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## Anti-fat prejudice and stereotypes in psychology university students

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### Abstract

The purpose of this study was to explore the anti-fat attitudes and stereotyped beliefs toward fat people in a group of 104 psychology university students. We used the Anti-fat Attitudes Scale and the Dislike of Fat People Scale, Semantic Differential Technique for analyzing the representation of Fat People, Thin People, and Self-Concept, and Fat Stereotypes Questionnaire with positive and negative traits about female fat people. Results showed that psychology university students expressed low levels of anti-fat attitudes and of dislike of fat people. Over 70% of respondents attributed to the female fat people mainly positive traits linked to happiness, sweetness, kindness, and generosity. Psychology university students judged fat people similar to thin people. A positive representation of fat people was associated with low levels of anti-fat prejudice and positive stereotyped beliefs toward female fat people. Future research could verify the persistence of these positive attitudes toward fat people in Italian context with other types of participants.

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### 1. Introduction

Researchers found implicit and explicit weight-based stigma to be dominant, pervasive, and difficult to change (Puhl & Brownell, 2001; O'Brien, Hunter, & Banks, 2007); negative attitudes toward overweight and fat individuals, linked to this stigma, are well documented both in childhood (Brylinsky & Moore, 1994; Cramer & Steinwert, 1998; Rand & Wright, 2000; Tiggemann & Anesbury, 2000; Latner & Stunkard, 2003; Solbes & Enesco, 2010) and adulthood (Cogan, Bhalla, Sefa-Dedeh, & Rothblum, 1996; Carels & Musher-Eizenman, 2010). The factors which affected on the development of these anti-fat attitudes are represented by perceptual reliance and beliefs about the controllability of weight (Livingston, 2001; Carels & Musher-Eizenman, 2010), physical appearance comparison (O'Brien et al., 2007), fat-stereotypical beliefs (Bessenoff & Sherman, 2000), physical attractiveness and body mass index (Tovée & Cornelissen, 2001; Fan, Liu, Wu, & Dai, 2004; Fan, Dai, Liu, & Wu, 2005; Swami & Tovée, 2005), perception of body image (Lewis, Cash, Jacobi, & Bubb-Lewis, 1997; O'Brien et al., 2007), and so on. Results of all these studies indicated that physically attractive individuals (such as thin or average weight people) are ascribed more positive qualities or personality traits than unattractive individuals (obese or overweight people); individuals with high levels of perceptual reliance (that is, propensity to judge individuals based on physical appearance) and anti-fat prejudice, compared to individuals with low levels of perceptual reliance and anti-fat prejudice, expressed more negative attitudes toward obese persons. People who believe that weight is a

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controllable factor displayed more negative attitudes toward the obese and extremely obese targets than people who believed that weight is not controllable factor. In reference to the relation between BMI (body mass index) and the magnitude of anti-fat attitudes and negative stereotypes, some findings showed inconsistent results in the sense that, on the hand, overweight and obese people hold anti-fat attitudes to the same extent as do normal-weight individuals (Allison, Basile, & Yaker, 1991; Crandall, 1994); on the other hand, significant differences between obese and non-obese people were noted by Schwartz et alii (2006) because the magnitude of anti-fat biases was significantly weaker among people with high BMIs compared with those with low BMIs. On the contrary, as reported by Wang, Brownell & Wadden (2004), overweight individuals exhibited significant implicit anti-fat biases and negative explicit stereotypes (laziness) toward fat people. These results were partially in contrast with the Social Identity Theory (SIT: Tajfel & Turner, 1986), according to which individuals express a more positive evaluation of members of own group than members of out-group in terms of “in-group favoritism”. Because of little evidences about the influence of *self* and *fat people representation* on anti-fat attitudes and stereotyped beliefs, we explored in Italian context the anti-fat prejudice and stereotyped beliefs toward fat people in psychology university students using both the BMI and self representation.

## 2. Methodology

The purpose of the present study was to analyze the anti-fat prejudice and stereotyped beliefs toward *fat people* in a group of 104 female psychology university students at University of Catania, Sicily (Italy). We hypothesized that: (i) obese/overweight students (in relation to BMI > 25) displayed less negative attitudes (prejudice and dislike) and stereotyped beliefs toward *fat people* compared to normal and underweight students ( $H_1$ ), according to the “in-group favoritism” (Tajfel & Turner, 1986); (ii) a representation of *Self* as “fat or thin individual”, independently from the BMI, would affect on anti-fat attitudes (prejudice and dislike) and stereotyped beliefs ( $H_2$ ), in the sense that the more students will represent themselves as “fat individuals”, the more they will express low levels of anti-fat attitudes (prejudice and dislike) and positive stereotyped beliefs toward *fat people*, also in this case according to the “in-group favoritism”; and (iii) the negative representation of *fat people* and positive representation of *thin people* would be directly related to anti-fat attitudes (prejudice and dislike) and negative stereotyped beliefs ( $H_3$ ), in sense that the more students will express a negative representation of *fat people* and positive image of *thin people*, the more they will reach high levels of anti-fat prejudice, dislike, and negative stereotyped beliefs toward *fat people*.

### 2.1. Participants

The sample was formed by 104 psychology university students, all women, aged between 21 and 35 years ( $M = 24.5$ ,  $sd = 2.3$ ), recruited from introductory psychology course, at University of Catania, Sicily (Italy). Based upon self-reported height and weight, participants' body mass index (BMI) ranged from 16.00 to 32.00 kg/m<sup>2</sup> ( $M = 21.51$ ,  $SD = 3.29$ ), with 12,5% being classified as underweight ( $N = 13$ ; BMI < 18,5), 77,9% as normal weight ( $N = 81$ ; BMI 18,5-25), and 9,6% as overweight or obese ( $N = 10$ ; BMI > 25).

### 2.2. Measures

2.2.1. *Demographic information.* All participants completed background questions related to age and BMI (> 75% of sample with BMI range 18,5-25 as normal weight).

2.2.2. *Anti-fat Attitudes Scale (AFAS) and Dislike of Fat People Scale (DFPS)* ( $\alpha = .76$ ; Crandall, 1994; Morrison & O'Connor, 1999). Participants responded to each of the 24 items on a scale ranging from 1 (=strongly disagree) to 5 (=strongly agree): i.e., “fat people are less sexually attractive than thin people”, “fat people have only themselves to blame for their weight”, “if I were an employer looking to hire, I might avoid hiring a fat person”. High mean scores express high levels of anti-fat prejudice and of dislike of fat people; on the contrary, low mean scores express low levels of anti-fat prejudice and dislike of fat people.

2.2.3. *Semantic Differential Technique for Fat and Thin People Representation* (see Robinson, Bacon, & O'Reilly, 1993; Bacon, Scheltema, & Robinson, 2001). It is a measure, consisting of 36 pairs of bipolar adjectives for each concept (i.e., weak vs. strong; secure vs. insecure), each evaluable on a 7-points Likert, referred to the representation of *fat people* ( $\alpha=.85$ ) and *thin people* ( $\alpha=.84$ ). High mean scores express a positive representation of fat or thin people, while low mean scores indicate a negative representation of these concepts.

2.2.4. *Self Representation Scale* ( $\alpha=.85$ ). It is a measure of self rating with a 7-points Likert based on one pair of bipolar adjectives (thin vs. fat). Participants were asked to indicate how they perceived themselves in terms of 'thin or fat individuals'. High mean scores identify a self representation as "thin individual", while low mean scores as "fat individual".

2.2.5. *Fat Stereotypes Questionnaire* (see Davison & Birch, 2004). It is a measure of pro-fat and anti-fat stereotyped beliefs consisting of a list with 11 positive and 11 negative traits about female fat people. We used two photographic stimuli of the same real woman (see Swami, Chan, Wong, Furnham, & Tovee, 2008), one version with normal weight and another version with fat weight. These stimuli were shown with the same-coloured clothing. Participants were asked to attribute each of 22 traits to one of the two versions (normal or fat) with the forced choice. It is possible to obtain two scores: the first deriving from the sum of positive traits assigned to the photographic stimulus of real woman in the version with fat weight (called "pro-fat stereotype") and the second one from the sum of negative traits assigned to the same real woman in the version with fat weight (called "anti-fat stereotype").

### 2.3. Data analyses

The examination of the statistical significance of results was carried out using the SPSS 15.0 software (Statistical Package for Social Science) with linear correlation, *t* for paired sample, and analysis of variance. The statistical analyses compared scores by BMI as independent variable using scores on anti-fat attitudes, stereotypical beliefs, and dimensions of semantic differentials as dependent variables.

## 3. Results and Discussion

Descriptive analyses have indicated that psychology university students expressed low levels of anti-fat prejudice ( $M = 2.31$ ,  $sd = .47$ ) and of dislike of fat people ( $M = 1.56$ ,  $sd = .37$ ), displaying scarcely negative attitudes toward *fat people*. Positive correlations between anti-fat prejudice and dislike of fat people ( $r = .42$ ,  $p < .001$ ) were found: the less students expressed anti-fat prejudice, the less they indicated high levels of dislike of fat people. In relation to the stereotyped beliefs, as showed in Table 1, over 70% of respondents attributed to the female fat people mainly positive traits linked to happiness, sweetness, playfulness, intelligence, honesty, fulfilment of promises, kindness, quietness, and generosity. Computing the attributions of positive (pro-fat:  $M = 7.63$ ) and negative traits (anti-fat:  $M = 5.74$ ) to *fat people*, results showed a significant superiority of the pro-fat stereotyped beliefs ( $t_{(103)} = 5.94$ ,  $p < .001$ ). No differences for BMI were found, as reported in the study of Puhl & Brownell (2003). In relation to  $H_1$ , according to which obese/overweight students could display less negative attitudes (prejudice and dislike) and negative stereotyped beliefs toward *fat people*, compared to normal and underweight students, in line with the in-group favoritism theory, these results didn't confirm this hypothesis.

With reference to self representation, descriptive analyses indicated that 61,5% of participants defined themselves as "thin individuals" ( $N=64$ ), 23,1% as "normal-weight individuals" ( $N=24$ ), and 15,4% as "fat individuals" ( $N=16$ ). No correlations between self representation and anti-fat attitudes (prejudice and dislike) and negative stereotyped beliefs were found ( $H_2$ ).

Psychology university students judged *fat people* ( $M = 4.24$ ,  $sd = .51$ ) similar to *thin people* ( $M = 4.35$ ,  $sd = .45$ ), around the intermediate value equal to 4, without significant differences for BMI. With reference to  $H_3$ , results

reported negative correlations between representation of *fat people* and anti-fat prejudice ( $r = -.37, p < .001$ ), but not for dislike ( $r = -.15, p = ns$ ), in sense that the more students express a negative image of *fat people*, the more they reached high levels of anti-fat prejudice. Positive representation of *fat people* was positively correlated with positive stereotyped beliefs ( $r = .37, p < .001$ ) but negatively with negative stereotyped beliefs ( $r = -.29, p = .003$ ). In addition, a positive representation of *thin people* was positively correlated with anti-fat stereotyped beliefs ( $r = .36, p < .001$ ), but no with anti-fat attitudes: the more students expressed a positive image of *thin people*, the more they attributed negative traits as hungry, rejected, slow, and sick to fat people. These data represented a partial confirmation of our third hypothesis.

Table 1. Fat Stereotypes – Total Sample (N=104)

Adjectives	Female figure			
	N	Fat %	Normal-Weight N	%
Happy	81	<b>77.9</b>	23	22.1
Hungry	65	<b>62.5</b>	39	37.5
Sweet	86	<b>82.7</b>	18	17.3
Rejected	95	<b>91.3</b>	9	8.7
Lazy	67	<b>64.4</b>	37	35.6
Whiner	33	31.7	71	<b>68.3</b>
Aggressive	18	17.3	86	<b>82.7</b>
Unpleasant	6	5.8	98	<b>94.2</b>
Playful	99	<b>95.2</b>	5	4.8
Intelligent	64	<b>61.5</b>	40	38.5
Courageous	58	55.8	46	44.2
Self-confident	12	11.5	92	<b>88.5</b>
Bossy	8	7.7	96	<b>92.3</b>
Honest	87	<b>83.7</b>	17	16.3
Slow	91	<b>87.5</b>	13	12.5
To fulfil promises	66	<b>63.5</b>	38	36.5
Weak	62	59.6	42	40.4
Kind	82	<b>78.8</b>	22	21.2
Quiet	73	<b>70.2</b>	31	29.8
Shy	79	<b>76</b>	25	24
Generous	85	<b>81.7</b>	19	18.3
Sick	73	<b>70.2</b>	31	29.8

#### 4. Conclusion

The findings of this investigation have provided an interesting contribution for a deeper knowledge of the issue regarding to anti-fat attitudes in adulthood. Our results represented a confirmation of the absence of the effects of BMI on anti-fat prejudice, as reported in other studies (Allison, Basile, & Yuker, 1991; Crandall, 1994), but the reason of this absence could be linked both to the reduced percentage of obese or overweight individuals among participants (in fact, 75% of sample reported normal weight) and the sex of participants (only, women). In relation to the last suggestion, in fact, several studies have found that women show lower stigmatization of obesity than men (Wang, Brownell, & Wadden, 2004; Hebl, Ruggs, Singletary, & Beal, 2008; O'Brien, Latner, Halberstadt, Hunter, Anderson, & Caputi, 2008).

Results of the current study indicated that psychology university students expressed low levels of anti-fat prejudice and dislike of fat people, and attributed to female fat people mainly positive traits linked to happiness, sweetness, playfulness, intelligence, honesty, fulfillment of promises, kindness, quietness, and generosity. In relation to this general positive direction of prejudicial attitudes toward fat people, a positive representation of *fat people* was associated with low levels of anti-fat prejudice and positive traits about female fat people: this datum represented a confirmation of the last hypothesis.

Future researches carried out with other typologies of participants in relation to different courses of degree and age range could verify the persistence of these evidences in Italian context.

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