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# Mirror, Mirror on the Wall: An Experimental Study Examining the Relationship Between Music Lyrics and Body Satisfaction in Emerging Adult Women

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Mirror, Mirror on the Wall: An Experimental Study Examining  
the Relationship Between Music Lyrics and Body  
Satisfaction in Emerging Adult Women

Emilie Jill Davis

A thesis submitted to the faculty of  
Brigham Young University  
in partial fulfillment of the requirements for the degree of  
Master of Science

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## ABSTRACT

### Mirror, Mirror on the Wall: An Experimental Study Examining the Relationship Between Music Lyrics and Body Satisfaction in Emerging Adult Women

Emilie Jill Davis  
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Master of Science

Over the past decade, there has been an increase in academic research on media and its influences on body satisfaction. To date, the majority of body image literature focuses on low body satisfaction. While low body satisfaction leads to negative outcomes, high body satisfaction leads to a host of positive outcomes. Further, in a non-academic domain, it would seem that even some media icons are starting to take part in the effort to try to promote positive appearance messages. Singers like Christina Aguilera, Colbie Caillat, and Alessia Cara have begun writing songs like *Beautiful*, *Try*, and *Scars To Your Beautiful* to combat the rampant standard of the thin ideal. The current study consists of an experiment to examine the effects of positive or negative appearance music lyrics and their influence on body related outcomes (body satisfaction measured implicitly through an IAT, self-reports of body satisfaction, and observed body surveillance) in emerging adult women while moderating by adherence to sociocultural attitudes of media ideals. Results revealed that participants who listened to the positive lyrics reported significantly better body satisfaction as compared to those who listened to the negative lyrics. However, those who listened to positive lyrics did not report significantly better body satisfaction compared to those in the neutral condition and those in the neutral condition did not differ significantly from those in the negative condition. Due to preconceived schema regarding how participants already felt about their appearance, perhaps they were primed to hear lyrics confirming their appearance fears (or soothing them), but failed to attend to lyrics "unappearance" related (the neutral lyrics). Therefore, when asked about their body satisfaction, their responses reflected what they attended to, namely, either the positive or negative lyrics, not the neutral lyrics.

Keywords: body image, music, media, female, schema, emerging adulthood, young adulthood

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Finally, I would like to thank any organizations or media personnel who contribute positive body image messages to the world. In particular, I would like to thank Colbie Callait, Alessia Cara, and Christina Aguilera for being the inspiration for this project. We need more teen idols to stand up and make a change.

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Mirror, Mirror on the Wall: An Experimental Study Examining the Relationship Between Music Lyrics and Body Satisfaction in Emerging Adult Women

*"You are beautiful, no matter what they say. Words can't bring you down.*

*You are beautiful, in every single way. Yes, words can't bring you down."* –Beautiful by

Christina Aguilera

Over the past decade, there has been an increase in academic research on media and its influences on body satisfaction. Low body satisfaction is distinguished by a negative view of one's body (Verplanken & Tangelder, 2011). Many women struggle with low body satisfaction throughout the lifespan with the onset of problems beginning as early as age 5 (Dohnt & Tiggemann, 2006). In fact, 47% of girls age 11-21 say they feel embarrassed and ashamed of how they look (Girlguiding, 2016), though there are no studies, to my knowledge, giving representative percentages for other age groups, such as those in emerging adulthood. Studies have consistently shown that females are more prone to low body satisfaction than are males (i.e., in Western cultures; Palladino & Pritchard, 2003); though, more research needs to be done on male body satisfaction (McCabe & Ricciardelli, 2004). As such, the focus of this paper will be on body satisfaction in emerging adult women, specifically the link between positive and negative appearance music lyrics and body satisfaction (both explicit and implicit) and body surveillance (i.e., the intense monitoring of one's appearance, such as making constant physical adjustments to hair or clothing to meet one's ideal of beauty; Vandenbosch & Eggermont, 2012) and how adherence to sociocultural norms influences that relationship.

### **Importance of Body Satisfaction**

Not only is low body satisfaction prevalent, but it has also been linked to many unhealthy outcomes, such as binge eating, higher levels of depression, unhealthy weight gain or loss,

shame, drive for thinness, heightened body surveillance, and concern with public appearance (Caldwell, Brownell, & Wilfley, 1997; Ferreira, Pinto-Gouveia, & Duarte, 2013; Pesa, Syre, & Jones, 2000; Stice & Shaw, 2002; Wardle, Waller, & Rapoport, 2001). Some researchers suggest that young girls' desire for thinness is the reason for low self-esteem instead of the converse explanation (Dohnt & Tiggemann, 2006). Further, low body satisfaction is associated with disordered eating and atypical body weight among adolescents and young adults (Hong et al., 2015), and can influence personal relationships with others, including romantic partners (Wiederman, 2000). In fact, one study found that one-third of college women indicated experiencing body self-consciousness during sexual intercourse, even after controlling for actual body size, sexual anxiety, and general well-being (Wiederman, 2000).

To date, the majority of the body image literature focuses on low body satisfaction. Recently, it has been debated that a negative focus has limited our holistic understanding of body satisfaction, and in turn, has limited the accompanying treatment and prevention options available (Tylka, 2011). While low body satisfaction leads to negative outcomes, high body satisfaction leads to a host of positive outcomes. Because this research is so new, there are no studies to date suggesting how many women experience high body satisfaction. However, the preliminary research that has been conducted suggests that women who have higher levels of body satisfaction tend to appreciate the unique beauty of their bodies, value their bodies' functionality, filter media ideals (i.e., question the authenticity of the portrayal of women in media), have a broader view of beauty, and emphasize their bodies' assets while minimizing perceived flaws (Tiggemann & McCourt, 2013; Wood-Barcalow, Tylka, & Augustus-Horvath, 2010). Further, high body satisfaction is related to being critical of media ideals, perceptions of subjective beauty, and the notion of personality being more important than looks (Holmqvist &

Frisén, 2012). As such, due to the many positive implications of high body satisfaction, things that both promote high body satisfaction and protect against low body satisfaction need to be addressed.

### **Negative Effects of Media and Body Satisfaction**

There is an abundance of research examining the negative effects of media on subsequent body satisfaction. Content analyses have suggested that media feature a thin body type over any other body type. For example, female models appearing in magazines are usually thin, young, and Caucasian (Wasylikiw, Emms, Meuse, & Poirier, 2009). In fact, much of the research on body satisfaction examines the influence of magazine images on body satisfaction (Cusumano & Thompson, 1997; Clay, Vignoles, & Dittmar, 2005; Grabe, Ward, & Hyde, 2008).

Outside of print media, when compared to the general population, television sitcoms over-represent thin characters (Fouts & Burggraf, 1999) and tend to stigmatize overweight individuals (i.e., in television and movies; Himes & Thompson, 2007). We see a similar pattern of thin body promotion in music videos (Sommers-Flanagan, Sommers-Flanagan, & Davis, 1993), websites (Slater, Tiggemann, Hawkins, & Werchon, 2012), social media (i.e., "thinspiration" sites; Ghaznavi & Taylor, 2015) and video games (i.e., in children's games; Martins, Williams, Harrison, & Ratan, 2009),

Moreover, exposure to media images promoting a thin body type is thought to foster low body satisfaction as women compare their own body shapes and weight to that of other women in the media. In turn, exposure to the thin ideal (i.e. a concept referring to a thin female body representing the ideal body) leads to an abundance of negative outcomes (Harper & Tiggemann, 2008), including low body satisfaction, poor self-esteem, depression, increased dieting, and a greater propensity for eating disorders (Grabe, Ward & Hyde, 2008; Groesz, Levine, & Murnen,

2002; Holmstrom, 2004). In fact, this link between the thin ideal and low body satisfaction has been found in multiple forms of media through experimental research. For example, watching thirty minutes of television programming and advertising can alter a woman's perception of her body shape (Myers & Biocca, 1992). Additionally, low body satisfaction is found in those who are exposed to music videos (Bell, Lawton, & Dittmar, 2007), video games (Barlett & Harris, 2008), magazines (Tiggemann, Polivy, & Hargreaves, 2009), and social media images (Brown & Tiggemann, 2016) that embrace the thin ideal. Research has also suggested that media embracing a narrow view of beauty (i.e. thin, tan, clear skin) are related to increased self-objectification and body surveillance. Indeed, thin ideal media is related to increased body surveillance (Dittmar & Howard, 2004).

Like the general body satisfaction literature, most media research focuses on the negative effects of media on body satisfaction; however, there has been an increase in media research involving positive appearance media and body satisfaction.

### **Positive Effects of Media on Body Satisfaction**

The research literature suggests that media can also perpetuate higher body satisfaction among women, depending on the media content. There is a rise in media that emphasize body appreciation and uniqueness. An example of this positive appearance related media is the "Campaign for Real Beauty," introduced by Unilever's Dove in 2004. When reflecting on the impacts of this campaign, Bissell and Rask (2010) spoke highly of it: "Dove's advertising campaign should be applauded for attempting to diversify the portrayal and representation of women in the sale of beauty products.... [W]e would argue that this adoption of a broader range of beauty and attractiveness needs to be endorsed by other companies" (pp. 663-664).

Though there are no content analyses, to my knowledge, that capture how common positive appearance media is, research suggests that these messages are associated with positive outcomes. For example, one study testing the Dove campaign model, used four manipulated images of the same model, and tested participants' societal views of thinness to assess if the campaign was at all effective in influencing the way women perceive beauty in society (Bissell & Rask, 2010). They found that participants were more likely to identify with the average size model and more likely to believe that the average size model represented what American women should perceive as normal. Similarly, another study suggests that when women with high or moderate levels of thin-ideal internalization were exposed to average-sized models, their body satisfaction increased in comparison to those exposed to common thin models (Diedrichs & Lee, 2011).

### **Music and Positive Body Image**

Further, in a non-academic domain, it would seem that even some media icons are starting to take part in the effort to try to promote positive appearance messages. Singers like Christina Aguilera, Colbie Caillat, and Alessia Cara have begun writing songs like *Beautiful*, *Try*, and *Scars To Your Beautiful* to combat the rampant standard of the thin ideal. For example, in the song *Scars To Your Beautiful*, Alessia Cara sings, "But there's a hope that's waiting for you in the dark. You should know you're beautiful just the way you are. And you don't have to change a thing." These songs have been well received by fans (Empire, 2016) reaching gold and platinum in sales.

Considering the fact that music is the second most utilized form of media in 8-18 year olds (i.e., television being first; Rideout, 2015) and some have argued it is more important than any other media type in managing mood and expressing identity (Lonsdale & North, 2011), it is

surprising that the literature examining music lyrics is so underdeveloped. Though some studies have examined how music lyrics influence subsequent sexual behavior (Coyne & Padilla-Walker, 2015; Wright & Qureshi, 2015) and aggressive behavior (Lennings & Warburton, 2011), to my knowledge, no study has been conducted on the effects of different types of appearance related music lyrics on the development of both positive and negative body satisfaction in women. The current study aims to fill this gap by using an experimental design to study music and body satisfaction in emerging adult women.

### **Theoretical Background**

Schema theory posits that individuals have a pattern of thought (schema) through which they process and organize information. Individuals organize new ideas based on how they perceive the new information and whether or not it fits in with their existing schema (Piaget, 1952). In terms of body satisfaction, some have argued that internalized views of one's appearance (or in other words, schema related to body satisfaction) can drive beliefs and behavior while influencing information processing related to how one feels about their appearance (Altabe & Thompson, 1996). For example, throughout her life, a woman may receive many messages about her appearance, through media and other channels. Over time, her existing patterns of thought will influence how she perceives new information about her body and she will naturally (not necessarily consciously) organize these new ideas based on how it fits in with her existing beliefs about her body that she has built over time.

### **Potential Moderator**

I examine existing levels of adherence to sociocultural media ideals (i.e., how individuals perceive the accuracy of beauty appearance stereotypes in media) as a moderator in the current study. Examining initial propensity to which individuals compare themselves to media images is

a way to see how existing schema influence the relationship between music lyrics and body satisfaction. Past studies have suggested that adherence to sociocultural beliefs about beauty is associated with more internalization of thin body stereotypes (Blowers, Loxton, Grady-Flesser, Occhipinti, & Dawe, 2003; Cafri, Yamamiya, Brannick, & Thompson, 2005). In one study, it was found that sociocultural beliefs moderated the influence of advertisements portraying women who epitomized cultural ideals of attractiveness in that there was an increase in depression after viewing compared to those who viewed other advertisements (Heinberg & Thompson, 1995). Schema theory would suggest that existing schema regarding sociocultural media ideals will influence how individuals react to new schema.

### **The Current Study**

The current study, the very first of its kind, will consist of an experiment to examine the effects of positive or negative appearance music lyrics and their influence on a host of short-term body related outcomes in women while accounting for adherence to sociocultural media ideals. Based on schema theory, I hypothesize that exposure to lyrics promoting positive appearance messages will be positively related to higher body satisfaction (measured through survey) and higher implicit body satisfaction (measured through the Implicit Association Task) and negatively related to body surveillance. I hypothesize that exposure to lyrics with negative appearance related messages will have the opposite effect.

In addition, I hypothesize that adherence to sociocultural attitudes about appearance in media will moderate the relationship between lyric condition and all outcomes. Specifically, I hypothesize that those who score high in sociocultural adherence to media ideals will have lower body satisfaction (both implicitly and explicitly) as well as higher body surveillance scores than those with lower sociocultural ideals after listening to the negative condition. I also hypothesize

that those who score high in sociocultural adherence to media ideals will have higher body satisfaction (both implicitly and explicitly) as well as lower body surveillance scores than those with lower sociocultural ideals after listening to the positive condition.

## **Method**

### **Participants**

A power analysis revealed that at least 179 participants were needed overall to detect a medium size effect ( $d = .50$ ) with 95% power. Participants consisted of 237 women ranging from age 18 to 25 ( $M$  age = 20.7). Due to research suggesting that body satisfaction is influenced differently in pregnant and postpartum women (Coyne, Liechty, Collier, Sharp, Davis, & Keenan, 2017), I only included women who had never had a history of pregnancy. Participants were recruited in various ways, namely, using social media announcements, flyer distribution, in class announcements, and SONA software for undergraduate psychology classes. For ethnicity, approximately 87% were Caucasian and the other 13% classified themselves as African American, Hispanic, Asian American, Multi-ethnic or Other. For education, 83% indicated that their highest completed level in school was “some college” and in terms of relationship status, 75.9% of the sample said they were single and had never married.

### **Measures and Materials**

**Lyrics.** Participants listened to one of three songs: a) Music promoting positive appearance messages ( $n=78$ ), b) Music promoting negative appearance messages ( $n=83$ ), or c) Music with neutral lyrics ( $n=76$ ), which contained no appearance lyrics. Each song was professionally recorded by the same vocalist and had the same melody, but the lyrics were manipulated based on the condition. The purpose of this was to ensure that the lyrics and tone of

the songs remained as similar as possible across conditions (See the Appendix for full lyrics in each condition).

A sample of the lyrics for the positive appearance condition:

“Mirror mirror on the wall, I don’t want to change at all  
because I know I’m beautiful. I have flaws I love them all.”

A sample of the lyrics for the negative appearance condition:

“Mirror mirror on the wall, I just want to change it all.  
No one thinks I’m beautiful, so many flaws. I hate them all.”

Finally, a sample of the lyrics for the neutral condition:

“Mirror mirror on the wall, of the yellow entry hall.  
This house is coloured manyfold, Some are pastels some are bold.”

Twenty independent coders ( $M$  age= 24.67), recruited via social media, rated all three of the condition lyrics on how positive the lyrics were on a 5 point scale and whether or not they felt the lyrics were about physical appearance. A repeated measures ANOVA was conducted to identify differences in the three songs. There was a significant effect of positivity between the three conditions, Wilks’  $\lambda=.07$ ,  $F(2, 24)=155.16$ ,  $p<.001$ . Three paired sample t-tests were used to make post hoc comparisons. Paired sample t-tests indicated that there was a significant difference between the positive lyrics and the negative lyrics ( $t(25)=17.16$ ,  $p<.001$ ), a significant difference between the positive lyrics and the neutral lyrics ( $t(25)=11.51$ ,  $p<.001$ ), and a significant difference between the negative lyrics and the neutral lyrics ( $t(25)=-3.16$ ,  $p<.001$ ) on lyric positivity (See Table 1).

A significant effect of whether or not the lyrics were about physical appearance in the three conditions, Wilks’  $\lambda=.06$ ,  $F(2, 24)=178.65$ ,  $p<.001$ . Three paired sample t-tests were used

to make post hoc comparisons. Paired sample t-test indicated that there was a significant difference between the positive lyrics and the negative lyrics ( $t(25)=-2.96, p<.01$ ), a significant difference between the positive lyrics and the neutral lyrics ( $t(25)=10.54, p<.001$ ), and a significant difference between the negative lyrics and the neutral lyrics ( $t(25)=-19.29, p<.001$ ) on being appearance-based. Most importantly, coders reported higher levels of positive appearance messages in the positive condition than in the negative condition (with neutral in between), and reported both the positive and the negative conditions as having lyrics about physical appearance (See Table 1).

**Body satisfaction.** Body satisfaction was measured using items from the Body Esteem Scale for Adolescents and Adults-MODIFIED (Mendelson, Mendelson, & White, 2001). Participants were asked to indicate how much they agreed 23 statements (e.g., “My looks upset me” or “I am satisfied with my weight”) using a 5-point Likert-type scale (1 = “never” to 5 = “always”). Scores were reversed where appropriate, collated, and averaged across the three items. Higher scores indicate higher body satisfaction. Cronbach’s alpha was acceptable,  $\alpha = .92$ .

**Sociocultural attitudes adherence.** Adherence to sociocultural beauty ideals as relayed by media was measured using the Sociocultural Attitudes toward Appearance Questionnaire (Thompson & Heinberg, 1999). Participants were asked to indicate how much they agreed 23 statements (e.g., “TV programs are an important source of information about fashion and 'being attractive'.” or “I do not wish to look as athletic as the people in magazines.”) using a 5-point Likert-type scale (1 = “Definitely disagree” to 5 = “Definitely agree”). Scores were reversed where appropriate, collated, and a mean split was created where higher scores indicate more adherence to sociocultural norms. Cronbach’s alpha was acceptable,  $\alpha = .95$ .

**Implicit Associations Task.** The IAT is a measure of implicit associations between different categories (O'Brien, Hunter, Halberstadt, & Anderson, 2007; McConnell & Leibold, 2001) and is regularly used as a measure of weight bias (e.g., Carels et al., 2013; Sabin, Moore, Noonan, Lallemand, & Buchwald, 2015). For the current study, the IAT was designed to measure implicit feelings of body satisfaction. Specifically, the IAT measured the reaction time of how participants paired either positive appearance words (beautiful, ideal, body acceptance, attractive) or negative appearance words (ugly, flawed, repulsive, body shame) with either "self" (I, my, self, me) or "non-self" (other, them, they, not me) related words. The more closely associated the two categories are, the easier it is to respond to them as a single unit. For example, if "beautiful" and "me" are strongly associated, reaction time should be faster when these categories share a response key. After data collection, individuals who did not meet the cutoff requirements for appropriate speed and accuracy (.10 for both) were excluded to reduce bias.

These words were also coded by the 20 independent coders used for the lyric ratings, and three paired sample t-tests were used to examine whether or not these words were appropriate for the task. A first paired sample t-test indicated that there was a significant difference between the positive words ( $M=4.18$ ,  $SD=.64$ ) and the negative words ( $M=1.24$ ,  $SD=.29$ ) on their level of positivity,  $t(18)=-16.110$ ,  $p<.001$ . A second paired sample t-test indicated that there was a significant difference between the self words ( $M=3.00$ ,  $SD=.06$ ) and the non-self words ( $M=1.13$ ,  $SD=.22$ ) on their level of describing the self,  $t(18)=33.65$ ,  $p<.001$ .

**Body surveillance.** After individuals completed the IAT and survey for Part 2, a research assistant lead them to another room where they were to be debriefed. Upon arriving, the research assistant would say, "I am so sorry. I forgot to grab the needed documents. Please have a seat and I will be right back." Upon leaving, the research assistant would shut the door, revealing a

mirror. A hidden camera was set up beforehand to capture any private body surveillance. The research assistant would enter again after exactly one minute.

The video footage from the hidden camera segment was coded by four graduate students who coded for two different types of body surveillance, namely, active engagement and passive engagement. High levels of inter-rater reliability using interclass correlations were reached using 15% of the sample of videos before official coding began, Active Engagement ( $r=.99$ ), Passive Engagement ( $r=.98$ ). Active engagement included the number of seconds that the participant spent physically altering her appearance while looking in the mirror. This included actions such as sitting up, practicing smiling, applying or reapplying make up, adjusting clothes or hair, etc. The other theme was passive engagement, which included the number of seconds where the participant interacted with the mirror, but did not do anything to alter her physical appearance. This included just staring at one's self, but at times included slight movements such as shifting the seat or hair to get a better look in the mirror. Finally, for the purpose of this study, a sum of the two scores was created to get an overall score of body surveillance.

## **Procedure**

**Part 1.** There were two parts to this study. First, participants were told that the study would be about music and its influences on the overall wellness of women. Additionally, in order to prevent at risk individuals from participating, I screened for those with eating disorder tendencies ( $N=65$ ), using the Cotton, Ball, and Robinson (2003) scale. These individuals were mailed \$5 for their time and were given lists of different counseling resources on and off campus.

For those participants who passed the screening, they completed an online questionnaire measuring demographic items, body satisfaction, adherence to sociocultural appearance norms in

media, and a number of questionnaires regarding their music usage, favorite television shows and other seemingly appropriate items to add to the music and wellness illusion.

**Part 2.** Once individuals completed Part 1, they scheduled a time to come to the lab for Part 2, the experimental portion of the study. At the beginning of Part 2, the individuals were reminded that they were participating in a study on music and overall wellness. Their attention was then directed to the (faux) cameras set up in the main laboratory room. Participants were told that the sessions would be recorded in order to measure the consistency of our testing (in order to mask the true purpose of measuring body surveillance later) and were asked to sign a video recording form. They were then assigned to listen to one of three song stimuli, completed a questionnaire measuring body satisfaction and an Implicit Association Task (IAT). Finally, body surveillance was observed via hidden cameras. At the end of the study, the research assistant entered the room, provided a full debrief, and gave participants \$10 compensation. Additionally, all participants were given resources on developing positive body image and being a critical consumer of media.

## Results

### Preliminary Testing

All data were initially screened to check for linearity, univariate and multivariate outliers, homogeneity of covariance matrices, multicollinearity, and normality with all assumptions being met. Means and standard deviations can be found in Table 2 and preliminary correlations suggest a significant relationship between adherence to sociocultural media ideals and all other variables (Table 3) and IAT reaction time was significantly related to body satisfaction at time 2.

Additionally, in regards to body surveillance, 77% of participants engaged in active engagement, 96% participated in passive engagement and 99% participated in one or the other

with an average of almost 19 seconds of total body surveillance (the sum of active and passive engagement time).

An analysis of variance (ANOVA) was conducted to examine lyric condition on body satisfaction at Time 1. There were no significant differences on body satisfaction across condition,  $F(2, 228) = .14, p > .05$ , suggesting that initial body satisfaction did not differ as a function of condition.

### **Main Analysis**

In order to examine the effect of musical lyrics on body satisfaction, a 2 (lyric condition) x 2 (sociocultural attitudes) multivariate analysis of variance (MANOVA) was conducted on body satisfaction at time 2, IAT reaction time, and body surveillance. The analysis revealed an overall multivariate effect on lyric condition,  $F(6,364) = 2.12, p = .05$ , and revealed an overall multivariate effect on adherence to sociocultural media ideals,  $F(3,182) = 14.17, p > .001$ .

There were no main effects of lyric condition on IAT reaction time,  $F(2,184) = .22, p = .80$ , or body surveillance,  $F(2,184) = .04, p = .96$ . However, there was a significant main effect of lyric condition on body satisfaction scores,  $F(2,184) = 5.85, p < .001$ . Post hoc testing (using Tukey's HSD) revealed that participants who listened to the positive lyrics reported significantly better body satisfaction as compared to those who listened to the negative lyrics ( $p < .01$ ). However, those who listened to positive lyrics did not report significantly better body satisfaction compared to those in the neutral condition ( $p = .21$ ), and those in the neutral condition did not differ significantly from those in the negative condition ( $p = .08$ ).

The MANOVA also revealed a significant multivariate effect for adherence to sociocultural media ideals  $F(3,182) = 14.07, p < .001$ . An examination of the univariate effects revealed that adherence to sociocultural media ideals influenced body satisfaction scores,

$F(1,184)=41.34, p<.001$ , but not IAT reaction time,  $F(1,184)=2.19, p=.14$ , or body surveillance,  $F(1,184)=2.35, p=.13$ . Additionally, there were no significant interaction between adherence to sociocultural media ideals and condition,  $F(6,364)=1.64, p=.15$ .

### **Discussion**

The purpose of the current study was to experimentally examine the effects of positive or negative appearance music lyrics and their influence on three realms of body satisfaction in emerging adult women and was the first study of its kind to examine body satisfaction and music together, both of which are not well studied. When examining the results of the current study, the relationship between positive and negative appearance lyrics appears to be mixed. On one hand, results suggested that listening to positive appearance lyrics resulted in higher body satisfaction (measured through self-report) as opposed to listening to negative lyrics. However, there was no difference between the neutral group and either appearance related lyric condition, which only partially reflects what I hypothesized. Still, schema theory can help to expound on these findings. Due to preconceived schema regarding how participants already felt about their appearance, perhaps they were primed to hear lyrics confirming their appearance fears (or soothing them), but failed to attend to lyrics "unappearance" related (the neutral lyrics). Therefore, when asked about their body satisfaction, their responses reflected what they attended to, namely, either the positive or negative lyrics, not the neutral lyrics.

On the other hand, though there were some significant findings regarding the self-report measures, there was no significant relationship between lyric condition and the IAT or body surveillance. This is not what I originally hypothesized, but schema theory can help to explain these findings as well. Perhaps participants explicitly felt better or worse about themselves when participating in self-report measures. However, the IAT is an implicit measure, which could

reflect a deeper pattern of thinking developed over years of being exposed to various messages about one's appearance. Body surveillance (the intense and habitual monitoring of one's appearance; Vandebosch & Eggermont, 2012) may also be argued to be an implicit measure of body satisfaction, given that this was measured using observational methods and participants were not asked directly about their thoughts on their appearance. Further, my participants likely had a set of beliefs related to how they felt about their appearance prior to listening to the music lyrics. It is unlikely that participants' preconceived notions about their appearance were overridden after being exposed to one song on one singular occasion, especially when measured on such a deep level.

Results also suggested that adherence to sociocultural media ideals did not moderate the relationship between lyric condition and body satisfaction outcomes as was hypothesized. There are a couple of explanations that may help to expound on these findings. The Sociocultural Attitudes toward Appearance Questionnaire (Thompson & Heinberg, 1999) is made up of only questions concerning visual media (e.g. television, magazines, etc) with no mention of more passive media such as music. As was previously alluded to, music lyrics have not been studied as intensely as other forms of media. I would hypothesize that unlike other media, it may be uncommon for individuals to compare their appearances to music lyrics (at least in the same way they would compare themselves to a fashion model or a favorite television character), suggesting that music has a unique position in the influence of body satisfaction, particularly when not presented with a visual music video. Further research is needed to truly examine the effects of music on body satisfaction and perhaps a measure of sociocultural adherence to music would give us more understanding of how existing schema involving music effects body satisfaction outcomes.

When examining these mixed findings, it is possible that the media selection process (namely, how individuals choose media) influences the outcomes of media use. Previous studies provide a framework for understanding how individuals are actively part of the music selection process (McQuail, 1994; Wimmer & Dominick, 1994). Lonsdale and North (2011) concluded that individuals listen to music for a variety of reasons including forming an identity, positive mood management (setting the right mood) and negative mood management (to improve mood), among other reasons. When examining the lack of significance of body satisfaction in relation to the IAT and body surveillance, it is important to recognize participants as actively engaged in choosing media. Perhaps results would vary between individuals who seek out positive appearance messages to improve their existing schema about themselves (i.e., body satisfaction) versus those who seek media for other reasons. In short, the results of this study were mixed, but also provide important information for future research.

### **Implications**

Though results were mixed, there are a number of implications for women and body satisfaction research in general. This is the first study to examine music lyrics and positive body outcomes (both of which are highly understudied in academic literature). Only participants in the positive and negative conditions reported an increase (or decrease) in explicit measures of body satisfaction. This suggests that music with negative appearance messages can have a negative impact on women. However, it also suggests that positive appearance messages can have a positive influence on women, which is an exciting finding due to the increase of positive appearance in popular music today. In summary, if emerging adult women are going to choose to listen to appearance based music, choosing positive lyrics over negative ones are likely a better choice, given the impact on immediate and explicit feelings of body satisfaction.

As for improvements in *implicit* body satisfaction, a one-time music intervention was not enough to improve implicit body satisfaction. These findings seem especially pertinent to the study of media literacy programs, which have become an area of interest as academics have begun to examine how to improve body satisfaction (Posavac, Posavac, & Weigel, 2001; Yamamiya, Cash, Melnyk, Posavac, & Posavac, 2005). As these intervention programs are developed, it seems important that individuals be exposed to positive messages more frequently. Though the results of this study cannot speak to long-term results on music's ability to implicitly improve body satisfaction, perhaps coordinators of intervention programs can address messages in music as a way to explicitly improve body satisfaction in participants because a one-time exposure did, in fact, produce an increase in explicit body satisfaction. Additionally, participants in the current study were all between the ages of 18 and 25. Perhaps if there had been earlier exposure to more positive images/messages it would counteract the effects of negative media on body satisfaction. As academics seek to gain a more holistic understanding of body satisfaction, more research is needed to find productive intervention methods when previous socialization and existing schema bar individual progress.

Additionally, though there was no relationship between lyric condition and body surveillance, body surveillance emerged as a common ritual among participants. When examining body surveillance alone, 77% of participants engaged in active engagement, 96% participated in passive engagement and 99% participated in one or the other with an average of almost 19 seconds of total body surveillance (the sum of active and passive engagement time). Obviously the types of behavior (just staring in the mirror for long periods versus high levels of appearance adjustment) varied from woman to woman, but this information is striking considering the apparent relationship between body surveillance and an amalgamation of

negative outcomes (i.e., self-objectification, depression, anxiety, disordered eating, sexual dysfunction; Fredrickson & Roberts, 1997; Tiggemann & Kuring, 2004). More research is needed to examine risk factors responsible for habitual body surveillance. Perhaps media literacy and body satisfaction intervention programs should address body surveillance directly as it seems to be a common ritual for most women.

### **Limitations and Conclusions**

The results of the current study highlight the need to understand how long-term socialization and media messages interact to strengthen or weaken existing schema. The current study contained many strengths including a large sample size, an experimental design and explicit and implicit measures of body satisfaction. In addition, my team composed its own music in order to be able to control external factors, in which we created stimuli that had identical tunes and almost identical lyrics with only a few words changed in order to make the message positive, negative or neutral. This allowed us to truly attribute body satisfaction improvement (or the opposite effect) to the lyrical messages, making this the first study to examine this important relationship.

That said, there are some aspects to this study that future researchers could expound on. One suggestion I have involves the eating disorder screening. Again, due to ethical concerns, my sample lacked individuals who were at a higher risk for eating disorders. When examining this in the realm of schema theory, perhaps individuals in this subgroup are more primed to hear lyrics confirming their perceived body flaws and are more hyper aware of any singular media message; modified methodology could provide a way to examine this subgroup and should be considered for future research.

Additionally, because this was the first study, I controlled for many natural aspects of music by keeping the melody and the vocalist the same across all conditions. This allowed me to examine lyrics specifically, which was important in this case. However, in a natural setting, individuals may be influenced not only by lyrics but also by the tone of the music, as has been suggested by one other study examining aggressive lyrics and music tone (Lennings & Warburton, 2011). Past literature also suggests that how an individual identifies with a media icon can enhance the effects of media (Ward & Friedman, 2006). Perhaps a way to expound on the current findings would be to examine both lyrics and tone on body satisfaction and also to account for how a participant might identify with the vocalist.

Regardless, this experimental study was the first of its kind to examine appearance related music lyrics and their impact on body satisfaction (both explicitly and implicitly) and body surveillance as moderated by adherence to sociocultural attitudes of media ideals. I found that participants reported higher body satisfaction after listening to positive messages compared to those who listened to negative messages, suggesting music does influence body satisfaction, at least explicitly. So perhaps a slight deviation on Christina Aguilera's lyrics is appropriate here: *"You are beautiful, no matter what they say. Words [can] bring you [up or] down"*.

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## Appendix

**Positive Lyrics**

Verse: Mirror mirror on the wall

I don't need to change at all  
Because I know I'm beautiful  
I have flaws, I love them all

Mirror mirror look at me,  
I'm satisfied with what I see  
I am who I want to be  
My looks don't define me

Chorus: I just want to be me  
I don't care about what they see  
or what they want me to be  
All that matters is being me

Verse: Mirror mirror, I feel great

I don't care about my weight  
I don't feel the need to hide  
Because what matters is inside

Mirror mirror, where to start  
Beauty is within the heart  
There is nothing wrong with me  
I am worthwhile, I am me!

Chorus x2

**Negative Lyrics**

Verse: Mirror mirror on the wall

I just want to change it all  
No one thinks I'm beautiful  
So many flaws, I hate them all

Mirror mirror, look at me  
I hate everything I see  
This isn't who I want be  
My looks don't satisfy me

Chorus: I wish I wasn't me  
I don't know what they want from me  
Looking good is the only key  
All that matters is what they see

Verse: Mirror mirror, I feel bad  
My body just makes me sad  
I always feel the need to hide  
It doesn't matter what's inside

Mirror mirror, where to start  
There is nothing in my heart  
Everything is wrong with me  
I'm not worthwhile, they can see

Chorus x2

**Neutral Lyrics**

Verse: Mirror mirror on the wall  
Of the yellow entry hall  
This house is coloured manyfold  
Some are pastels some are bold

Mirror mirror look at me  
There I am - yes I can see  
And many windows one two three  
with flowers underneath the tree

Chorus: There is just so much to see  
A bush, a shed, a pot of tea  
The lawn it stretches to the road  
At my colourful abode

Verse:  
Mirror mirror house so great  
Flowers line the white front gate  
Milk can for a letterbox  
Rising up from grey bush rocks

Mirror mirror home's the heart  
There is a new work of art  
It's a family tapestry  
That hangs above the balcony

Chorus x2

*Table 1. Lyric differences on appearance positivity and appearance outcomes for pilot study.*

	Positive lyrics		Negative lyrics		Neutral lyrics	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Lyric positivity	4.65	.68	1.19	.802	1.96	1.22
Physical appearance	4.27	1.28	4.96	.20	1.38	.94

*Table 2. Means and standard deviations of all variables*

	Positive Lyrics	Negative lyrics	Neutral lyrics	High sociocultural	Low sociocultural
	<u>Mean (SD)</u>	<u>Mean (SD)</u>	<u>Mean (SD)</u>	<u>Mean (SD)</u>	<u>Mean (SD)</u>
Body satisfaction T2	2.56(.49)	2.31(.56)	2.52(.52)	2.26(.51)	2.69(.47)
IAT reaction time	.70(.32)	.71(.32)	.72(.31)	.69(.33)	.75(.29)
Body surveillance	17.42(12.97)	18.57(15.39)	19.76(15.11)	20.52(14.41)	16.51(14.47)

*Table 3. Correlations of all variables*

	Sociocultural attitudes	Body satisfaction T2	IAT reaction time
Body satisfaction T2	-.47**	-	-
IAT reaction time	-.14**	.16*	-
Body surveillance	.19**	-.12	0.01

Note:  $p < .05^*$ ,  $p < .01^{**}$ ,  $p < .001^{***}$