

I (DON'T) LOVE MY BODY: COUNTER-INTUITIVE EFFECTS OF A BODY-AFFIRMING STATEMENT ON COLLEGE WOMEN'S BODY SATISFACTION

RENEE ENGELN AND MEGAN N. IMUNDO

Northwestern University

Introduction: Messages encouraging women to love their bodies are common elements of positive body image movements, but there are theoretical reasons to suspect that such messages may backfire. **Methods:** In a sample of 293 college women, we tested the impact of mentally repeating the affirmation “I love my body” on body satisfaction. We prompted participants to think either “I love my body” (affirmation condition) or “I am [age] years old” (control condition) while they completed a five-minute writing task. **Results:** Relative to the control, the affirmation condition led to significantly lower body satisfaction. Additionally, 53% of affirmation condition participants counterargued the body affirmation by writing something negative about their appearance; only 6% in the control condition wrote a negative appearance comment. **Discussion:** Results suggest that some messages intended to promote positive body image have the potential to decrease women's body satisfaction, in part because they prompt women to think of flaws in their appearance.

Keywords: body image, objectification, counterarguing, self-affirmation

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Megan Imundo is now at the Department of Psychology, University of California, Los Angeles.

Address correspondence concerning this article to Renee Engeln, Department of Psychology, Northwestern University, 2029 Sheridan Road, Evanston, IL, 60201; E-mail: rengeln@northwestern.edu

Over thirty years ago, Rodin, Silberstein, and Striegel-Moore (1984) referred to women's dissatisfaction with their bodies as normative discontent. Since that time, dissatisfaction with body shape and size has continued to show reliable gender differences both in the U.S. and globally (Karazsia, Murnen, & Tylka, 2017; Swami et al., 2010). Girls and women tend to report higher levels of body dissatisfaction than boys and men, a trend present in samples of middle/high school girls and boys (Añez et al., 2018; Bearman, Presnell, Martinez, & Stice, 2006; Bucchianeri, Arikian, Hannan, Eisenberg, & Neumark-Sztainer, 2013; Griffiths et al., 2017), college students (Bucchianeri et al., 2013; Swami et al., 2010), and adults in general (Frederick, Peplau, & Lever, 2006).

Consistent with Rodin et al.'s (1984) characterization of women's body dissatisfaction as normative, both adolescent girls and boys (Bearman et al., 2006) and college men and women (Tantleff-Dunn, Barnes, & Larose, 2011) tend to view negative body image as typical of women. Body dissatisfaction is worrisome because it is linked to eating disordered behavior in samples of adolescent girls and young women (Bucchianeri et al., 2016; Ferreira et al., 2014; Kluck, 2010; Tylka, 2004; Ward & Hay, 2015), but the negative consequences of body dissatisfaction in these types of samples also include anxiety (Aderka et al., 2014; Kostanski & Gullone, 1998) and depression (Brechan & Kvaem, 2015; Paxton, Neumark-Sztainer, Hannan, & Eisenberg, 2006; Nolen-Hoeksema & Girgus, 1994; van den Berg et al., 2007).

Researchers have identified a number of interventions with the potential to increase women's body satisfaction, including self-compassion building activities (Albertson, Neff, & Dill-Shackelford, 2015; Stern & Engeln, 2018), aerobic exercise (Hausenblas & Fallon, 2006), and dissonance-based programs designed to discourage internalization of a thin body ideal (primarily focused on college women, Stice, Shaw, Becker, & Rohde, 2008). At the same time, activists have initiated a variety of formal and informal body image campaigns with the goal of improving women's body image. A number of these campaigns focus on encouraging women to feel beautiful or to love their bodies. For example, Operation Beautiful (Boyle, 2010) is a movement that encourages women to uplift other women by leaving post-it notes or stickers (in places like the mirrors of public restrooms) that read, You are beautiful. Similarly, the Love Your Body campaign

by the National Organization for Women (NOW) Foundation aims to “challenge the message that a woman’s value is best measured through her willingness and ability to embody current beauty standards,” in part by selling stickers and posters with the love your body message. In the current study, we experimentally examined the impact of a similar body-affirming statement on college women’s body satisfaction.

Theory and research on basic processes of persuasion can clarify whether and how messages encouraging women to love their body might affect body satisfaction. A basic premise of dominant models of persuasion is that individual differences can lead people to respond to the same persuasive message in vastly different ways (e.g., Chaiken, 1980; Petty & Cacioppo, 1986). These individual differences are often evident in the types of thoughts generated in response to attempts at persuasion. In his cognitive responses model of persuasion, Greenwald (1968) argued that targets of persuasive communications integrate the messages they receive with pre-existing knowledge. As a result, any persuasive message can lead receivers to generate cognitive responses that are in disagreement with that message—responses referred to as counterarguments (e.g., Rucker & Petty, 2004). If these counterarguments are powerful enough, recipients of a persuasive message may evidence a boomerang effect (Petty, Ostrom, & Brock, 1981). In other words, attitudes may change in the direction opposite of what the message argued.

This process has important implications for messages suggesting women should love their bodies. Given widespread body dissatisfaction among women, exhortations to feel good about the appearance of one’s body could lead to counterarguing. If you believe your body is unattractive and are faced with a message suggesting your body is attractive, you may respond with arguments that bolster your initial assessment. For example, a woman might respond to a “You are beautiful” message by thinking, “No, I’m not,” and then mentally delineating the ways in which she feels unattractive. What makes this potential outcome even more worrisome is evidence that under some conditions, successfully resisting a persuasive message via counterarguing can strengthen one’s initial attitude (Tormala & Petty, 2002). In other words, messages encouraging women to like the way their bodies look could increase body dissatisfaction for some women.

The potential for this type of boomerang effect has not been directly tested in the context of body dissatisfaction. However, research on individual differences in response to affirmations is consistent with this concern.

For example, Wood, Perunovic, and Lee (2009) demonstrated that for college students with pre-existing low self-esteem, repeating the affirmation "I'm a lovable person" decreased mood and state self-esteem. Results of a thought-listing task in Wood et al. (2009) showed that participants with high self-esteem tended to write thoughts that affirmed their lovability, whereas those with low self-esteem wrote relatively equal numbers of statements that affirmed and disaffirmed their lovability. Similarly, a different study of university students (Yeung & Lun, 2016) found that, among participants with low levels of need satisfaction (an alternative measure of low self-regard), listening to positive self-statements (e.g., Life is so good!) increased negative mood. Hames and Joiner (2012) gave undergraduate students bogus negative feedback on a writing task as part of a lab session, followed by either a self-affirmation writing exercise or a control condition in which students wrote about a favorite activity. Predictably, negative feedback on their writing increased students' negative mood. However, students with high self-esteem reported a larger decrease in negative mood if they subsequently wrote about a self-affirmation (I'm a lovable person.), whereas low self-esteem individuals showed more mood improvement if they were assigned to the control condition.

These findings are broadly consistent with self-verification theory (Swann, 2012), which emphasizes that regardless of self-esteem level, individuals seek to confirm their existing self-concepts. From this perspective, affirming statements can challenge the self-concepts of individuals with low self-esteem. Indeed, those with low self-esteem are more likely than those with high self-esteem to report that receiving compliments does not matter to them and that they often think they do not deserve compliments or cannot live up to the expectations implied by a compliment (Kille, Eibach, Wood, & Holmes, 2017).

A second theoretical reason to doubt the effectiveness of some appearance-focused positive body image messages comes from objectification theory (Fredrickson & Roberts, 1997). The basic premise of objectification theory is that over time, experiences of

being sexually objectified by others can lead women to take an objectified view of themselves. This objectified view can result in an increased focus on one's physical appearance (often operationalized as body monitoring or body surveillance). Body surveillance is linked with body image struggles in part because it can encourage comparisons between one's own body and cultural body ideals (Tylka & Sabik, 2010). These types of appearance comparisons are associated with body shame and body dissatisfaction in college women (Engeln-Maddox, 2005; Vartanian & Dey, 2013). In other words, merely drawing a woman's attention to how she looks (which body-focused self-affirmations may do) can decrease body satisfaction in some women—particularly women who believe they are unattractive (Breines, Crocker, & Garcia, 2008).

Focusing on the appearance of your body has the potential for negative psychological consequences, even if that focus is positive in nature. For example, a recent study of young women found that both positive *and* negative body talk were correlated with a tendency to engage in more body-related co-rumination with friends (Rudiger & Winstead, 2013), and that co-rumination was significantly associated with eating disordered behaviors. Under some conditions, even an appearance compliment can increase body shame in women (Tiggemann & Boundy, 2008). More broadly, correlational evidence shows consistent links between attention to one's appearance and body dissatisfaction in girls and women (Altabe & Thompson, 1996; Cash & Labarge, 1996; Cash, Melnyk, & Hrabosky, 2004). In sum, for many women, encouraging appearance-related thoughts, even if positive, could prime negative body-related thoughts. Thus, though well intentioned, some of the messaging promoted by those attempting to increase women's body satisfaction has the potential to backfire if it also encourages a focus on appearance.

THE CURRENT RESEARCH

In the current research, college women completed a five-minute open-ended writing task while being prompted to either think "I love my body" (affirmation condition) or "I am [age] years old" (control condition) in response to a chime that occurred

every 30 seconds. We predicted that, relative to the control condition, those in the affirmation condition would show evidence of counterarguing the affirming message by being more likely to include at least one negative appearance comment in their writing. Though we had no specific predictions for positive appearance comments, we also coded for this type of content. Finally, we predicted that, adjusting for pre-existing trait-level body dissatisfaction, women in the affirmation condition would report *lower* state body satisfaction in a post-test immediately following the writing activity.

METHOD

PARTICIPANTS

Using an estimated effect size mid-way between conventions for small and medium effects ($d = .35$, slightly smaller than the average effect size in social psychology; Richard, Bond, & Stokes-Zoota, 2003), an a priori power analysis using G*Power (Faul, Erdfelder, Lang, & Buchner, 2007) recommended a sample size of 260 with a power level of .80 and an alpha of .05 (two-tailed). Thus, we set 260 as our minimum desired sample size, but continued to collect data through the end of the academic term in which we reached that minimum. The decision to continue collecting data through the end of the quarter (past the predetermined minimum sample size) was to allow students who had been assigned to the study as part of a course requirement the opportunity to complete the study.

Participants were 293 undergraduate women between the ages of 18–23 ($M_{age} = 18.62$, $SD = 0.85$) recruited from an introductory psychology participant pool at a private, Midwestern university. Body mass indices (BMIs) based on self-reported height and weight ranged from 15.81 to 36.84 ($M = 22.01$, $SD = 3.36$). Two participants declined to report height and weight. Participants identified as White/Caucasian ($n = 145$, 50%), Asian ($n = 66$, 23%), Black/African American ($n = 24$, 8%), Latina/Hispanic ($n = 21$, 7%), Multiracial ($n = 29$, 10%), Middle Eastern ($n = 4$, 1%), or Native Hawaiian/Other Pacific Islander ($n = 2$, 1%). Two participants did not report ethnicity.

MEASURES

Trait-Level Body Satisfaction. Pre-existing trait-level body dissatisfaction was measured using the 9-item body dissatisfaction subscale of the Eating Disorder Inventory—2 (Garner, 1991), which assesses dissatisfaction with the overall size and shape of specific body regions. Participants indicate how often they feel satisfied or unsatisfied with various areas (e.g., I think that my stomach is too big) using a scale ranging from 1 (always) to 6 (never). Total scores were determined by summing responses after reverse scoring appropriate items (consistent with recommendations for non-clinical samples, Schoemaker, van Strien, & van der Staak, 1994). Higher scores indicate greater body dissatisfaction. Scores on this scale are positively associated with eating-disordered behavior, body weight, and other measures of body dissatisfaction (Garner, 1991; Garner, Olmstead, & Polivy, 1983; Spillane, Boerner, Anderson, & Smith, 2004) and can reliably distinguish patients with eating-disorder diagnoses from comparison group participants (Garner et al., 1983). Reported Cronbach's alpha reliability coefficients for college women range from .83 to .93 (e.g., Garner et al., 1983; Tylka & Subich, 2004). Cronbach's alpha was .89 in the present sample.

BODY IMAGE STATES SCALE

The Body Image States Scale (BISS; Cash, Fleming, Alindogan, Steadman, & Whitehead, 2002) is a 6-item measure of individuals' affect and evaluation with regard to their physical appearance at a particular moment. Participants respond to the prompt "Right now I feel . . ." using a nine-point fully anchored scale. The anchors for the scale vary for each item (e.g., extremely satisfied with my body size and shape to extremely dissatisfied with my body size and shape). BISS scores reliably show predicted changes in response to experimental manipulations. For example, they increase after self-compassion building exercises (e.g., Stern & Engeln, 2018) or when respondents imagine being at their ideal weight (Cash et al., 2002), and decrease in response to hearing other women engage in fat talk (Salk & Engeln-Maddox, 2012). BISS scores correlate moderately with trait-based measures of body satisfaction (Cash et al.,

2002). After reverse scoring appropriate BISS items, the total score is the mean of all items. Higher scores indicate higher body satisfaction. Reported Cronbach's alpha reliability coefficients range from .77 to .86 in samples of college women (Cash et al., 2002; Salk & Engeln-Maddox, 2012; van den Berg & Thompson, 2007). Cronbach's alpha was .85 in this sample.

PROCEDURE

Participants completed the pre-test measure of trait body dissatisfaction during a group testing session in their introductory psychology course; it was included in a packet of dozens of other measures related to studies on a variety of different topics. In a later session (between 4 and 8 weeks after this pre-test), participants completed the in-person portion of the study individually in a quiet lab room. A female experimenter reviewed the consent form with the participant, then seated the participant at a computer and showed her the button to press to begin the study. In order to encourage participants to attend to the study, we asked them to place their cell phones in a box with a lid (which was then placed on the other side of the room). We also instructed them not to open any other windows on the computer. The experimenter then left the participant alone in the room. We randomly assigned participants to either the affirmation condition ($n = 144$) or the control condition ($n = 149$). In the affirmation condition, we gave participants the following instructions: "For the next five minutes, please type out your thoughts and feelings in this box. Write them down as they occur to you. Each time you hear the chime sound, please think to yourself, 'I love my body.' (You don't need to type it; just think it.)" The sentence beginning with each time was bolded and underlined. We gave those in the control condition similar instructions, but asked them to think, "I am X years old" (replacing the X with their actual age) each time they heard the chime. We selected age as a neutral statement because the women in this study were all undergraduate students living with and attending classes with other women in their same age range, making age unlikely to prime appearance-related contrasts as other identity markers might. Further, because all the women in the sample were young, stating their age would

be unlikely to trigger appearance-related thoughts (as it might in an older sample of women). For both conditions, the chime sounded every 30 seconds.

After five minutes elapsed, the survey automatically advanced to the measure of state body dissatisfaction followed by a single-item manipulation check (see below). After completing the manipulation check, participants were instructed to let the experimenter know they were finished. The experimenter then debriefed the participants.

CODING OF WRITING TASK

We first examined data from participants' five minutes of writing. Two independent coders reviewed each participant's writing for the presence of any negative or positive comments about the participant's own appearance. We chose to code these data dichotomously (rather than attempting to count the number of positive or negative comments) because it was difficult to determine, in a paragraph of open writing, what would count as a separate appearance comment. Though we intended coders to be blind to condition, this was occasionally not possible as some participants wrote something in their paragraph that revealed their condition. Coders showed a high level of agreement with respect to whether participants made at least one negative comment or at least one positive comment about their own appearance ($\kappa = .77$ for negative comments and $.85$ for positive comments). Disagreements between coders were resolved through discussion.

DATA ANALYSIS

Analysis of the patterns of missing data for items in the pre- and post-test measures of body dissatisfaction revealed that only 0.34% of all items for all cases were missing and 96% of participants had no missing data. There were no missing items for the post-test scores; 12 participants (4%) skipped one or two items on the pre-test measure (i.e., trait-level body dissatisfaction). Consistent with recommendations by Parent (2013), we used pairwise deletion for this minor amount of missing data.

First, responses to the manipulation check question were examined (via frequencies) to determine participants' self-reported level of adherence to the study instructions and a chi square test was used to examine whether adherence varied by condition. Chi square tests were also used to examine whether the presence of negative or positive appearance comments (in participants' open-ended writing) varied by condition. Bivariate correlations between BMI, trait body dissatisfaction, and state body dissatisfaction were run. For the primary test of the experimental manipulation, an ANCOVA was run with state body dissatisfaction as the DV, experimental condition as the IV, and pre-test trait body dissatisfaction as a covariate. Although state body dissatisfaction scores were collected in a pre-test for the purpose of acting as a covariate (i.e., this covariate was selected *a priori*), given concerns that adjusting for covariates in experimental studies can lead to false positive results (e.g., Kramer, 2015), we also conducted this test without including the covariate and report those results as well.

RESULTS

Pre-test trait body satisfaction scores did not differ significantly between participants assigned to the control condition ($M = 31.17$, $SD = 9.34$) and participants assigned to the affirmation condition, $M = 31.04$, $SD = 9.70$; $t(279) = 0.11$, $p = .91$, 95% CI: $-2.11, 2.36$, $d = 0.01$. Additionally, participant race/ethnicity did not vary by condition, $\chi^2(6) = 3.51$, $p = .74$. Collapsing across conditions, mean trait body dissatisfaction scores ($M = 31.11$, $SD = 9.51$) were similar to those reported in previous samples of U.S. college women (e.g., Salk & Engeln-Maddox, 2012; Smith et al., 2018). BMI, trait body dissatisfaction, and state body dissatisfaction were all significantly correlated.

TABLE 1. Bivariate Correlations Between Study Variables

Variable	1	2	3
1. BMI	—	.37*	-.27*
2. Trait body dissatisfaction		—	-.68*
3. State body satisfaction			—

* $p < .001$

MANIPULATION CHECK

After completing the post-test measure of body dissatisfaction, a final item asked, "Did you think to yourself the sentence we asked you to think every time you heard the chime?" Response options were No; Only a few times; Mostly, but I missed a few; and Yes, Every time. Twenty-six percent of participants selected the "Every time" response; 59% the "Mostly" response; 14% "Only a few times"; and 2% "No". A chi-square test suggested that those in the affirmation condition reported greater adherence to the instructions, $\chi^2(3) = 9.34, p = .03$. We ran the primary analysis below with and without participants who selected "No" or "Only a few times" for the manipulation check. Because excluding less compliant participants did not result in meaningful changes to the key test of the experimental effect,¹ we present results with all participants included.

PRIMARY ANALYSES

Overall, 29% of participants wrote at least one negative comment about their appearance during the writing exercise. Those in the affirmation condition were significantly more likely to include a negative appearance comment than those in the control condition, 53% vs 6%, $\chi^2(1) = 77.67, p < .001$. Only twelve percent of participants wrote at least one positive comment about their appearance; 24% in the affirmation condition and none in the control condition, $\chi^2(1) = 41.13, p < .001$. See Table 2 for sample comments. Among the women who wrote at least one positive appearance comment (all in the affirmation condition), 74% also included a negative appearance comment. For example, one woman wrote, "I like my freckles and my eyes but there are other parts of my body that I'm not as pleased with." Another wrote, "I am not the right body type, my hair is too thin. My eyes are a pretty color, but my body is still not right. My lips are a nice shape as well, and my smile looks nice. My stomach is not right,

1 Excluding participants who responded "No" to the manipulation check changed the p value for the ANCOVA from .00288 to .00202; excluding participants who responded "No" or "Only a few times" changed the p value to .00449. The effect size (in terms of η_p^2) continued to round to .03 for all three versions of this analysis.

TABLE 2. Sample Negative Appearance Comments from Writing Task

Negative Appearance Comments
"I constantly feel the need to lose weight."
"I don't like my body."
"I hate when other people compliment me on my body because I don't know what to say, but they don't know the little things that aren't as perfect as they think they are."
"I think my stomach is too big."
"I sometimes am self-conscious of my body type."
"I often find myself criticizing the way I look if I haven't been running regularly."
"I wish I had better abs."
"Maybe if I was more toned, or cared more, I would be more confident."

there is too much fat." As an exploratory analysis, we examined whether, among those in the affirmation condition, trait body dissatisfaction was higher among those who wrote a negative appearance comment. Results did not show a statistically significant difference, $t(137) = -0.82, p = .41, d = -0.14$.

The covariate was significantly associated with state body dissatisfaction, $F(1, 278) = 208.98, p < .001, \eta_p^2 = .43$. Consistent with the hypothesis, results revealed that, adjusting for pre-existing levels of body dissatisfaction, those in the affirmation condition reported significantly lower body satisfaction than those in the control condition, $F(1, 278) = 9.04, p = .003, \eta_p^2 = .03$. A confidence interval for this effect size was calculated using the *R* package 'compute.es' (Del Re, 2013). In standard deviation units (i.e., *Cohen's d*), results indicated a small effect, with a 95% confidence interval of 0.09 to 0.44. Results were similar without the

TABLE 3. Descriptive Statistics by Condition

Dependent Variable	Affirmation Condition <i>n</i> = 139		Control Condition <i>n</i> = 142	
	<i>M, SD</i>	95% CI	<i>M, SD</i>	95% CI
State body satisfaction ^a	4.39 (1.50)	4.15, 4.62	4.78 (1.41)	4.55, 5.02
State body satisfaction adjusting for trait-level body dissatisfaction ^b	4.39 (.09)	4.20, 4.57	4.79 (.09)	4.60, 4.97

Note. ^aScores indicate participants' mean state body satisfaction scores on the Body Image States Scale (BISS). Possible scores range from 1 (extremely dissatisfied) to 9 (extremely satisfied); ^bFor estimated marginal means, the trait body dissatisfaction covariate in the model was evaluated at a value of 31.11.

covariate, $F(1, 291) = 5.43$, $p = .021$, $\eta_p^2 = .02$. Without the covariate, the 95% confidence interval for the effect size (in standard deviation units) ranged from 0.04 to 0.50.

DISCUSSION

This study is the first to demonstrate that among young women, the affirmation “I love my body” may decrease body satisfaction. Consistent with Greenwald’s (1968) cognitive response model of persuasion, the open-ended writing task in this study showed significant evidence of women counterarguing in response to this positive message. Over half of the women who repeated the “I love my body” affirmation to themselves wrote at least one negative thought about their appearance; very few women in the control condition did so. Though not directly tested by the design employed in the current study, this pattern of results is consistent with Petty, Ostrom, and Brock’s (1981) notion of a boomerang effect in response to persuasive messages that contrast too strongly with existing beliefs. In other words, for women who are not satisfied with the appearance of their body, body-focused affirmations have the potential to backfire. Rumination about body image concerns is common among young women (Grabe, Hyde, & Lindberg, 2007; Mezulis, Abramson, & Hyde, 2002). If a woman is already struggling with body dissatisfaction, suggesting that she “love her body” may prompt her to focus on her appearance-related distress, reinforcing her initial belief that her body is unattractive.

Results of this experiment can be interpreted in the context of one of the primary claims of Frederickson and Roberts’ (1997) objectification theory: body surveillance (i.e., monitoring the appearance of one’s body) can lead to increased body shame. When you draw a woman’s attention to her appearance—even with an affirming statement—you risk prompting body surveillance. In this way, even a positive body-related cue has the potential to remind women of the ways her body falls short of cultural ideals, leading to shame and dissatisfaction. Results of the current study are consistent with findings demonstrating that for women under conditions of high state self-objectification, receiving an appearance compliment increases body shame (Tiggemann & Boundy, 2008). Likewise, the current results are

in line with those of Breines et al.'s (2008) experience sampling study, which focused on the impact of momentary experiences of body surveillance. Breines et al. (2008) argued that because many women's self-worth is contingent upon their appearance, and many of these same women believe themselves to be unattractive, thinking about how they look decreases their feelings of well-being. It should be noted that Breines et al. (2008) found that for women who felt attractive, body surveillance could boost momentary well-being. Because body image interventions generally target women who do not like the appearance of their bodies (i.e., women who feel unattractive), affirmations that focus attention on the appearance of one's body seem ill-advised.

In the opening of this paper, we suggested that some types of body affirmations could result in a boomerang effect for women likely to counterargue those affirmations. An excerpt from a paragraph written by one of our participants in the affirmation condition demonstrates how this boomerang process might play out. As a reminder, the participant was asked to think "I love my body" every time a chime sounded.

I'm lying, but I continue to do it anyway when the bell chimes. I try to like it [my body], but I don't really, and every time I have to think that it reminds me that I don't and I feel all the parts of it that are wrong. I'm pinching my fat right now. It feels weird, like it's not actually part of me and it's not supposed to be there, like it was glued onto my actual body or something. I try to focus on the parts that I actually do like but when I do I'm reminded of the parts that feel like they're not supposed to be there.

One question the current study does not answer is which women are most likely to engage in this type of counterarguing. Classic theories of persuasion would argue that if the statement I love my body is highly discrepant from one's initial beliefs (i.e., it falls in one's attitudinal latitude of rejection), counterarguing is likely (e.g., Whittaker, 1965). From this perspective, women most likely to reject an "I love my body" affirmation would be those who most struggle with body image—the very people such statements seek to help. However, in the current study, trait body dissatisfaction scores were not higher among women in the affirmation condition who wrote a negative appearance comment. Because thinness is a dominant feature of women's body

ideals (and because BMI tends to be negatively correlated with body satisfaction in women), women with higher BMIs might be more likely to counterargue these affirmations. However, the narrow range of BMIs in the current sample (mostly within a thin range) prohibited testing this idea.

If body affirmations are perceived as having persuasive intent, individual difference variables like need for cognition or a general tendency to counterargue could also make women more likely to reject these affirmations (Briñol, Rucker, Tormala, & Petty, 2004). In addition to these individual differences, the source of a body affirmation likely matters—just as source variables can influence responses to more traditional types of persuasive communications. The affirmation in this study was imposed by a stranger (the experimenter) in a context generally unrelated to body image (i.e., participation in a psychological study). This approach is more consistent with what a woman might experience when encountering body positive messages from strangers, for example, in social media memes, on buttons or stickers, or in advertisements. However, some body affirmations come from friends and loved ones—contexts that could lead to different reactions. Nonetheless, given that individuals with low self-esteem are more likely to reject compliments in general (Kille et al., 2017), even affirmations from loved ones may be counterargued.

We do not suggest that the results of the current study mean that women should avoid positive body image interventions. In fact, some have argued that widespread body image movements are having a positive effect, as small decreases over time in women's body dissatisfaction have been documented (from 1981 to 2011; Karazsia et al., 2017). However, the current results do point to the importance of a more thorough understanding of positive body image that is grounded in research evidence. Certainly, not all affirmations meant to encourage a positive body image are created equal.

In their article delineating the boundaries of positive body image, Tylka and Wood-Barcalow (2015) note that positive body image is not something that emerges from being on the receiving end of frequent appearance compliments. Instead, positive body image involves (in part) appreciating the functions of your body and showing care for your body even if you do not like how every part of it looks. This way of thinking about positive

body image is consistent with more recent activist movements that emphasize body acceptance or body neutrality. Though the affirmation used in the current study (“I love my body”) could have been more broadly interpreted by participants to mean loving one’s body for what it does or showing care toward one’s body, it is clear from the written task that women interpreted the cue as referring to loving the way one’s body looks. “I love what my body can do,” would be a very different type of affirmation.

The results of this study should be interpreted in the context of several limitations. First, the sample comprised college women at one university, limiting the confidence with which we can generalize these results to other populations. Additionally, we tested only one specific body affirmation (“I love my body”). Though many common body positive messages are appearance-oriented (e.g., “You are beautiful”) and may show effects similar to the results reported in this paper, non-appearance-focused affirmations could lead to more positive results. For example, self-compassion-based interventions encourage women to approach their body with acceptance, kindness, gratitude, and compassion, and evidence suggests these approaches may improve body satisfaction (Albertson et al., 2015; Mosewich, Kowalski, Sabiston, Sedgwick, & Tracy, 2011; Przedziecki et al., 2013; Stern & Engeln, 2018; Wasylikiw, MacKinnon, & MacLellan, 2012). Though speculative at this point, self-compassionate body affirmations may show more positive effects on body satisfaction in part because they are less likely to lead to counterarguing than straightforward messages exhorting a woman to feel beautiful or love her body. Instead, self-compassion messages focus on accepting and appreciating one’s body—perceived flaws and all. These types of affirmations may be more likely to fall within women’s attitudinal latitude of acceptance. Similarly, interventions designed to encourage an appreciation of the functions of one’s body (instead of how one’s body looks) show promise (Alleva, Martijn, Jansen, & Nederkoorn, 2014; Engeln, Shavlik, & Daly, 2018) and avoid encouraging objectified, appearance-focused attention to one’s body.

A strength of the design of this experiment is that it allowed us to assess counterarguing (in the form of negative appearance thoughts) in response to an affirmation. However, the context in which the affirmation occurred (within a lab setting, during a writing task) and the repetitive nature of the affirmation

cue (ten times across five minutes) differed from the conditions under which these affirmations are likely to be encountered in everyday life. Nonetheless, many body positive messages are likely encountered by some women multiple times per day. For example, “You are beautiful” messaging abounds on signs, t-shirts, windows, public bathroom mirrors, and laptop stickers. Likewise, a woman who follows body positive hashtags or profiles on social media is likely to encounter many of these types of messages.

The key effect reported in this study was small, but given the widespread nature of movements that use these types of body affirmations, these results have important implications. To put it simply, telling women to love their bodies may not be a meaningful way to help them do so; in fact, it can backfire. At face value, encouraging women to love their bodies or think of themselves as beautiful sounds like a positive approach. However, these approaches fail to consider the counterarguing that such messages may induce, especially among women who are already struggling with body image (and thus likely have numerous counterarguments readily available). Additionally, given the abundance of evidence regarding the negative effects of body surveillance or self-objectification on women’s body image (e.g., Engeln-Maddox, Miller, & Doyle, 2011; Frederick, Forbes, Grigorian, & Jarcho, 2007; Moradi & Huang, 2008; Tiggemann & Kuring, 2004; Tylka & Hill, 2004), there are both theoretical and empirical reasons to avoid interventions that draw women’s attention to their appearance.

Future research on this topic should consider a wider range of body image-related affirmations and multiple methods of delivering these messages (e.g., directly from a friend, on a social media post by a celebrity, on a sticker or poster). Examining how affirmations likely to trigger appearance focus (e.g., “You are beautiful”) may result in different reactions than affirmations with a self-compassion focus (e.g., “Your body is worthy, no matter its flaws or imperfections.”) or functionality focus (e.g., “Your body can do amazing things.”) would be particularly valuable. Additionally, a focus on identifying which women are most likely to counterargue body-image affirmations is needed. Moving beyond a college student sample to consider a broader age range of women (and women with more variable body sizes) would also help to clarify the current findings.

As those studying positive body image note (e.g., Tylka & Wood-Barcalow, 2015; Webb, Wood-Barcalow, & Tylka, 2015), there is more to positive body image than simply feeling satisfied with the way one looks. Positive body image is multi-faceted and includes constructs such as body appreciation, caring for one's body in healthy ways, and the ability to filter out destructive messages around beauty ideals. Interventions focused on self-compassion or on thinking of the body in functional terms (instead of objectified terms) can encourage women to care for and appreciate their bodies without having to love the way they look.

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