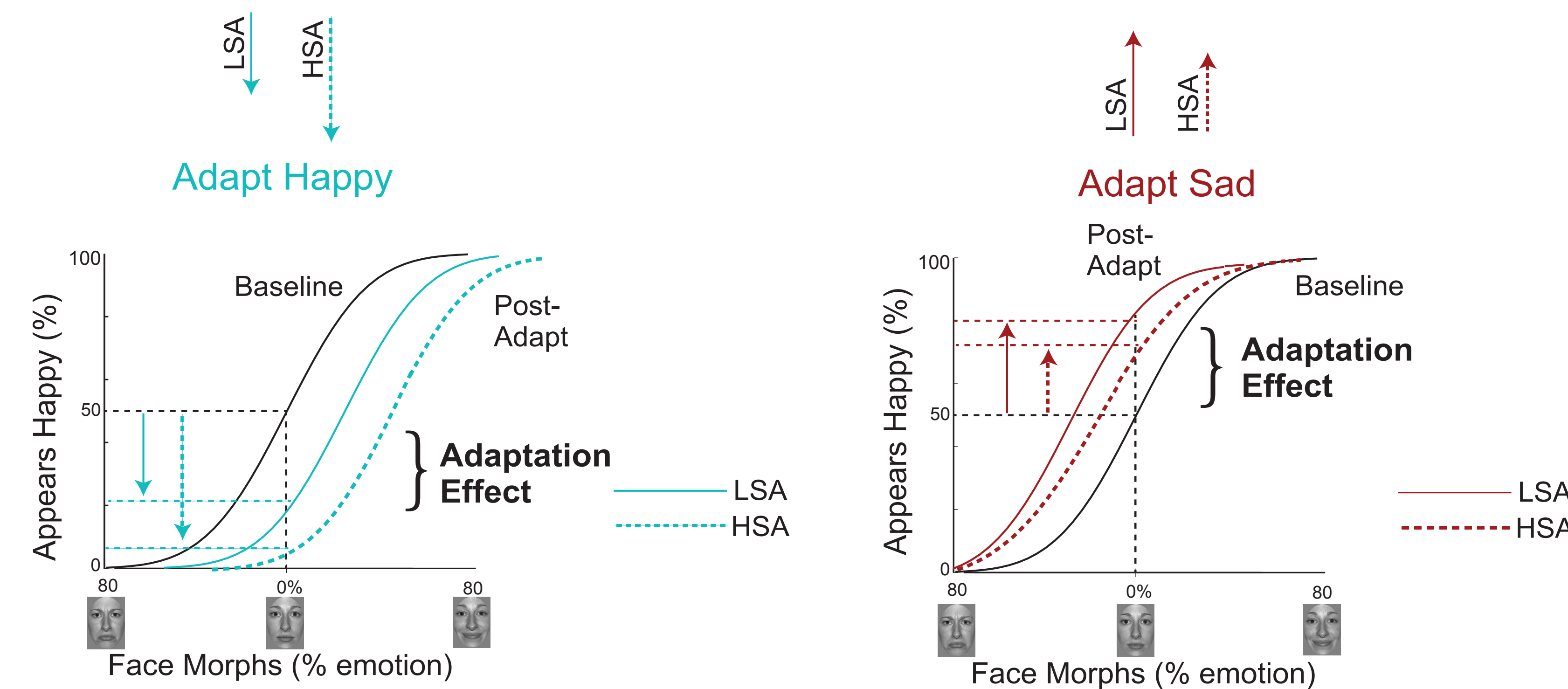
Participants viewed a series of 64 face images morphed along an emotional continuum (i.e., 80%, 40%, 20%, and 10% happy to neutral with the same morphs in the sad dimension). Using a two-alternative forced choice paradigm, subjects judged each face as either happy or sad. Participants were then adapted to sad faces judged along the same emotional continuum of 64 morphed face images. The Point of Subjective Equality (PSE) is the point at which an individual sees a face as neutral, or when all judgments are at 50% happy and sad. To measure the shift in PSE, we quantified each participant's PSE before and after adaptation.



Participants

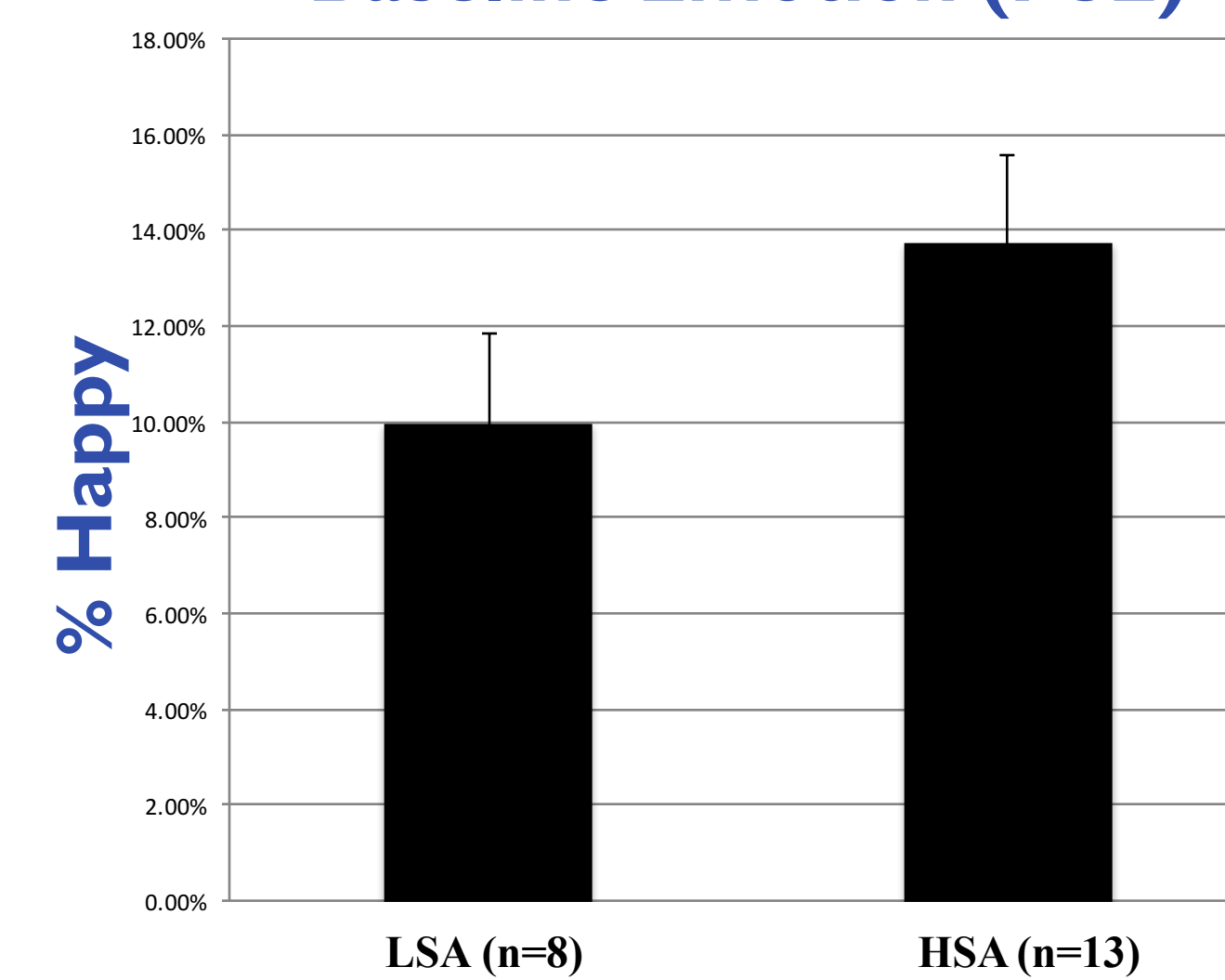
To date we have recruited 13 HSA and 8 LSA participants. Participants completed an online survey including the Brief Fear of Negative Evaluation Scale (BFNE), which was used to assess social anxiety status as high (upper quartile, ≥ 25) or low (lower quartile, < 12).

Predictions

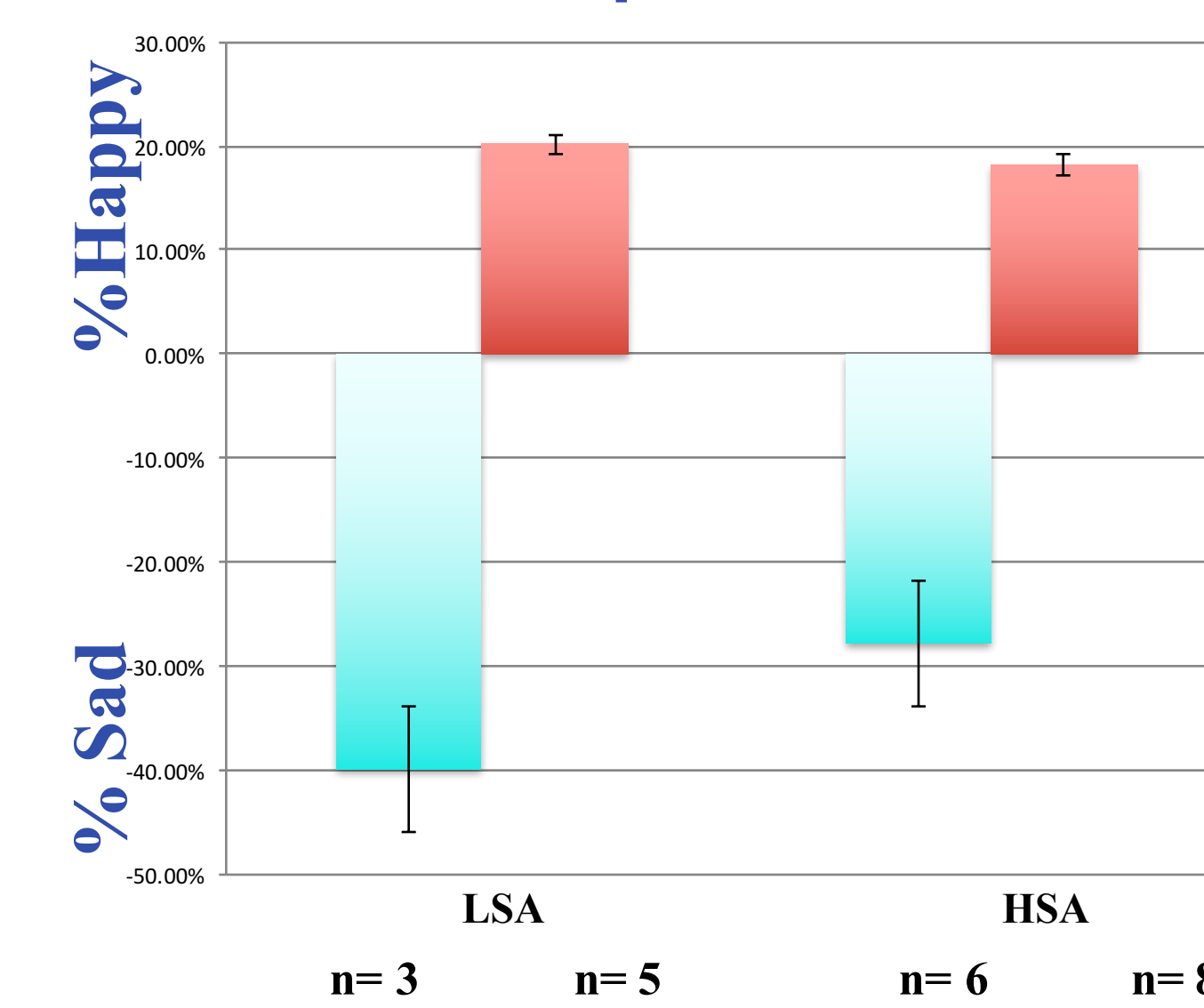


RESULTS

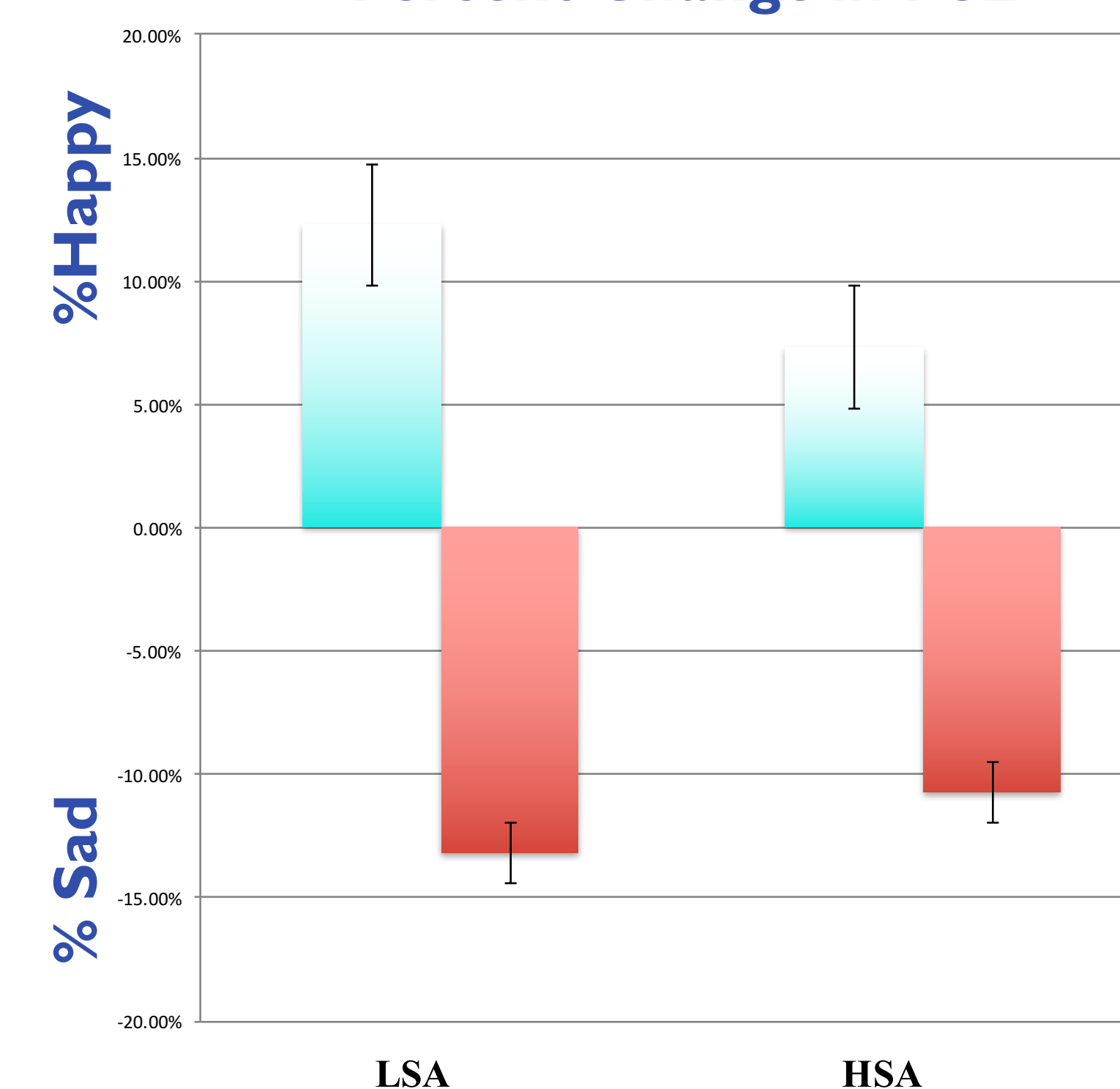
Baseline Emotion (PSE)



Adaptation Effect



Percent Change in PSE



CONCLUSIONS

1) Baseline: Individuals high in social anxiety tend to be biased to see faces more negatively; they tend to have a higher PSE at baseline, which indicates more positive emotion is needed for a face to be seen as neutral.

2) Post-Adaptation to sad faces: Individuals high in social anxiety tend to show weaker adaptation to sad faces compared to low social anxiety controls.

3) Post-Adaptation to happy faces: Individuals high in social anxiety tend to show weaker adaptation to happy faces compared to low social anxiety controls.

4) Implications for further research: Future research could explore adaptations to faces using different facial emotions such as angry and compare them with sad and see if there is an effect between anxiety levels.

Acknowledgments

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