The Fat Leading the Thin

*Relative Body Size, Physical Activity Identification,
and Behavioral Problems*

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Abstract

Though sport and physical activity participation are key elements of a healthy lifestyle, anti-fat biases serve as barriers to active living, leaving a large population segment underserved. This stigma also creates thin body standards for people working in sport and physical activity, including instructors. In this study, the authors conducted an experiment to explore how instructor and participant body size interact to influence activity identification and subsequent intentions to be physically active. Results indicate that larger-bodied participants were more identified when working with a larger instructor. For thinner participants, there were no significant differences in identification related to instructor body size. Identification was positively related to future intentions in the activity. Implications for practice are discussed.

Keywords: *Stigma, physical activity, body weight, instructor, fat*

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Introduction

The Centers for Disease Control and Prevention (2016) classify more than 70% of U.S. adults—more than 170 million individuals—as overweight or obese.[1] Despite representing a numerical majority, persons considered to be overweight face stigmatization and prejudice in modern Western society. They are often assumed to be lazy or incapable (Vartanian & Shaprow, 2008) and face discrimination in daily life, such as staring or unsolicited advice about their health (Puhl & Brownell, 2006). The effects are also observed in the sport and leisure domain. Many larger individuals undertake difficult, and sometimes dangerous, weight loss regimens, determining that thinness is worth the risks of such practices (Bacon & Aphramor, 2011). Given the prominence of exercise in the weight loss model, it is not surprising that physical activity spaces are often exclusionary and hostile towards fatness (Schmalz, 2010). Prejudice against people considered to be overweight contributes to their exclusion in sport spaces and teams (Melton & Cunningham, 2016) and may prompt them to avoid exercise altogether (Vartanian & Shaprow, 2008).

The patterns of prejudice and discrimination against people considered to be overweight harms the individuals, teams, and organizations. Researchers have shown that physical activity is beneficial for all people, irrespective of their body size (Blair et al., 1993; Penedo & Dahn, 2005); thus, avoidance behaviors hurt larger individuals. Interestingly, anti-fat bias can hurt productivity, as key decision makers sometimes discriminate against otherwise well-qualified individuals because of their biases (Melton & Cunningham, 2016). Finally, researchers have shown that consumer prefer fitness clubs with health-based messaging over clubs with a focus on physique and weight loss (Cunningham & Woods, 2011). Thus, prejudicial attitudes and discriminatory behaviors serve to alienate a large segment of the population and ultimately hurt effectiveness. As such, Pickett and Cunningham (2017) argued that a culture of body inclusion was important for engaging all potential consumers, thereby improving health and the company's bottom line.

The purpose of this study, therefore, was to empirically examine these possibilities. By way of an experiment, we examined how people's identification with a physical activity (i.e., yoga) is influenced by the instructor's body size; whether the participant's body size influences these reactions; and whether these factors influence the participant's intentions to pursue the physical activity in the future. We chose yoga given its popularity (McCall, 2014). In examining these

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[1]A number of scholars and advocates have questioned guidelines for determining overweight and obesity (Bell, 2012; Cunningham, 2015). The estimates are largely based on White middle-class populations, and they ignore cultural differences. As such, "fat" is frequently preferred over "overweight," "obese," or other clinical descriptions. That noted, "fat" is frequently used as a pejorative, and as such, we use terms "considered overweight" or "larger body" in the manuscript.

dynamics, we seek to inform practice of sport and fitness managers, particularly related to the engagement of clients in larger bodies.

Theoretical Framework

Two theories help explain the focus on thin, muscular individuals within the sport and leisure setting: attribution theory (Weiner, 1995) and the match-up hypothesis (Kahle & Homer, 1985). From an attribution theory perspective, individuals assume causal relationships between simple and visible factors to help them understand complex outcomes and situations. For example, individuals attribute an instructor's body type to the activity he or she teaches, such that thin instructors are assumed to be thin due to the activity. Sartore and Cunningham (2007) further related this to the match-up hypothesis, which suggests proper fit between a spokesperson and a product is important in affecting consumption. In the context of physical activity, instructors serve as the endorser of a particular modality. As such, consumers evaluate the instructor and modality by the instructor's body. Taken together, these two prevailing notions preclude the hiring of fat physical activity instructors.

Drawing from these perspectives, we first examined whether instructors considered to be overweight negatively affected the participant's identification with yoga. There is evidence from other researchers showing that those guiding sport and physical activity efforts can affect influence people's affective reactions to the activity itself (Baker, Yardley, & Côté, 2003; Mageau & Vallerand, 2003). Here, we consider identity as the degree to which an activity or role is central to one's self-concept. This is an important consideration, as people who are strongly identified with their sport or physical activity are also likely to engage in that activity (Beaton & Funk, 2008)—a relationship we explore in subsequent sections of the paper. Building on this research, we anticipated that people would hold negative opinions of instructors considered to be overweight, thinking of the leader as a poor fit for the activity. As a consequence, the participant might disassociate from the activity itself. More formally, we hypothesized:

Hypothesis 1: Participants with instructors considered to be overweight will express lower identification with the activity than will participants with a thin instructor.

Social Categorization, Identity Formation, and Physical Activity

We also suspect that the participant's body size might influence these dynamics. The social categorization framework (Tajfel & Turner, 1986; Turner et al., 1987) suggests that individuals are constantly evaluated and placed into social categories based on salient personal characteristics. Individuals sharing personal characteristics are afforded more trust and liking than are those who differ from the self. The process results in bias. Drawing from this theory, Cunningham (2007) has observed that people use demographics to categorize themselves and others, and had more positive reactions when similar to their coworkers.

Body size and weight can also serve as sources of categorization. In this case, people might negatively evaluate target who they perceive differs from them in body size, particularly when the target is a member of a stigmatized group— that is, someone considered overweight. On the other hand, when body sizes are congruent, affective reactions might improve. Di Pasquale and Celsi (2017) observed as much in their review of research in the area. Thus, we hypothesized:

Hypothesis 2: The negative relationship between being led by an instructor considered overweight and identification with the physical activity will be moderated by participant body size, such that the effects will be offset when the participants are also considered overweight.

Outcomes of Physical Activity Identification

Identification with a sport or physical activity has a number of important outcomes. In sport marketing, fan identification with a team is associated with higher ticket and merchandise purchase intentions. This logic has been extended to the domain of physical activity participation as well (Beaton & Funk, 2008). Existing research evidence suggests that higher levels of connection are associated with higher behavioral intentions and participation (Beaton, Funk, Ridinger, & Jordan, 2011). Therefore, we hypothesized:

Hypothesis 3: Identification with the physical activity will be positively associated with behavioral intentions to continue the physical activity.

Method

Participants

Participants were undergraduate students (n = 240) enrolled in yoga classes at a large university in the southern United States. The sample included 198 (82.5%) women and 42 (17.5%) men—a gender distribution consistent with the classes at the university and national participation trends (Saper, Eisenberg, Davis, Culpepper, & Phillips, 2004). Participants ranged in age from 18 to 35 years old (M = 20.62, SD = 1.93). The sample was predominantly White (72.1%), with 34 (14.2%) participants that identified as Hispanic, 16 (6.7%) Asians, 10 (4.2%) African Americans, and 7 (2.9%) individuals who identified as "other." In the sample, 43 (17.9%) of individuals identified themselves as "Overweight," while 197 (82.1%) did not.

Procedures

Participants first completed a 20-minute, at-home yoga workout video, ostensibly designed to demonstrate a practice that could be completed anywhere, at any time. The instructors, both long-time yoga participants and instructors, collectively designed the video. Participants were assigned to one of two conditions, one with a thin instructor and one with an instructor considered overweight

(Figure 1). After completing the video, participants were asked to complete a short survey.

Figure 1. Experimental condition (fat vs. thin instructor) sample screenshots

As previously noted, participants were students in on-campus yoga classes. Since participants were given more than a week to complete the practice, we were concerned that the manipulation would be revealed through in-class discussion of the assignment. Thus, entire classes were assigned to a condition, thereby reducing risk that the manipulation would be revealed. To address increased risk of confounding factors at the class level, we used a matched-groups method to assign the classes to each condition. That is, we split multiple classes taught by a single instructor between the conditions. To do this, we randomly assigned one class to a condition via coin-flip, then assigned the instructor's other class to the opposite test condition. In no cases did instructors have more than two classes.

Further, we employed several strategies to ensure that the two experimental conditions were as similar as possible, aside from the instructor body type. We chose to produce the videos in house, rather than using existing workout videos. To help make the videos as similar as possible, we chose two instructors who had trained together for many years and, therefore, already had similar presentation styles. Both instructors presented the same workout, following a common script and timing scheme. Videos were filmed in a tightly cropped, neutrally painted space. Finally, instructors were of a similar age and racial background, used the same equipment, and wore plain black clothing.

Measures

After reviewing the videos, participants completed a post-experimental questionnaire. We first measured demographics, as outlined in the previous section, and their perceived weight status (overweight or not). We focused

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on perceived weight status because it is a better predictor of categorization and bias than is actual weight (Di Pasquale & Celsi, 2017). We measured yoga identification with four items, adapting Randel and Jaussi's (2003) identification scale (α = .85). A sample item is "In general, yoga is an important part of my self-image," and scores ranged from 1 (*Strongly Disagree*) to 5 (*Strongly Agree*). Finally, we measured future yoga behaviors using three items developed from previous research (Koo, Quarterman, & Flynn, 2006; Murray & Howat, 2002; Tsiotsou & Alexandris, 2009). A sample item is "I would be interested in completing more yoga practices like this one," and items were anchored by a 5-point scale from 1 (*Strongly Disagree*) to 5 (*Strongly Agree*), with higher scores indicating greater intentions. These items were also internally consistent with each other (α = .81).

Results

Manipulation Check

To ensure proper function of the manipulation, we conducted a pilot test in which participants (*n* = 57) were presented with a screenshot of the two instructors in random order and asked to rate the extent to which they agreed with the statement: "I would consider the woman pictured 'overweight,' 'obese,' or 'fat,'" with both questions anchored from 1 (*Strongly Disagree*) to 7 (*Strongly Agree*). For the thin condition, the mean score was 2.25 (*SD* = 1.21), while in the fat condition, the mean score was 5.21 (*SD* = 1.17). These values were statistically significant from each other (*t* = 33.44, *df* = 56, *p* < .001). The thin instructor was not perceived as fat, while the larger instructor was, and thus, the experimental manipulation was successful.

Hypothesis Testing

We computed means, standard deviations, and bivariate correlations for all variables (see Table 1). We controlled for age, race, and gender because (a) participant dissimilarity to the instructor based on these characteristics could potentially influence study outcomes (Cunningham, 2007; Cunningham & Sagas, 2006), and (b) each have the potential to influence sport and physical activity participation (Cunningham, 2015). From a bivariate perspective, women held a stronger yoga identification than did men, and yoga identification was positively associated with intentions to engage in that activity in the future.

Hypotheses were tested using observed path analysis. First, we assessed global fit of the model (Figure 2), prior to further examination and hypothesis testing. Based on conventional benchmarks (Hu & Bentler, 1999), the model showed acceptable fit to the data: χ^2 (*df* = 13, *n* = 240) = 33.50, *p* < .001; root mean square error of approximation = RMSEA = .07 (90% CI. .00, .14), p_{close} = .23; standardized root mean square residual = SRMR = .03. Gender was related to yoga identification (β = -.14, *p* < .05), but the other controls were not significantly associated with yoga identification or future behaviors.

Table 1

Sample Descriptive Statistics and Bivariate Correlations

Name	M (%)	SD	Correlations						
			1	2	3	4	5	6	7
1. Gender	17.5%	-	-						
2. Age	20.62	1.93	.12	-					
3. Race	27.9%	-	-.14*	.05	-				
4. Experiment Condition	49.2%	-	-.10	-.24**	.05	-			
5. Self-Report Weight	17.9%	-	.13*	-.03	-.03	.15*	-		
6. Yoga Identification	3.18	.96	-.13*	-.08	-.04	.06	.03	-	
7. Future Behaviors	3.67	.98	-.09	-.10	-.10	-.12	-.04	.21**	-

Note: ** *p*< .001; * *p* < .05. Gender coded as 0 = female, 1 = male. Race coded as 0 = White, 1 = Racial Minority. Condition coded as 0 = Instructor consider overweight, 1 = instructor considered thin. Self-report weight coded as 0 = Identify as Overweight, 1 = Do not identify as overweight.
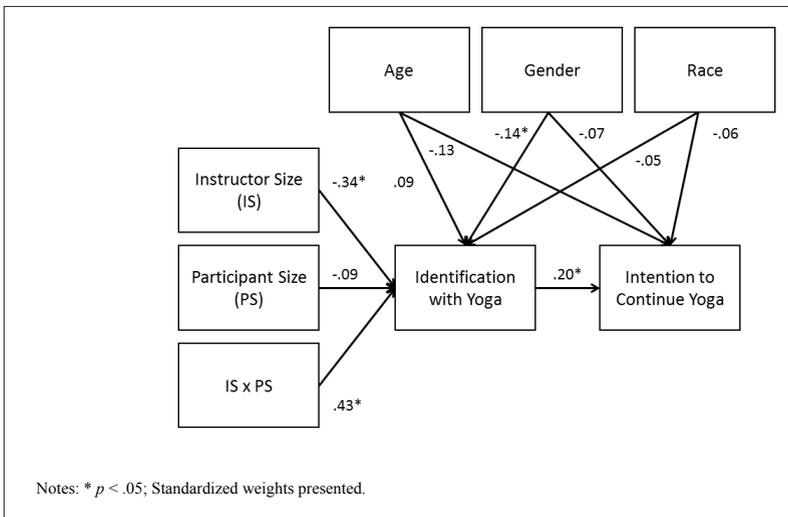

Notes: * *p* < .05; Standardized weights presented.

Figure 2. Observed Path Model

With Hypothesis 1, we predicted that participants with an instructor considered overweight would report less identification with yoga than their peers. This hypothesis was not supported (β = -.34, *p* < .05), as identification was higher with the instructor considered overweight.

Instructor Body Weight
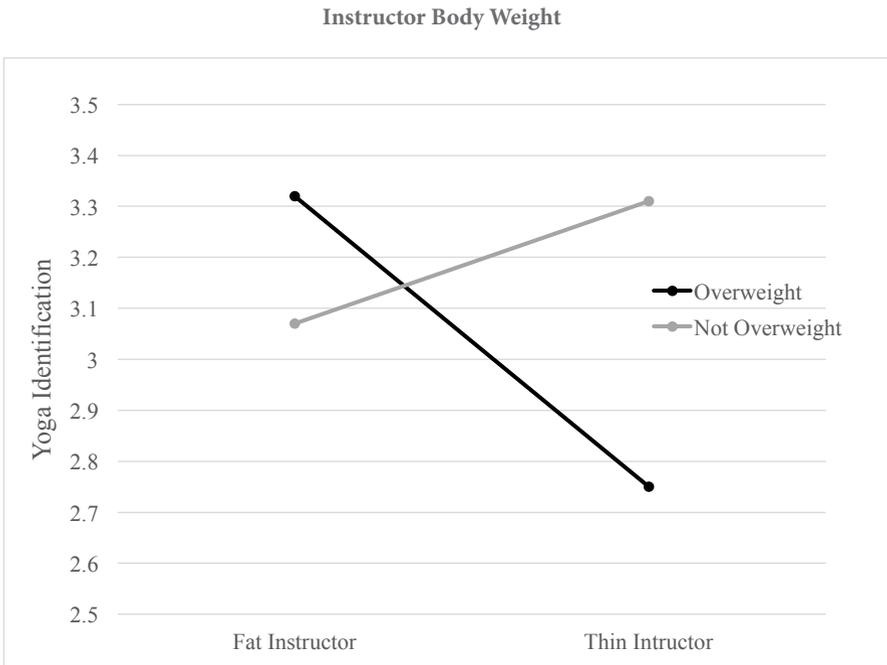
Note: * *p* < .05, [NS] Statistically Non-Significant

Figure 3. Self-Report Weight by Condition Interaction on Yoga Identification

Consistent with Hypothesis 2, this relationship was qualified by a participant weight β instructor weight interaction (β = .43, *p* < .01). The nature of the interaction is depicted in Figure 3. Participants who identified themselves as overweight exhibited significantly higher identification with yoga after completing the practice with the larger instructor (β = -.65, *p* = .01); however, there was no statistically significant differences in identification scores among participants who did not identify as overweight in either instructor condition (β = .19, *p* = .09).

Finally, consistent with our third hypothesis, yoga identification was positively related with future yoga behavior intentions (β = .20, *p* < .001).

Discussion

Contrary to our predictions, study participants expressed higher identification with yoga when they were led in their practice by someone considered overweight. The additional tests shed light on why we observed this finding. Participants who identified as overweight had significantly less identification with yoga when the instructor was thin, relative to when the instructor was considered overweight. On the other hand, yoga identification among participants who did not consider themselves overweight was unaffected by the size of the instructor.

The finding that participant and instructor body size interact to predict is consistent with our predictions stemming from the social categorization

framework (Tajfel & Turner, 1979; Turner et al., 1987). People who are marginalized in sport and leisure settings (i.e., exercisers who consider themselves overweight) respond more favorably when led by someone who is like them. On the other hand, for people who do not consider themselves overweight, the leader's body is less influential, possibly because these participants are privileged in most sport settings, including yoga.

Finally, we observed that identification with yoga was associated with behavioral intentions to continue in the activity. These findings are consistent with those in other areas, showing that identification with an activity is an important predictor for subsequent behavioral intentions (Beaton & Funk, 2008; Beaton et al., 2011).

Implications

Taken together, the findings of this research highlight the importance of body diversity among instructors leading physical activities. Strong anti-fat biases continue to prevent many individuals from participating or working in fitness and sport spaces. The visual lack of body diversity serves as a strong barrier to the entrance of new participants and reinforcement of cultural anti-fat attitudes. Our data suggest that instructors in larger bodies may serve as a symbol of inclusion and a visible reference noting the capability of such bodies to engage in physical activity. That is, sport activities can create more inclusive spaces for those in larger bodies by also having instructors of varying body types and sizes.

Given that instructors considered overweight only enhanced identification with the activity and did not significantly detract from it, sport managers should make efforts to increase the body size diversity in their clubs. Pickett and Cunningham (2017), offered one solution: a focus on body weight inclusive spaces. In these spaces, sport managers express a commitment to inclusion; inclusion is embedded in the organizational culture; the physical spaces and language used signal inclusion; participants are able to create a sense of community; and participants have autonomy in their physical activities. The authors suggested that, collectively, inclusive spaces would result in greater commitment to the activity and improvements in physical and psychological health. Sport managers can draw from these principles to create inclusive spaces, welcoming of instructors and participants considered overweight.

Further, we also observed that participants who identified with the activity also had greater intentions to participate into the future. Given that sport and physical activity spaces often rely on new and continued adherence (i.e., memberships) of participants as a primary source of revenue, strategies that help develop such relationships should be important to managers. Thus, having greater body diversity among instructors may be a viable strategy to increase identification among a larger group of participants and, therefore, encourage greater adherence and longer service relationships.

Limitations, Future Research, and Conclusions

The current study is based on an experiment with students from a single university; thus, generalizations should be advanced with caution. Further, we focused on yoga, which is a popular physical activity. However, additional work is needed with other sports and activities. Indeed, it is possible that the effects of instructor body type might be amplified in other settings, such as aerobics or CrossFit.

In conclusion, we offer a valuable addition to the literature surrounding body weight, inclusion, and physical activity. In our study, we noted that participant and instructor body type alignment was important in developing identification with the activity. Engaging those in larger bodies to participate in the sport and activity spaces will require an intentional effort to demonstrate body inclusivity, which may begin with increased presence of such bodies leading and teaching. Further, the current study also suggested that identification with the activity was a significant predictor of future adherence intentions. Therefore, physical activity managers and sport product producers should consider the importance of visible body diversity in increasing identification and, therefore, future behavior.

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