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### Eating Expectancies Moderate the Relationship Between Negative Affect and Repetitive Negative Thought in Adolescents and Emerging Adulthood in Relation to Binge Eating Symptoms

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## Background:

- Binge eating is defined as eating a large amount of food with loss of control (American Psychiatric Association, 2013).
- Adolescence and emerging adulthood are key time periods in the development of eating disorders (EDs), including binge eating (Dakanalis et al., 2017).
- Eating expectancies, or the collective learning of expectations around food and weight, are risk factors for binge eating (Bruce et al., 2009).
- Negative affect and repetitive negative thinking (RNT) are also related to binge eating (Berg et al., 2017; McEvoy et al., 2019).
- Higher eating expectancies are also related to higher negative affect and RNT (Smith et al., 2007).
- It is important to explore interactions among eating expectancies, negative affect, and RNT affect binge eating in both adolescence and emerging adulthood
- May provide insight into whether multiple risk factors should be considered when designing novel interventions for ED symptoms

## Questions

- Are there interactions between eating expectancies, negative affect, and RNT and binge eating during adolescence?
- Are these interactions also present during emerging adulthood?

## Participants

### Adolescent Sample

- 43 females, aged 13-15 ( $M = 14.09$ ;  $SD = 0.84$ )
- 86% Caucasian
- High school students at all-girls school

### Emerging Adulthood Sample

- 729 females, aged 18-25 ( $M = 20.00$ ;  $SD = 4.01$ )
- 67.4% Caucasian
- Undergraduate students

## Procedures

- Participants were asked to complete online measures via RedCap, a secure online questionnaire platform (Harris et al., 2009)

## Measures:

### Repetitive Thought Questionnaire (RTQ; McElvoy, Mahoney, & Moulds, 2010)

- 31 items measuring RNT
- Example: "My thoughts overwhelm me"
- High internal, convergent, and divergent consistency

### Eating Expectancies Inventory (Hohlstein, Smith, & Atlas, 1998)

- 34 items measuring eating expectancies
- Used Eating Manages Negative Affect subscale (18 items)
- Example: "Eating is fun and enjoyable"
- Good internal consistency, high convergent and discriminant validity

### Positive Affect and Negative Affect Schedule (Watson, Clark, & Tellegen, 1988)

- 20 items; 10 measuring negative affect
- Very good internal consistency

### Eating Pathology Symptoms Inventory (Forbush et al., 2013)

- 45 item measure of ED symptoms
- Used Binge Eating subscale
- Example: "I made myself vomit to lose weight"
- Excellent internal consistency

## Results:

Figure 1. Interaction between EE(NA) and NA in Emerging Adulthood Sample

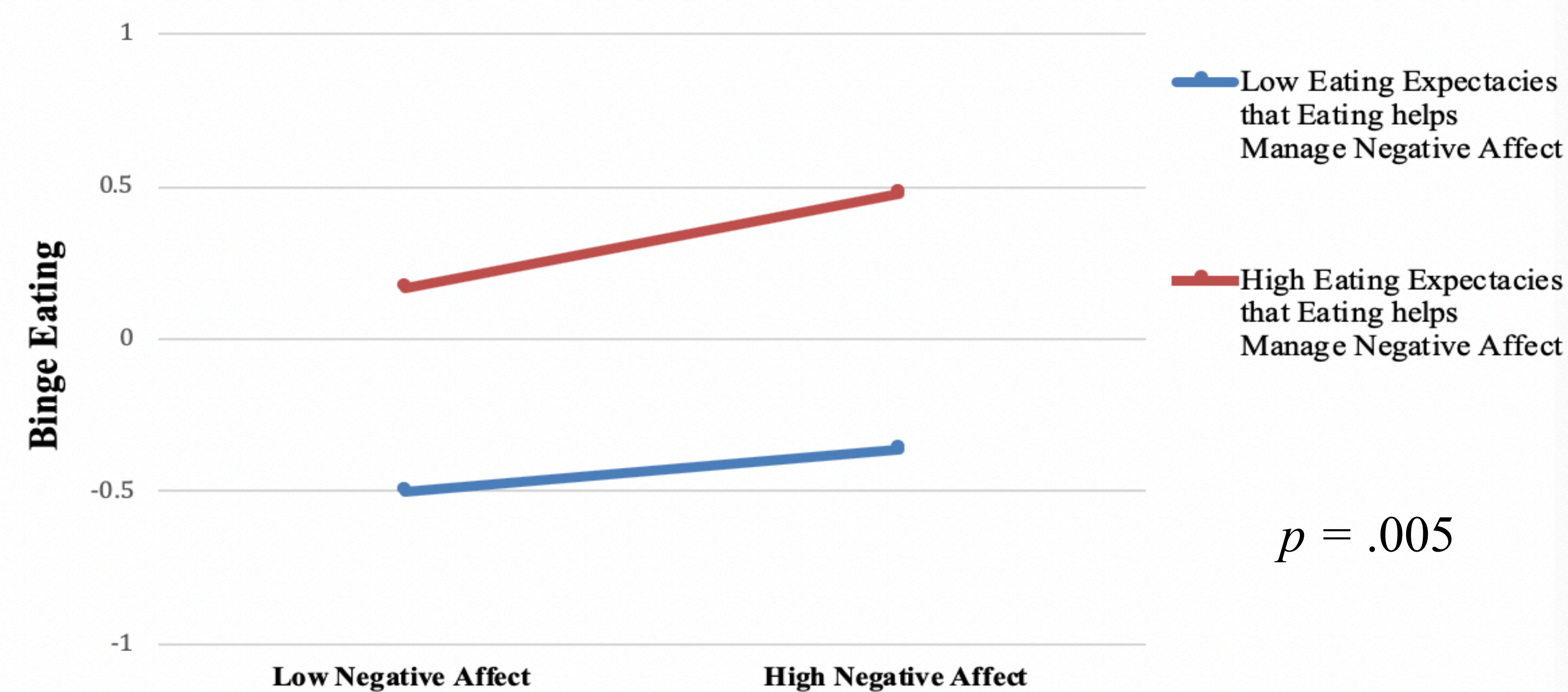


Figure 2. Interaction between EE(NA) and RNT in Emerging Adulthood Sample

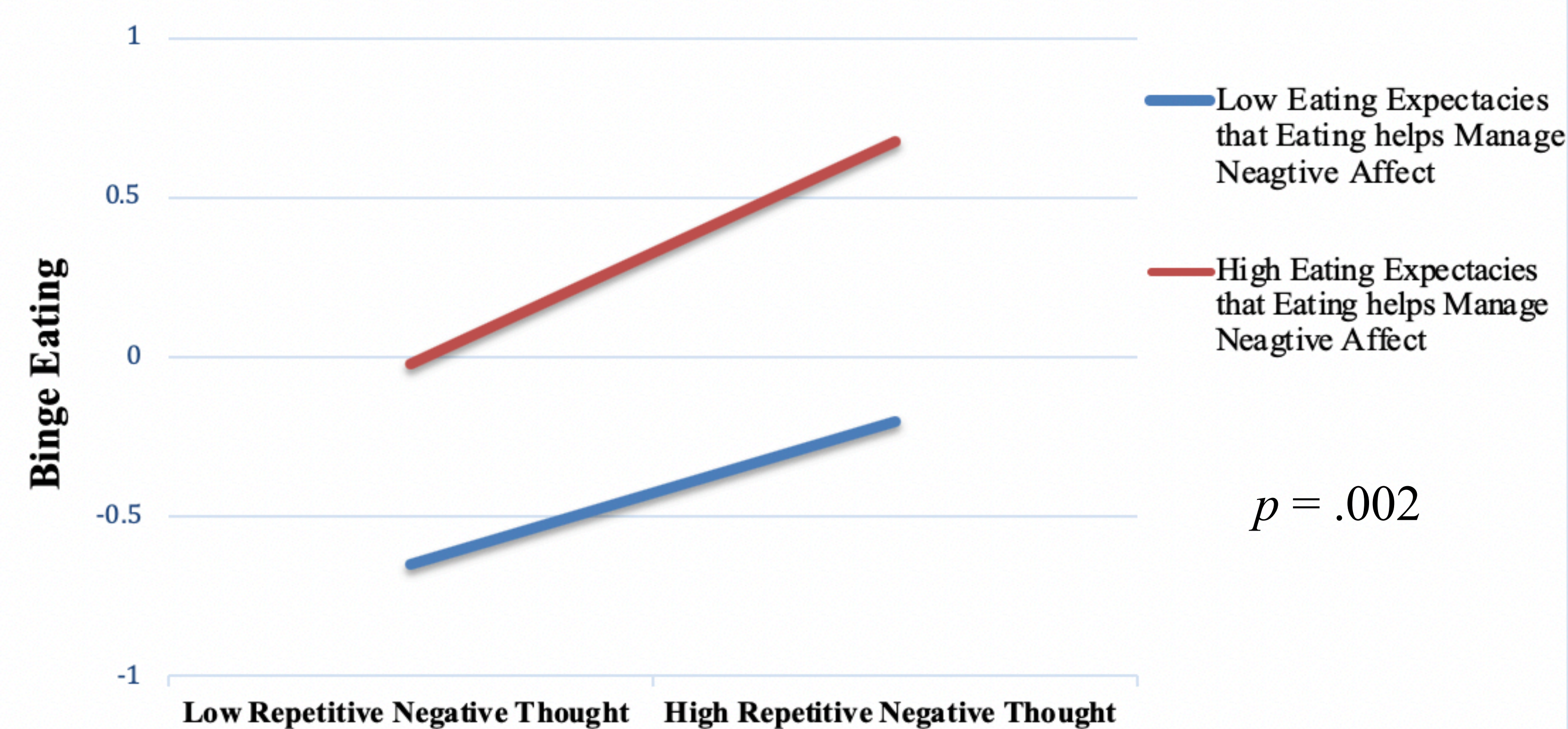
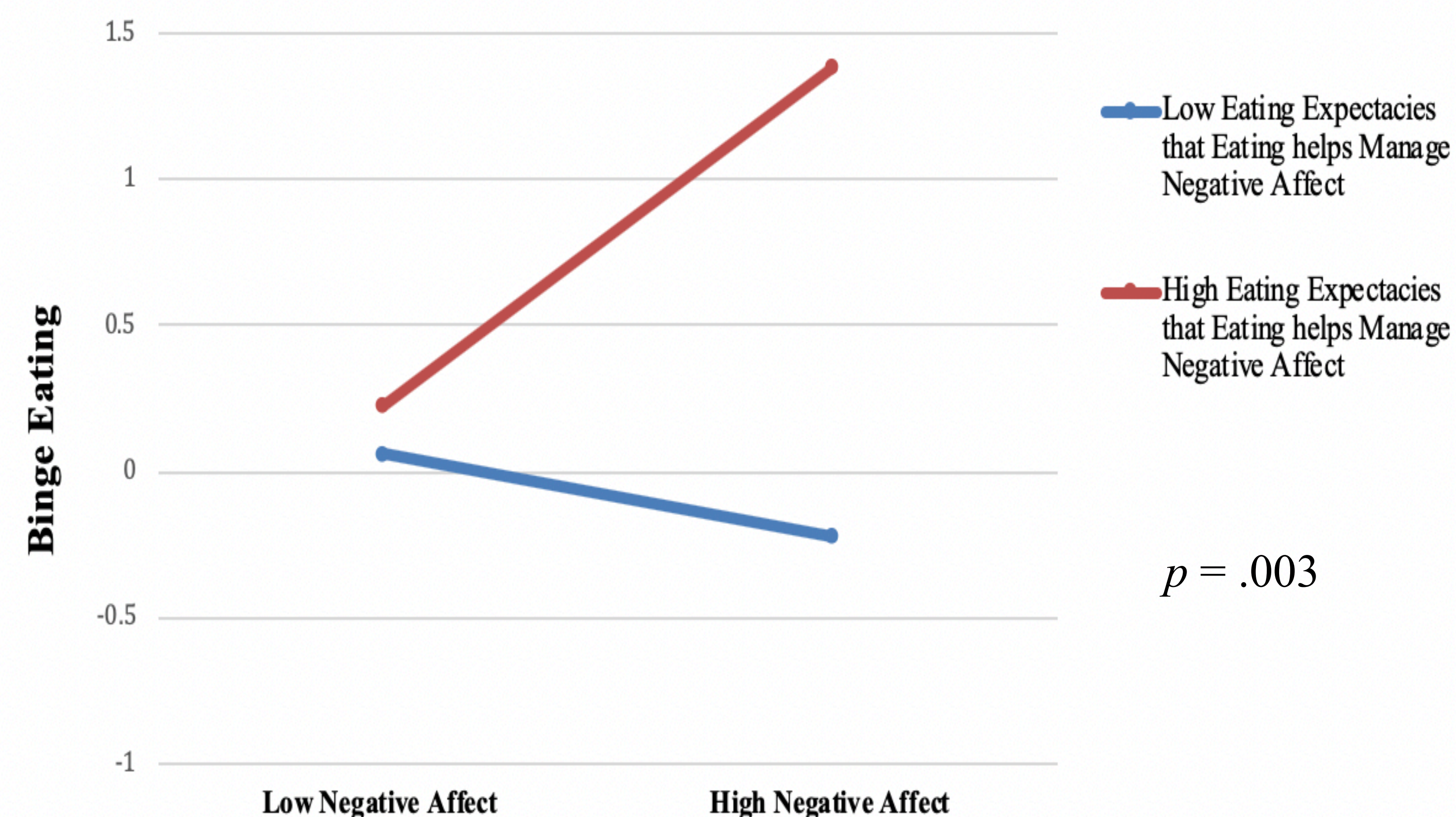


Figure 3. Interaction between EE(NA) and NA in Adolescent Sample



## Analysis:

In both samples, multiple linear regression was used to test interactions between:

- Negative Affect, EE NA, and Binge Eating
- RNT, EE NA, and Binge Eating
- Negative Affect, RNT, and Binge Eating
- EE NA, Negative Affect, RNT, and Binge Eating

## Results (cont.)

### Emerging Adulthood Sample:

- EE NA and Negative Affect (Fig. 1)
  - $F(3, 573) = 137.74, R^2 = .32, \beta = .03, p = .005, \text{partial } r = .12$
- RNT and EE NA (Fig. 2)
  - $F(3, 549) = 115.57, R^2 = .39, \beta = .10, p = .002, \text{partial } r = .10$
- Negative Affect and RNT
  - $p = .578$
- EE NA, Negative affect, and RNT
  - $p = .077$

### Adolescent Sample:

- EE NA and Negative Affect (Fig. 3)
  - $F(3, 34) = 39.38, R^2 = .81, \beta = .36, p = .003, \text{partial } r = .49$
- RNT and EE NA
  - $p = .054$
- Negative affect and RNT
  - $p = .012$
- EE NA, Negative affect, and RNT
  - $p = .425$

## Discussion and Limitations:

### Emerging Adulthood:

- Individuals with higher levels of EE NA and higher levels of negative affect were more likely to have the highest levels of binge eating
  - More so than having only high EE NA or high negative affect alone
- Individuals with higher levels of EE NA and higher levels of RNT were more likely to have the highest levels of binge eating.
  - More so than having only high EE NA or high RNT alone

### Adolescents:

- Negative affect and EE NA was the **only significant interaction**
  - Individuals with both higher EE NA and higher negative affect were more likely to have the highest levels of binge eating
    - When individuals had lower negative affect, there were similar levels of binge eating regardless whether EE NA was high or low

Both groups had significant interactions between EE NA and negative affect but differed in relations with RNT

- Adolescents had slightly different interaction between EE NA and negative affect, such that individuals with higher levels of negative affect and lower levels of EE NA were more likely to have lower levels of binge eating
- RNT is associated with cognitive bias in emotional processing
  - Cognitions related to emotional processing may become more salient as individuals reach adulthood (Slavny et al., 2019).

### Future Directions:

- Examine expectancies related to thinness in both populations and examine constructs more strongly associated with AN with larger sample
- Create design where groups can be directly contrasted

### Limitations:

- These data came from two different samples and cannot be directly compared
- Data came from self-report measures and primarily European American female samples
- Lower power for adolescent sample may explain lack of 3-way interaction