

# Implicit attitudes to female body size in women with high and low body dissatisfaction: An IRAP study.

Alba Antequera-Rubio, Mónica Hernández-López, Miguel Rodríguez-Valverde.  
University of Jaén (Spain)  
E-mail: mhlopez@ujaen.es

## Introduction

Research on implicit attitudes to body size reveals a preference for images of thinness over images of fatness. Studies that have employed the Implicit Relational Assessment Procedure (IRAP) have shown that this attitudinal bias is specifically attributable to a pro-thin attitude, rather than to an anti-fat one (Roddy et al., 2010).

However, in the only published study of this sort conducted with female Spanish population no bias was observed (Maroto-Expósito et al., 2015). Participants showed implicit positive attitudes both to thinness and fatness images.

Body dissatisfaction might be a relevant variable in accounting for implicit body size bias. Recent IRAP research about attitudes to one's own body image shows stronger pro-thin/anti-fat bias in participants with higher levels of body dissatisfaction (Heider, et al. 2015).

This study explores if body dissatisfaction affects implicit attitudes to pictures of thin and overweight females in a sample of female Spanish college students.

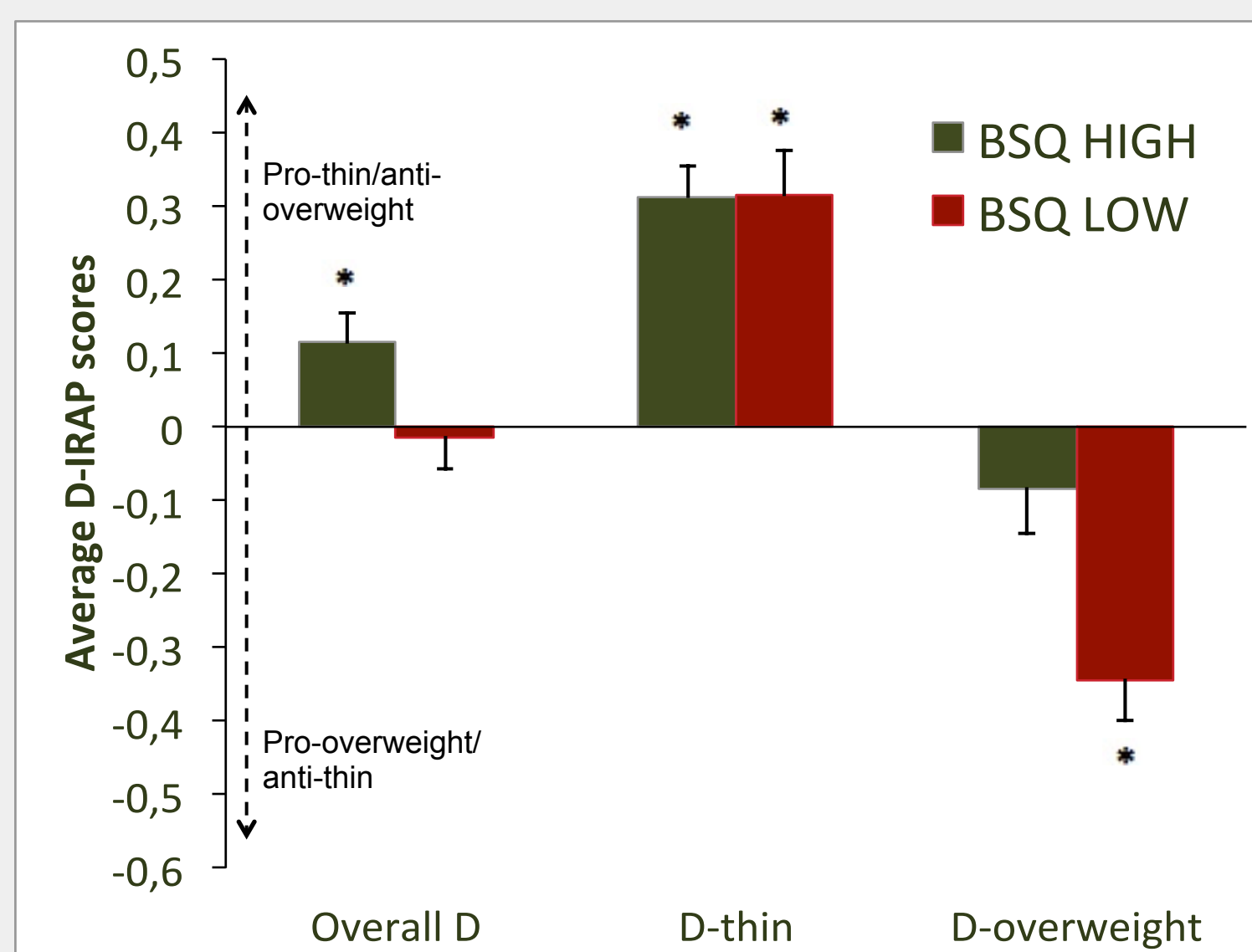
## Results

All analyses conducted on the 52 participants that completed the IRAP maintaining performance criteria in all test blocks.

### IRAP:

Raw latencies aggregated into overall D-IRAP scores (Greenwald's D):

- ◇ Overall D-IRAP: averaging all four trial type D scores.
- ◇  $D_{thin}$ : averaging D scores from two trial types with thin targets.
- ◇  $D_{overweight}$ : averaging D scores from two trial types with overweight targets.



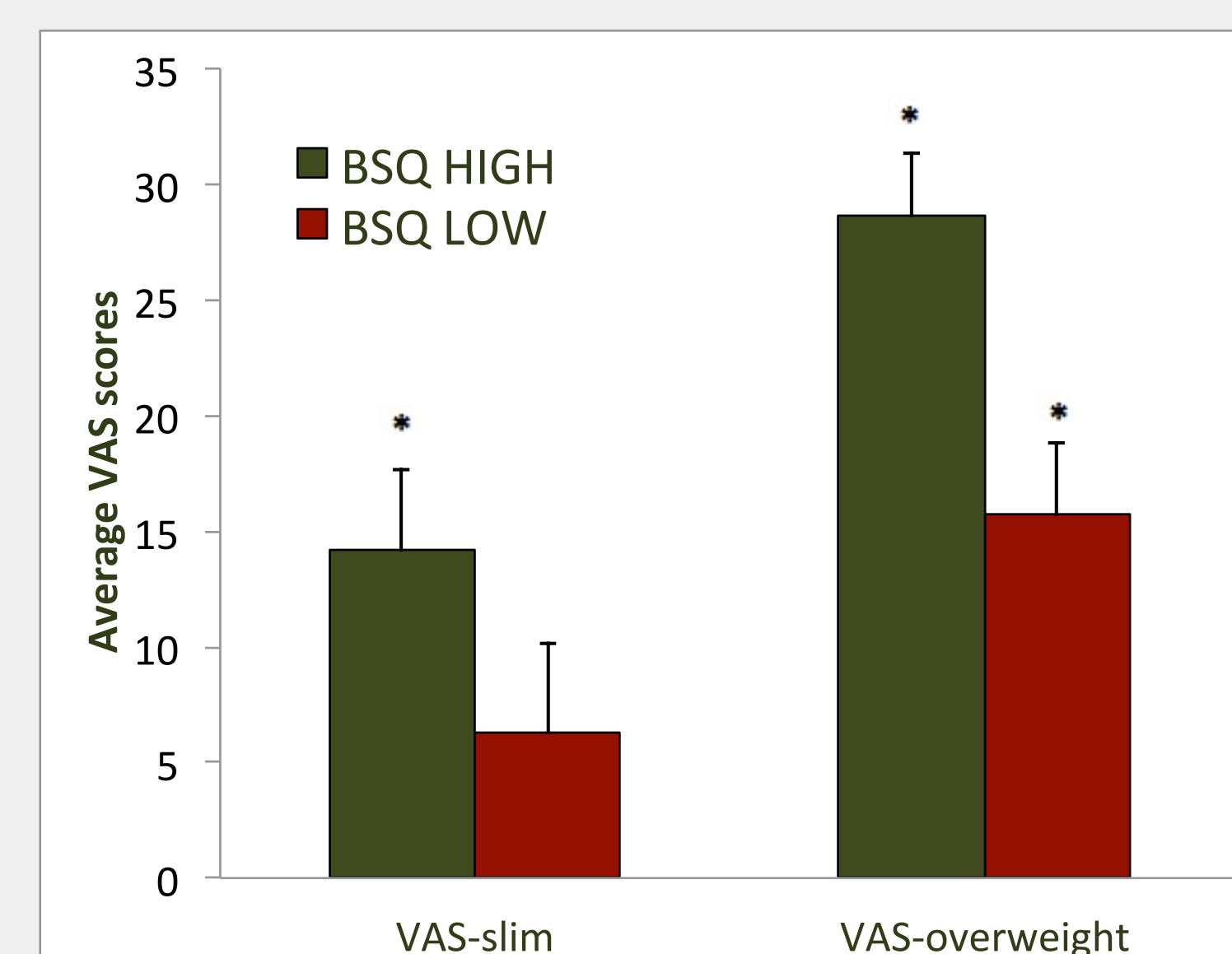
\* Scores significantly different from 0 ( $p < 0.015$ ).

RM ANOVA 2x2 (Group x Target):  
Group  $F(1,50)=4.542, p=0.038, \eta^2=0.083$   
Target  $F(1,50)=123.251, p<0.001, \eta^2=0.711$ ;  
Group x Target  $F(1,50)=7.527, p=0.008, \eta^2=0.131$ .

- ◇  $D_{thin}$ : no significant difference.
- ◇  $D_{overweight}$ : significant difference between groups [ $t(50)=3.154; p=0.003$ ].

### VAS:

VAS scores in mm (0-100) were adapted to match IRAP scores' direction, from -50 (maximum pro-overweight/anti-thin) to +50 (maximum pro-thin/anti-overweight).



\* Scores significantly different from 0 ( $p < 0.001$ ).

RM ANOVA 2x2 (Group x Target):  
Group  $F(1,50)=9.165, p=0.004, \eta^2=0.155$   
Target  $F(1,50)=14.229, p<0.001, \eta^2=0.222$ ;  
Group x Target  $F(1,50)<1$ .

- ◇  $VAS_{thin}$ : no significant difference.
- ◇  $VAS_{overweight}$ : significant difference between groups [ $t(50)=3.182; p=0.003$ ].

### Correlational Analysis:

	D <sub>overall</sub>	D <sub>thin</sub>	D <sub>overweight</sub>	VAS <sub>thin</sub>	VAS <sub>overweight</sub>	BMI	BSQ	EAT-40	AAQ-II	BI-AAQ
D <sub>overall</sub>	1									
D <sub>thin</sub>	.710**	1								
D <sub>overweight</sub>	.821**	.236	1							
VAS <sub>thin</sub>	.270	.390**	.089	1						
VAS <sub>overweight</sub>	.014	-.062	-.004	.200	1					
BMI	.299*	.191	.249	-.160	.249	1				
BSQ	.317*	.054	.419**	.231	.358**	.316*	1			
EAT-40	.239	.000	.331*	.220	.412**	.239	.849**	1		
AAQ-II	.134	-.101	.264	.180	.490**	-.016	.461**	.583**	1	
BI-AAQ	.228	-.013	.342*	.205	.425**	.165	.843**	.863**	.565**	1

## Method

428 Spanish female college students screened with the Body Shape Questionnaire (BSQ) (Cooper et al., 1987).

Cutoff scores for participation: >104 (80<sup>th</sup> percentile) and <52 (20<sup>th</sup> percentile).

110 agreed to participate, but only 52 (26 BSQ high and 26 BSQ low) completed the study.

### Measures:

#### ◇ IRAP:

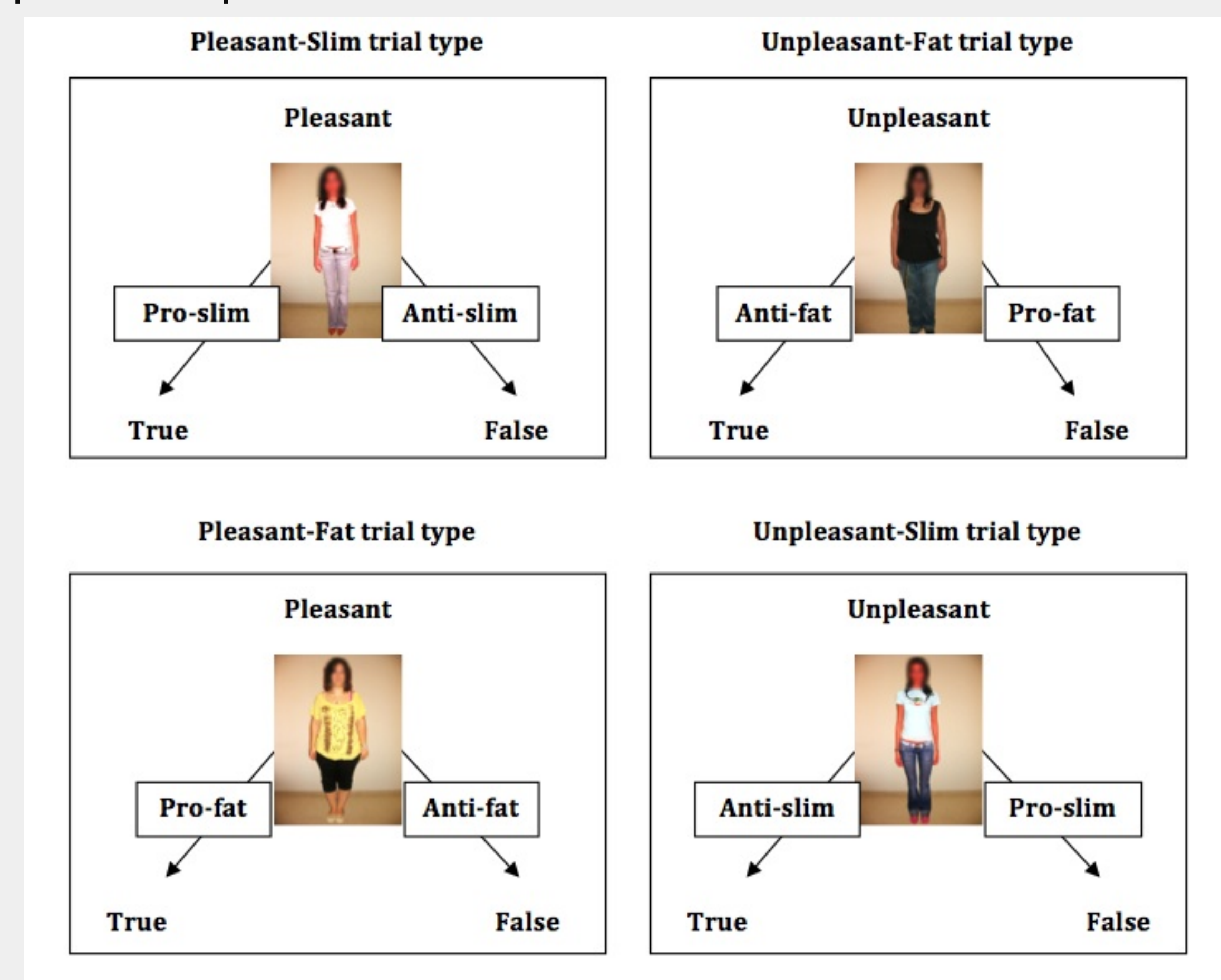
Samples (Pleasant / Unpleasant).

12 Targets (6 Thin women / 6 Overweight women).

Response options (True / False).

Practice phase: maximum 6 pairs of blocks (80% correct; 2000 ms.).

Test phase: 3 pair of blocks.



#### ◇ Visual Analogue Scale (VAS) with same stimuli as IRAP.

#### ◇ Eating Attitudes Test (EAT-40; Garner et al., 1982).

#### ◇ AAQ-II (Bond et al., 2011).

#### ◇ BI-AAQ (Sandoz et al., 2013).

#### ◇ Self-reported height and weight for BMI calculation.

## Conclusions

- Women with high levels of body dissatisfaction show a pro-thin bias (positive to thin pictures and neutral to overweight pictures) whereas women with low dissatisfaction show no implicit preference (positive to both thin and overweight pictures). No anti-fat attitudes in either group.
- Both groups show a clear anti-fat explicit bias (VAS scores), significantly stronger for women with high body dissatisfaction.
- The implicit-explicit discrepancy is atypical, with substantially stronger explicit body size bias. Implicit-explicit differences mostly affect relational responses towards overweight pictures.
- Individual differences seem to be an important variable regarding implicit body shape preferences.

## References

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