



# Do Observers' Negative Self-Evaluations of Their Own Bodies Mediate Their Visual Attention Towards Other Bodies?

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## Abstract

Previous research suggests that spatial distributions of attentional resources reflect the potentially rewarding and threatening characteristics of stimuli. Here we investigate whether psychological characteristics of the observer, namely, dissatisfaction with one's own body, systematically impacts distributions of attention within social scenes. Glauert et al. (2010) demonstrated that female observers exhibit attentional biases toward the bodies of thin women. We investigated whether this effect is limited to bodies, extends to male observers, and correlates with each observer's body dissatisfaction (BD) and/or body mass index (BMI).

## Background

- Body dissatisfaction is defined as negative thoughts and feelings about one's body.
- Body dissatisfaction is one of the most significant precursors to depression, obesity, steroid use, and eating disorders (Dittmar, 2009).
- Worldwide, 70 million people are affected by eating disorders (Renfrew Center Foundation for Eating Disorders).
- 80% of women in the US are dissatisfied with their bodies (Levine & Smolak, 1996).
- The desire to be thinner emerges in girls at about 6 years of age (Lowe & Tiggemann, 2003). For example, 99% of 3 - 10 year old girls in U.S. own a Barbie. Barbie's bodily proportions are basically impossible (e.g., waist ~ 39% smaller than anorexic patients). Exposure to Barbie dolls increases body dissatisfaction in girls 5 to 7.5 years old (Dittmar, Halliwell, & Ive, 2006).
- Glauert et al. (2010) demonstrated that most women have an attentional bias towards images of thin women bodies. Our work grew out of this previous research and was designed to investigate whether and how this attentional bias might be related to body dissatisfaction in men and women.

## Methods

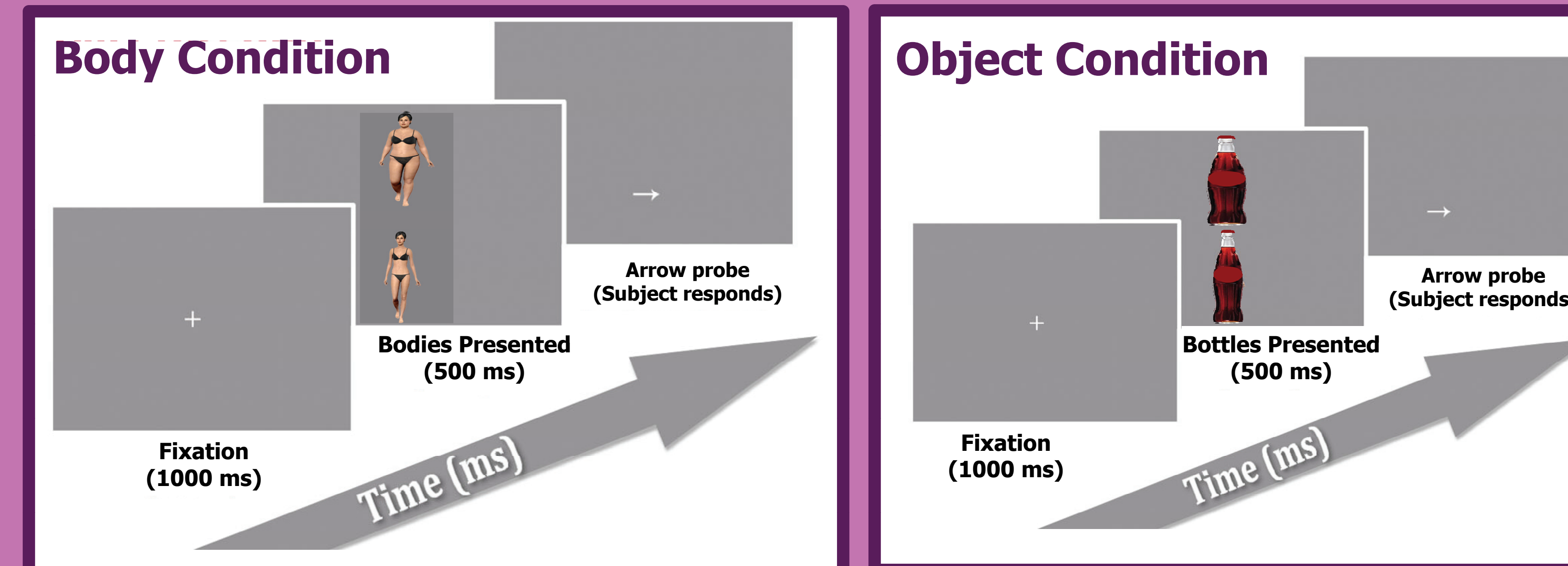
- 145 subjects (87 female), mean age 21.3.
- BMI was calculated from height and weight measurements, mean BMI of 25.7.
- Body Dissatisfaction was assessed with the Body Shape Questionnaire- BSQ-34 (Cooper et al., 1987).
- Male and female observers completed a modified dot probe task (Glauert et al., 2009) to assess attentional distribution across space. After a fixation, two bodies of the same gender (one thin, one overweight) appeared simultaneously one above the other. After 500ms, the bodies disappeared and an arrow appeared in the previous location of one of the bodies. Participants reported arrow direction with a key press. Reaction times in correct trials were analyzed to determine whether observers showed an attentional bias toward thin bodies. In a control condition, thin and heavy bodies were replaced with narrow and wide bottles.

## Stimuli

	Female	Male	Bottle	
<b>Thin Condition</b>				Same width and height as Thin Body
<b>BMI= 18</b>				
<b>Heavy Condition</b>				Same width and height as Heavy Body
<b>BMI= 44</b>				

Viewed by female subjects only | Viewed by male subjects only | Viewed by male and female subjects

## Arrow-Probe Paradigm



3 Blocks, 24 Trials each

3 Blocks, 24 Trials each

## BSQ-34

- 34-item self-report measure that assesses an individual's level of body dissatisfaction.
- Scores range from 34-204.
- Higher scores indicate higher levels of body dissatisfaction.
- Women completed the standard BSQ-34. Sample questions include:

	Never	Rarely	Sometimes	Often	Very Often	Always
1. Has feeling bored made you brood about your shape?	1	2	3	4	5	6
2. Have you been so worried about your shape that you have been feeling you ought to diet?	1	2	3	4	5	6
3. Have you thought that your stomach or waist are too large for the rest of you?	1	2	3	4	5	6
4. Have you been afraid that you might become fat (or fatter)?	1	2	3	4	5	6
5. Have you worried about your flesh being not firm enough?	1	2	3	4	5	6

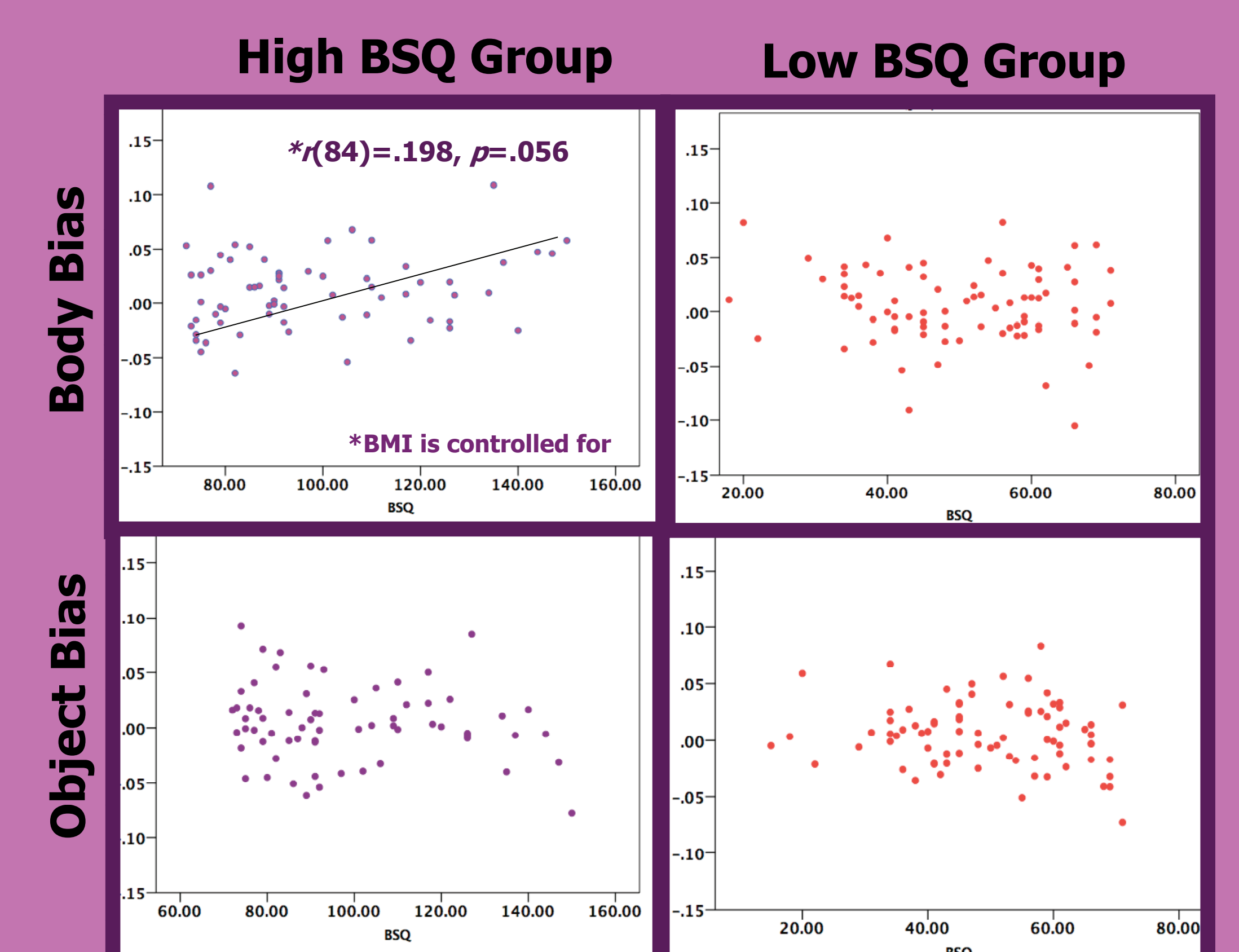
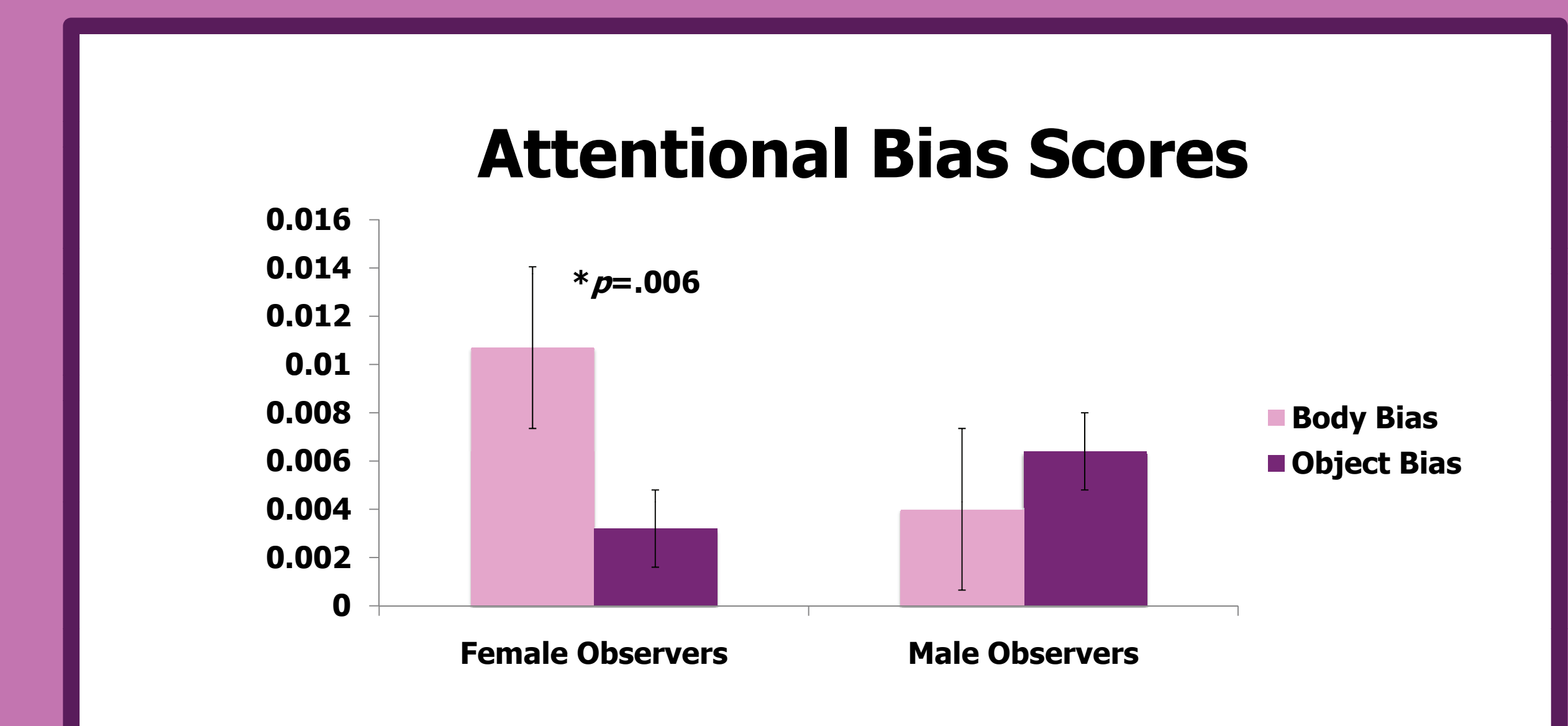
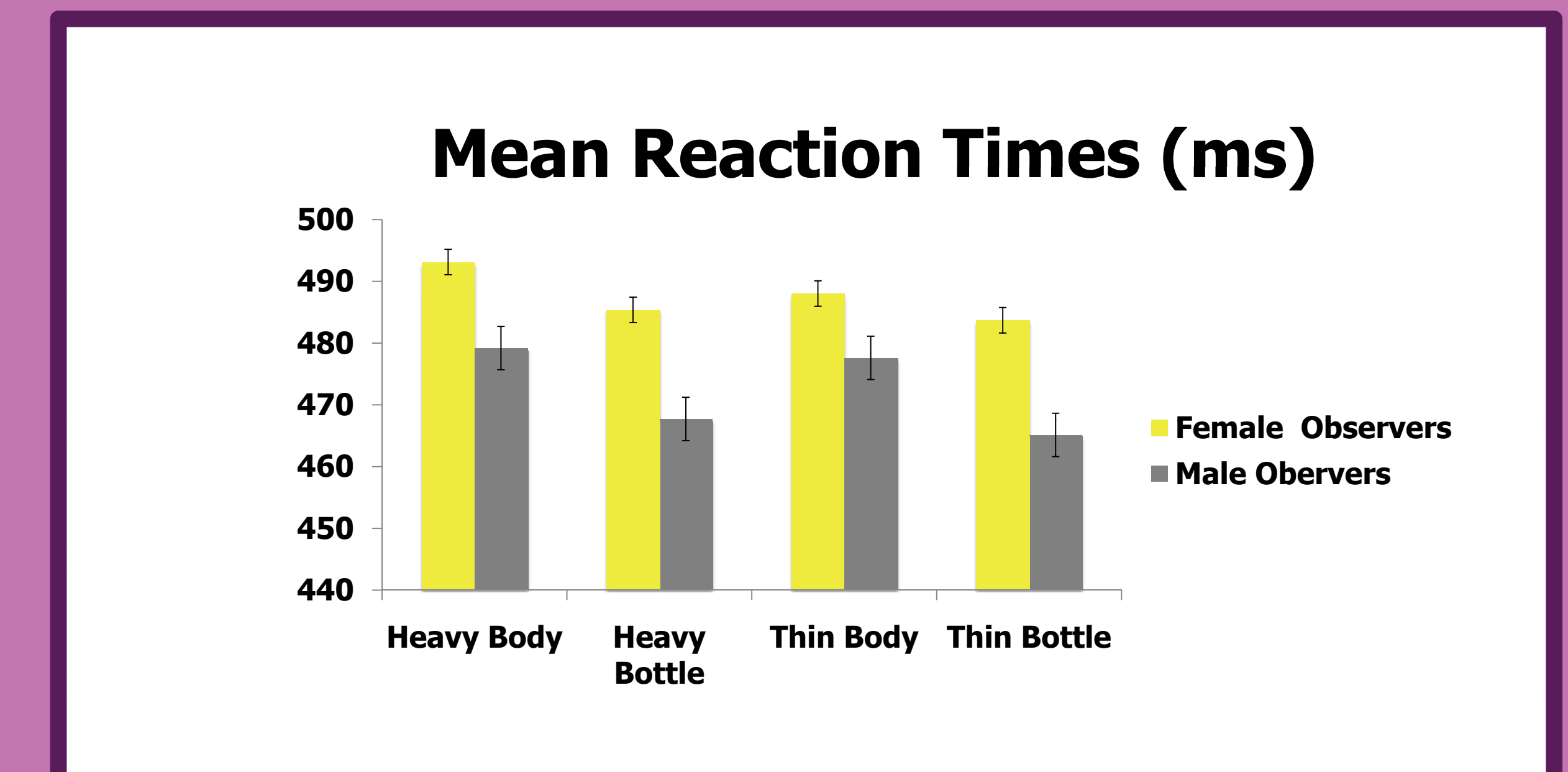
Gender (N)	Mean BSQ-34
Female (87)	72.7
Male (58)	70.2

Table 1. Mean BSQ-34 scores

- Men completed the male version (Varnado-Sullivan, Horton, & Savoy, 2006) with modified questions such as:

9. Has being with well-built men made you feel self-conscious about your shape?

## Results



## Discussion

The strong relationship between attentional bias towards thin bodies and body dissatisfaction in male and female observers supports the hypothesis that psychological characteristics of observers impact their spatial distribution of attentional resources across social scenes. This bias may reflect a perceptual mechanism that maintains body dissatisfaction.



## References:

- Cooper, P.J., Taylor, M. J., Cooper, Z., & Fairburn, C. G. (1987). The Development and validation of the Body Shape Questionnaire. *International Journal of Eating Disorders*, 43, 485-494.
- Dittmar, H. (2009). Do 'Body Perfect' Ideals in the Media have a Negative Impact on Body Image and Behaviors? Factors and Processes Related to Self and Identity. Editorial note for Special Issue on Media, Body Image and Eating Behaviors. *Journal of Social and Clinical Psychology*.
- Dittmar, H., Halliwell, E., & Ive, S. (2006). Does Barbie make girls want to be thin? The effect of experimental exposure to images of dolls on the body image of 5-8-year-old girls. *Developmental Psychology*, 42, 283-292.
- Glauert, R., Rhodes, G., Byrne, S., Fink, B., & Grammer, K. (2010). Body dissatisfaction and attentional bias to thin bodies. *International Journal of Eating Disorders*, 43, 42-49.
- Levine, M.P., & Smolak, L. (1996). Media as a context for the development of disordered eating. In Linda Smolak, The developmental psychopathology of eating disorders: Implications for research, prevention, and treatment. (pp. 235-257). Hillsdale, England: Lawrence Erlbaum Associates, Inc.
- Lowe, J., Tiggemann, M. (2003). Body dissatisfaction, dieting awareness and the impact of parental influence in young children. *British Journal of Health Psychology*, 8 (2), 135-147.
- Varnado-Sullivan, P.J., Horton, R., & Savoy, S. (2006). Differences for gender, weight, and exercise in body image disturbances and eating disorder symptoms. *Eating and Weight Disorders*, 11, 118-125.