Effects of Model Body Size and Product Price on Advertising Effectiveness, Purchase Intention, and Body-Related Behaviors

Maxim Polonsky, University of Connecticut, USA
Ioannis Kareklas, University of Connecticut, USA

Our experiment employs a between-subject 3 x 2 factorial design, investigating the effect of exposure condition (ads featuring thin models, plus-size models, and average models) and price (low and high) on advertising effectiveness, purchase intentions, as well as on body-related behaviors. We show that short exposure to one print ad featuring thin-ideal model makes participants likely to normalize excessive dieting and exercising, and to consider personal engagement in such behaviors. At the same time, however, the same exposure condition is more effective in communicating product quality (when paired with high price), and in eliciting purchase intentions.

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for New Ideas was strong and positive (t=13.843, p<.0001) and Early Adopter was significant and negative (t=-3.268, p<.001). Further analyses revealed a strong correlation between these two constructs and that most of the impact was due to Affinity for New Ideas. H2 partially supported.

**Attitudes Impact Innovativeness (H3).** We regressed Affinity for New Ideas dimension on the three dimensions of the NEP scale. The overall model was significant (F(3,1439)=77.937, p<.0001) and each of the dimensions was significant. Specifically, Nature Rules was significant and positive (t=15.060, p<.0001), Humans Rule was significant and positive (t=8.843, p<.0001), and Growth Limits was significant and negative (t=-4.661, p<.0001). H3 largely supported.

**Innovativeness Plays a Meditational Role.** We performed a 3-part test of mediation (Baron & Kenny 1986). The first two steps are described above. In the third step, we regressed pro-environmental behaviors on Nature Rules, Humans Rule, Growth Limits, and Affinity for New Ideas. In order for mediation to occur, the effects of the other variables must be significantly reduced and the effect of Affinity for New Ideas has to be strong. This is exactly what occurred. Specifically, the overall model was strong and significant (F(4,1438)=96.697, p<.0001), the only significant effect of attitudes was Humans Rule (t=-8.843, p<.0001), and importantly, the strength of Affinity for New Ideas increased (t=14.225, p<.0001).

**Conclusion**

Innovativeness plays an important role in helping to bridge the divide between environmental attitudes and environmental behaviors. Indeed, the primary driver of the process is the concept of Affinity for New Ideas. This indicates that it is this consumer who is most open to and accepting of new ideas that will be at the forefront of this new consumer movement.

**Abbreviated References**


**Effects of Model Body Size and Product Price on Advertising Effectiveness, Purchase Intention, and Body-Related Behaviors**

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Marketers claim that thin models are very efficient in selling products (Gillian 2000). Although women generally feel thin fashion models are more elegant and interesting (Martin et al., 2007), research findings on exposure to thin models and advertising effectiveness are mixed. Dittmar and Howard (2004) have shown that while the exposure to thin ideals in ads may harm an individual’s body esteem, there is no difference between thin and average-size models in terms of advertising effectiveness (i.e. product and ad evaluation, and purchase intention). On the other hand, it can be argued that after exposure to ads featuring thin models, women may feel worse about themselves, while actually feeling better about the brands and products advertised. In addition, research findings show that consumers generally associate thin with happiness, desirability, and status (Tiggermann 2003).

When asked about the most important aspects in women’s life, approximately fifty percent of American females indicate their shape and weight (The Downing Street Group, LLC 2007). Especially for young women, pressures to be thin contribute to lower self-esteem, body image disturbances, and eating disorders, with as many as fifty percent of undergraduate females expressing body dissatisfaction (Bearman et al., 2006). Media exposure has been shown to affect women’s’ body esteem by a vast variation of a “thin is in” message.

Research shows that between 1970–1990, the emphasis on fitness increased, and the body shape of models tended to become thinner (Guillen and Barr 1994). A content analysis of popular fashion magazines from 1959 to 1999 found a significant decrease in models’ body sizes during the 80s and 90s (Sypeck et al., 2004). For example, Botta (1999), found that exposure to thin body sizes had an influence on
young female’s endorsement of the ideal thin body and the likelihood to use media models to define what their own bodies should look like. The relationship between exposure to thin-ideal and body image disturbances was also demonstrated in experimental research (Bessenoff 2006; Dittmar and Howard 2004) and supported by two meta-analytic reviews (Grabe et al., 2008; Groesz et al., 2002).

Two important moderators of the relationship between exposure to thin ideals in the media and body-related disturbances are social comparison tendency and thin-ideal internalization. Internalization of a thin-ideal has been viewed as an important risk factor that contributes to the development of eating disorders. Thin-ideal internalization refers to the extent to which an individual accepts the thin-ideal standard of beauty and attractiveness as her own and engages in behaviors that purportedly help to approximate these standards (Thompson et al., 1999).

As a theory, social comparison posits that individuals compare themselves to others to determine their own relative levels of abilities (Festinger 1954). There are two directions for social comparison: an upward comparison that is made when comparison others are perceived to be more fortunate; and a downward comparison that refers to less fortunate comparison others.

Research suggests that when discrepancies between the self and the comparison standard arise, people are motivated to change the self to be more like the comparison standard. Upward comparisons in particular lead to negative moods and lower self-esteem (Gibbons and Gerard, 1989). Social comparison processes may be unintentional, environmentally imposed, and even unwanted (Lyubomirsky and Ross, 1997). Richins (1991) pointed out that social comparison with media models has unfavorable consequences for female body esteem, since the media body ideal is unattainable. That is why women who are more likely to compare their body to media models have higher levels of body dissatisfaction and lower levels of self-esteem (Stormer and Thompson 1996).

The aforementioned literature illustrates a potential marketing dilemma: images that are most effective in selling products may also harm consumers the most. In our experiment we employ a between-subject 3 x 2 factorial design, investigating the effect of exposure condition (ads featuring thin models, plus-size models, and average models) and price (low and high) on the following outcome variables: 1) advertising effectiveness (attitude toward the ad, purchase intention); 2) body-related behavioral intentions (to get cosmetic surgery, to exercise or diet excessively); and 3) willingness to eat an offered cookie. We introduce a price variable because, as mentioned above, a thin ideal is associated with status. We manipulate price and attempt to investigate whether price interacts with model body size to create the perception of quality and to elicit generally more favorable attitudes toward advertisements.

The location for the online experiment was a computer lab with a sitting capacity of 20 people. Participants had to come to the lab because we were interested in observing direct behavior of taking an offered cookie. Upon login onto the website, participants were randomized into one of the five conditions and told that that they are participating in a marketing research study that explores different communication and appeal strategies (print vs. video, reading detailed information versus watching a short ad, sex appeal vs. humor, etc.) for two product categories—computers and women shoes. After completing a pre-test, participants in each condition were referred to CNET.com page “Best 5 desktops” (http://reviews.cnet.com/best-desktops/?tag=leftColumnArea1.0) or a similar updated page, and asked to read a short one-paragraph review for each of the five computers. Next, participants were asked to answer filler questions about their liking, preference, and purchase intention for any of the reviewed computers. Upon completion, study participants were exposed to the experimental ad and filled out a post-test questionnaire that consisted of: a) questions about advertising effectiveness (e.g., ad evaluation, purchase intention), and b) questions about attitudes toward and behavioral intentions to engage in such behaviors as cosmetic surgery, excessive exercise, and dieting. Participants were deceived that the later part of the post-test was an unrelated small scale survey study that was to be used in designing health interventions.

Our preliminary results suggest that thin body size paired with high price effectively signaled product quality and generated more favorable attitudes toward the ad among study participants. The same experimental condition however, had a positive effect on body-related disturbances. We focus our discussion on these controversial findings as well as on the influence of individual difference moderators.

Key References


### Please Drink Responsibly!” The Effectiveness of Responsibility Messages in Alcohol Product Advertising

Maxim Polonsky, University of Connecticut, USA

Ioannis Kareklas, University of Connecticut, USA

Among important factors influencing national alcohol consumption is alcohol advertising. Longitudinal studies have shown that exposure to alcohol advertising leads to drinking initiation, and to an increase in drinking rates (Snyder et al., 2006). Alcohol advertising on television keeps growing, especially alcohol advertising toward American youth (Center on Alcohol Marketing and Youth (CAMY) 2007), while alcohol responsibility advertising remains low.

CAMY defines responsibility advertising as alcohol industry-sponsored ads (corporate PSAs) in which responsibility (drinking responsibly, avoiding drunk driving, and addressing underage drinking) is the primary focus of the message. Content analysis using Nielsen data found that corporate PSAs make up less than three percent of the nearly 1.5 million alcohol televised advertising from 2001 to 2005 (CAMY 2007).

CAMY report (2007) dismisses brief warning messages within product ads as “ineffective” and cites Fox et al.’s (1998) study as the evidence. Such dismissal however is puzzling and unfortunate because: a) Fox’s study actually concluded that responsibility messages had warning value, albeit a limited one (p. 57), and b) the investigated warnings were all print-based and thusly differed from video messages that last several seconds. The aim of the current study is to address the shortcomings in the literature and to investigate the effectiveness of brief warning messages as it relates to presentation modality.

There is no general consensus on the effectiveness of responsibility messages in alcohol advertisements. Snyder and Blood (1992) as well as Ringold (2002) found support for a boomerang effect under which the exposure to alcohol warnings actually created more favorable attitudes toward alcohol among viewers; however, MacKinnon and Lapin (1998) were not able to find a similar effect in two replication experiments. Just as Fox et al. (1998), these studies investigated print ads. Studies investigating TV ads specifically focused on the effectiveness of corporate PSAs. These studies concluded that responsibility messages sponsored by alcohol companies are ambiguous, and are never dissociated from the actual alcohol consumption and product promotion (Agostinelli and Grube, 2002; CAMY, 2007; Dejong et al., 1992).

The Wine Institute and the Distilled Spirits Council of the United States self-regulate their advertising practices using self-initiated marketing and advertising guidelines. Interestingly, the guidelines do not address either corporate PSA or on responsibility messages within the product ads (ICAP, 2001).

In study 1, we content analyzed brief responsibility messages within the product ads (N=596) of companies promoting alcohol in 2007 on national network and cable television. We found that the most common channel for the responsibility message was through text on the screen (93% of the total advertisements); a small percentage used a voice over only (5%); and 16% used both text and voice messages. Responsibility messages lasted 3 seconds on average for 15 and 30 second spots, and appeared closer to the end of a spot. In addition, 58% of text messages were combined with other textual information in a way that was very difficult to read.

Such numbers are in conflict with existing evidence that: a) messages using both video and textual information are more likely to be remembered compared to one channel alone (Krugman et al., 1994), b) when video and text are shown simultaneously, individuals pay more attention to video (Kallenbach et al., 2007), c) verbal information leads to greater learning relative to textual information (Mcneil, 2005), and d) primacy effect elicits higher recall and elaboration relative to recency placement (Brunel and Nelson 2003; Hautveldt and Wegener 1994). In other words, if there was a formula on how to strategically place a warning message within an ad it would have to be a complete opposite of what was found. This is ironic, because effective placement and modality of responsibility messages may actually be more important and beneficial to manufacturers and not consumers. Arguably, consumers’ attention during and recall after the message presentation may lead to positive evaluations of a product manufacturer as socially responsible. It is relevant to mention that the portrayal of responsibility by alcohol companies was found to be directly correlated to increases in market share, which is a major goal for the industry (Dejong et al., 1992).

The arguments presented above indicate that research on modality of responsibility messages in advertising is long overdue. How long should the warnings last in order to be noticed? How should the warning messages be presented? Our second study employs a 4 x 2 between-subjects factorial design, investigating the effect of responsibility message presentation mode (no message, text only, voice only, text + voice) and advertising length (15-second ads and 30-second ads) on the dependent variables of effectiveness: attention and recall, short-term drinking intention, attitudes toward manufacturer. Current drinking behaviors and tendency to enjoy advertising will