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Attribution Theory and Weight Loss:

The Effect of Situational Inducement on Perceptions of Weight Loss

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Abstract

The influence of the subtractive rule on attributions for weight loss was investigated. According to the subtractive rule (Trope, Cohen, & Maoz, 1988), if plausible causes of a behavior exist in the situation, the combined effect of those is subtracted from the dispositional attribution that is implied by the behavior. Participants ($N = 29$) were given one of two contexts in which a situational inducement for weight loss was manipulated. The results showed that the attribution of weight loss does function according to the subtractive rule. Participants made more internal attributions for the target's weight loss when there was no situational inducement for weight loss. Participants also ascribed more stereotypical traits to the target in the absence of the situational inducement. The implications and limitations of the study are discussed.

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An overweight individual in American society faces many challenges due to their stigmatization. Being overweight evokes prejudice and discrimination from a society that values independence, dedication, and hard work. A large body of research has been conducted to examine how people perceive overweight individuals. Most of this research has reported negative reactions to overweight people. For example, overweight people are believed to be lazy, unattractive, having low self-esteem, and intellectually slow (Allon, 1982; DeJong, 1993; Harris, 1990; Hebl & Heatherton, 1998). Further, much research has documented the overwhelming belief that weight is controllable (Weiner, Perry, & Magnuson, 1988; Rodin, et. al., 1989; DeJong, 1980; Crandall, 1994). Research also shows that the perception of weight controllability, and anti-fat attitudes in general, is part of a larger ideology. Crandall (1994) reported anti-fat attitudes as being part of a "network of beliefs and values relevant to the dominant American social ideology." American values endorse self-determination and hard work. Therefore, those who demonstrate such values will be approved of and those that don't will be looked upon as failures. Therefore, anti-fat attitudes arise due to the overweight person being viewed as failing to make themselves work hard. Additional research shows that people who hold anti-fat attitudes also tend to be politically conservative, racist, in favor of traditional sex roles in marriage, and in favor of capital punishment (Crandall & Biernat, 1990). Interestingly, among women participants, there was no relationship between being fat and holding anti-fat attitudes. This implies that one's weight is not taken into consideration or a direct cause of anti-fat attitudes.

Before discussing the stigma of obesity it is important to understand what a stigma is. Weiner, Perry, and Magnusson (1988) define a stigma as a deviation from the norm in relation to physical attributes, behavior, and character. Stigmas vary in category in that there are physical stigmas and characterological stigmas (DeJong, 1980). Physical stigmas, as delineated by DeJong (1980), are those that are caused by the environment or genetics such as a somatic deformity. Characterological stigmas are character traits that differ from the norm of society but remain under a person's control. In one study Weiner et al. (1988) categorized the ten stigmas in their study as either physical in origin, or mental-behavioral in origin; in their study, obesity was categorized as a mental-behavioral stigma. They were interested to see if reactions to stigmas paralleled the attribution theory. According to Weiner et al., "attribution theory claims that the perceived cause of the stigma should determine affective reactions toward the stigmatized person, future expectations regarding that individual and a variety of behavioral responses." Obesity along with nine other stigmas, such as blindness, AIDS, cancer, heart disease, child abuse and drug abuse, were rated on various variables such as blame, like, pity, anger, assistance, and responsibility. Obesity was presented on two levels; uncontrollable meaning caused by glandular dysfunction, and controllable meaning excessive eating. Obesity evoked more pity and less anger when depicted as uncontrollable. Obesity evoked less pity and more anger when depicted as controllable. On the whole, obesity evoked less pity and more anger than the physical stigmas such as cancer and paraplegia. When the target was presented as controllable, they were rated as highly responsible, more to blame, needing less assistance, liked less, and less likely to receive charitable donations than an obese person depicted as uncontrollable. Following

the predictions of attribution theory the study indicates that obesity is viewed much more

negatively than other stigmas especially when presented as being controllable.

In a similar study DeJong (1980) explains that "the extent to which a person is

derogated will depend on the extent to which they can be blamed or held responsible for

his or her appearance." The overweight are deemed responsible for their condition

because they are assumed to be lazy or self-indulgent. The stigma for obesity is

particularly severe because obesity is perceived as controllable. DeJong's (1980) research

suggests that the presence of a plausible alternative cause—a discounting factor—for

overweight (beyond the individual's failing) may lessen the stigma of obesity. The

research by DeJong revealed that the opinions of adolescent girls towards their obese

peers were influenced when a cause for the obesity was provided. The targets were

presented as obese with no cause and obese with a thyroid condition. The target with no

thyroid condition was rated more negatively, as well as being more self-indulgent and

lazy. The obese target with the thyroid condition was viewed as more likable and higher

in self-discipline. When a normal weight target with no thyroid condition was compared

to an overweight target with no thyroid condition, the normal weight girl was liked more.

DeJong's research suggests that girls as young as fourteen have already conceptualized

the negative connotations that are attached to being overweight. The girls studied

preferred to befriend normal weight girls unless the overweight could prove themselves

worthy via excuses for their weightiness. Thus the stigma of being overweight is learned

early by both the stigmatized and those who do the stigmatizing. DeJong points out that

it's the assumption of responsibility that stigmatizes, not the actual appearance.

Therefore the obese will be stigmatized as long as the overweight can be blamed and viewed as in control of their weight. Research conducted by both DeJong and Weiner et al. suggest that the stigma of obesity is so severe because weight is perceived as controllable.

Given the severe stigma association with being overweight, weight loss becomes a method for dealing with stigma. Beyond its health implications, losing weight may lessen the prejudice faced by overweight people. Blaine and his colleagues examined this idea by having participants read and evaluate the diet and fitness behaviors of a hypothetical college student whose weight and recent weight loss was systematically varied (Blaine, DiBlasi, & Connor, 2002). The dependent measures included perceptions of the controllability of weight and measures of weight-related stereotyping and prejudice. They found that perceivers viewed weight loss as being more controllable after a recent weight loss than when no weight loss occurred, especially when the weight loss was attributed to a heavy compared to a light target. The heavy target was disliked more and rated more unattractive than the thin target even though both had lost the same amount of weight. The results of this study indicate that weight loss reinforces and may harden prejudices of overweight people. As overweight individuals lose weight perceivers believe that weight is then a controllable issue. Thus the erroneous idea of controllability will continue to perpetuate blame. The overweight individual, in light of losing weight, will be held responsible for their condition because they proved that they could change it even if only for a short time

In a follow-up experiment, researchers attempted to explain this counterintuitive finding by reasoning that negative reactions to the overweight/weight loser target was a

kind of punishment for not bringing one's weight in line with societal norms (Blaine & McElroy, 2002). This was tested with a similar study to the one described above but where the heavy target lost no weight, some weight, or all the extra weight. The results showed that perceivers' negative reactions to the heavy weight-loser did not improve if she lost an "acceptable" amount of weight.

        In this article, I am concerned with testing another explanation for why overweight people are met with negative reactions to weight loss and why they do not receive credit for their weight loss. Weight loss should lessen the prejudice and discrimination faced by overweight people. Yet, research (Blaine, DiBlasi, & Connor, 2002; Blaine & McElroy, 2002) suggests that negative reactions increase toward an overweight target that loses weight. The explanation tested in this study is derived from attribution theory. A long tradition of research in social psychology shows that people infer causes of observed behaviors by attributing behavior to internal factors (e.g., an actor's personality or ability) or external factors (e.g., the situation the actor is in or luck) (Kelley, 1972). Research discussed above shows that attributions are important mediators of social judgments (Weiner, et. al., 1988).

        The discounting principle developed by Kelly (1972) states that "the role of a given cause in producing a given effect is discounted if other plausible causes are also present" (Kelley, 1972). For example, Betty attends a formal dinner and appears to be very polite. It is possible that she is a polite person, which would constitute an internal attribution. Yet, the party which calls for such behavior may be the cause of her politeness, which would be an external attribution. If the party is a plausible cause for Betty's polite behavior then you would discount her disposition as the cause for her

behavior. The discounting principle is extended in the notion of the subtractive rule (Trope, Cohen, & Moaz, 1988). The subtractive rule states that if plausible causes of a behavior exist in the situation, the combined effect of those is subtracted from the dispositional attribution that is implied by the behavior. In other words, the situational inducements should be subtracted from the personal dispositions that imply a particular behavior. In the party example above, the situational inducement (e.g., the norms regarding one's behavior at a party) should be subtracted from the one's attribution of her behavior to her polite disposition. One can see how the woman might be viewed differently in the presence of strong situational inducements for her polite behavior.

In this experiment, the subtractive rule was applied to weight loss to investigate the reasoning for negative reactions to weight loss in overweight individuals. The discounting principle and subtractive rule suggest that the social norms and cultural expectations about thinness, attractiveness, and health are a major inducement to lose weight. These expectations are discounting factors and need to be subtracted from positive internal attributions that would be made when a person deliberately loses weight. In other words, an overweight person would not be perceived as motivated, self-disciplined or results oriented if his/her weight loss could be attributed to other plausible situational causes such as social norms or expectations. Therefore, the overweight individual will not receive credit for their weight loss. To test the role of the subtractive rule in the attribution of weight loss, two scenarios were developed which manipulate the situational inducement for weight loss. One situation stressed the importance of "appearance" whereas the control situation stressed "teamwork." In the presence of situational inducements for weight loss—when appearance is emphasized—compared to

a no-inducement control condition—when teamwork is emphasized—weight loss in a target should lead to fewer internal attributions and more negative evaluations because of the subtraction of the situational pressures to lose weight.

Method

Participants

The participants were 29 individuals in which 23 were undergraduate students attending Hofstra University. The remaining 6 participants were undergraduate students from other academic institutions. None of the participants were paid for their involvement in this study.

Materials

Two separate scenarios (see Appendix A) were developed by providing the same descriptive paragraph with one differing sentence which manipulated the stigma attached to weight. The first scenario emphasized the stigma of obesity by including the sentence "In an orientation session for new employees, the Supervisor emphasized the importance of maintaining standards of appearance that are consistent with the business environment and clientele".

The second scenario did not emphasize the stigma of obesity by including the sentence "In an orientation session for new employees, the Supervisor emphasized the importance of teamwork and communication within the firm". The instructions described the scenarios as a student facing a student-to-career transition.

Dependent Measures

A questionnaire was developed to measure perceptions of the person in the scenario making a student-to-career transition (see Appendix A for all items on

questionnaire). A manipulation check asked the participants what was more important to the employer, either employee appearance or employee teamwork. The first two questions measured the situational and dispositional attribution of weight loss, respectively, on a 1 (not at all) to 4 (very much) scale. The third and fourth questions measured the credit attributed to the target for her weight loss and beliefs about the controllability of weight, respectively, on a 1 (not at all) to 4 (very much) scale. Participants were asked to rate the target on 12 traits on a scale ranging from 1 (not at all descriptive) to 4 (very descriptive). The traits included 5 positive (friendly, creative, open-minded, caring and honest), 3 negative (angry, opinionated, and critical) and 4 stereotypical of overweight (lazy, unattractive, lonely, and friendly) traits. The positive and negative traits were derived from Anderson's (1968) likability ratings and were used in previous research (Blaine, DiBlasi, & Connor, 2002). Finally, the participants were asked to write their general impression of the target's preparation for starting her career.

Procedure

The participants were given a double-sided paper in which the scenario was on one side and the questionnaire on the other. The participants were given as much time as needed to complete the questionnaire. Twenty-two (22) of the participants were given the experiment in a classroom at Hofstra University; the remaining 7 participants were given the experiment in a conference room at a popular business firm.

Results

Analysis of the manipulation check data showed that not all participants correctly remembered which was more important to the employer, employee appearance or employee teamwork. Of the participants who received the situational inducement

condition ("maintain standards of appearance"), 11 answered correctly and 2 answered

incorrectly. In the no situational inducement condition ("teamwork and

communication"), 12 answered correctly and 4 answered incorrectly. All subjects were

included in analyses reported below. Independent samples t tests were used for all the

comparisons reported below.

Table 1. Means (and standard deviations) for the situational inducement and no

situational inducement conditions on dependent measures.

	Experimental condition	
	Situational	No situational
Measure	inducement	inducement
Attribution measures		
Attribution for weight loss	-.67 (1.49)	.93 (1.59)
Credit attributed to target	2.80 (1.01)	3.43 (.65)
Controllability of weight	3.20 (.68)	3.14 (.66)
Social judgment measures		
Positive trait ratings	2.35 (.73)	2.55 (.63)
Negative trait ratings	1.58 (.45)	1.85 (.52)
Stereotypic trait ratings	1.42 (.33)	1.71 (.40)

Note: The attribution measure ranged from -3.0 to 3.0. All other measures are measured
on a 1 (not at all) to 4 (very much) scale.

Attribution measures

The main dependent variable—participants' attribution for the target's weight

loss—consisted of the difference between the situational and personal attribution items,

which was computed for every participant. The scores on this variable could range from -

3.0 to 3.0, with negative and positive numbers indicating a net situational and

dispositional attribution, respectively. In accordance with the subtractive rule, there was a

significant effect of situational inducement on the general attribution for the target's

weight loss, $t(27) = -2.78$, $p = .01$ (see Table 1 for means). The participants in the

situational inducement, compared to the no inducement, condition attributed the target's

weight loss more to the situation and this effect was large in magnitude (Cohen's d =

1.0).

The effect of the manipulation on participants' ratings of how much personal

credit should be given to the target was marginally significant ($t(27) = -1.97$, $p = .059$,

see Table 1 for means), with situational inducement participants giving the target less

personal credit for her weight loss. There was no significant effect of the manipulation on

participants' rating of controllability of weight ($t < 1.0$).

Social judgment measures

To look at the effects of situational inducement on participants' social judgments

of the target, ratings of the target on positive, negative, and stereotypical traits were

averaged and formed three composite scales. For each of these scales a higher number

indicates that the traits were seen as more descriptive of the target. Analyses revealed no

effects of the situation on either positive ($t < 1.0$) or negative ($t(23) = -1.34$, $p = .19$) trait

ratings. However, there was a marginally significant effect of the manipulation on the

ascription of stereotypical traits, $t(23) = -1.96$, $p = .06$ (see Table 1 for means).

Participants in the no situational inducement, compared to those in the situational

inducement, condition rated the target higher on weight-stereotypic traits.

Discussion

The results of this experiment showed that the subtractive rule explained

attributions for weight loss in a hypothetical target. When the situational inducement was

present, participants attributed the targets weight loss to the situation which is an external

attribution. When there was no situational inducement present, participants attributed the target's weight loss to her personal disposition which is an internal attribution. This study is consistent with prior research (Trope, Cohen, & Maoz, 1988) by showing that if a situational factor can account for a behavior that factor is subtracted from the default dispositional attribution. Similar results also showed that situational inducement to lose weight also undermined the credit participants gave to the target for her weight loss. This study also found that targets were viewed in more weight-stereotypic terms when their weight loss was not discounted by the presence of situational inducements for weight loss.

There are important implications of this experiment for prejudice against individuals who lose weight. As long as there is a situational inducement present a person who loses weight will not receive credit for weight loss. Their weight loss will be attributed to the context in which the person is in. American society places great value on thinness and attractiveness. These cultural values are an on-going inducement for people—especially women and the very overweight—to lose weight. This research suggests that weight loss behavior will be discounted by the presence of such social and cultural inducements for weight loss. One implication of this is that individuals who fail to lose weight may be viewed as failing to subscribe to the norms of society. Therefore, the individual faces negativity from society and from themselves. Further, the presence of a situational inducement to lose weight may prevent weight loss. If people are aware that their weight loss efforts will be discounted by others they may not find weight loss appealing anymore.

The results also indicate that when there is no situational inducement present the target who loses weight is ascribed with more stereotypical traits. This is consistent with past research which shows the relationship between weight loss and stereotyping (Blaine, DiBlasi, & Connor, 2002; Blaine & Carter, 2004). In one study weight loss information was primed by having participants evaluate weight loss and diet product (or control product) labels and logos (Blaine & Carter, 2004). In a follow-up word fragment exercise designed to measure implicit weight-based stereotyping, participants who had been primed with weight loss compared to control information did more stereotyping. This research suggests that weight loss and the negative stereotype associated with overweight people are linked in memory. Thus, people may not be aware that weight loss in a friend, particularly when it cannot be attributed to situational inducements, prompts negative attitudes.

The present study highlights the mixed social blessing associated with weight loss. Weight loss may not generate much good will or acceptance in other people if they believe the overweight person is simply responding to situational expectations about appearance or thinness. Even when someone's weight loss cannot be attributed to situational inducements, and is attributed to the person's personality or motivation, negative stereotypes in others appear to be prompted by weight loss.

Although the findings of this study are interesting, it was planned as a pilot study for a future line of research and several limitations must be outlined for future correction. First, the study did not manipulate the weight of the target but rather stated that the target went on a recent diet and lost 24 lbs. Therefore, the study only addressed the attribution of weight loss in terms of a fixed weight change (24lbs). The study does not suggest that

the target was overweight but only indicates a recent diet. Recent research shows that the effect of weight loss on perceivers' attitudes interacts with the target's weight (Blaine, DiBlasi, & Connor, 2002). Heavy weight losers are viewed more negatively than people of moderate weight who report a weight loss. Therefore, a future study should manipulate the weight of the target.

Second, a future study should provide a lengthier paragraph which describes the target. Many participants criticized the paragraphs as not providing enough details to assign traits to the target, detracting from the realism of the study. For this study the paragraphs provided were short and concise to ensure that the situational inducements had enough impact. With this study we are more confident that people pick up on the situational inducements for weight loss and can, in future studies, create more realistic scenarios for the target.

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Appendix A. <u>Experimental scenarios and materials</u>.

(Hi situational inducement condition)
Janice is a senior at a XX University in XX, New York majoring in Finance and Business
Management. She is white, 21 years old, and is a member of several student organizations. She is
interested in a career in the business and human resources field. Janice has accepted a job offer
as a Workplace Quality Analyst from a Manhattan-based, well-known financial firm. In an
orientation session for new employees, the Supervisor emphasized the importance of maintaining
standards of appearance that are consistent with the business environment and clientele. In the
months leading up to her starting date, Janice went on a diet and lost 24 lbs; she also purchased
some new business attire.

(Lo situational inducement condition)
Janice is a senior at a XX University in XX, New York majoring in Finance and Business
Management. She is white, 21 years old, and is a member of several student organizations. She is
interested in a career in the business field and human resources. Janice has accepted a job offer
as a Workplace Quality Analyst from a Manhattan-based, well-known financial firm. In an
orientation session for new employees, the Supervisor emphasized the importance of teamwork
and communication within the firm. In the months leading up to her starting date, Janice went on
a diet and lost 24 lbs; she also purchased some new business attire.

Which is more important to the employer?   ☐ Employee appearance   ☐ Employee teamwork
To what extent is this person's weight loss due to the norms in his/her future workplace?
To what extent is this person's weight loss motivated due to a personal desire to be thinner?
How much personal credit should be given to this person for his/her weight loss?
Generally, how much can people control their own weight?

Rate this person's character and personality on the following traits:

1	2	3	4
Not at all Descriptive	A little descriptive	Somewhat descriptive	Very descriptive

____ friendly	____ intelligent	____ honest
____ disciplined	____ lonely	____ unattractive
____ angry	____ caring	____ open-minded
____ opinionated	____ lazy	____ critical

What are your general impressions of this person's preparation for starting her career?

_____

_____

_____