

ANXIETY RELATED BIASES IN THE INTERPRETATION OF AMBIGUOUS FACIAL AFFECT

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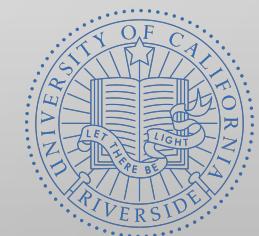
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BACKGROUND

METHOD

RESULTS

DISCUSSION



ANXIETY & NEGATIVITY BIAS

- **TRAIT ANXIETY: THE STABLE TENDENCY TO EXPERIENCE ANXIETY ACROSS MANY SITUATIONS**
- **PEOPLE WITH HIGH TRAIT ANXIETY:**
 - TEND TO INTERPRET AMBIGUOUS EMOTIONAL FACIAL EXPRESSIONS AS NEGATIVE
 - HAVE DIFFERENCES IN RESPONSE TIME TO NEGATIVE EMOTIONAL STIMULI
- **STATE ANXIETY: TEMPORARY FEELINGS OF ANXIETY THAT ARE RELATED TO A PARTICULAR SITUATION**

(Bar-Haim et al., 2007; Bradley et al., 1999; Schechner et al., 2013)



PRESENT STUDY

- AIMS: TEST HOW EMOTION RECOGNITION IS INFLUENCED BY:
 1. STATE ANXIETY
 2. TRAIT ANXIETY
 3. IRRITABILITY
- HYPOTHESES:
 1. HIGH STATE ANXIETY WILL BE RELATED TO A REDUCED THREAT THRESHOLD
 2. HIGH TRAIT ANXIETY WILL BE RELATED TO A REDUCED THREAT THRESHOLD
 3. IRRITABILITY WILL INFLUENCE THE THREAT THRESHOLD

Decreasing threat threshold



SAMPLE (N = 21)

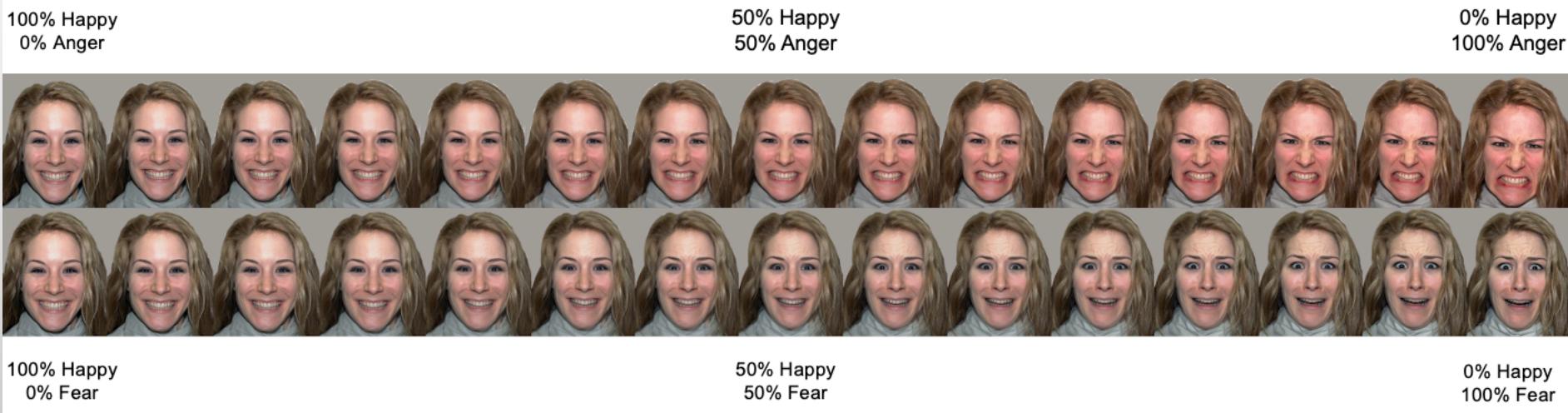
- AGE: M = 19.19, SD = 1.289

Race	N	Percentage (%)
Asian	12	57.14
Hispanic	7	33.33
Black/African American	1	4.76
American Indian or Alaska Native	1	4.76

Gender	N	Percentage (%)
Male	10	47.62
Female	11	52.38



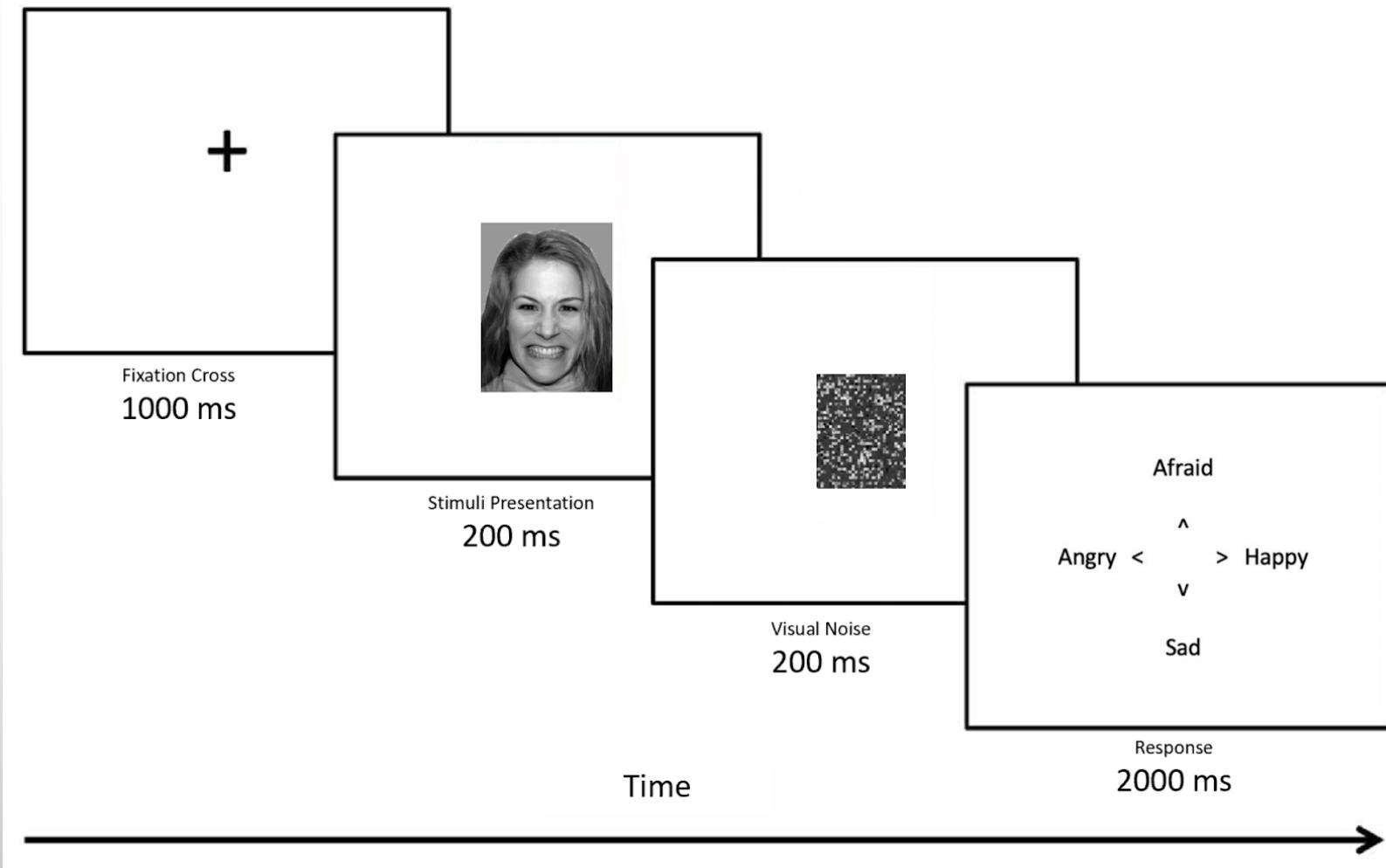
FACE MORPHS



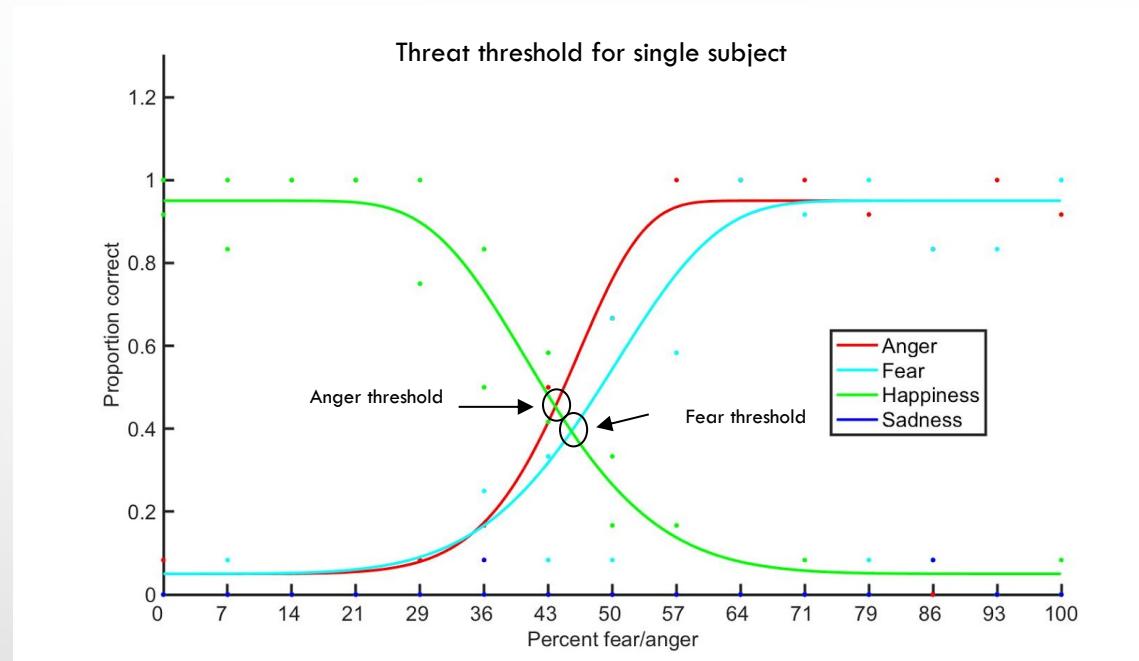
(TOTENHAM ET AL., 2009)



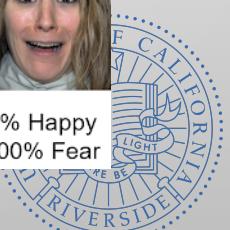
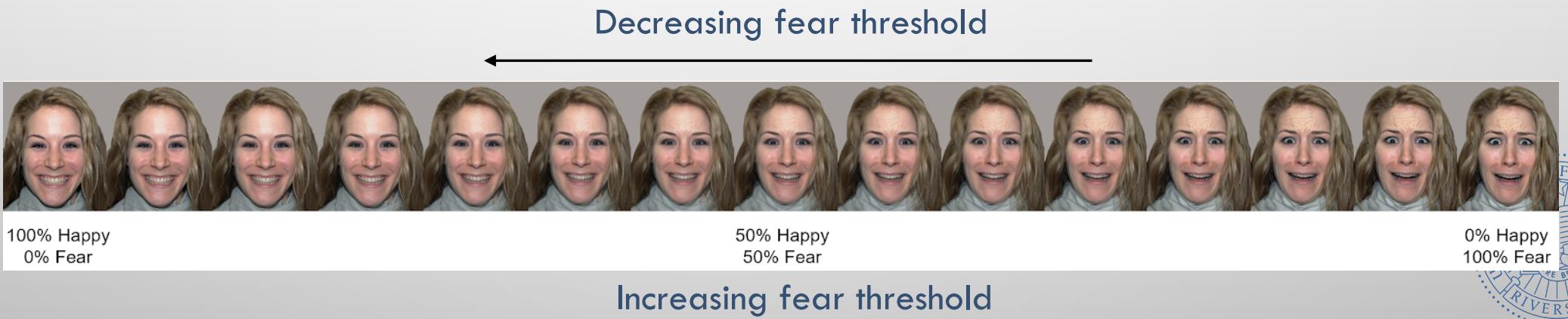
EMOTION IDENTIFICATION TASK



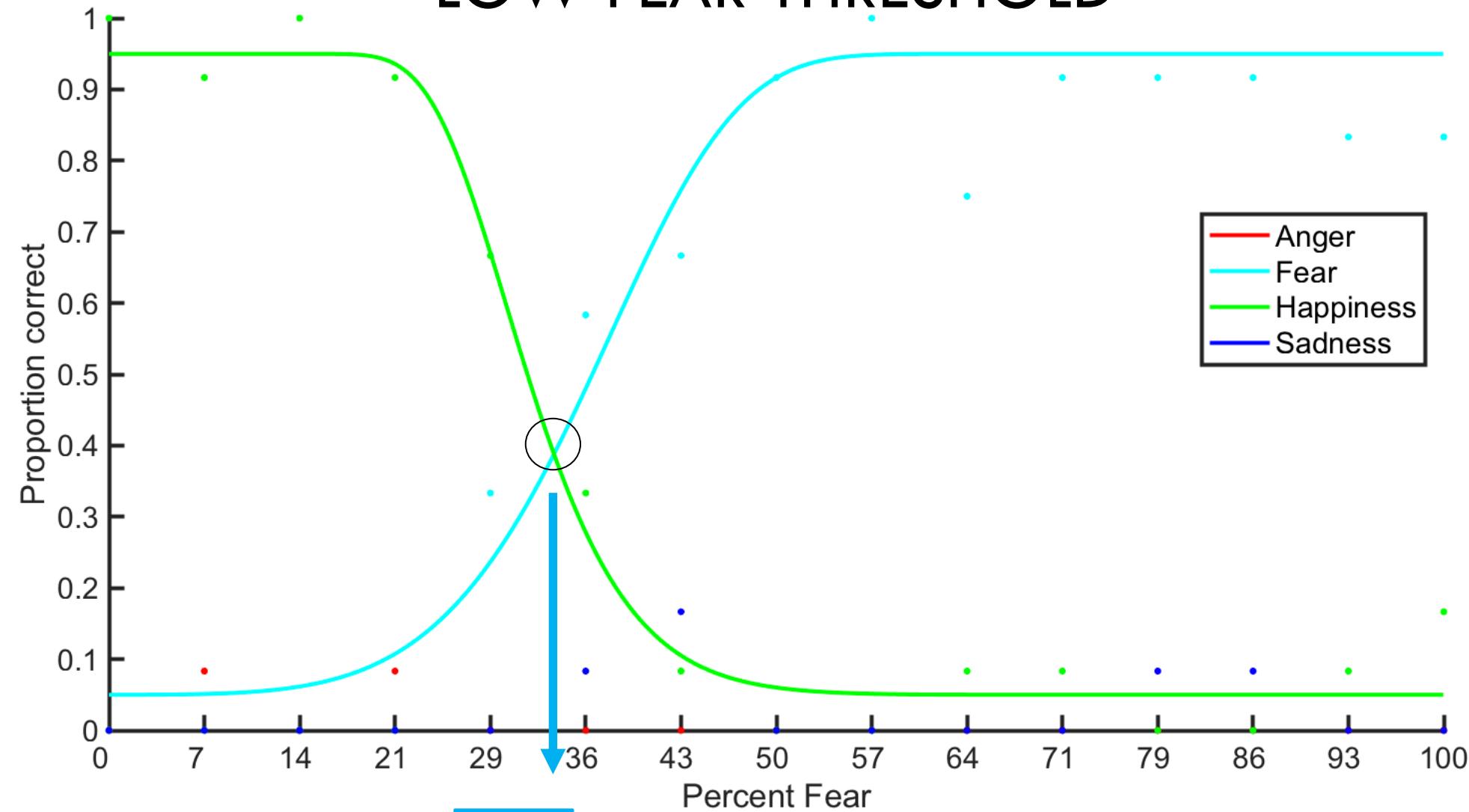
THREAT THRESHOLD



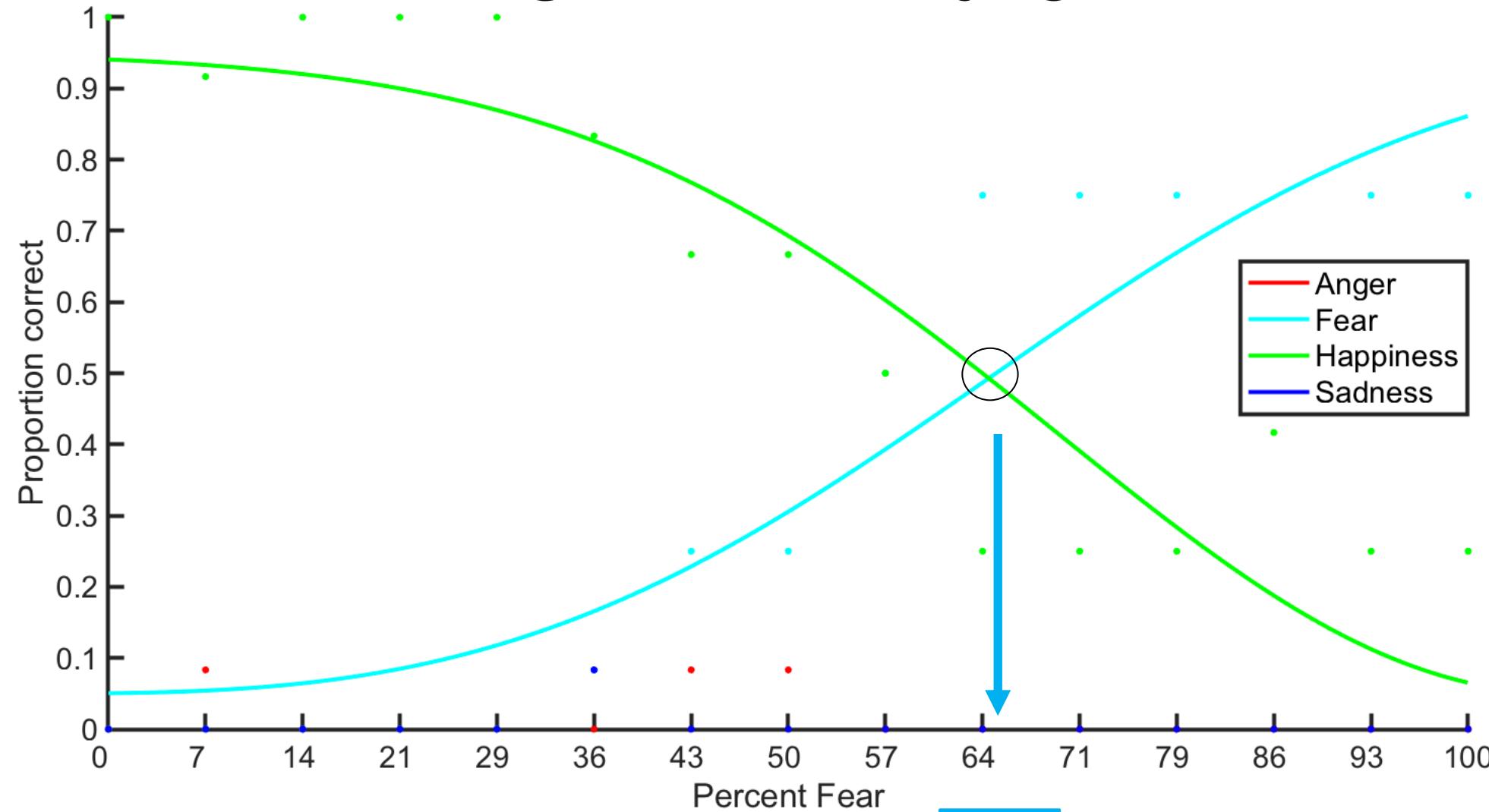
- THREAT THRESHOLD: POINT OF SUBJECTIVE EQUALITY VIA EACH PARTICIPANT'S PSYCHOMETRIC (WEIBULL) FUNCTION ($\Gamma = .05$, $\Lambda = .05$).
- LOWER THREAT THRESHOLDS INDICATE GREATER SENSITIVITY TO FEAR OR ANGER



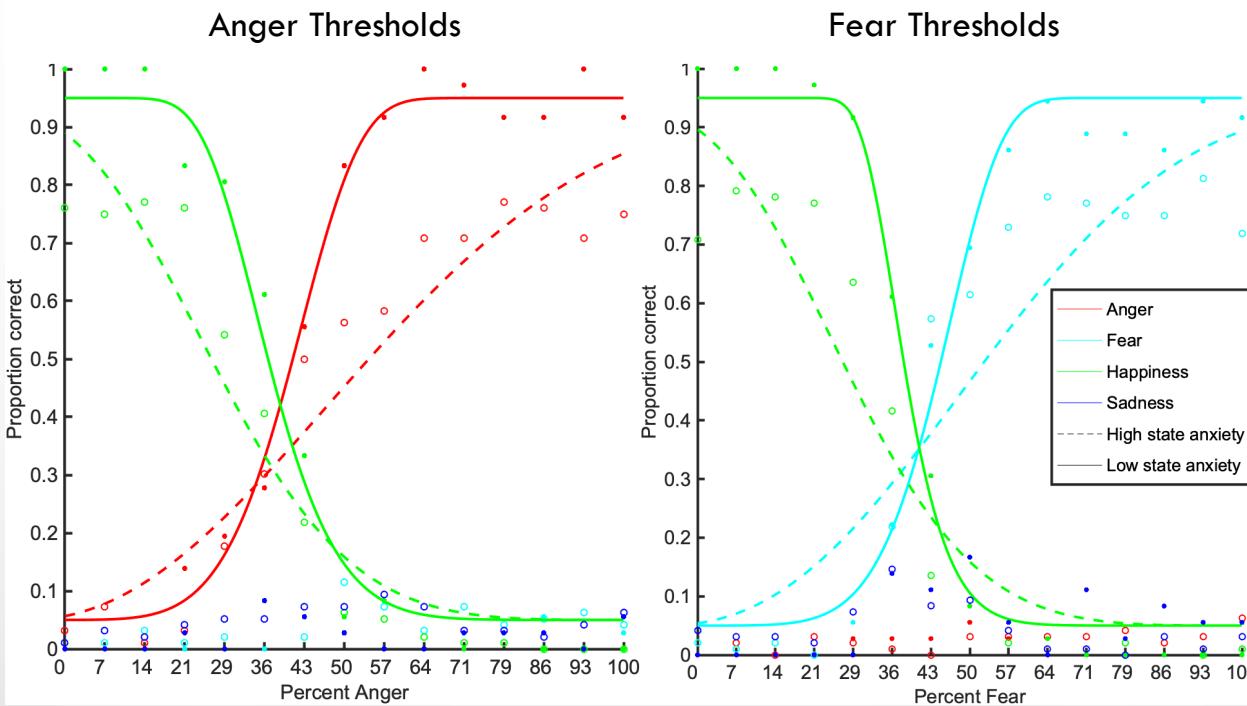
LOW FEAR THRESHOLD



HIGH FEAR THRESHOLD



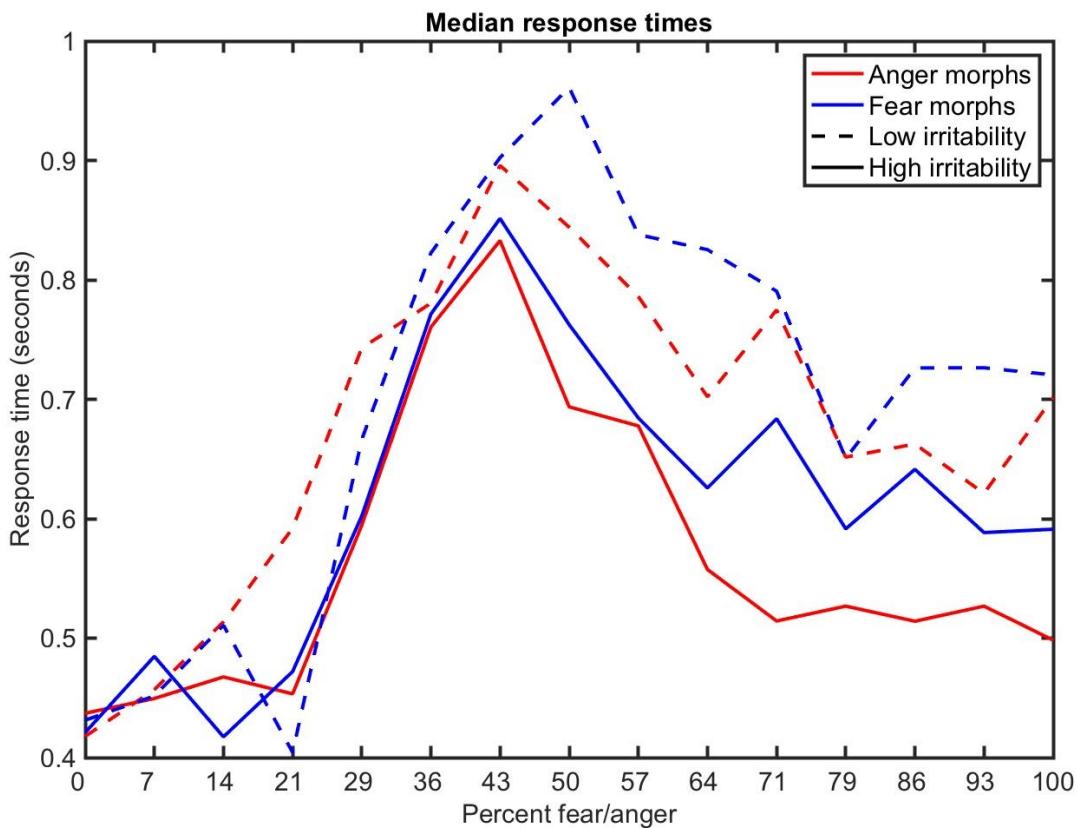
ANXIETY INFLUENCES FEAR THRESHOLDS



- EMOTION X TRAIT ANXIETY X STATE ANXIETY: $F(1, 13) = 5.27, P = .039$
- **PEOPLE WITH HIGH TRAIT ANXIETY AND HIGH STATE ANXIETY HAVE MARGINALLY LOWER FEAR THRESHOLDS THAN THOSE WITH HIGH TRAIT AND LOW STATE ANXIETY ($T(9) = 2.09, P = .066$)**



IRRITABILITY INFLUENCES THREAT THRESHOLDS AND RESPONSE TIME



- HIGHLY IRRITABLE PARTICIPANTS WERE FASTER TO SELECT ANGER THAN THOSE WITH LOW IRRITABILITY

$$T(19) = 2.39, P = .027$$

- HIGHLY IRRITABLE PARTICIPANTS HAD MARGINALLY HIGHER FEAR THRESHOLDS THAN THOSE WITH LOW IRRITABILITY

$$T(19) = 1.90, P = .063$$



CONCLUSION

- **PARTICIPANTS WITH HIGH TRAIT AND HIGH STATE ANXIETY WERE MORE BIASED TO DETECT FEARFUL FACES THAN THOSE WITH HIGH TRAIT AND LOW STATE ANXIETY**
 - NEGATIVITY BIASES MIGHT BE DUE TO TEMPORARY FEELINGS OF ANXIETY FOR TRAIT ANXIOUS PEOPLE
- **PARTICIPANTS WITH HIGH IRRITABILITY HAD MARGINALLY HIGHER THREAT THRESHOLDS FOR FEAR MORPHS AND WERE FASTER TO SELECT ANGER THAN THOSE WITH LOW IRRITABILITY**
 - ANXIETY AND IRRITABILITY MAY BE RELATED TO EMOTION-SPECIFIC THREAT BIASES



REFERENCES

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