

Weight Stigma: A Socially Acceptable Prejudice

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Obesity: Growing Stigma

Facts:

- One-third of Americans are obese (BMI \geq 30)
- One-quarter of people in the UK are obese.

Potential Impact:

- Obesity is a highly stigmatizing feature
- Large numbers of people in the population at risk for prejudice and discrimination

Weight Stigma

- It surrounds us subtly and not so subtly.
- Few are immune, including individuals with obesity
- Despite efforts to raise awareness, weight bias is accepted (or at least tolerated) in many cultures



Why these images?



And not these?



Bias Among Us: Anecdotal Evidence of Weight Bias among Social Scientists

The words below were tweeted (and, very shortly afterwards, deleted) by Geoffrey Miller, associate professor in the department of psychology at the University of New Mexico.

“Dear obese PhD applicants: if you didn’t have the willpower to stop eating carbs, then you won’t have the willpower to do a dissertation.

[#truth.](#)”

Empirical Evidence: Are Psychologists Biased against Weight in Graduate School Admissions?

(Burmeister, Kiefner, Carels, Musher-Eizenman, 2013)

- 97 (out of 274; 35%) applicants to our psychology graduate program were examined
- They submitted 954 applications and received 134 in-person interviews (14%)



Findings

BMI

- no association with GRE; very modest association with lower GPA ($r = -.20$).
- no association with overall quality of letters of recommendation.
- associated with fewer offers of admission into psychology graduate programs following in person interviews:
 - overweight/obese ($M = 0.69$) vs. normal weight ($M = 1.20$)
 - relationship was stronger for female applicants
(Female: $N = 51$; Males: $N = 45$)

Discussion

The findings are consistent with weight discrimination in other domains (e.g., employment)

Why?

- Conscious or unconscious discrimination
- Stereotype Threat

Implication

- Few are immune from weight bias even those with openness toward and/or specialized training in diversity.

Can You Put a Value on Thinness?

24% of women and 17% of men said they would give up three or more years of their life to be thin (Garner, 1997)

According to a sample 2,400 women in Fitness magazine, 51% of women said they would sacrifice a full year of sex to be skinny



What Personal Sacrifices or Unhealthy Behaviors will People Engage in to be Thin

- Smoke cigarettes
- Avoiding getting pregnant
- Plastic surgery
- Unsafe diets, fad diets, diet pills



Who would You Most Prefer and Least Prefer as a Sexual Partner? (Chen & Brown, 2005)

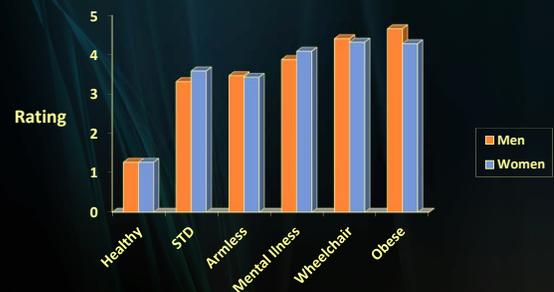
Study

He/she :

- is healthy
- is missing their left arm
- is in a wheelchair
- is obese (100 lbs overweight)
- has a history of self-harm and suicide attempts
- currently practices safe sex, but has a history of STDs



Most/Least Preferred Sexual Partner



The Level of Revulsion and Contempt is Alarming

Comments posted on the internet about obese individuals:

- “Therefore, I will say with authority that FAT=LAZY with basically no exceptions.” – from an M.D.
- “I hate certain fat people so much. They really are the filthiest slobs.”
- “FAT is weak. YOU are the weak links. I will never hire you. I will never work for you. I will never marry you. I REJECT YOU.”

The scars of internalized weight bias

Julius Don Bailey, Professor, Wittenberg University¹

“At my university of 144 professors, I’m a double minority: I’m black and fat”

“I felt ugly, despondent, and useless as a 40-year old unmarried man”



¹Chronicle of Higher Education (April 18, 2014)

Outline

- How is weight bias typically assessed?
- Our weight bias research with overweight weight loss participants or overweight individuals
- Our recent and ongoing weight bias research with the general population
- Conclusions



Types of Biased Attitudes

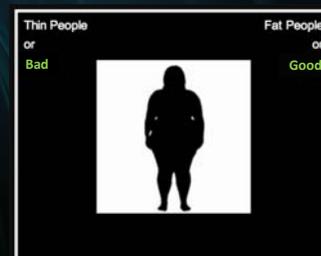
- Explicit Attitudes (including internalized bias)
 - self-report measures
 - conscious attitudes
- Implicit Attitudes
 - acquired through environmental exposure
 - automatically activated evaluations
 - outside awareness
 - e.g., Implicit Associations Test



Implicit Associations Test



Implicit Associations Test Category Reversed



Our Research: Are Obese Weight Loss Program Participants Biased against Fat?

Weight bias is evident among obese weight loss participants and is:

- More strongly associated with diminished psychological well-being (e.g., depression, body image, binge eating; Carels, Wott, Young, Gumble, Koball, & Oehlhof, 2010).
- More strongly associated with poor weight loss outcomes (Carels, Young, Wott, Harper, Gumble, Oehlhof, & Clayton, 2009; Wott & Carels, 2010).
- More strongly related to beliefs, such as the Protestant Work Ethic, Just World Beliefs, and the belief that weight is controllable (Carels, Young, Wott, Harper, Gumble, Hobbs, & Clayton, 2009).

Weight Bias Among the Obese Weight Loss Participants

(Carels, Young, Wott, Harper, Gumble, Oehlhof, & Clayton, 2009)



Methods and Demographics

- 58 participants
- 93% Caucasian
- 90% Female
- Mean BMI 36.6
- 18 week behavioral weight loss program
- Reported daily caloric intake and expenditure (i.e., accelerometers) and exercise

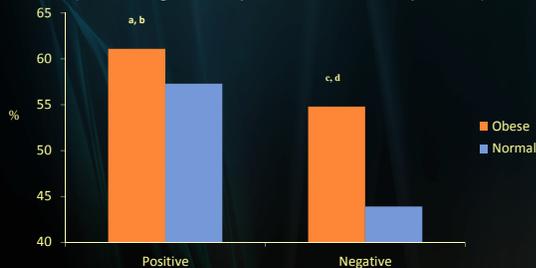
Explicit Measure: Obese Persons Trait Survey

- Please estimate the percentage of obese people whom you think possess each trait (0-100%).

Negative Traits	Positive Traits
Insecure	Generous
Lazy	Outgoing
Self-Indulgent	Warm
Lack of Willpower	Humorous
Unclean	Organized
Unattractive	Intelligent
Unhealthy	Sociable
Undisciplined	Honest
Sluggish	Friendly
Gluttonous	Productive

Explicit Bias Among Weight Loss Participants

(Carels, Young, Wott, Harper, Gumble, Oehlhof, Clayton, 2009)



^aObese: OPTS-positive versus OPTS-negative; ^bOPTS-positive: Obese versus Normal weight; ^cOPTS-negative: Obese versus Normal weight; ^dNormal: OPTS-positive versus OPTS-Negative. All subscripts $p \leq .05$.

Obese Ratings of Obese versus Normal Weight



* $p < .05$; Difference OPTS-positive/negative obese versus: OPTS-positive/negative normal weight.

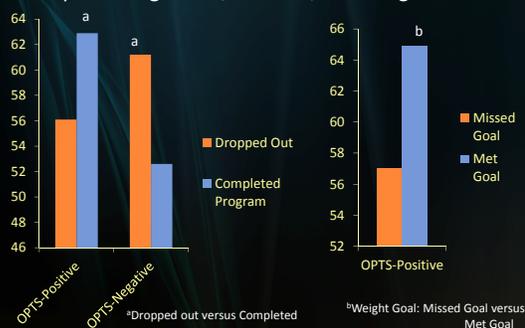
Implicit Weight Bias among Weight Loss Participants



All subscripts $p \leq .01$. (Fat-Bad versus Fat-Good; higher score = stronger bias)

Is Weight Bias associated with Treatment Outcomes?

Explicit Weight Bias, Attrition, and Weight Loss



Weight Bias and Treatment Outcomes

Greater Negative Traits:

- Lower frequency self-monitoring
- Lower energy expenditure
- Creation of a smaller caloric deficit

Greater Positive Traits:

- Greater frequency self-monitoring
- Lower caloric intake
- Longer bouts of exercise

IAT-Bad:

- Creation of a smaller caloric deficit
- Lower energy expenditure

$p < .05$

Conclusions

- Contrary to what has been previously suggested, weight bias does not appear to motivate people to lose weight.
- Weight bias appears to interfere with behaviors important for successful weight loss.

Experiencing Stigma and Weight Loss Outcomes

(Wott & Carels, 2010)

Among weight loss program participants ($N = 49$), greater overt interpersonal weight stigma¹ (e.g., unkind comment from family, friends, etc.) was significantly associated with:

- greater depression (CES-D)
- greater binge eating (BES)
- fewer calories burned in exercise (accelerometer)
- poorer weight loss

Is Implicit Bias Linked to Stereotypes?



Recent IAT Research with Weight Loss Participants

(Carels, Hinman, Burmeister, Hoffmann, Ashrafioun, & Koball, 2013).



Results and Conclusions

Sample

- 42 overweight/obese weight loss participants

Results

Implicit weight bias:

- was evident regardless of type of image (stereotype consistent or inconsistent).
- was significantly stronger for stereotype consistent compared to inconsistent images.
- significantly decreased from baseline to post-treatment (stereotype consistent only).

Conclusion

- Implicit anti-fat attitudes are connected to the way in which people with obesity are portrayed.



STEREOTYPE THREAT

(Carels, Domoff, Burmeister, Koball, Hinman, Davis, Wagner Oehlhof, Leroy, Bannon, & Hoffmann, 2013)

- Feeling judged that one's actions could be seen as confirming negative stereotypes.
- This often leads to decreases in performance in stereotype relevant domains.



Sample

- 216 adults who were overweight
- Average BMI was 31.6
- 80% Caucasian
- 76% women
- Mostly psychology undergrads

Results

- Reported a history of feeling judged according to their weight and weight based stereotypes
- Judged as unattractive (44%), lazy (23%), lacking willpower (16%), and overeating (14%)
- Women felt more judged than men
- Heavier people felt more judged than thinner people
- The more they identified self as fat, were conscious of weight stigma, endorsed fat stereotypes, and held anti-fat attitudes, the more they reported feeling judged.

Conclusions

- Individuals who are overweight report a history of feeling judged because of their weight and/or threatened that they are being evaluated according to negative stereotypes.
- Preliminary research suggests that weight-related stereotype threats or social evaluation threats impact cognitive and behavioral outcomes.

The General Population's Attitudes toward Obese People

- Reality TV
- Weight stigma documentary
- Jury bias
- Anchor effects
- Method of weight loss
- Weight and attractiveness



Reality TV: Who is the Biggest Loser?

(Domoff, Hinman, Koball, Storfer-Isser, Carhart, Baik, & Carels, 2012)

Research Question:

- What is the impact of watching an episode of the Biggest Loser on weight bias and perceptions of weight controllability?



Methods

Participants and Procedure

- 59 participants (Biggest Loser: N = 32; Control: N = 27)
- Female: 66%; Caucasian: 70%; BMI = 25.8
- Experimental: One episode of the Biggest Loser
- Control: One episode of a nature reality show

Measures

- Controllability of Weight (AFA)
- Dislike of overweight individuals (AFA)
- Obese Person Traits Survey (OPTS)
- Implicit Bias

Findings

- After watching the Biggest Loser, compared to a control group, participants:
 - disliked obese people more
 - thought that obesity was more controllable
- The effect was stronger for thin people.



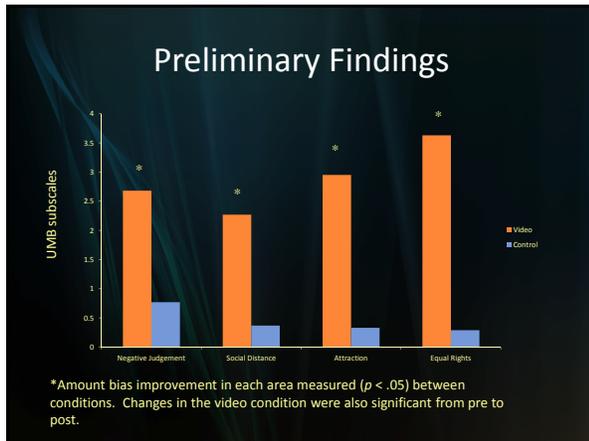
Can a professionally produced documentary raising awareness about weight stigma reduce anti-fat attitudes?



[HBO: Weight of the Nation -Prejudice Against Individuals with Obesity clip](#)

Methods

- 49 participants
- Randomized to documentary: 1) Weight of the Nation or 2) "Overtaken" an individuals struggle with prescription drug addiction.
- Prior to documentary completed the Universal Measure of Bias (UMB).
 - Subscales:
 - Negative judgment (e.g., "Fat people are sloppy")
 - Desire for social distance (e.g., "I would not want a fat person as a roommate")
 - Physical attraction (e.g., "Fat people are a turn-off")
 - Equal rights (e.g., "Special effort should be taken to make sure that fat people have the same rights and privileges as other people")
- Completed UMB after watching the video under the guise of an ostensibly different experiment.



Conclusions

- Well-produced documentary with high production value may be one avenue to reduce stigma
- The video's brevity (i.e., 20 min.) is a strength
- Could be recommended to groups as part of professional training (e.g., educators, physicians, nutritionists).

Can the Weight of a Plaintiff Bias Juries?

The influence of plaintiff's body weight on judgments of responsibility
(White, Wott, and Carets, in press)

- 185 lean and overweight adults
- 76% Female; 79% Caucasian; BMI = 24.9 ± 5.5
- Read one of three vignettes describing an accident that occurred while leaving one of three different establishments (fast food burger restaurant; fitness gym; department store)
- While viewing one of two silhouettes of the alleged plaintiff (a lean female; an obese female)
- Completed Anti-Fat Attitudes Scale

Vignette Characteristics

- A customer broke her foot, after falling while leaving a fast-food Burger Restaurant. It has been determined in court that it is the restaurant's job to check if there is ice outside of the restaurant in the mornings and put out salt directly in front of the restaurant while opening. There was no salt put out that morning. Around noon when the customer left the restaurant she was injured. It has also been established that the customer was running out of the restaurant in a hurry and was not wearing boots. It must be determined in court how responsible each party was for the incident.

How Responsible was Plaintiff for Injuries and What Factors Played a Role in Decision

Factors:

Customer	Weight	Rushing
	Clumsy	Not wearing boots
	Not prepared for bad weather	
Establishment	Unsafe	Didn't check ice
	Did not put down salt	
	Not prepared for bad weather	

Results

Plaintiff's weight entered into perceptions of personal responsibility when viewing the overweight compared to the thin plaintiff.

As respondent's weight bias increased, they were significantly more likely to:

- hold the obese plaintiff responsible
- more likely to blame obese plaintiff characteristics (rather than the establishment) for the accident (weight; rushing; prepared).

Conclusion

The weight of a plaintiff may affect juror perceptions of personal responsibility particularly if the juror possesses weight bias



Can biased response anchors influence levels of anti-fat attitudes? Examples

Positive Response Anchor
Expert/Scientific Research

According to scientific research, what percentage of obese people are lazy?	0 - 10%
	11 - 20%
	21 - 30%
	31 - 40%
	41 - 50%
	> 51%

Positive Response Anchor
Student/Social Consensus

According to BGSU students, what percentage of obese people are lazy?	0 - 10%
	11 - 20%
	21 - 30%
	31 - 40%
	41 - 50%
	> 51%

Negative Response Anchor
Expert/Scientific Research

According to scientific research, what percentage of obese people are lazy?	< 50%
	51 - 60%
	61 - 70%
	71 - 80%
	81 - 90%
	91 - 100%

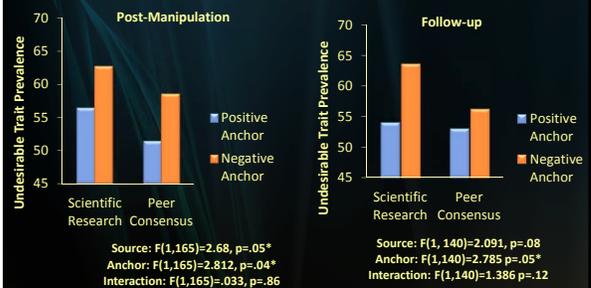
Negative Response Anchor
Student/Social Consensus

According to BGSU students, what percentage of obese people are lazy?	< 50%
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	71 - 80%
	81 - 90%
	91 - 100%

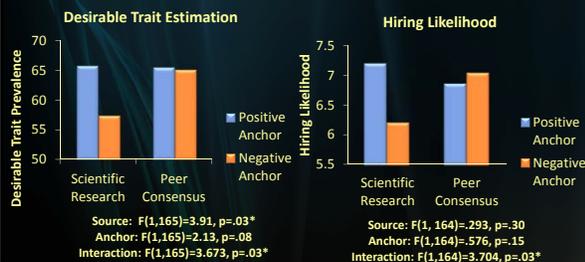
Methods

- 200 adults (79.5% female; 84.5% Caucasian) participated in the study.
- Completed the Obese Persons Trait Survey immediately following the manipulation and one week following.
- Completed a hiring vignette for a campus tour guide using a cover letter and a picture of an obese woman.

Undesirable Traits Post Manipulation and Follow-up



Post-Manipulation Desirable Trait and Hiring Likelihood



Conclusions

- A simple biased manipulation of questionnaire items and their response scale anchors can influence social judgments toward individuals with obesity.
- Social judgments about obese individuals may be susceptible to subtle manipulation of social consensus (i.e., peer group) or expert judgments (i.e., scientific research).

Method of Weight Gain and Weight Loss and Personality Trait Attribution

Experimental Question

- Does method of weight gain influence perceptions of personality?
- Does method of weight loss influence perceptions of personality?

Method

- 150 participants
- Weight gain condition (medical disease; behavior; behavior and failed surgery)
- Weight loss condition (surgery; diet and exercise)

Weight Gain Method / Weight Loss Method

Medical disease / Surgery	Unhealthy behavior / Surgery	Unhealthy behavior and failed surgery / Surgery
Medical disease / Diet and Exercise	Unhealthy behavior / Diet and Exercise	Unhealthy behavior and failed surgery / Diet and Exercise

Methods

- Shown thin woman: Rated personality and likelihood of hiring for thin women.
- Shown overweight woman: Given vignette of her weight gain and loss story.
- Shown both pictures: Re-rated personality and likelihood of hiring for women.

Assessment

Traits Examined (10-point Likert scale)

- | | |
|---------------------------------------|--|
| • Lazy - Hardworking | Unfriendly - Friendly |
| • Dishonest - Honest | Cruel - Kind |
| • Unhappy - Happy | Needy - Independent |
| • Unintelligent - Intelligent | Emotionally unstable – Emotion. stable |
| • Low self-esteem - High self-esteem | Repulsive - Likable |
| • Socially awkward - Socially skilled | Unclean - Clean |
| • Undisciplined - Disciplined | Unhealthy – Healthy |
| • Unsuccessful – Successful | |

Hiring

Looking for an anchor: Would you hire this person for the job?

Results

Lost the weight via surgery, woman seen as:

sloppy	less efficient
less disciplined	less intelligent
less likable	less popular
less likely to be hired	lazy

Gained weight because of failed surgery, woman seen as:

less disciplined

No effect for method of weight loss or gain on:

competence	aggressiveness
irritability	

Discussion

- 150,000-200,000 bariatric surgeries per year in the US
- Lap band conversion to bypass rates as high as 40%
- Potential social judgment consequences for those who choose to loss weight using bariatric surgery
- Belief that weight is controllable is likely fueling this effect.

Weight Bias and Attractiveness in Personality Trait Attribution



Methods

Participants: 200 undergraduate students

Four conditions: 1) Thin – more attractive, 2) Thin - less attractive, 3) Overweight – more attractive, and 4) Overweight – less attractive

Five models in each condition

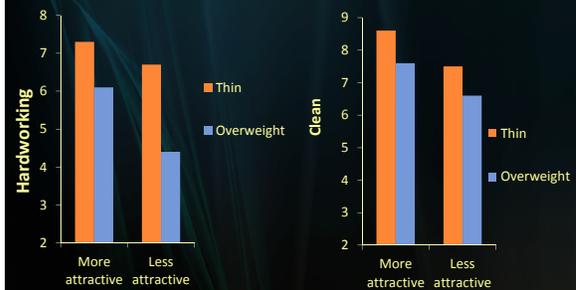
Traits Examined (10-point Likert scale)

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 - Emotionally unstable – Emotionally stable
 - Repulsive - Likable
 - Unclean - Clean
 - Unhealthy - Healthy

Results

- Nearly all effects were additive
- 15 significant main effects for Attractiveness
 - ALL positive for More Attractive
- 11 significant main effects for Weight
 - 10 positive for Thin
 - 1 positive for Overweight (less dishonest)
 - No effect: Cruel, Needy, Intelligent, Repulsive.
- 1 significant interaction
 - Self-Esteem: Stronger relationship for Attractive condition.

Example of Findings



*Significant main effect for Weight and Attractiveness; no interaction

Conclusions

- There is a positive halo for attractiveness
- There is a positive halo for thinness
- Negative personality attributions are made with little logical connection to thinness or attractiveness
- Those deemed by society as overweight and unattractive are at a great disadvantage

Weight Stigma is Everywhere!

(Puhl & Heuer, 2009)

Present in numerous environments:

- Home
- Work
- School
- Medical
- Social
- Media / News



What are Stigma's Consequences?

Consequences

- Labeled as deviant
- Face discrimination and prejudice
- Psychological, economic, personal and health consequences



Future Research

- Reduce bias: Counterattitudinal images / high quality documentary
- Implicit bias and its unique contribution to outcomes
- Continue to examine the scope of weight bias in understudied domains (humor, etc.).
- Stereotype threat

Conclusions

- Weight stigma is insidious and ubiquitous.
- It remains socially acceptable in many circles.
- Few obese individuals are immune from internalized weight bias and there is only modest evidence of in group identification.



Commentary

- There is no place in society for prejudice of any kind; it should not be tolerated.
- It divides and demeans us; it creates artificial barriers and results in negative feelings and behaviors.



Appetite: Upcoming Special Issue Weight Stigma and Eating Behaviours

Guest Editors:

- Robert Carels
- Janet Latner

Submissions

- Rolling submission: July or August 2014
- Submission deadline: 1 September 2015
- Acceptance deadline: 1 December 2015
- Expected Publication date: 25 January 2016

Thank you!

Questions?