

A Situational Analysis of Emotion Regulation

Exploring the Role of Emotion-by-Strategy Associations in
Regulating Affect

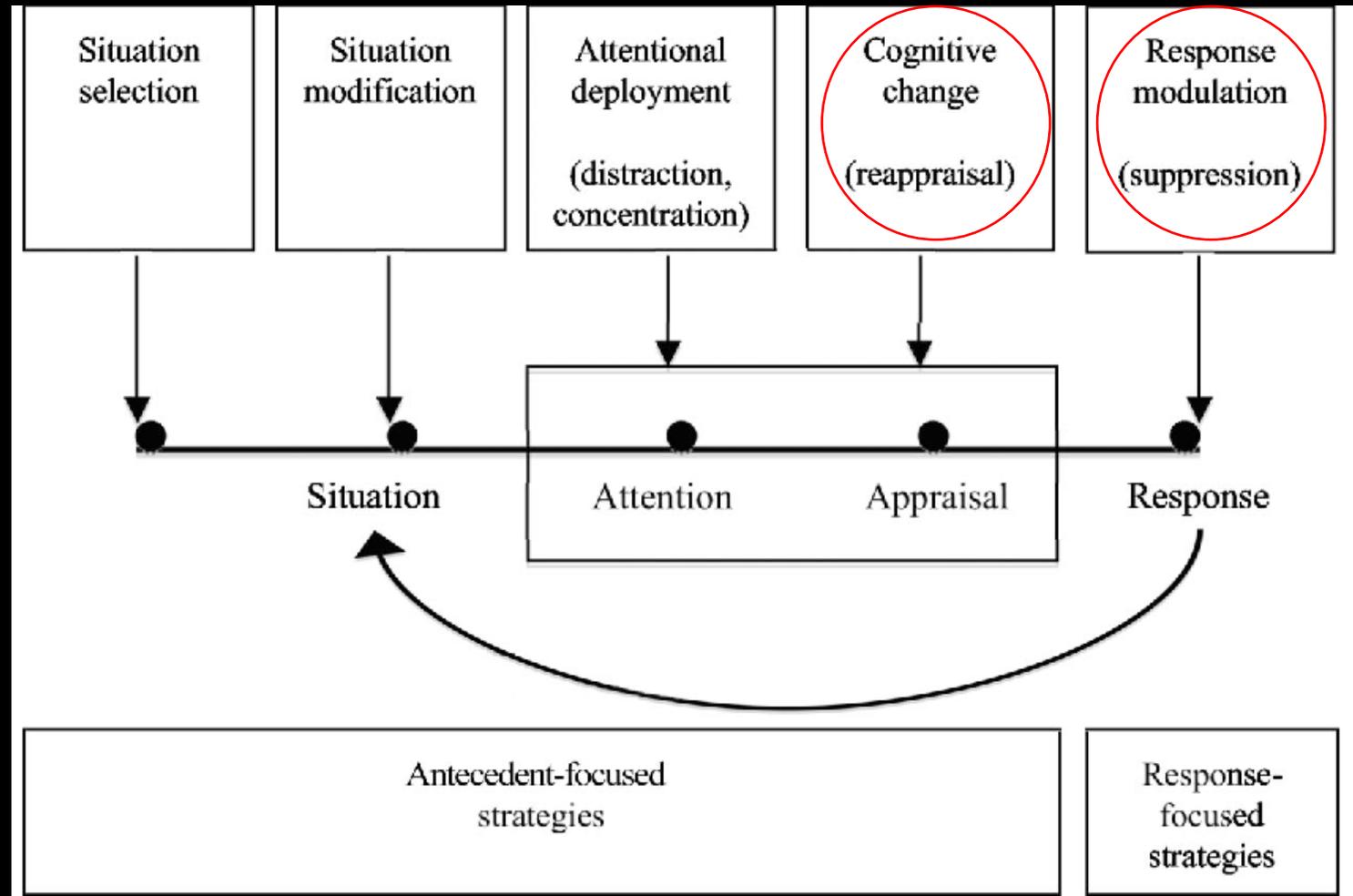
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Why regulate (negative) emotion?

- Shields from depression and anxiety (Troy & Mauss, 2011)
- Facilitates recovery from stress (Marroquin et al, 2017)
- Improves problem-solving skills (Blanchard-Fields, 2007)
- Increases life satisfaction (Saxena et al, 2011)

Process Model of Emotion Regulation

(Gross, 1998)



Why Reappraisal and Suppression?

Fixed Tale of Two Strategies

Cognitive Reappraisal

- **Daily positive affect** (Brockman et al, 2017)
- **Reduced emotion reactivity** (Gruber et al, 2014)
- **Lower blood pressure** (Memedovic et al, 2010)
- **Less social anxiety** (Goldin et al, 2012)

Expressive Suppression

- **Chronic Inflammation** (Khan et al, 2020)
- **Impaired social functioning** (Butler et al, 2003)
- **Depressive symptoms** (Larsen et al, 2012)
- **Disordered eating** (McLean et al, 2007)

Fixed vs. dynamic tale of two strategies...

More recent work suggests...

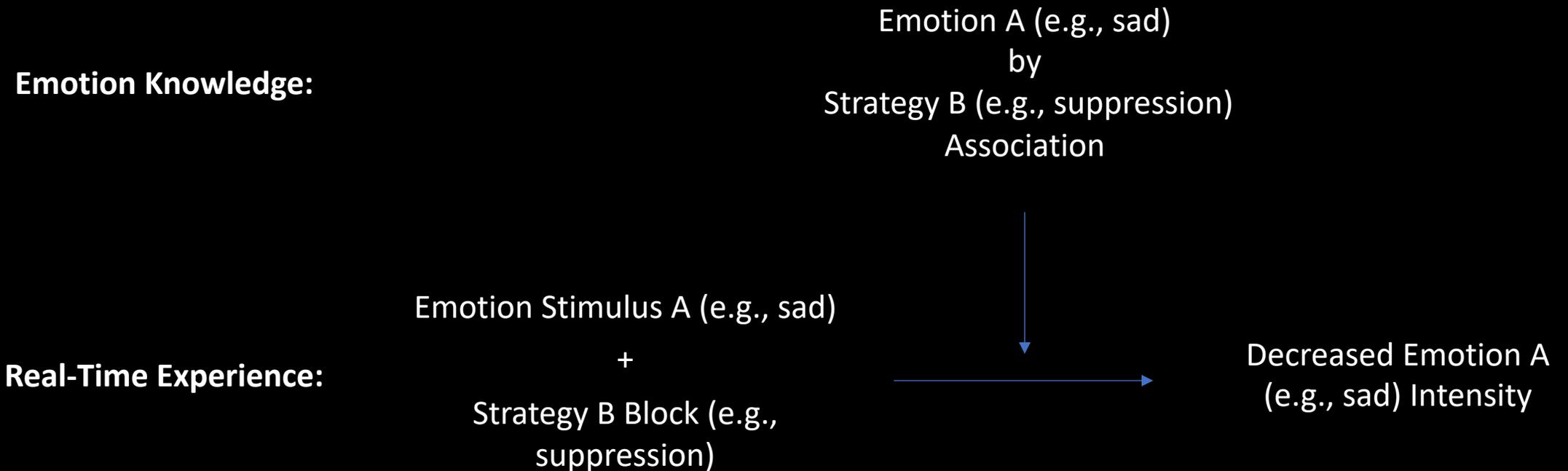
- Expressive suppression sometimes useful at attaining social goals (Webb et al, 2005; English et al, 2017)
- Reappraisal sometimes not useful in controllable stress (Troy et al, 2013; Sheppes et al, 2011)
- Emotions and emotion regulation strategies conceptualized as **situations** (Barrett et al., 2014; Wilson-Mendenhall et al., 2011)
- Suppression and reappraisal tend to be associated with specific emotions (Leshin et al., in prep)

The Present Study

The Present Study

- Expands on more recent work on emotion regulation, particularly, the situated nature of emotion regulation
- Examines reappraisal and suppression in the context of fear and sadness

Hypotheses



Methods

Participants

- N = 188 (males = 64) Amazon Mechanical Turk participants
- Ages range 18-75 years old (M = 43.6, SD = 13.5)
- A majority identify as white (84%, n = 157)
- Excluded participants if they...
 - Did not consent
 - Failed the attention check
 - Cited distractions or technical difficulties while taking the survey
 - Demonstrated no variance in the control task

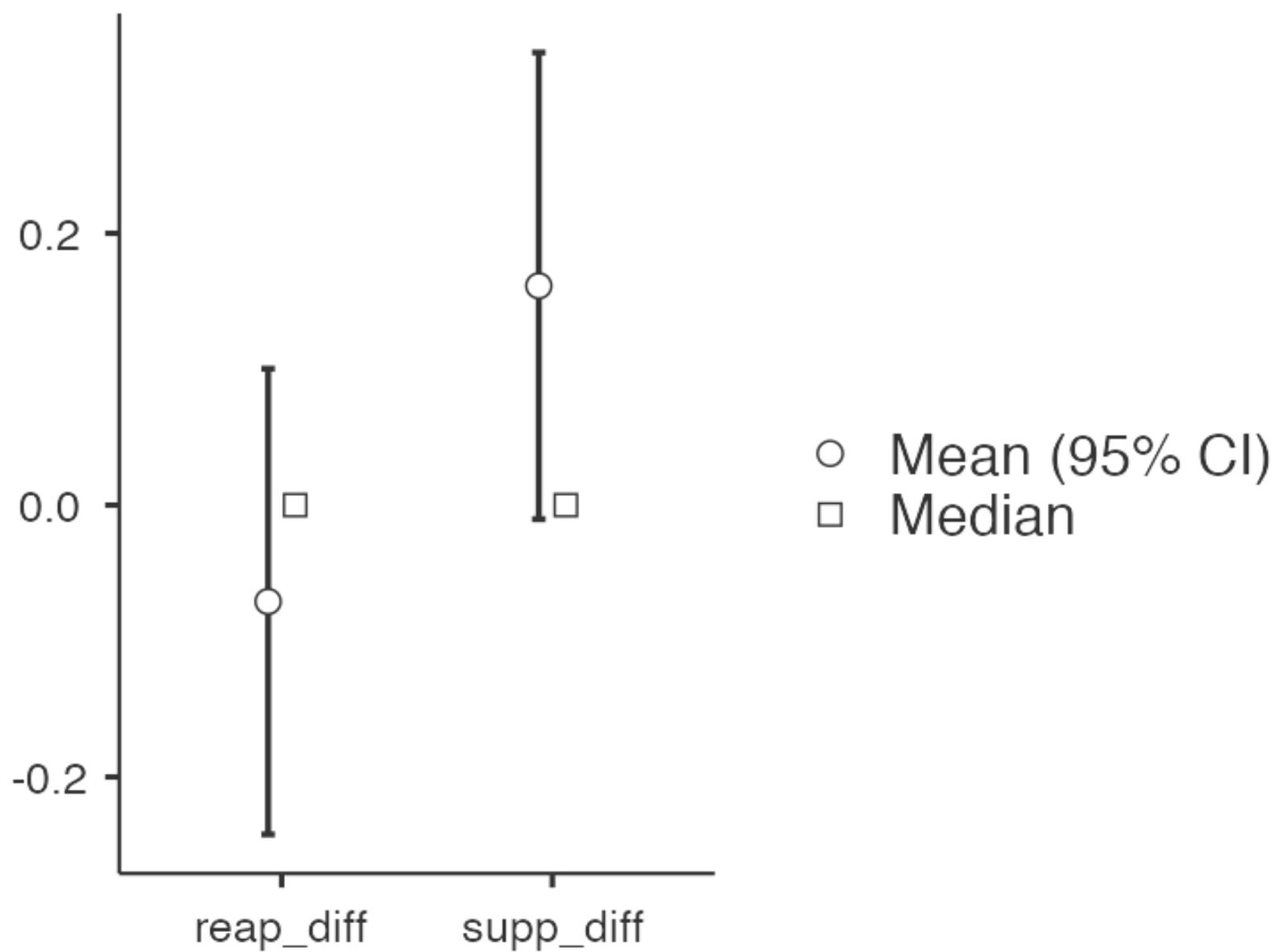
Questionnaires

- Emotion Reactivity Scale (Nock et al, 2008)
- Implicit Theories of Emotion (Tamir et al, 2007)
- Emotion Control Values (Mauss et al, 2010)
- Satisfaction with Life Scale (Diener et al, 1985)
- Toronto Alexithymia Scale (Bagby et al, 1994)
- Hospital Anxiety and Depression Scale (Zigmond et al, 1983)
- E x S Associations, adapted from ERQ (Gross et al, 2003)

E x S Associations

- Likert Scale 1-7; emotions = anger, sadness, disgust, fear
- Cognitive Reappraisal Items
 - When I feel [emotion], I make myself see things in a more favorable light
 - When I feel [emotion], I make myself change the way I'm thinking about the situation
- Expressive Suppression Items
 - When I feel [emotion], I keep it to myself
 - When I feel [emotion], I make sure not to express it
- E x S Association Strength as Emotion in Strategy Difference
 - Reappraisal-Emotion Associations
 - Suppression-Emotion Associations

Plots



Within-subjects Design

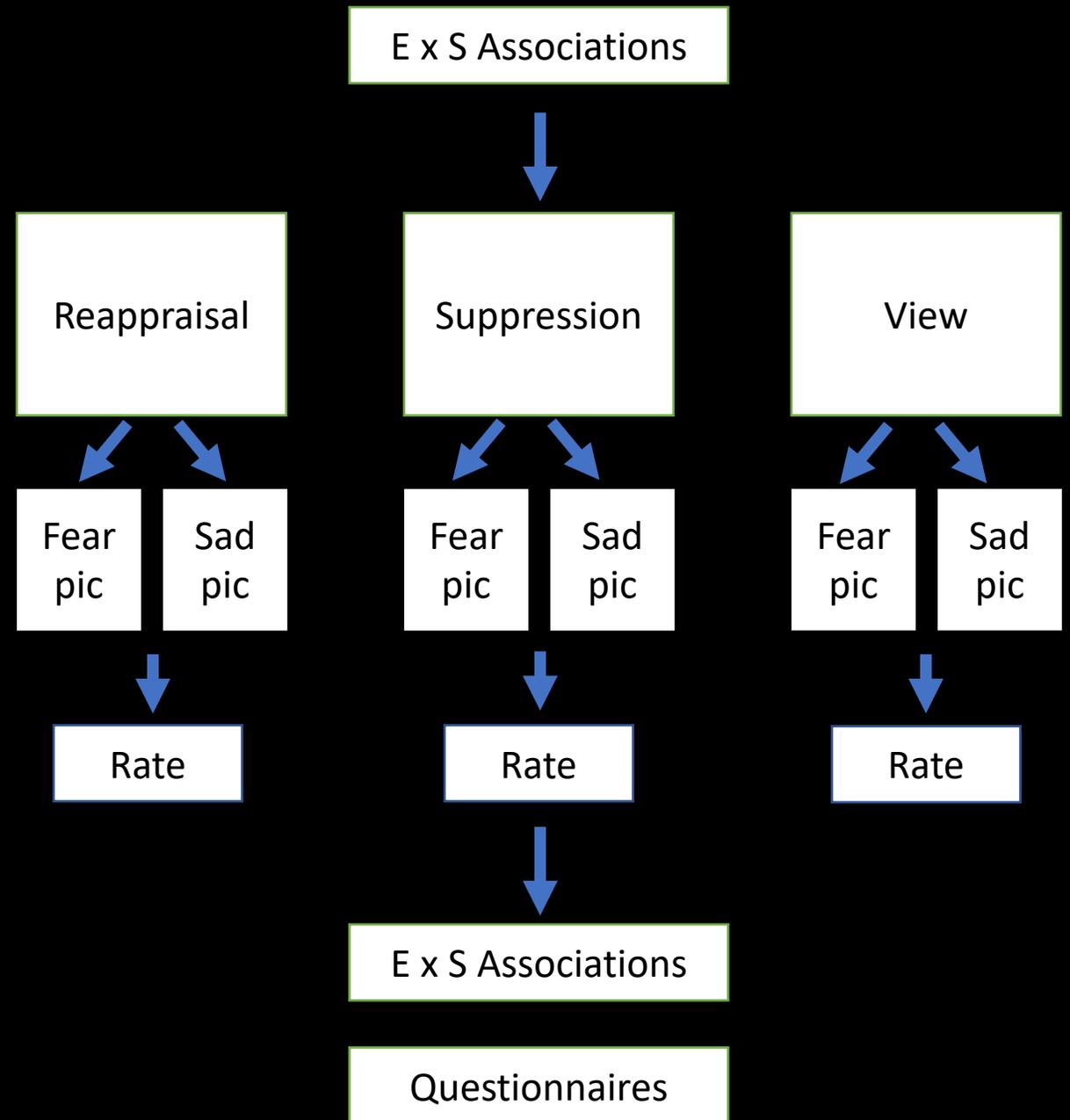
Ps either began or ended with E x S Associations Qs

Ps were randomly assigned to ER block and instructed on ER strategy

3 sad, 3 fear images were randomly presented per ER block

Ps rated extent to which they experienced anger, disgust, fear, sadness, and surprise per image

Ps completed questionnaires as final phase in experiment



Analysis Plan

- Used multi-level modeling via R. Specifically:

Fear or Sad intensity ~

*(E x S for reappraisal)*Reappraisal Block +*

*(E x S for suppression)*Suppression Block*

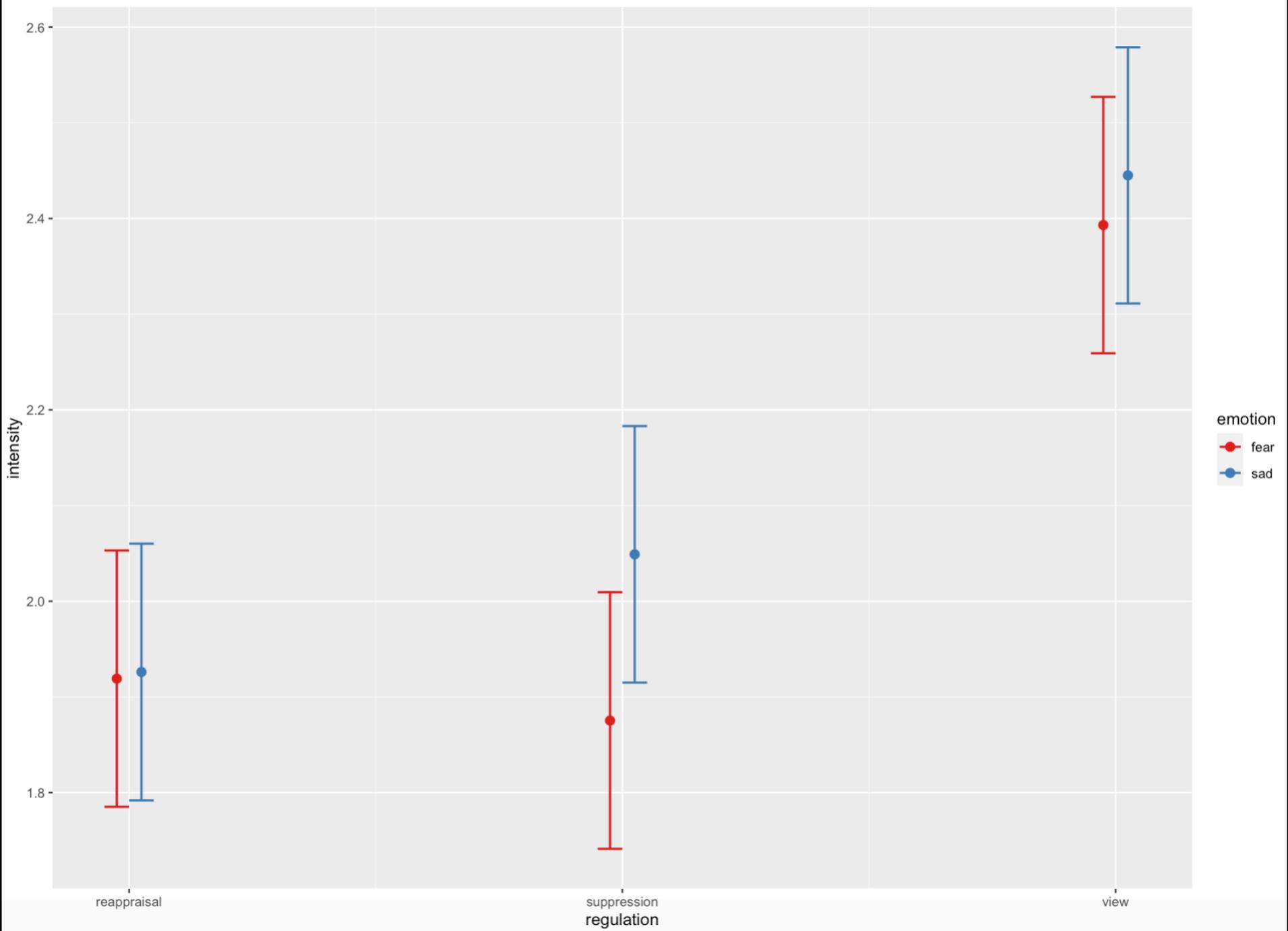
- Controlled for random effects of Ps and fixed effects of age and sex
- Two models: one to predict sadness intensity ratings, another for fear intensity ratings

Results

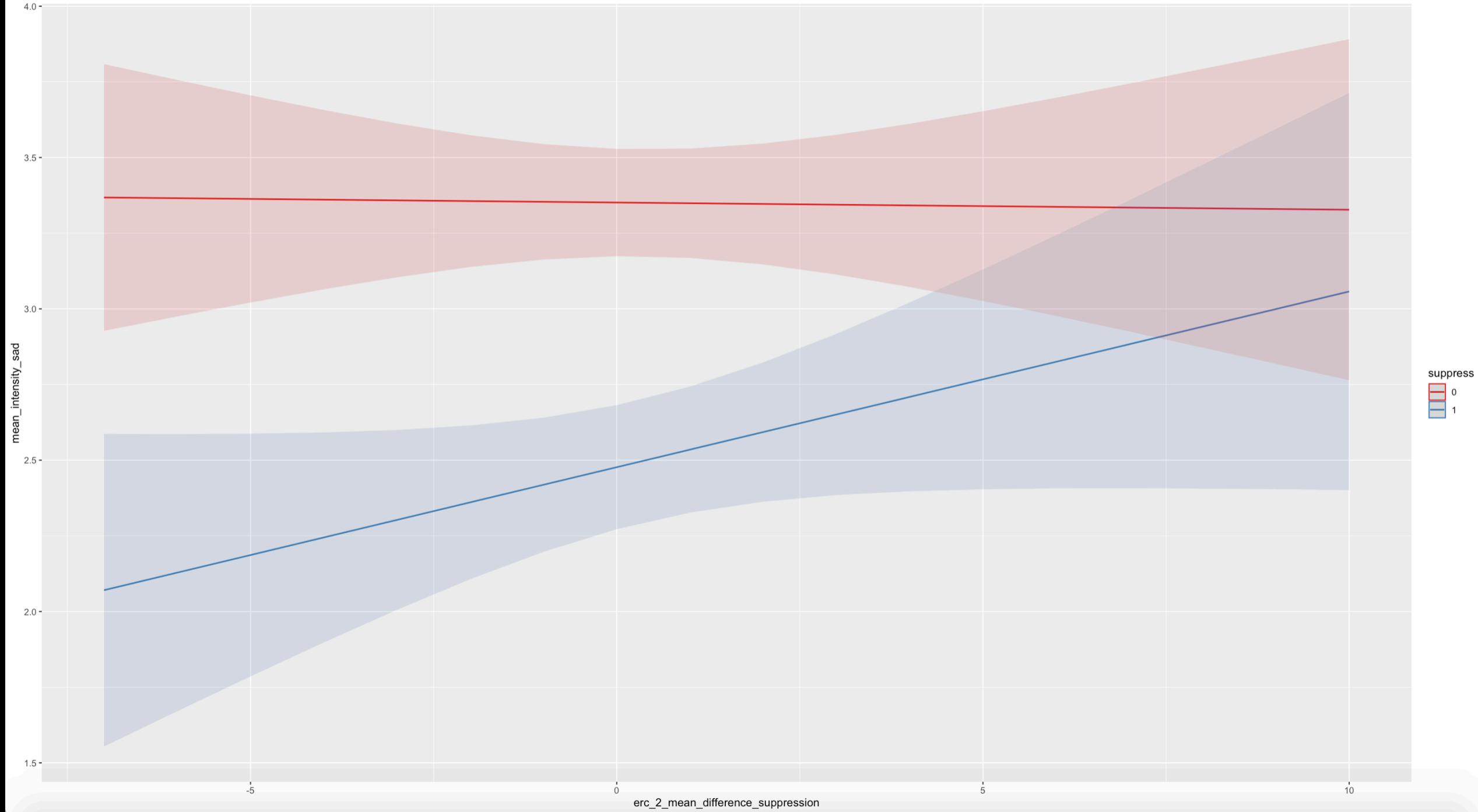
Manipulation Check

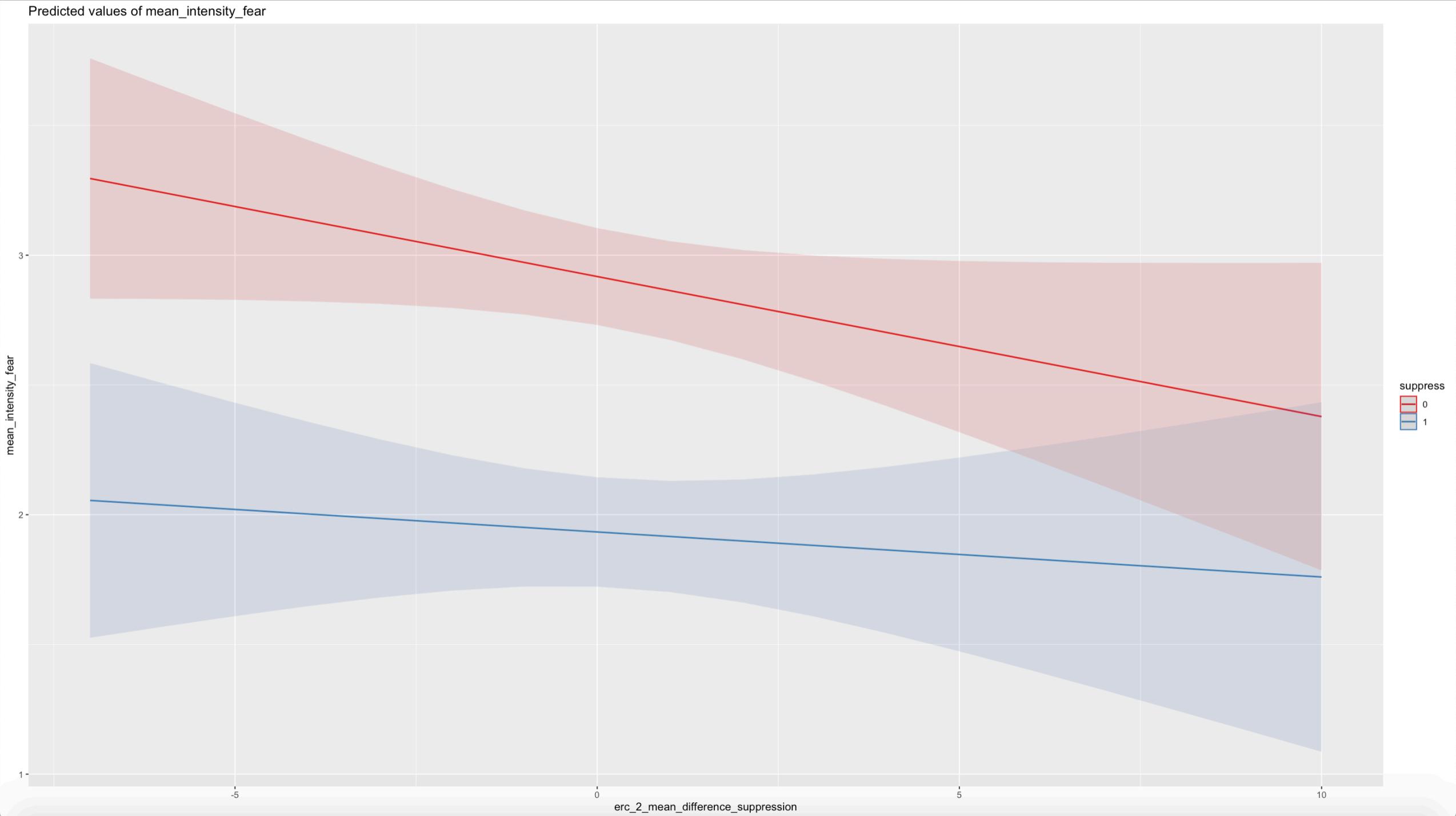
- Fear intensity greatest in fear than sadness stimuli ($p < .001$)
- Sadness intensity greatest in sadness than fear stimuli ($p < .001$)

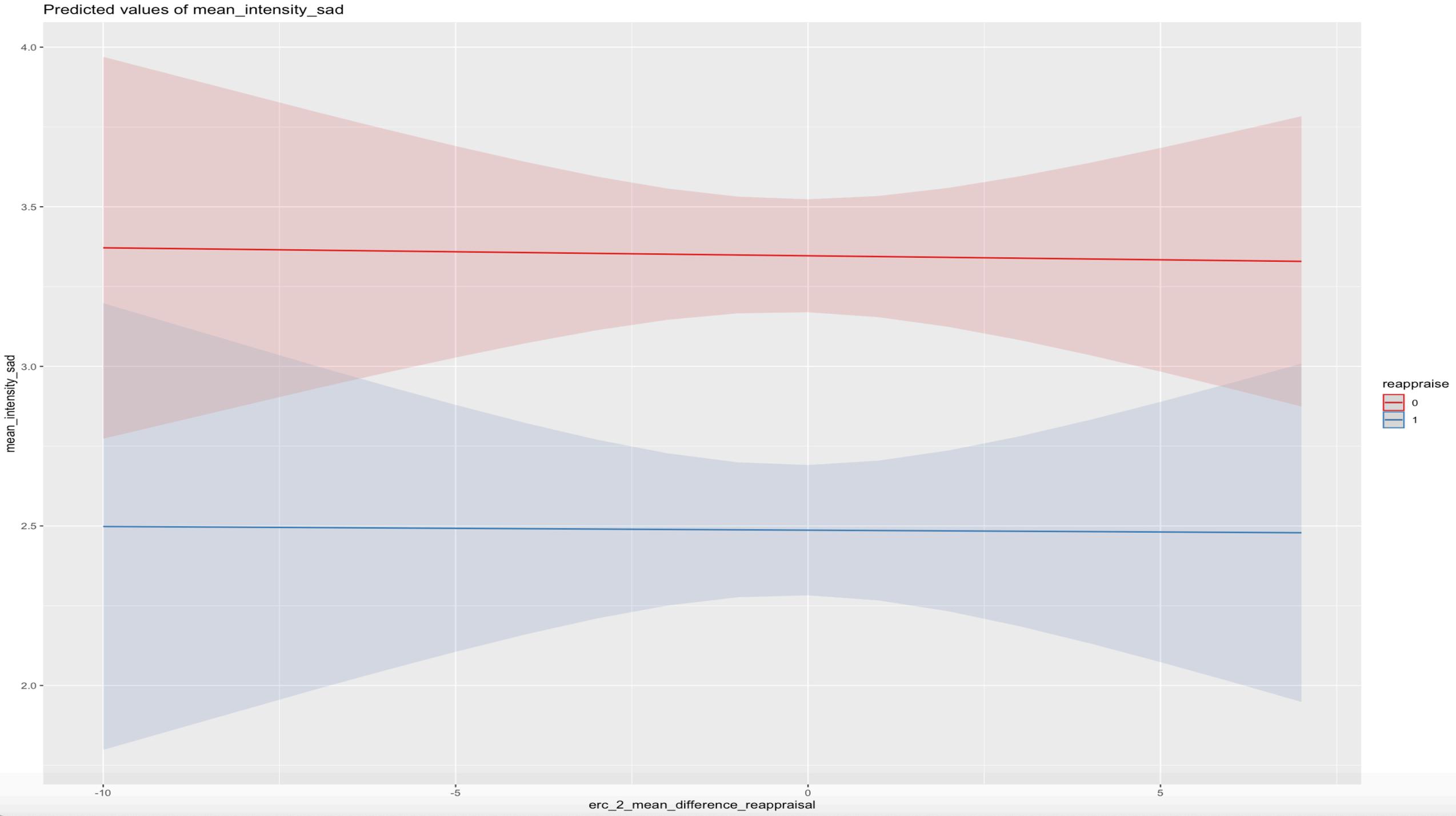
Predicted values of intensity

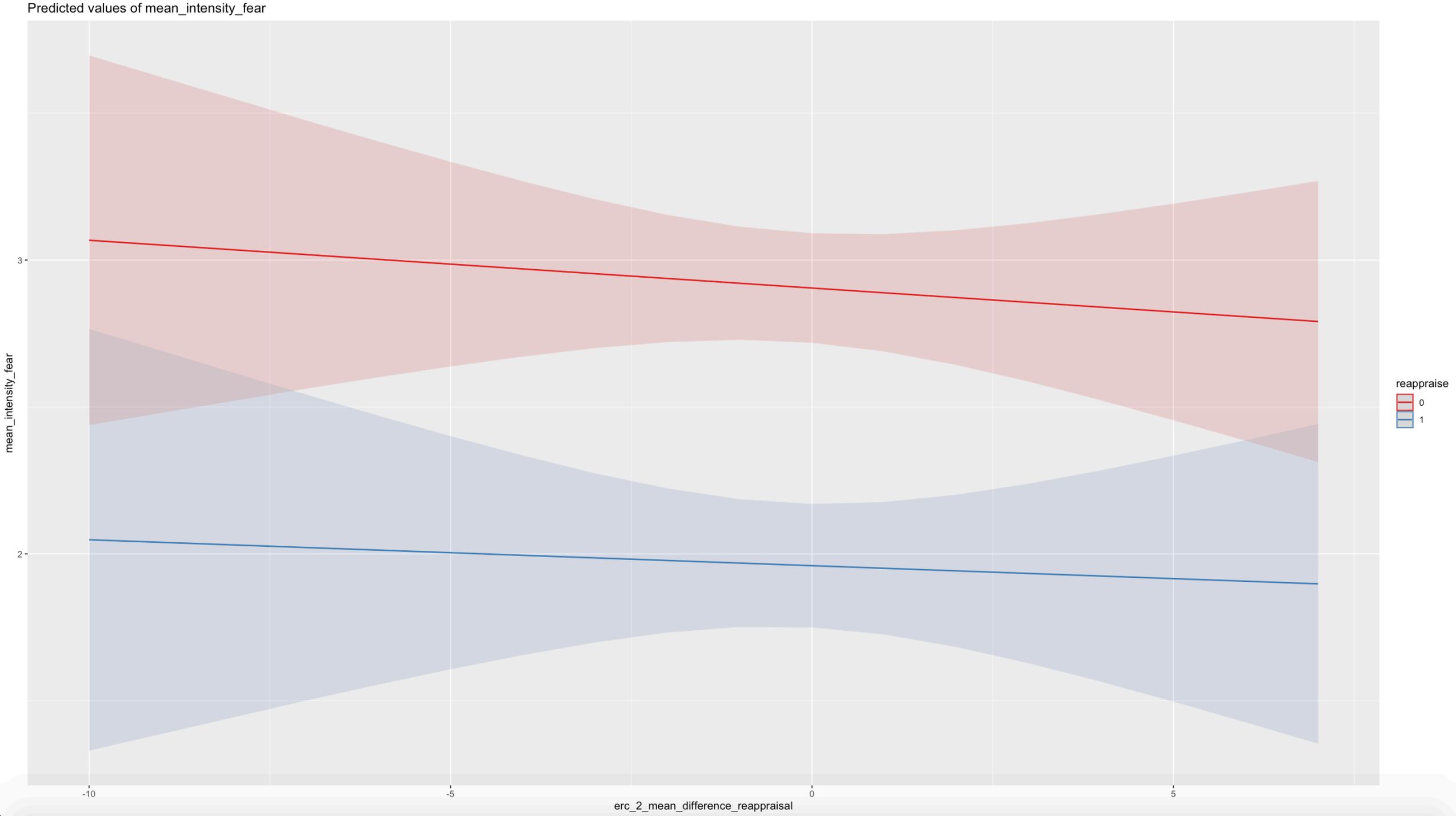


Predicted values of mean_intensity_sad









Discussion

Implications

- Suppression may be useful in regulating sadness when an individual possesses strong suppression-sadness associations
- No clear support for the role of reappraisal-emotion associations in emotion regulation efficacy
- More research needed to determine the extent emotion-by-strategy concepts help individuals regulate affect

Limitations

- Fear-eliciting images
- Inability to monitor participants

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Questions?