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James A. Roberts
Baylor University, jim_roberts@baylor.edu

Chloe' A. Roberts
University of Alabama, caroberts1@crimson.ua.edu

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Does Thin Always Sell? The Moderating Role of Thin Ideal Internalization on Advertising Effectiveness

James A. Roberts, Baylor University
jim_roberts@baylor.edu

Chloe' Roberts, University of Alabama
caroberts1@crimson.ua.edu

Abstract - Much of the current focus on the use of ultra-thin models in fashion magazines can be attributed to Madison Avenue which still operates under a “Thin Sells” ethos. Research to date, however, has provided equivocal evidence of the efficacy of thin models in advertising (Yu, 2014). The present study’s two related objectives include: (1) determining whether model size has an impact on advertising effectiveness, and (2) if internalization of the thin ideal moderates this relationship. Study results suggest model size in fashion advertisements has no main effect on advertising effectiveness. Additionally, thin ideal internalization moderates the model size – advertising effectiveness relationship. Women who internalized the thin ideal were more receptive to thin models compared to average-size models. For low internalizers, model size has no significant impact on advertising effectiveness. These findings suggest that the current “thin sells” fixation is a gross oversimplification of how women respond to advertising. Directions for future research and study limitations are discussed.

Keywords – Thin ideal, internalization, model size, advertising effectiveness, adult females

Relevance to Marketing Educators, Researchers and/or Practitioners – The lack of support for the advertising effectiveness of thin models in all situations suggests that marketing educators, researchers, and practitioners must take a closer look regarding the use of thin models in advertising. It appears that the catalyst behind the response of adult females to model size in advertising partially lies within the consumer. Average size models were shown to be as effective as thin models for those females who had not internalized the “thin ideal” so prominent in today’s advertising. Educators, researchers, and

practitioners must take a more careful and nuanced approach to better understanding how model size impacts not only attitude toward the brand or ad but also the likelihood of future purchase.

Introduction

Recent global research suggests that cross-cultural differences exist regarding the ideal female figure (Swami et al., 2010). In many low-socio-economic regions, heavier bodies were preferred over thinner body types. Body weight ideals were found to be reliably associated with resource security. When resources such as food were scarce or unpredictable, heavier body ideals existed. In high SES or more Westernized cultures, however, thinner body ideals were the norm. The authors conclude that the thin ideal in such cultures is not simply thin, but underweight. In fact, several studies suggest that only 5% of women could possibly achieve the thin ideal portrayed in typical advertisements (Sohn and Youn, 2013). US women feel so much pressure to achieve such thin ideals that they labor under what has been termed, a “tyranny of slenderness” (Fitzsimmons-Craft et al., 2012, p. 43).

The current appearance culture in the US extols ultra-thin bodies. Much of the current focus on thin bodies can be attributed to Madison Avenue which still operates under a “thin sells” ethos. Despite a lack of clear evidence that “thin”, in fact, sells, US advertisers operate as if “thin sells” in all circumstances (Dittmar and Howard, 2004). Research to date, however, has provided equivocal evidence of the efficacy of thin models in advertising (Yu, 2014).

What is not in question is the important role advertising plays in establishing and reinforcing the current beauty standards (Tiggemann and Polivy, 2010). In the US, and other westernized cultures, the “mass media are typically regarded as the single strongest transmitter of unrealistic beauty ideals...” (Hargreaves and Tiggeman, 2003:367). And, as Sohn and Youn (2013) observe, advertising is a critical component of mass media. Advertising revenue supports over 60 percent of print media production cost and funds nearly 100 percent of TV and radio costs (Kilbourne, 1999). A typical consumer may be exposed to as many as 3,000 ads in a given day (Dittmar et al., 2009). It is critical that research continues to investigate the role advertising plays in establishing US beauty standards.

The purported negative impact of overly thin models is, however, predicated upon one factor, the internalization of the current thin ideal. If women choose not to ascribe to such beauty ideals, it is less likely that they would be swayed by the use of thin models in advertising. Any attempt to combat the adoption of the thin ideal would, however, have to begin at an early age. Evidence of internalization of the thin ideal has been discovered in girls between the ages of seven to eleven years of age (Conasun, 2014). If a woman does internalize the thin ideal and uses this as her standard for beauty, it is likely to differentially

impact how she responds to advertisements that use thin or average-size models (Halliwell and Dittmar, 2004; Fitzsimmons-Craft et al., 2012)

The impetus behind the present research is that ascribing to a “thin sells” ideal is a gross over-simplification of how women respond to mass media. The current research investigates the impact of model size in magazine advertisements on advertising effectiveness in a large sample of adult females. Since it is unlikely that all women will respond in a similar fashion to such ads, the present study tests the potentially moderating role of internalization of the thin ideal on the model size - advertising effectiveness relationship. As noted by Yu (2014), few studies have investigated the role internalization of the thin ideal plays in advertising effectiveness.

Contributions of the present study include: (1) the use of a diverse adult sample of females, (2) controlling for the possible confounding effects of model attractiveness, BMI, and age, (3) the inclusion of internalization of the thin ideal as a potential moderator of model size on ad effectiveness, and (4) the use of magazine ads as the medium of choice to study the above relationships. Magazines have been shown to play a more important role in reinforcing the thin ideal than broadcast media such as TV (Harrison and Cantor, 1997). Magazines have long “been considered a central medium for shaping cultural ideals about appearance” (Jones, Vigfusdottir, and Lee 2004:325). As noted by Tiggemann and Polivy (2010), fashion and beauty magazines play a pivotal role in the dissemination and reinforcement of an overly thin ideal for women.

Literature Review

Model Size and Advertising Effectiveness

Social comparison is the human tendency to compare oneself to others (Festinger, 1954; Pettigrew, 1967). Often these comparisons are of the idealized images of women found in advertising (Richins, 1991). Research suggests that women are more prone (than men) to make such comparisons (Jones, Vigfusdottir, and Lee, 2004). Since few women can achieve the unrealistic beauty standards portrayed in most advertisements, these upward social comparisons lead to increased body dissatisfaction (Groesz, Levine and Murnden, 2002; Grabe, Ward and Hyde, 2008).

What is not clear, however, is the impact the use of such idealized female images has on advertising effectiveness. Early efforts investigating the impact of thin and attractive models in advertising led to the belief that their use fostered more favorable attitudes toward the ad and, importantly, greater likelihood of purchase intent (Baker and Churchill, 1977; Petrosius and Crocker, 1989). A recent study by Kees, Becker-Olsen, and Mitric (2008) tends to support this earlier research. The researchers found that when women were exposed to advertisements with thin models they felt worse about their bodies, but

surprisingly rated these ads more favorably and reported they were more likely to purchase products endorsed by thin models. Research by Fang et al. (2013), however, finds that the impact of model size on advertising effectiveness is more complex. When skinny models were the focal point of an ad, women would cope by scorning the model, ad and the product advertised. Used subtly, however, thin models enhanced attitudes toward the ad even though they undermined the women's body image.

The purported positive impact on advertising outcomes of the use of thin models has received inconsistent support (Fang et al., 2013; Yu 2014). Additionally, as will be discussed next, sufficient evidence has arisen to suggest that the use of thin models may actually undermine advertising effectiveness or have no impact at all. In certain circumstances, it has been found that average-size models may have a more positive impact on advertising outcomes than their thinner counterparts (Sohn and Youn, 2013).

Using an adult sample of women from the UK, Halliwell and Dittmar (2004) exposed subjects to advertisements that contained either a thin model, average-size model, or no model and investigated their impact on the advertisement's perceived effectiveness. Ad effectiveness was a summed measure of the subjects' attitude toward the ad and brand and purchase intent. Results of the study found that model size had no impact on advertising effectiveness. The authors concluded that advertisers could use larger, but equally attractive, models in their advertisements. The study controlled for the potentially confounding effect of attractiveness of the model to rule out this competing explanation for their results.

Another study by Dittmar and Howard (2004) exposed two groups of UK women (n=50) to one of three conditions. The first group was exposed to two ads for perfume which portrayed thin models. A second condition involved the same ad with, instead of thin models, average-size models. The third condition contained the same perfume bottle with a landscape for the background (control condition). Results of the study suggest, as did Halliwell and Dittmar (2004), that model size had no impact on advertising effectiveness. Similar to Halliwell and Dittmar (2004), attitude toward the ad and brand were measure by two 7-point semantic differential scales anchored by favorable - unfavorable and negative - positive. The fifth item of the summed scale asked the likelihood of purchasing the item from 1 = very unlikely to 6 = very likely.

A third study conducted by Halliwell, Dittmar, and Howe (2005) also investigated the impact of model size on advertising effectiveness. The final sample consisted of 76 women who currently or previously suffered from an eating disorder. Again, the two treatment conditions consisted of two images of either thin or average-size models in advertisements for perfume. The thin models' bodies were stretched to create the average-size advertisements to control for attractiveness. Advertising effectiveness was measured by having subjects rate their attitudes toward the ad and brand in the same fashion as did

Halliwell and Dittmar (2004) and Dittmar and Howard (2004). In this study, no item addressing purchase intent was included. Advertisements featuring ultra-thin and average-size models were found to be equally effective in regard to their impact on attitude toward the ad and brand. The authors conclude that average-size models could be used as effectively as thin models in advertising.

In a series of experiments, Hafner and Trampe (2009) studied the impact of “round” and thin models on advertising effectiveness. The results of these experiments were slightly more nuanced than the above referenced studies. The authors found that thin models are more effective when subjects impulsively evaluate a product. The beauty of the model, conclude the researchers, appears to spill over directly onto a person’s evaluation of a product. Thin models appear to be most effective when viewers are less involved in the ad itself or model portrayed in the ad. It was conjectured that the viewer impulsively associates the attractiveness of the model with the product in the ad. On the other hand, round (“next door”) models were found to be more effective when viewers are more highly involved in the product decision and are willing to expend time and cognitive resources to reflect on the product depicted in the ad. The authors conclude, in some instances, round models may be more effective in producing favorable product evaluations than thinner models.

With the exception of the studies referenced above, Sohn and Youn (2013) note that few studies have carefully examined the impact of model size on advertising effectiveness while controlling for facial attractiveness. Using a sample of 201 US college students, the authors manipulated model size (thin, average-size, and plus-size). The study also manipulated product-type - body image congruence and ad skepticism as potential moderators of the impact of model size on advertising effectiveness. Noting that prior studies investigating the impact of model size and ad effectiveness largely used measures that captured attitude toward the ad and brand as well as purchase intent, the authors utilized an information processing approach to assess advertising effectiveness. The impact of model size on the seven stages of the information processing approach (attention, message clarity, advertising believability, argument quality, attitude toward the ad, attitude toward the brand, and purchase intention) was used to gauge advertising effectiveness. Attention to the message and message evaluation which subsumed message clarity, ad believability and argument quality were all measured using extant multi-item scales that exhibited good psychometric (see Sohn and Youn 2013). Attitudes toward the ad and brand were assessed via the 10-item scale based on one work of Madden, Allen, and Twible (1988). Purchase intent was measured by three items and responses were recorded on 7-point Likert scales. The raw scores for each construct were aggregated for purposes of analysis.

Model size did not have a significant impact on the first four stages of the information processing model: attention to the ad, ad believability, message clarity, and message argument. The authors conclude that model body size

“does not influence participant’s evaluation of the ad message” (pp. 175). Model size was found, however, to have a significant impact on attitude toward the brand and purchase intent. Average-size models produced a more favorable attitude toward the brand than did thin and large-size models. Average-size models also increased the likelihood of purchase intent over thin and large-size models.

A recent study by Yu (2014) investigated the influence of thin versus non-idealized model images in fashion advertising. A web survey of 380 US female college students found that thin models actually undermined advertising effectiveness compared to ads with non-idealized models. Advertising effectiveness was measured using Baker and Churchill’s (1977) effectiveness of advertising scale. The scale devotes eight items to affective and cognitive attitudes toward the ad. Purchase intent was measured by three behavioral items that asked how likely respondents would be to try, buy, or seek out the product depicted in the ads.

The above results reinforce Yu’s (2014) sentiment that research findings regarding the impact of model size on advertising effectiveness have been inconsistent. It is likely a gross over-simplification that model size alone (even while controlling for attractiveness) can adequately explain or predict an ad’s effectiveness. Given the above equivocal results, the present study offers the following hypothesis:

H1: Model size in magazine advertising will impact perceived advertising effectiveness.

We do argue next, however, that the degree to which a woman internalizes the thin ideal may moderate the impact of model size on advertising effectiveness.

Model Size, Internalization, and Advertising Effectiveness

The media plays an important role in establishing prevailing beauty standards and advertising is an important part of media. The current beauty standard in the US may be best labeled the “thin ideal”. The thin ideal has become increasingly thinner in the past 20 years (Bissell and Rask, 2010). Previous research has identified an increasing focus on overly thin models and weight loss in women’s fashion magazines (Yu, 2014). The typical model is approximately 20% underweight and exists on what would be considered a starvation diet (Halliwell, Dittmar and Howe, 2005). The literature is replete with studies that have established numerous negative outcomes associated with the over use of unrealistically thin models in advertising (e.g., Grabe, Ward and Hyde, 2008). The most common has been increased levels of body dissatisfaction tied to the use of overly idealized thin models (Fitzsimmons-Craft, et al., 2012).

For the thin ideal to have such harmful consequences, however, it must be internalized. If a woman does not adopt the thin ideal then it is less likely to exert a negative influence on her. If females do internalize the thin ideal it will likely impact how she responds to different size models in advertising. Thompson & Stice (2001) defined thin ideal internalization as the “extent to which an individual cognitively ‘buys into’ socially defined ideals of attractiveness and engages in behaviors designed to produce an approximation of these ideals” (pp. 181).

Women in the US feel pressure to conform to the thin ideal. The current high levels of body dissatisfaction among US females strongly suggests that a majority of them have internalized the thin ideal. And, research suggests that those women who have most deeply internalized the thin ideal are the most negatively impacted and vulnerable to thin models depicted in advertising (Fitzsimmons-Craft, et al., 2012; Tiggemann and Polivy, 2010). How, and if, internalization of the thin ideal impacts female responses to advertising has received scant attention (Yu, 2014).

Halliwell and Dittmar (2004) conducted a study that investigated the impact model size (thin, average-size, or no models) had on both body-focused anxiety and advertising effectiveness. In a sample of 202 females from the UK, the authors found that exposure to thin models created greater body-focused anxiety in women who internalized the thin ideal compared to average-size models and the no models condition. More germane for the present study was that model size had no influence on advertising effectiveness which was a summed measure of attitude toward the brand, ad, and purchase intent. Additionally, internalization of the thin ideal did not interact with model size when predicting advertising effectiveness.

In another study that same year, Dittmar and Howard (2004) studied two professions, school teachers and employees in fashion advertising, and if women in these two professions differed in how they responded to thin and average-size models in advertising. Teachers and advertising employees were not found to differ in their levels of thin ideal internalization. Additionally, model size did not significantly impact the evaluation of the advertising or likelihood of purchasing the product advertised. Internalization was used as a covariate because it had a small, but significant, positive correlation with advertising effectiveness for both advertised products. This suggests that high internalizers were slightly more responsive to all ads regardless of model size.

A recent study by Yu (2014) investigated the impact of thin versus non-idealized model images on the effectiveness of advertising in fashion ads. A web survey of 380 female college was undertaken to test the study’s hypothesis. Subjects were randomly assigned to one of three conditions (thin model ads, average-size model ads, and no model ads). Each group was exposed to ten images. As hypothesized, subjects exposed to thin model ad images were found to be less favorably predisposed to the products advertised than were subjects

exposed to average size models. Internalization of the thin ideal, however, was not found to significantly predict attitude towards the ads or purchase intention. Yu (2014) concludes that the majority of the college student sample was not negatively predisposed or overly critical of ads that contained thin model images. The deeply embedded nature of the thin ideal in young females may explain such a result. Thin ideal internalization, it appears, is likely to vary considerably across certain demographic and/or life-style groups making its influence on advertising effectiveness dependent upon the group(s) under study.

Given the above, our understanding of the impact of thin ideal internalization on advertising effectiveness is still evolving. The present study offers the following hypothesis:

H2: The degree to which a female internalizes the thin ideal will affect how she responds to magazine ads with thin and average-size models.

Method

Sample

Subjects for the current study were recruited using the Amazon Mechanical Turk (MTurk) website. MTurk provides an opportunity for people to complete work for pay. For the present study, females were recruited by posting a HIT (“Human Intelligence task”) on the MTurk website that asked for female participants to complete a brief questionnaire. The survey was described thusly, “Females: You will rate the magazine ads for purses and share your opinions with us. This survey should take five minutes”. Potential subjects were offered \$1.25 for their participation.

Researchers from a majority of top universities use MTurk to collect data. Goodman, Cryder, and Cheema (2013) state “We conclude that MTurk offers a highly valuable opportunity for data collection ...” (pp. 213). Data collected via MTurk is considered, at a minimum, to be as reliable as data collected by more standard methods (Buhrmester, Kwang and Gosling, 2011). In fact, these same authors conclude that MTurk samples are demographically more diverse than American college student and Internet samples and that MTurk provides an excellent format for collecting “high-quality data inexpensively and rapidly” (pp. 3).

The final sample consisted of 239 females that exhibited considerable diversity across the demographics categories of age, education, income, and marital status (See Table 1 for sample characteristics). Body Mass Index (BMI) was also calculated for each subject $[(\text{Weight} \div (\text{height in inches})^2 \times 703)]$. The subjects’ BMI was used as a covariate (along with age) in the present study’s ANCOVA analysis.

Table 1: Sample Characteristics (n = 239)**Age**

	Frequency	%
16-19	2	.8
20-24	31	13
25-34	98	41
35-44	48	20.1
45-54	42	17.6
55-64	15	6.3
65 plus	3	1.3
Total	239	100

Education

	Frequency	%
High School	24	10.1
Vocational/technical	13	5.5
Some College	76	31.9
College graduate	97	40.8
Master's Degree	22	9.2
Doctoral Degree	1	.9
Professional Degree (MD, JD, etc.)	4	1.7
Other	1	.4
Total	238	100

Race

	Frequency	%
White/Caucasian	192	77.4
African American	15	6.0
Hispanic	8	3.2
Asian	27	10.9
Pacific Islander	1	.4
Other	5	2.0
Total	248	100

Income

	Frequency	%
Did not say	18	7.6
<\$10,000	15	6.3
\$10,000 – 19,999	24	10.1
\$20,000 - 29,999	36	15.1
\$30,000 - 39,999	39	16.4
\$40,000 – 49,999	22	9.2
\$50,000 – 74,999	55	23.1
\$75,000 – 99,999	15	6.3
\$100,000 - \$150,000	12	5.0
\$150,000 plus	2	.8
Total	238	100

Occupation

	Frequency	%
Full-time employed	99	41.6
Part-time employed	64	26.9
Not employed	21	8.8
Homemaker	35	14.7
Student	16	6.7
Retired	3	1.3
Total	238	100

Status

	Frequency	%
Single (never married)	88	37.0
Married (no children)	19	8.0
Married with children	71	29.8
Divorced	19	8.0
Separated	4	1.7
Widowed	4	1.7
Living with partner	33	13.9
Total	238	100

Materials

Because of their nearly universal appeal, women's purses were chosen as the focus of the ads in the present experiment. The five skinny models used in the present study were lifted from a variety of fashion magazines. Using Photoshop, a graphic design artist enlarged each of the models in these five ads to create the

average-size model condition. The same five models were used in the skinny and average-size model condition to hold model attractiveness (a potentially confounding variable) constant across the two conditions. The control condition subjects saw the same five purses with no models. The brand name Chloé appeared at the bottom of each ad. Please see the Appendix for an example of a thin and average-size model ad.

Pretest: Model size and attractiveness

The purpose of the present pre-test was two-fold: (1) to confirm that there is a perceptible difference in the size of the “Average” and “Skinny” models, and (2) to confirm that both sets of models were considered equally attractive. This would help rule out the potential competing explanation that it might be the attractiveness, not size; of the models that impacts their advertising effectiveness.

The pre-test sample consisted of both undergraduate business students and non-student females who were sent an e-mail requesting their participation in a brief survey. As the respondents clicked on the survey link embedded in the e-mail message they were randomly assigned to evaluate the size and attractiveness of either five average or skinny models. As explained earlier, the average-size models were created by digitally enlarging the five skinny models. This was done to help reduce the likelihood that the one model group would be seen as more attractive. A graphic design artist performed the manipulations.

The final pre-test sample consisted of 23 females rating the skinny models and 20 females rating the average-size models. Each respondent was asked two questions about each of the five models. The first question asked the respondent to “please rate the attractiveness of the model in the above ad”. Responses were recorded on a 7-point scale that ranged from “very unattractive” (1) to “very attractive” (7). A second question asked the respondent, “How would you rate the size of the model in the above ad?” Responses ranged from “very skinny” (1) to “very heavy” (5).

The meaning rating for the size of the skinny models was 1.8 (sd = .97) and 2.9 (sd = .3) for the average-size models ($p < .001$). The above results suggest that a perceptible size difference exists between the two model groups.

The mean attractiveness rating for the skinny models was 5.29 (sd = .7) and 4.8 (sd = 1.0) for the average-size models ($p = .06$). Hence, no significant difference for attractiveness was found across the two model groups.

Measures

The 8-item internalization subscale of The Sociocultural Attitudes Toward Appearance Questionnaire (SATAQ) developed by Heinberg et al. (1995) was used to assess how deeply each subject has internalized society’s focus on thinness and appearance. Sample items include: “I believe the clothes look better

on their models” and “I wish I looked like a swimsuit model”. Cronbach’s Alpha for the internalization subscale for the present-study was .93.

A median split of the internalization scale was performed to create high and low internalization groups. Scores on the 8-item scale ranged from 8 – 56 with an average score of 33.9. Any subject with a score less than or equal to 34 was assigned to the low internalization group and any subject with a score greater than or equal to 35 was assigned to the high internalization group. Table 2 contains the cell size for each of the three experimental conditions by level of internalization.

Table 2: Cell Size for Experimental Conditions by Level of Internalization

Internalization	Experimental Condition			Total
	Average-Size Models	Skinny Models	Control Group	
High	47	41	38	126
Low	37	41	29	107
Total	84	82	67	233

Advertising effectiveness was constructed by summing the responses to three questions: The subject’s attitude toward the ad, attitude toward the brand and their likelihood of purchasing the product portrayed in the ad. Attitude toward the ad and brand were both measured by two 7-point semantic differential scales anchored by “Highly unfavorable – Highly favorable” and “Highly negative - Highly positive.” The ratings for these two dimensions for both attitude toward the ad and attitude toward the brand were highly correlated (correlations ranged from .92 to .98 across the three experimental conditions) so a single averaged score was calculated for attitude toward the ad and attitude toward the brand for each subject. Purchase intent was measured by a single item that asked, “If the purse depicted in this ad cost the same as the purses you normally buy, how likely would you be to purchase it the next time you’re shopping for a purse?”. The seven-point response categories ranged from “very unlikely” (1) to “very likely” (7). Advertising effectiveness was computed by simply adding up each subject’s average score on attitude toward the ad, attitude toward the brand, and their response to the single-item purchase intent measure (range = 3-21).

Procedure

As stated earlier, subjects for the current study were recruited via the Amazon Mechanical Turk website. Interested females were instructed to click on a link that took them to the secure website where the questionnaire was hosted. Subjects were randomly assigned to one of three conditions: ads with skinny models, ads with average size models, or a control group with no model (purse only). Each condition contained five ads for purses.

Upon clicking on the survey link, subjects were taken to an initial web page that explained the purpose of the research. The study's purpose was explained as assessing how women react to advertisements in fashion magazines and their preferences as consumers. The study was described as academic in nature (ads were created for this study) and our primary interest was to investigate "what types of people prefer different types of ads. So, next you will be asked to answer a set of questions about your personal attitudes and beliefs."

After confirming their gender, the subjects were taken to the first block of Questions that contained the eight Internalization items of the SATAQ Scale. These eight items were interspersed among 20 questions that asked about "different values and attitudes" the subject might hold. Examples of filler items included: "looking at fashion magazines ads often makes me wish I was richer", "I buy products to impress others" or "ads help me decide what's in fashion".

After answering the 20 value and attitudes questions that included the Internalization items subjects were randomly assigned to one of the three experimental conditions. After viewing each of the five advertisements subjects were asked to describe their reaction to the ad and brand portrayed in the ad by responding to two seven-point semantic differential scales anchored by "Highly Unfavorable" to "Highly Favorable" and "Highly Negative" to "Highly Positive". A third question asked how likely they would be (if the purse cost the same as purses they normally purchased) to purchase the purse depicted in the ad the next time they were shopping for a purse.

After viewing the five ads and answering the three questions that followed each ad, subjects were asked several media use questions pertaining to readership of health and fitness magazines. A final set of questions asked a range of standard demographics measures including questions asking for the subject's height and weight. These last two questions were used to calculate the subjects' BMI.

Results

To test the study's two hypotheses a 3 (model size: skinny, average, and control group) x 2 (Internalization: low < 34 and high \geq 35) between subjects analysis of covariance (ANCOVA) was employed. Measures of BMI and age were used as

covariates. BMI did not reach significance ($F(1, 232) = 3.5, p = .06$), but age was significantly correlated with advertising effectiveness ($F(1, 232) = 6.6, p = .01$).

The full model was significant [$F(1,232) = 3.78, p < .01$] as was the main effect for Internalization [$F(1,232) = 14.2, p < .001$]. The analyses did not show a main effect for condition [$F(2,232) = .65, p = .52$]. As predicted, a two-way interaction between condition and internalization was found [$F(2,232) = 4.0, p = .02$] suggesting that the advertising images had a differential effect on advertising effectiveness depending upon the degree to which subjects internalized the thin ideal. To fully understand this interaction, a series of planned comparisons were conducted separately for women in both the high and low internalization groups.

In analysis using only the low internalization group, no significant difference was found across model size (Skinny models mean = 4.24, Average models mean = 4.46, $t(107) = 1.02, p = .31$). Among high internalizers, however, a significant difference was found (Skinny models mean = 5.0, Average models mean = 4.56, $t(123) = -2.4, p = .02$). It appears that Skinny models versus average-size models have a significantly more positive impact on advertising effectiveness for high internalizers. The difference between skinny models and the control group, for high internalizers, approached significance ($p = .086$). See Table 3 for the estimated marginal mean levels of advertising effectiveness by women both low and high on internalization after exposure to each of the three advertising conditions.

Table 3: Estimated Marginal Means for Advertising Effectiveness by Experimental Condition for Women Low and High in Internalization

Internalization	Average-Size			Over-All
	Models	Skinny Models	Control Group	
High	4.56	5.0	4.6	4.74
Low	4.46	4.24	4.22	4.28
Over-All	4.52	4.6	4.4	

As expected, model size did not exert a main effect on advertising effectiveness. It appears that model size in magazine advertising, in and of itself, does not significantly impact advertising effectiveness. The study's posited moderating role of internalization was supported by the significant interaction found between internalization of the thin ideal and model size. Women who internalized the thin ideal were more receptive to skinny models compared to average-size models. For low internalizers, model size has no significant impact on advertising effectiveness.

Post-hoc Analysis

Given the importance of internalization of the thin ideal in response to model size in advertising, a post-hoc analysis was conducted in an attempt to identify what type of women were more likely to be high internalizers (see Table 4). BMI was not found to vary across low and high internalizers. Educational levels also did not vary across the two groups. High internalizers, however, scored significantly lower on the Body Images State Scale (BISS) that measures the level of satisfaction with the subjects' physical appearance (Cash et al., 2002). It appears that high internalizers are less satisfied with their appearance than low internalizers. This finding makes sense given that females who buy into the thin body ideal are inevitably going to be less satisfied with their appearance than those who are less invested in the current thin ideal. High internalizers were also younger and earned higher incomes. The increasing media attention on an ever thinner ideal explains why young females are more invested in such an unattainable ideal. Higher income among high internalizers is slightly inscrutable. It could be explained by the higher media consumption found among high internalizers. Higher incomes have long been associated with higher print readership and beauty fashion and health and fitness magazines are important purveyors of the thin ideal. Also of interest, only 1.5 percent of high internalizers were African-American compared to 12 percent of the low internalization group.

Table 4: High versus Low Internalizers of Thin Ideal One-Way ANOVA Results

Variable	Means		Significance
	High Internalizers	Low Internalizers	
BMI	27.14	26.53	.547
Media	3.26	2.34	<.001
BISS	26.84	31.65	<.001
Age	4.36	4.99	<.001
Education	4.53	4.33	.21
Income	5.4	4.8	.04

Notes:

1. **Media readership** was recorded on a 7-point scale that ranged from never (1, less than once a month (2), once a month (3), 2-3 times a month (4), once a week (5), 2-3 times a week (6), to daily (7).

2. **Body Image State Scale (BISS)** was a 6-item scale with responses that ranged from least satisfied (1) to most satisfied (7) with regard to the subject's appearance.
3. **Age:** < than 16 (1), 16-19 (2), 20-24 (3), 25-34 (4), 35-44 (5), 45-54 (6), 55-64 (7), 65+ (8).
4. **Education:** Grammar school (1), High School (2), Vocational (3), Some College (4), College Grad (5), Master's (6), PhD (7), Professional degree (8), Other (9).
5. **Income:** under \$10K (2), \$10-19,995 (3), \$20-25K (4), \$30-39K (5), \$40-49K (6), \$50-74,999 (7), \$75-99,999 (8), \$100-\$150,000 (9), \$150,000+ (10).

Discussion

The use of thin models is ubiquitous in modern advertising. The "thin sells" ethos goes nearly unchallenged by advertising practitioners. Yet, it stands to reason that not all women will respond in the same manner to the largely thin models portrayed in women's fashion magazines.

And, the results of the present study support such a supposition. The effectiveness of thin and average-size models in purse ads was found to be moderated by the degree to which adult women in the US have internalized the thin ideal. The paucity of advertising research that includes thin ideal internalization is surprising.

If a woman has not "bought into" the thin ideal it is much less likely she will be swayed by the use of thin models in magazine advertising. On the other hand, women who have fully embraced the "thin ideal" may be more responsive to the use of thin models in advertising. The present study adds considerable knowledge in this important area of research.

The present study manipulated model size (thin, average-size or no models) to investigate its impact on advertising effectiveness. A measure of thin ideal internalization was also collected. Findings suggest that model body size, in and of itself, had no direct impact on advertising effectiveness. This supports our contention that the impact of model size in advertising effectiveness is not nearly as straight forward as the "thin sells" mantra currently in vogue in women's fashion advertising.

A main effect for thin ideal internalization on advertising effectiveness was found. This contradicts research by Halliwell and Ditmar (2004) who found no main effect for thin ideal internalization when investigating the impact of model size on advertising effectiveness. It can be argued that women who have internalized the thin ideal are more vulnerable or impressionable than their counterparts who do not feel as strongly about the thin ideal. Their preoccupation with being thin and attractive makes them more receptive to any advertising that offers a product that can help them achieve their thin ideal.

The present study's post-hoc analysis of high and low internalized proves helpful in attempting to understand the main effect of thin ideal internalization on advertising effectiveness. First, high internalizers were heavier users of media which largely extols the virtues of being thin and the products that can help women be more attractive. Previous research has found that increased media exposure is associated with higher internalization of the thin ideal. These high internalizers were also less satisfied with their bodies, were younger, and enjoyed higher incomes. Body dissatisfaction is likely to drive women to attempt to soothe their dissatisfaction with appearance-related products. The higher income allows them this freedom. The impulsiveness and sensitivity to interpersonal influence of youth may also partially explain why high internalizers may be more likely to respond to beauty-related products.

The importance of thin ideal internalization was further supported by its moderation of the model size—advertising effectiveness relationship. For those females low in thin ideal internalization, model size had no impact on advertising effectiveness. Brand names, argue Tiggemann and Polivy (2010), are "... actually better remembered by those women least vulnerable to negative media effects" (pp. 362). This finding suggests that the current "thin sells" ethos must be reconsidered. Clearly, the response to thin models in advertising is more nuanced than the current use of thin models in most instances. It is likely that the impact of attractiveness and model size has been confounded. When controlling for attractiveness, the present study found that average-size models are equally effective to thin models in selling purses.

When focusing on those women who have internalized the thin ideal, however, thin appears to sell. Women who believe that skinny is good had more favorable attitudes toward the ad and brand and were more likely to purchase the advertised purses when thin models were used in the advertisements. And, given the high incidence of body dissatisfaction among US females (Fitzsimmons-Craft et al., 2012), this group of consumers may very well represent the majority of female consumers.

Future Research and Study Limitations

The present study has laid the groundwork for future research into the important advertising question—does thin sell? As Yu (2014) rightly points out, scant research attention has focused on the impact thin ideal internalization has on advertising effectiveness. In fact, Yu's (2014) research found that skinny models (versus average-size) lowered females' attitudes toward fashion ads. Additionally, Yu (2014) did not find that thin ideal internalization moderated the impact of model size on advertising effectiveness. Clearly, more research is needed that includes a measure of thin ideal internalization in studies of model size and advertising effectiveness. Future research that establishes a demographic, psychographic, media habits and behavioral profile of the high internalizer will be beneficial.

Researchers must also not overlook the fact that mass media and advertising are not the only transmitters of the thin ideal. Future research investigating thin ideal internalization should include the impact of family and friends on the development of important beauty ideals. As primary socialization agents, investigation of the influence of family and friends on development of the thin ideal will greatly further our understanding of this important value.

As an important risk factor, future research that investigates variables that may buffer individuals from the negative effects of internalization is needed. Benefits may be gained by including self-esteem, attention to social comparison information, self-objectification, and media exposure in studies of thin ideal internalization. Thompson and Stice (2001) provide evidence that teaching females to be more critical of media and advertising can reduce their thin ideal internalization. The authors note when high internalizers were encouraged to rebut the thin ideal in a succession of verbal, written and behavioral exercises levels of internalization and body dissatisfaction were reduced (Thompson and Stice, 2001).

Although this study expands over knowledge of the role thin ideal internalization plays in the impact of model size on advertising effectiveness, it must be tempered by certain limitations. First, although by design, the current model is an over-simplification of the factors that determine a woman's response to advertising. There exists a milieu of forces that shape how women respond to models of varying sizes depicted in advertising. It is not possible that any one study could adequately represent such a complicated process, but it is hoped the present study has highlighted the important role internalization plays in such a process. And, we believe thin ideal internalization plays a pivotal role in how women respond to advertising. Without internalization of such ideals, the impact model size in advertising would be greatly attenuated. Second, given the on-line nature of the present experiment, it only approximates how women might respond to such advertisements. Field experiments may address this issue but at the expense of control and hence, internal validity. Third, the nature of data collection via MTurk requires that respondents choose to participate in your research. This is not optimal but the current sample consisted of a large and diverse sample of adult women. We feel, however, that for the purposes of the present study the sample was more than adequate and added value to the current knowledge base that has largely utilized college student samples.

Appendix

Sample Magazine Advertisements

Skinny Model # 1



Chloé

Average - Size Model # 1



Chloé

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Author Information

James A. Roberts (PhD, University of Nebraska – Lincoln) is the Ben H. Williams Professor of Marketing in the Hankamer School of Business at Baylor University. He has published widely in the marketing and psychology literatures and recently published a trade-book entitled *Shiny Objects*. His research interests are largely focused on the dark-side of consumer behavior and include compulsive buying, cell phone addiction, materialism, credit card abuse, and (lack of) self-control. Recently, he has published several articles on gratitude as an antidote to a materialistic life-style.

Chloe' Roberts is a freshman and member of the Honors College at the University of Alabama in Tuscaloosa. Her research interests focus on the impact model size in fashion advertising has on attitude toward the brand and ad, and purchase intent. She has also studied and published research that investigates the impact of model size on young females' body esteem and psychological well-being.

