



Stress Contagion in Dyads

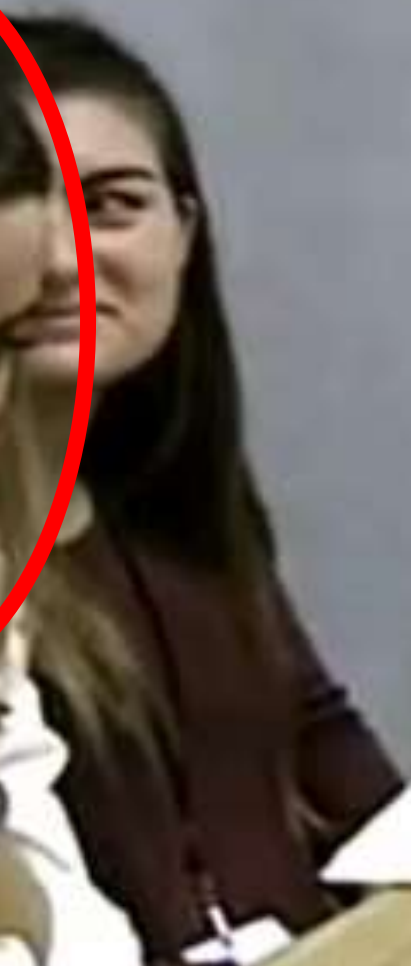
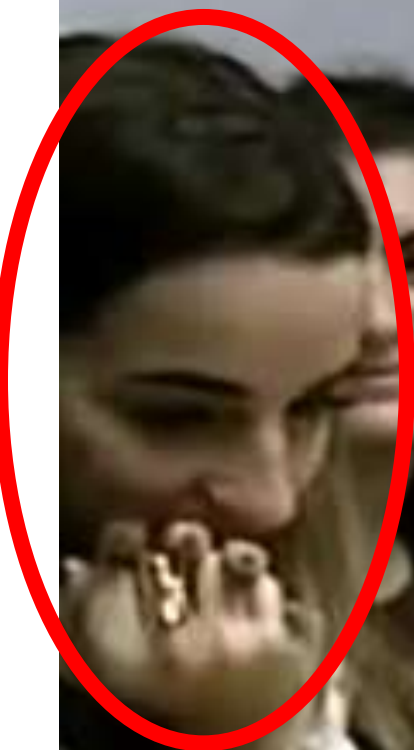
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“Brittle smiles”

- Whites overcorrect for anxiety through exaggerated positivity—smiling and laughing
- The stronger the sympathetic arousal, the bigger the smile
- Exaggerated positivity is a way of compensating for feeling anxious

Main Points

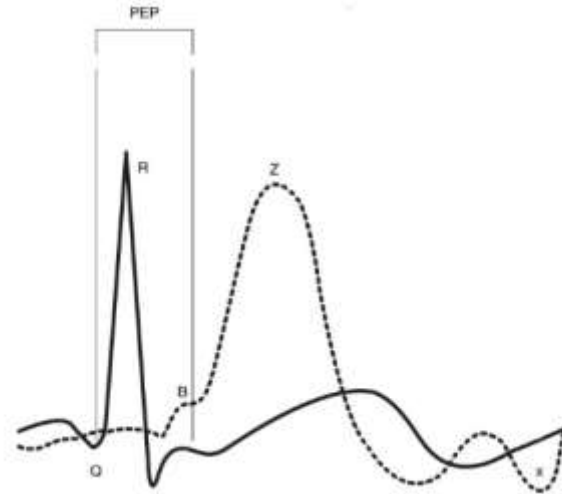
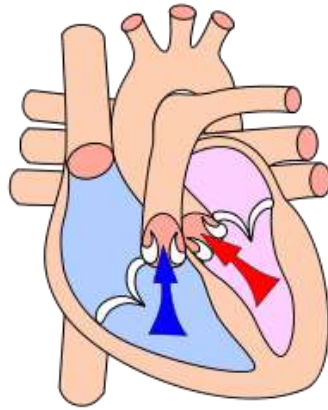
- Emotions can be “caught” in social interactions
- This is especially the case for anxiety
- We can examine emotion contagion using physiological linkage between partners

Our Approach

- Measure physiological responses of both interaction partners throughout the interaction
- Examine the extent to which one person's physiological response predicts their partner's response, 20 seconds later

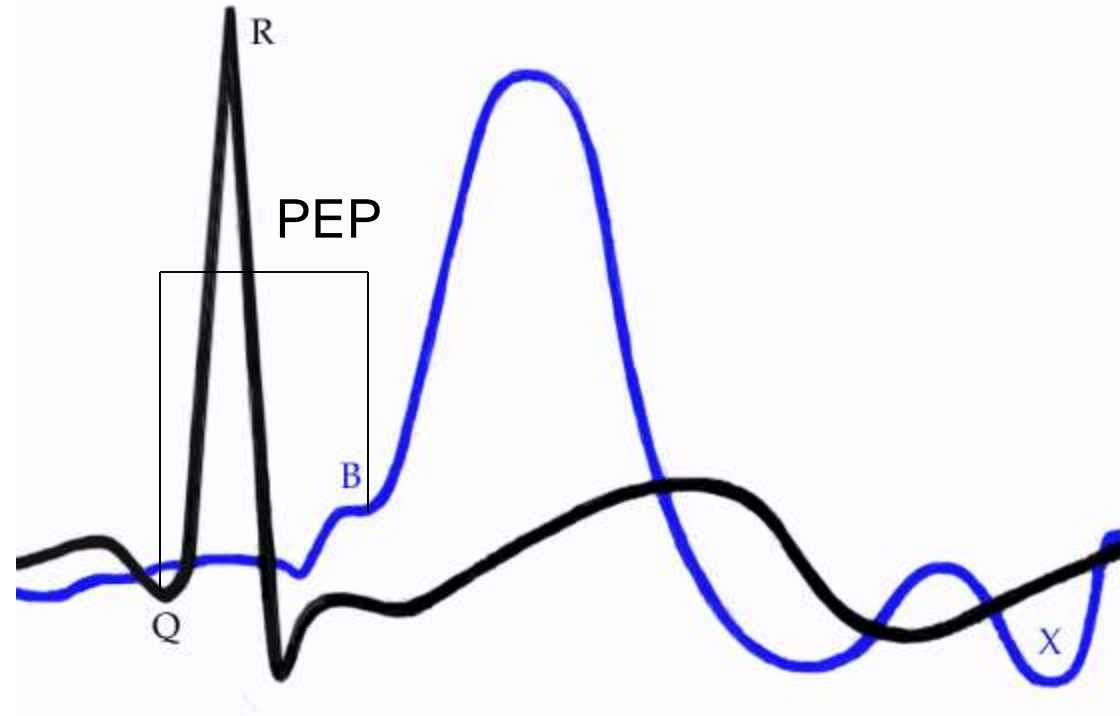
Pre-ejection Period

- One of the purest measures of sympathetic nervous system activity
- Calculated using pre-ejection period: time-based measure from the left ventricle contracting to the opening of the aortic valve

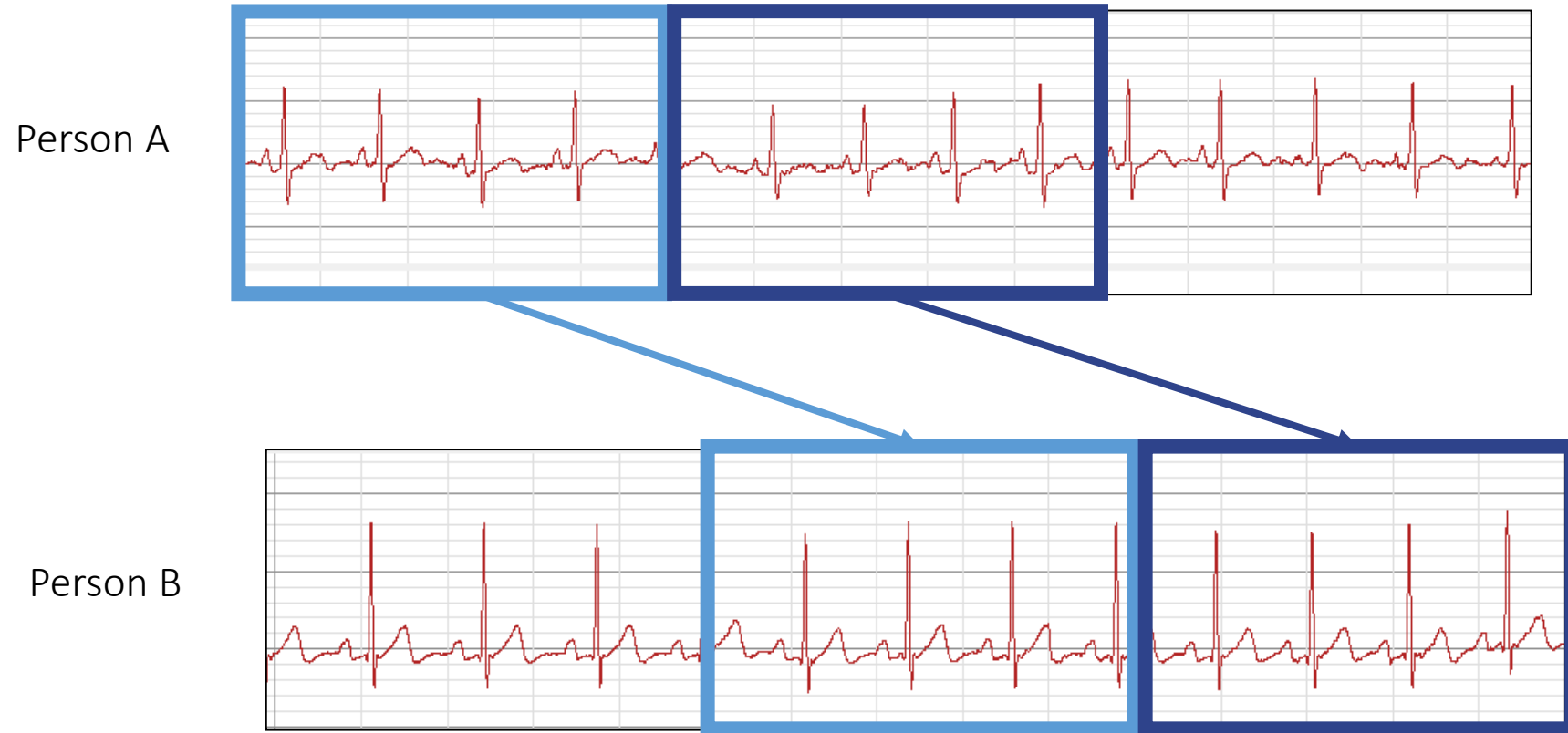


- Sensitive to momentary changes in affective intensity
- Linkage between people measures sensitivity to the fluxes and flows of one's partner's emotional state

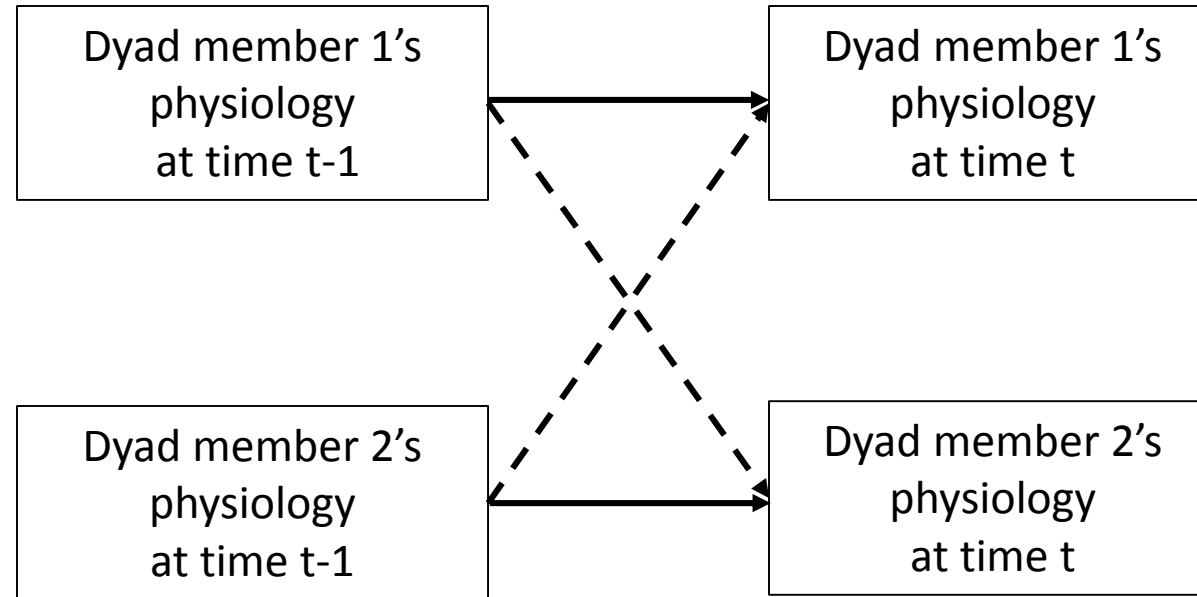
Sympathetic nervous system (PEP)



Physiological linkage



Thorson, West, & Mendes (in press, *Psych Methods*)



Infants are Attuned to Stressed Mothers

Waters et al. (2014 *Psychological Science*, 2017 *JEP: G*)

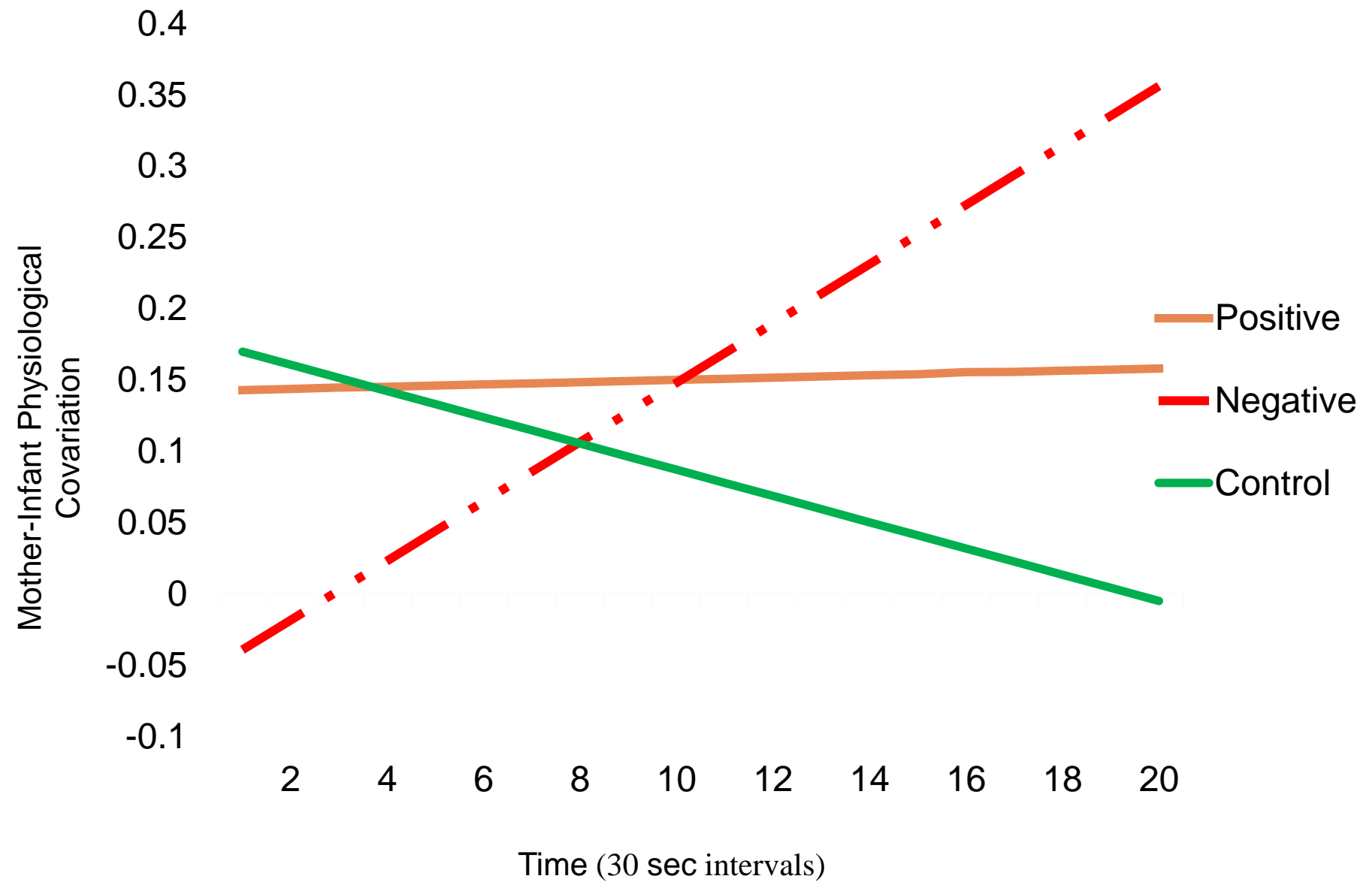
Study 1 Overview

- 69 Mother-baby Dyads
 - 12 to 14 month old babies
- Mothers completed either:
 - Stressful task intended to engender high arousal/negative affect
 - Stressful task intended to engender high arousal/positive affect
 - No stress, control task
- Mothers and babies reunite
 - Complete play task
 - Measured physiology for both

Social evaluation

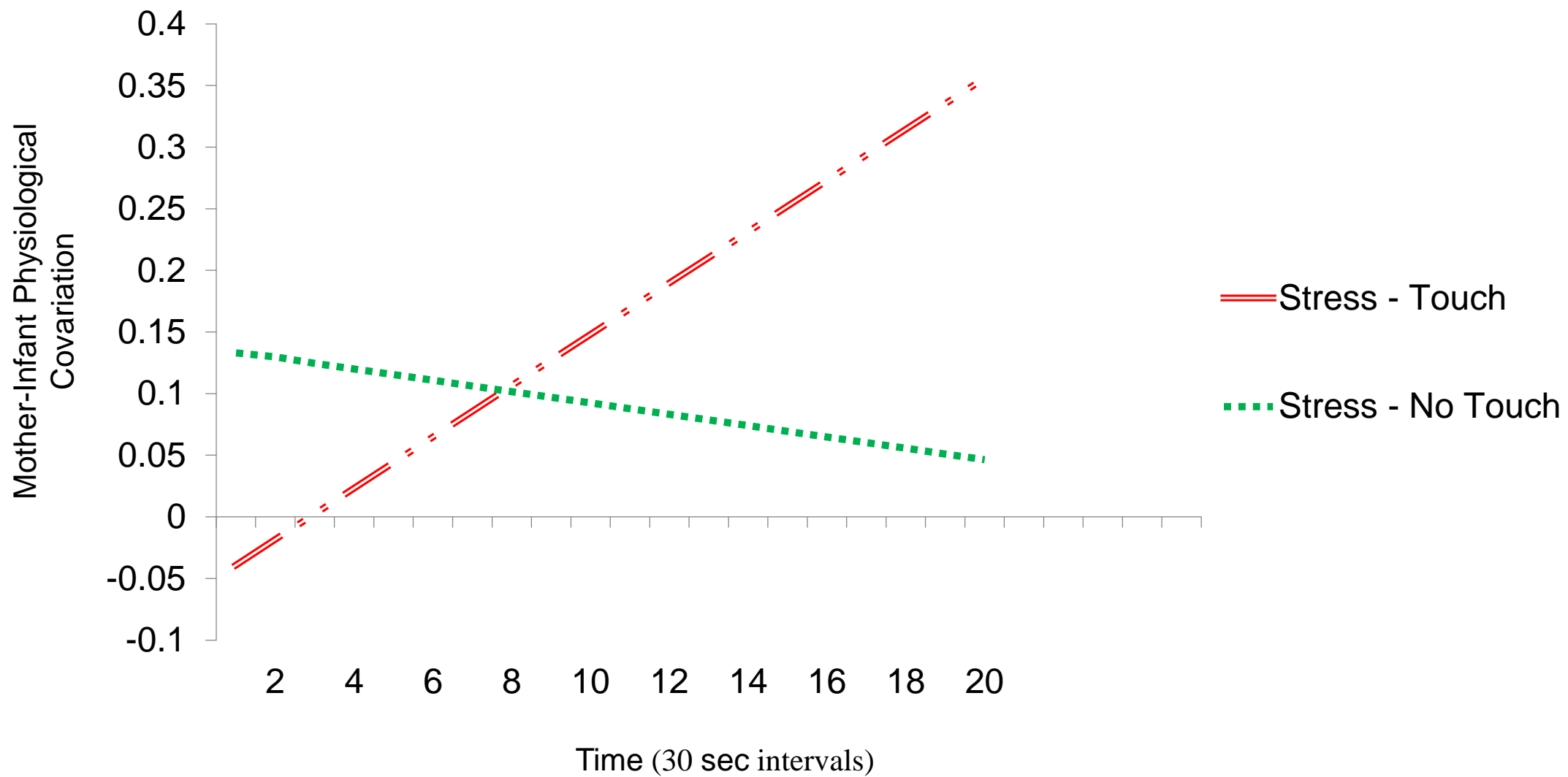






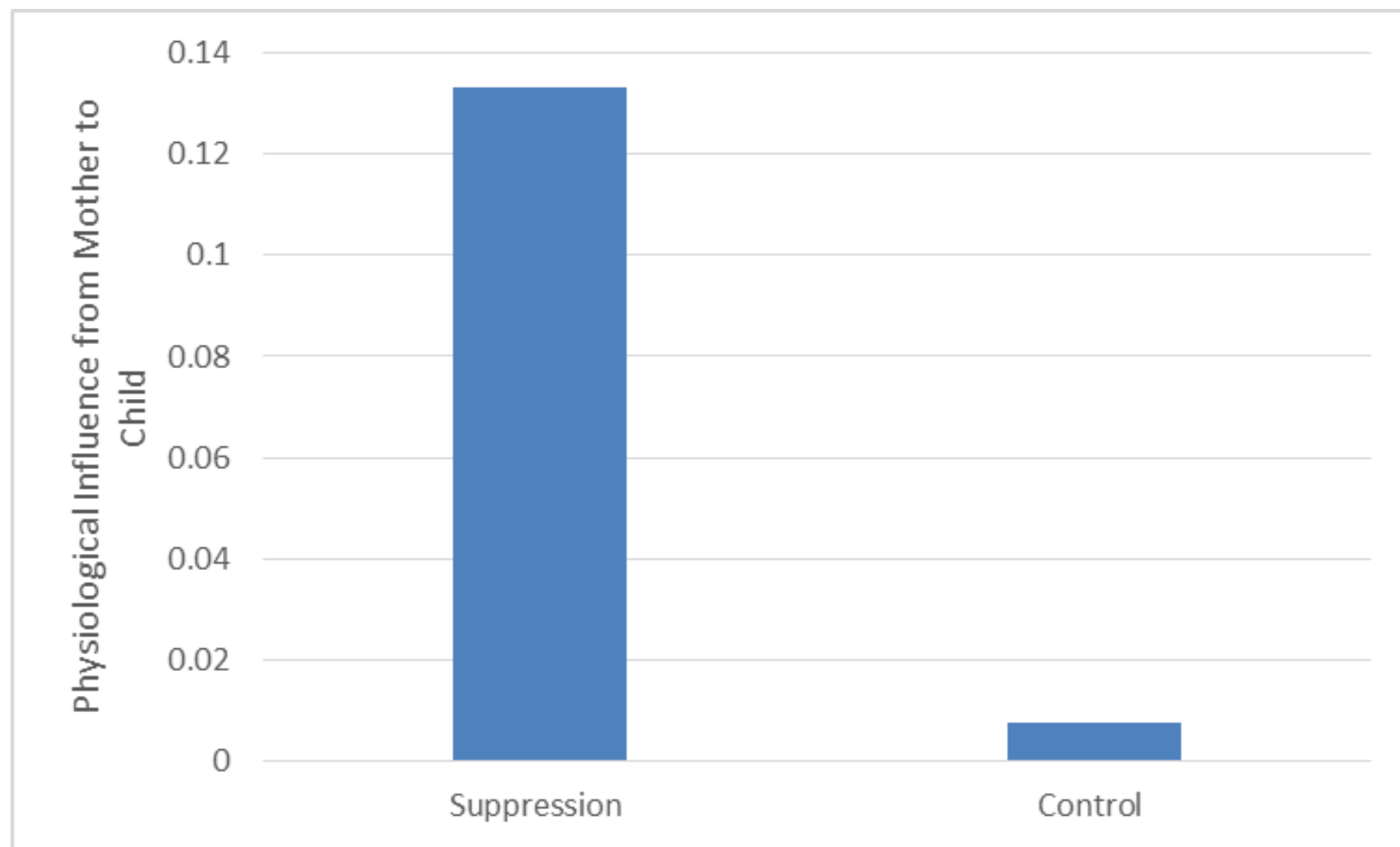
Study 2 Overview

- Same basic design with inclusion of a Touch or No Touch Condition
- Touch may be one process through which emotion contagion occurs
- Mothers and infants faced each other and touched hands the whole time *or* they did not touch each other



Study 3 Overview

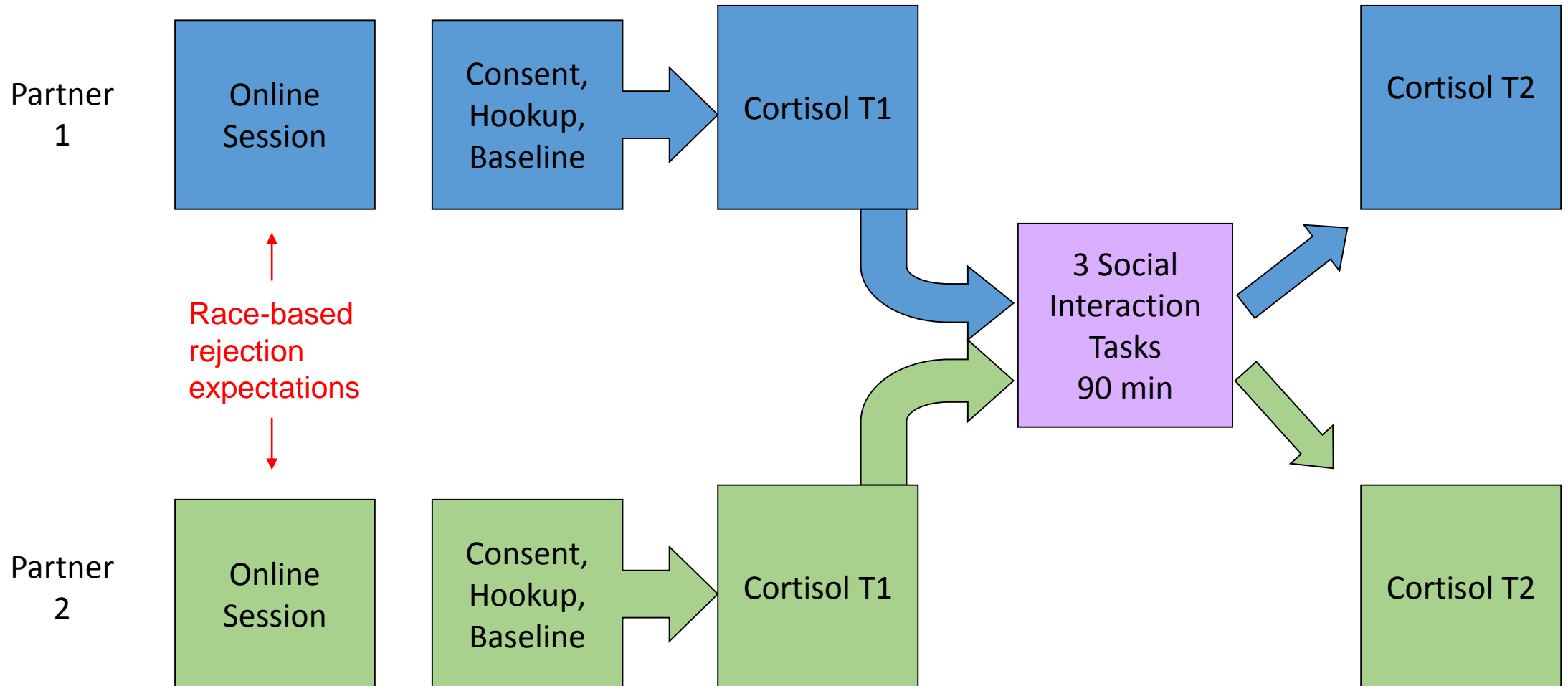
- 54 mothers with their 7-10 year olds
- Mothers went through Trier Stress Test and either told to **suppress** their emotions or to act naturally
- Mothers and children then had a conflict interaction



Blacks Are Attuned to Stress Cues in Whites

West et al. (2017, *Psychological Science*)

Study 4 Timeline



Race-based rejection expectations

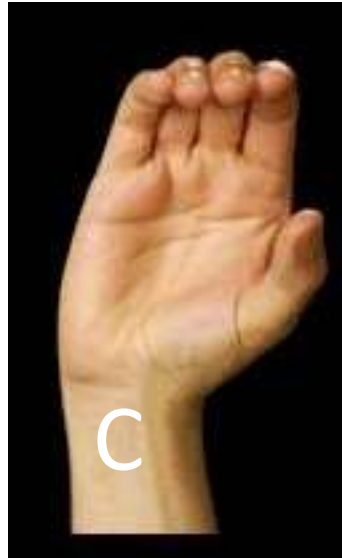
- 6 scenarios given only to African American participants
- What is the likelihood that the person behaved this way toward you because of your race? ($\alpha = .89$)

Task 1: Getting Acquainted



Task 2: Touch task

American Sign Language – Tactile Finger-spelling



Task 3: Cooperative Game

Get partner to guess target word without using any of the distractor words. Success depends on shared knowledge

Example:

DRAFT

sports

military

select

pick

choose

“Type of beer that comes out of the tap...”

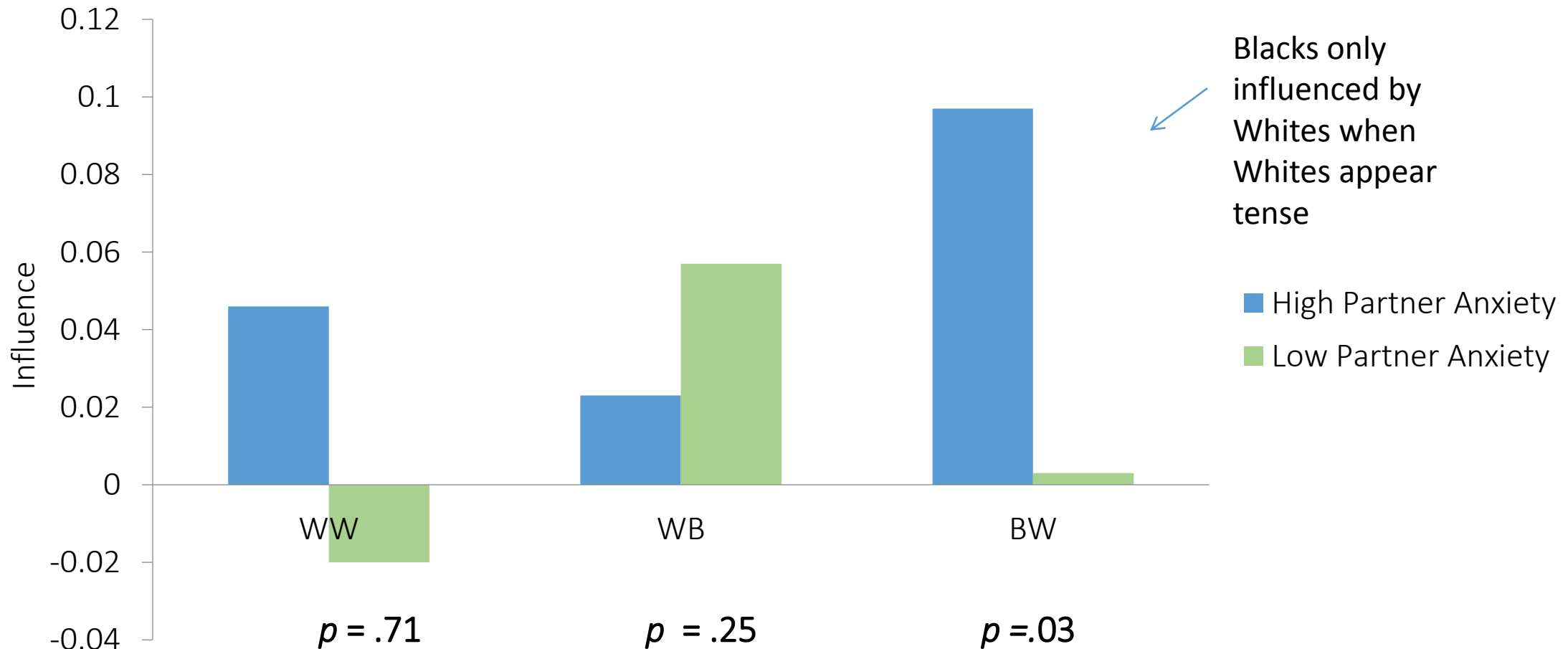
OR

*“Before you turn in your final paper, you might turn in
a rough _____”*

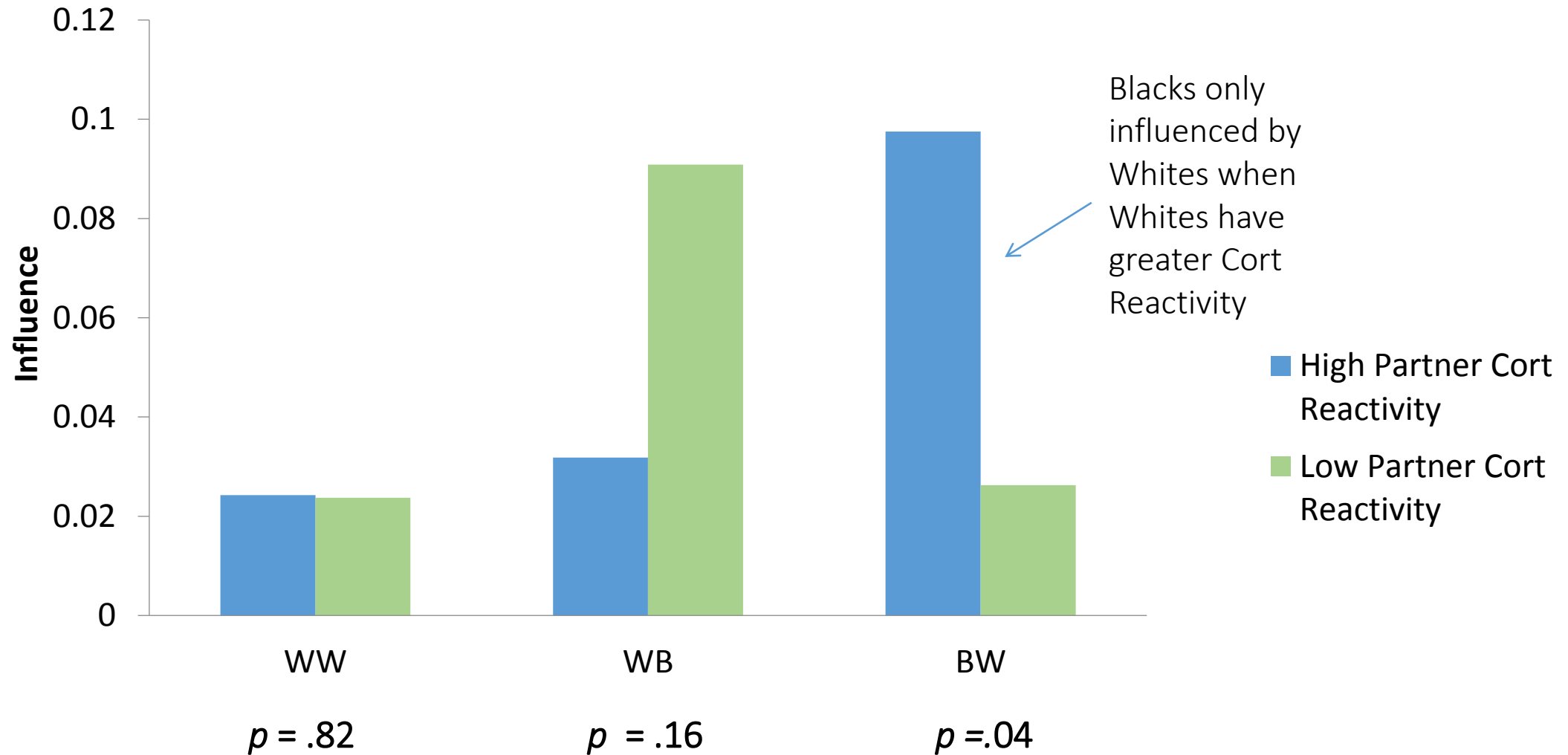
Three Measures of Anxiety

- Self-reported comfort
 - “How comfortable are you with your partner” measured twice
- Behavioral Tension
 - Erect position, clenched limbs, rigid, leaning forward (versus closed posture)
- Cortisol reactivity
 - Measured at baseline (25 min after arrival) and 3 min after end of the study

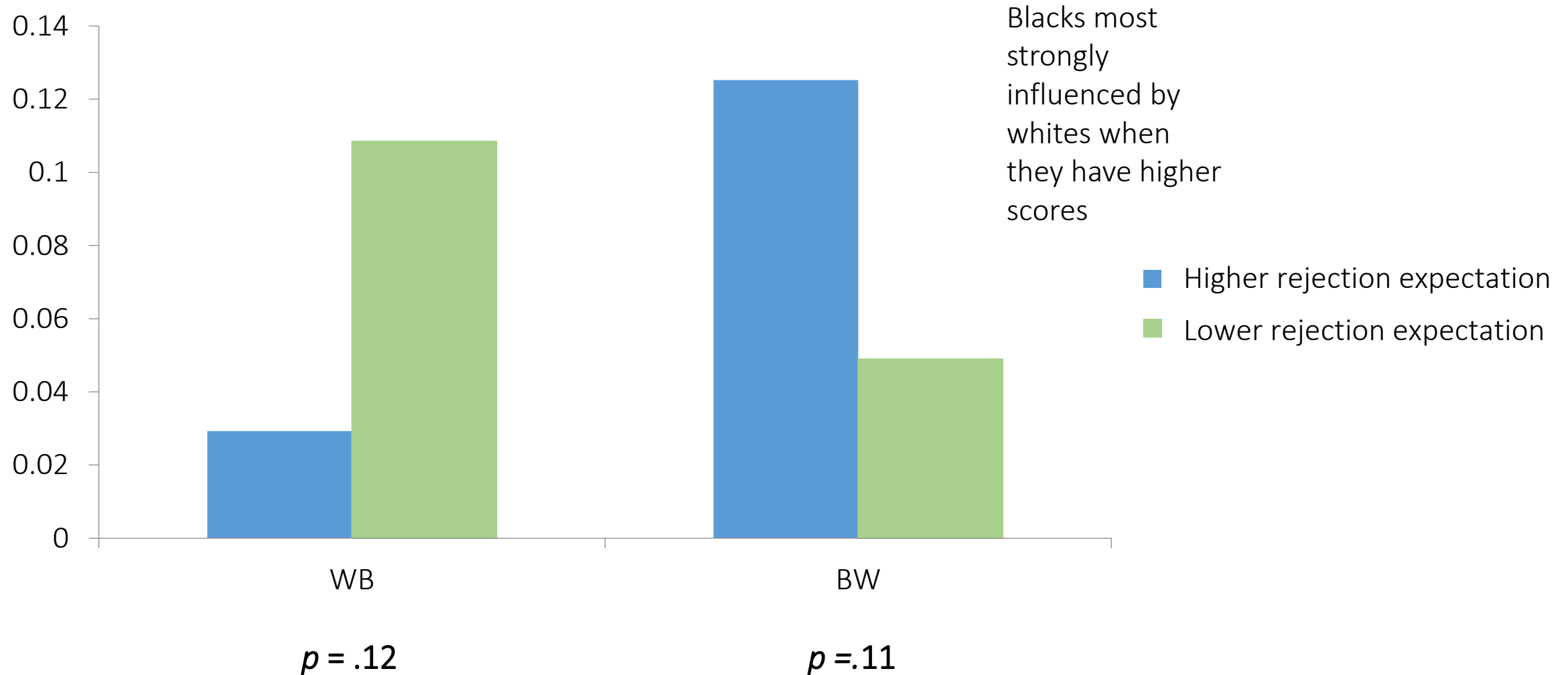
Partner Tension



Partner Cortisol



Race-based Rejection Expectation



Summary and Extensions

- People are attuned to stress cues in their partners—they show physiological linkage to partners who come into the interaction stressed, and who display stress cues throughout the interaction
- Features of the person doing the stress “catching” as well as those doing the stress “giving” can facilitate stress contagion
- In medical interactions, stress is in the air, yet the implications for being attuned to stress are unknown

Thank you