

Is Honesty the Best Policy? The Persuasive Impact of Disclosure and Body-Image Idealization in
Digitally Manipulated Advertising

by

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Abstract

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It is a standard procedure in magazines to digitally create retouched images of extremely beautiful models. This research looks at consequences of disclosure of this digital manipulation of thin idealized body images in advertisements on consumers' product evaluations and self-evaluations. The first three studies show that consumers have more favorable product evaluations and self-evaluations after exposure to a retouched (vs. un-retouched) ad and when they are told that this ad has (has not) been digitally enhanced. I also explore the underlying role of two-sided advertisements measured as ad honesty and social comparison measured as perceived attainability of model's looks in explaining these effects. Study 4 explores different types of attractive-relevant products as boundary conditions for these effects.

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INTRODUCTION

A common advertising tactic is to retouch (i.e. digitally manipulate or enhance) models' images in order to obtain a new idealized version of the latter. Advertisers create these idealized images by using sophisticated computer software, such as Photoshop, to remove unwanted traits from these models. Literature on digital manipulation of models' images is scant, despite the thin ideal body's impact on advertising effectiveness (Hafner and Trampe 2009) and public policy; where public policy makers are investigating ways to protect consumers from these manipulations. For example, a French parliament member has proposed that "all digitally altered photographs of people used in advertising be labeled as retouched" (Erlanger 2009). This research looks at how these digitally manipulated images and labeling such images as "retouched" may impact consumer related behavior such as attitudes towards the ad and brand and purchase intentions.

Past researchers have shown that exposure to media images depicting the thin-ideal body is related to less satisfaction with one's own physical appearance (Richins 1991), body image concerns and negative assessment of one's own attractiveness (Myers and Biocca 1992; Grabe, Ward, and Hyde 2008; Martin and Gentry 1997), increased body dissatisfaction (Baird and Grieve 2006) lower self-esteem (Smeesters and Mandel 2006), and eating disorders (Stice and Shaw 1994). The impact of this thin-body idealization was also assessed on product evaluations. However, research in this area has been unclear. Some researchers show that product evaluations are positively correlated with the model's beauty in the advertisement (Kahle and Homer 1985). Whereas, rounder "next-door" models have been shown to be perceived as less threatening and have fewer negative consequences (Dittmar and Howard 2004; Locken and Peck 2005), thus the

more the model depicted in an advertisement is round and resembles the average woman, the more positive certain types of product evaluations are (Bower and Landreth 2001; Peck and Locken 2004). Further, other researchers have found that both kinds of models lead to equal product evaluations (Halliwell and Dittmar 2004).

However, many of these images viewed in the media that supports the thin ideal are computer-generated. Thus, as Hitchon and Reaves (1999) point out, there is limited research that realizes that the thin ideal is not only heightened through the selection of very slender models but also through digital manipulation of these models' images. The purpose of the present research is two-fold. First, this research looks at important but understudied consequences, if any, of exposure to digitally manipulated thin idealized body images on consumers' attitudes toward the ad, brand evaluations, purchase intentions, and last but not least self-evaluations. Second and more importantly, this research highlights the effects of disclosing such digital manipulation by labeling these images as "retouched" on consumer attitudes and behaviors.

This research demonstrates that disclosing that an ad has been retouched may, contrary to conventional wisdom, have favorable consequences. Indeed, it shows that not only do consumers prefer the retouched ad (vs. un-retouched) when they are told that it has (has not) been retouched, but also they experience more favorable self-evaluation. It also explores two different types of process measures that play a role in shaping disclosure outcomes: ad honesty and models' looks attainability. Finally, it examines the moderating role of attractiveness-relevant product type as a boundary condition for these effects.

THEORETICAL BACKGROUND

Digital Manipulation

It is a standard procedure in fashion magazines to digitally create artificial changes in their photos. For example, actress Kate Winslet protested to the media because she viewed her digitally slender figure on the cover of British GQ magazine to be quite excessive (BBC News 2003; Betts 2003). This Digital Revolution has produced the ability to create fake bodies on computer screens by imagining women who are thinner and more attractive. For example, editors can digitally stretch the model's body torso, reduce fatty areas, make her eyes bluer, her teeth whiter, and her legs slimmer. These unreachable standards have become so common that women nowadays are trying to become like these falsely created models (Thompson and Heinberg 1999), hence promoting unrealistic expectations of thinness and generating psychological problems for women who read these popular magazines (Reaves et al. 2004b).

Modern research on eating disorders suggests that mass media is required to inform consumers of these computer modified images (Thompson and Heinberg 1999). Moreover, Reaves et al. (2004b) argue that it is essential for mass media to increase awareness of digital manipulation in order to display a positive change in readers' perceptions of these images. However, this research fails to explain the consequences of such disclosure. How will consumers react if advertisers inform them of some kind of digital manipulation? Will they like the digitally manipulated ad more or less than the un-retouched ad? Will they still feel threatened by these thin-idealized images of models? In this research, I aim to address this gap by examining the effects of disclosing that the ad subject to evaluation has (has not) been digitally manipulated on consumer attitudes, behaviors and self-evaluations.

Persuasion Knowledge

Friestad and Wright's (1994) Persuasion Knowledge Model (PKM) posits that, as long as consumers are not aware of the manipulative intent of a message, they will not activate their market knowledge to cope with it. However, when consumers become aware of the true intent of a message, they will activate their persuasion knowledge. This knowledge structure includes beliefs about persuasion tactics such as the use of deception and flattery (Rule, Bisanz, and Kohn 1985). Thus, consumers are able to use this persuasion knowledge to identify that agents are trying to influence their purchase decisions especially if the persuasion motives are accessible and consumers have high cognitive capacity (Campbell and Kirmani 2000). Hence, consumers may discount what a spokesperson (such as a model) says and alter their attitudes toward the advertiser and the advertisement (Friestad and Wright 1994). Friestad and Wright (1994) also discuss externally supplied warnings about a specific persuasion tactic (in this case retouching) and they argue that if the warning is supplied, the message will be rejected and subject to more careful scrutiny. In this regard, Reaves et al. (2004b) presented subjects with pictures of thin models (which they called original), followed by images of these same models however, they were digitally manipulated to a more round and healthy figure (which they called restored). They found that when presented with both versions of the ads, subjects significantly preferred the restored image and were offended by digital manipulation. Therefore, even though women find thin models more attractive, they prefer round images of models in advertisements when they are informed of digital manipulation (Reaves et al. 2004b).

However, Hirschman and Thompson (1997) argue that non-advertising forms of mass media, such as television and magazines, are an essential aspect of the perceived meanings consumers derive from advertisements. Through routine exposure to advertising, television

programming, and cinema, consumers are continuously immersed in a conceptual system that provides prototypic expectations about, among many other things, dress, food preferences, and appearance (Bordo 1990; Bourdieu 1984; Fiske and Hartley 1978; Hirschman 1988; Scott 1993). In this regard, consumers allow mass media to become relevant to their everyday lives by creating consumer-media relationships where a media image is interpreted as representing an ideal self to which the consumer can aspire. Thus, the consumer suspends many sources of disbelief and opts to trust that these media images are genuine making it possible for the consumer to aspire to look like these ideal images (Hirschman and Thompson 1997). Since these images represent a concrete affirmation that the ideals they represent are possible to the consumer, it is predicted that, when consumers are exposed to images depicting the thin ideal vs. round models (i.e. retouched vs. un-retouched images), they would aspire to look more like the more attractive model in the retouched image (vs. un-retouched) and hence like it better even if they were informed that it is not genuine.

H_{1a}: Consumers will rate a retouched image more favorably (vs. un-retouched) even if they are informed that the image has (vs. has not) been digitally enhanced.

H_{1b}: Aspiring to look like the model in the retouched image will mediate the effect of image manipulation on consumers' attitudes toward the image.

Moreover, in an advertising context, research has also shown that the model's image in an ad could serve as an argument for product efficacy (Bloch and Richins 1992; Downs and Harrison 1985; Kahle and Homer 1985; Lynch and Shuler 1994). Therefore, I build on previous literature by not only showing that, contrary to Reaves et al.'s (2004b) findings, consumers prefer retouched versus un-retouched models in advertisements but also in assessing the effects

of this digital manipulation and its disclosure on both product and self-evaluations. I posit that product evaluations could either stem from consumers' attitude toward the ad itself or from consumers' comparisons with an idealized model in the ad, or both. Hence, in the context of advertising for products at least one of these two other possible processes is at work (one-sided versus two-sided advertising appeals and social comparison theory). Each of these possibilities is addressed next.

One-Sided Versus Two-Sided Advertising Appeals

Even though retouching of photographs has often been dismissed as harmless or trivial, literature pinpoints that although readers are aware of such digital manipulation, they disapprove of it and judge it to be unethical and unfair (Reaves et al. 2004a). Thus, advertisements conveying such a disclosure of digital manipulation could be considered to have a two-sided claim rather than the usual one-sided claim that most fashion magazine advertisements have. A two-sided advertising appeal incorporates both positive and negative arguments, whereas a one-sided advertising appeal incorporates positive arguments only (Etgar and Goodwin 1982). Research has shown that using two-sided advertising messages can enhance message credibility among initially unfavorable audiences (Hovland, Lumsdaine, and Sheffield 1949), advertiser's credibility (Settle and Golden 1974; Smith and Hunt 1978; Swinyard 1981), attitude towards the advertisements (Etgar and Goodwin 1982), and overall brand evaluations (Pechmann 1992).

Based on these findings, it is predicted that disclosed ads, whether un-retouched or retouched, would be perceived as more honest indicating that disclosure in itself is perceived as a positive argument of an advertisement regardless of its content. However, a disclosed retouched ad would be judged as less honest in the content of the disclosure (i.e., its retouching) than a disclosed un-retouched ad indicating that consumers perceive it as a two-sided advertisement in

that the positive argument is the disclosure in itself and the negative argument is the content of this disclosure. However, the disclosed un-retouched ad is perceived as more honest in both its lack of retouching and its disclosure, indicating that consumers perceive it as a one-sided advertisement. Hence, consumers will have higher preference for disclosed retouched ads, more favorable brand evaluations, and higher purchase intentions than disclosed un-retouched ads.

H₂: Disclosure of digital manipulation (vs. no disclosure) will enhance consumers' attitude towards the ad, brand evaluations, and purchase intentions for the disclosed retouched (vs. disclosed un-retouched) ad.

H₃: Ad Honesty will mediate the effect of the two-way interaction of ad × disclosure on attitude towards the ad, brand evaluations, and purchase intentions such that when exposed to retouched (vs. un-retouched) ads, consumers will judge the retouched ad as two-sided and in turn prefer it, evaluate the brand better and have higher purchase intentions when they are told that the ad has (has not) been digitally enhanced.

Social Comparison Theory

Research on the social consequences of advertising posits that when consumers see these idealized images, they consciously or unconsciously compare themselves and their lives with the persons portrayed in the ads (Lasch 1978; Mander 1977). Social comparison theory (Festinger 1954) provides a theoretical framework for understanding how consumers make comparisons between themselves and other idealized images of models. Festinger (1954) proposed that humans in their very nature have a constant drive to evaluate themselves and that they do so by comparing their progress with others. In this regard, they always look to models that help them progress. Furthermore, exposure to thin-idealized body images also affects appearance self-

esteem (Smeesters and Mandel 2006; Smeesters, Mussweiler, and Mandel 2010). And this appearance seems to be central to female self-evaluation and a significant determinant to women's societal success (Striegel-Moore, Silberstein, and Rodin 1986). Therefore, when females are exposed to thin-idealized body images, upward comparison is engendered creating dissatisfaction with own physical attractiveness (Richins 1991) and increased emotional distress (Major, Testa, and Bylsma 1991).

Mussweiler (2003) proposed the "selective accessibility model". In three stages consumers are exposed to comparison targets, selectively compare themselves to these targets by perceiving similarities and/or dissimilarities, and finally by evaluating their own performance based on these similarities and/or dissimilarities. Whether the target is perceived as similar or dissimilar determines the occurrence of contrast or assimilation in self-evaluation (Lockwood and Kunda 1997; Smeesters and Mandel 2006) where similarity generates assimilation effects (i.e., converging self-evaluations with respect to the standard) and dissimilarity generates contrast effects (i.e., contradictory self-evaluations with respect to the standard, Hafner 2004). Moreover, Lockwood and Kunda (1997) suggested that assimilation and contrast depend on the inspiration inherent in the standard of comparison. They show that as long as the attributes of the comparison target are attainable to the self, people will engage in assimilative self-evaluations specifically when the target represents a higher standard of excellence. However if these attributes are perceived as unreachable then people will experience contrastive self-evaluations.

In this regard, when exposed to retouched advertisements depicting highly attractive models, consumers would experience a contrast in their self-evaluations. However, this dissimilarity will dissipate, for once they are told that this advertisement has been digitally enhanced, the model's looks become attainable thus leading consumers to experience

assimilative self-evaluations conveyed in their satisfaction with their own physical attractiveness, higher appearance self-esteem and reduced level of emotional distress. However, I do not expect any significant difference in self-evaluations for those who are exposed to the un-retouched ad since the model in this ad does not really represent a higher standard of excellence. Moreover, it is also predicted that when consumers are told that the ad they are exposed to has (has not) been digitally enhanced, they would experience higher self-evaluations when they see the retouched vs. the un-retouched ad. This happens because the model in the retouched ad is perceived as more attractive and hence represents a higher standard of excellence and inspiration than the model in the un-retouched ad.

H₄: Consumers will have more favorable self-evaluations when exposed to retouched ads and are told that these ads have been digitally enhanced than those who are not provided with such disclosure. However, their self-evaluations will not be affected if they were exposed to un-retouched ads, whether they are told that the ad has not been digitally enhanced or not.

H₅: Consumers will have more favorable self-evaluations when they are exposed to retouched (vs. un-retouched) ads and are told that these ads have (have not) been digitally enhanced. However, their self-evaluations will not differ significantly across the two types of advertisements when they are not provided with such information.

H₆: Attainability will mediate the effect of ad × disclosure on self-evaluation such that exposure to disclosed retouched ads leads to higher perceptions of attainability than any other type of ad, which in turn leads to more favorable self-evaluations.

Boundary Condition: Attractiveness-Relevant Products:

Building on Correlational and Correspondent inferences, Pechmann (1992) found that brand evaluations are less favorable for two-sided ads when the product's positive and negative features are uncorrelated versus when they are negatively correlated. Literature on attractiveness-relevant product types, i.e. products associated with potentially problematic areas of physical appearance and attractiveness (Bloch and Richins 1992), distinguishes between problem-solving products, which serve to fix or hide beauty flaws by masking defects such as body lotion and acne cream, and enhancing products, which serve more aesthetic purposes by enhancing beauty such as perfume and jewelry. However, individuals who use enhancing products are not necessarily masking a beauty problem (Bower and Landreth 2001). Moreover, a model's image in an ad serves as an argument for product efficacy (Downs and Harrison 1985; Kahle and Homer 1985; Bloch and Richins 1992; Lynch and Shuler 1994). In this regard, consumers viewing such ads may believe that the attractive looks of the model are a result of using the product (Lynch and Shuler 1994). Therefore, it could be argued that consumers would look as attractive as the model if they use this product making disclosing that an ad has been digitally enhanced be considered as a negatively correlated attribute to the product effectiveness if the product were a problem-solving attractiveness-relevant product type. However, if the product is an enhancing one, then disclosing that an ad has been digitally enhanced would still be considered as a negative content but it is no more correlated with product effectiveness.

Consequently, it is hypothesized that when disclosing digital manipulation, an ad featuring a problem-solving product will be evaluated more favorably than an ad featuring an enhancing product.

H₇: Attractiveness relevant product type will moderate the effect of disclosure on digitally manipulated ads in that the effects will be strengthened for problem-solving (vs. enhancing) products.

OVERVIEW OF STUDIES

In the first three studies I show that viewers not only like the retouched ad more, but also they are willing to purchase the brand more when it is placed alongside a retouched image of the model (as compared to a more natural “round” image of the model). Study 1 investigates the effects of digitally manipulated images on consumers’ attitudes towards these images and the processes that explain these effects.

The next 2 studies were conducted to test, in an advertising context, whether exposure to digitally manipulated advertisements and the disclosure (vs. no disclosure) of such manipulation changes viewers’ product evaluations and self-evaluations. Thus, mock-up ads were created using the images in study 1, for a fictitious brand. Moreover, studies 2 and 3 explore the underlying mechanisms behind these effects by exploring whether disclosed digitally manipulated advertisements are perceived as two-sided advertisements, or whether they increase self-evaluations, or both. And which process explains the change in product evaluations and which is responsible for the change in self-evaluation.

Finally, study 4 explores different attractiveness-relevant product types as a boundary condition for these effects.

PRETEST

Objective: The objective of the pretest was to select the stimuli for images containing female models based on how different the un-retouched image is from the digitally manipulated one.

Participants: Participants were 20 female university students who completed the pretest in exchange for course credit. Research has shown that there is a gender-based difference in the types of media icons consumers aspired to emulate (Brown et al. 1992; Hirschman and Thompson 1997). Young men commonly use athletes as aspirational referents (Braudy 1986; Fiske 1992), whereas young females commonly aspire to the physical ideals embodied by female fashion models (Freedman 1986; Richins 1991; Stephens, Hill, and Hanson 1993). Therefore, in this pretest and the following studies only female subjects were recruited.

Stimuli: Participants were presented with 10 images depicting female models' whole body where the un-retouched image was labeled BEFORE and the retouched (digitally enhanced) image was labeled AFTER. Participants viewed the two (BEFORE and AFTER) images jointly where the un-retouched image was placed on the left and the retouched image was placed on the right.

Procedure: Participants were asked to take part in a short study on the perception of digital manipulation of body images. On arrival in the lab, participants were seated in front of a desktop computer and given a paper and pencil questionnaire that included the instructions as well as the questionnaire items. Participants rated each model in terms of model attractiveness on five adjectives (thin, beautiful, attractive, sexually appealing, and ideal; Cronbach's $\alpha_{\text{BEFORE}} = 0.897$ and Cronbach's $\alpha_{\text{AFTER}} = 0.826$), and image believability of the retouched image (how believable, similar to reality, and real do you think the retouched image is; Cronbach's $\alpha_{\text{AFTER}} = 0.845$). All items were rated on a 7-point scale with endpoints labeled 1 (*not at all*) and 7 (*very*

much). Next, participants were asked to indicate which image they liked better, which image they thought is more honest, and which image they thought is more effective in an ad. These items were also rated on a 7-point scale; however the endpoint labels were 1 (*original*) and 7 (*retouched*). Then, participants were asked to look at the 2 images closely and indicate what features they thought have been retouched (e.g. overall skin, facial blemishes, dark circles under the eye, arm thickness, waist line). All items were rated on a 7-point scale anchored at *1 not at all – and 7 very much*. Then, participants were asked to indicate what type of product they thought the model should be advertising. Products were chosen among different product categories such as perfume, mascara, foundation makeup, eyewear, cars, wrinkle cream, acne cream. These items were rated on a 7-point scale anchored at *1 not at all – 7 very much*. Finally, participants were given some demographic variables to complete including their age, gender, marital status, and ethnicity.

Results: In order for the image to be chosen as a stimulus for the following studies, it had to meet three criteria: 1) the image should have the highest mean difference between Model Attractiveness_{BEFORE} and Model Attractiveness_{AFTER}, 2) the retouched image should not be significantly more believable than all the other images, and 3) there should not be a significant difference among images as to which image is considered to be more honest (the un-retouched or the retouched).

Based on the abovementioned criteria, one image was chosen as a stimulus in the following study (See Appendix A).

STUDY 1

Objective: Study 1 investigates the hypothesis that when consumers are informed of digital manipulation, they will prefer the image featuring the more attractive model, in this case: the digitally enhanced image.

Participants and Design: Forty-five female undergraduate students in a northeastern university participated in the study in exchange for course credit. They were randomly assigned to one of two conditions where half the participants were exposed to an image featuring an un-retouched model, whereas the other half were shown a digitally enhanced image featuring the same model however, slimmer, clearer skin, straighter back (i.e. retouched).

Procedure: Study 1 was administered following the same procedure of the pretest. Upon arrival, participants were seated in front of a desktop computer and given a paper and pencil questionnaire that included the instructions as well as the questionnaire items. Participants were asked to click on a file named “Advertisement” on the computer. They were told that this file included pictures of models that will be recruited to pose for an ad. The file included one retouched (*un-retouched*) image. Before exposure to the target images, participants read the following:

“Please note that the image you are about to see has (*has not*) been digitally altered (i.e. retouched) to enhance the looks of the model.”

Participants were then instructed to view the image; after which, depending on whether they were in the retouched or un-retouched image condition, they were told that we are considering using the RETOUCHE (*UN-RETOUCHE*) photo of the model in a magazine ad.

Then, participants answered questions that were aimed at measuring their evaluations and attitude towards the image on a 9-point semantic differential scale anchored at dislike – like, negative – positive, unfavorable – favorable, bad – good, and ineffective – effective (Cronbach's $\alpha = 0.926$) followed by measures that capture the image's honesty anchored at dishonest – honest, insincere – sincere, and unethical – ethical (Cronbach's $\alpha = 0.849$).

They also rated the model in terms of model attractiveness on five adjectives (thin, beautiful, attractive, sexually appealing, and ideal; Cronbach's $\alpha = 0.829$), Model's looks believability (how believable, similar to reality, and real do you think the model's looks are; Cronbach's $\alpha = 0.869$), and how much they aspire to look like the model on 3 adjectives (how much do you want to: reach the same weight, have the same skin clarity, and overall be like the model; Cronbach's $\alpha = 0.722$).

Finally, media effects on eating disorders (Polivy and Herman 2002) and on self-esteem as a form of social comparison (Smeesters et al. 2010) have been shown to be more accentuated among heavy rather than thin respondents. Therefore, I asked subjects to indicate their weight and height so their Body Mass Index (BMI; Smeesters et al. 2010) can be calculated. Also, I asked them to indicate how much they perceive their weight to be: underweight, average, overweight and whether they ever dieted or are currently dieting. Finally other demographic variables were collected such as age, ethnicity, and income. Subjects were then thanked and debriefed.

Results:

Manipulation Check: As expected, participants found the model in the retouched image ($M = 4.168$) to be significantly more attractive than the un-retouched image ($M = 3.175$, $F(1, 43) =$

8.375, $p < .05$) even though, the model's looks in the un-retouched image ($M = 5.383$) were perceived to be more believable than those in the retouched image ($M = 3.507$, $F(1, 43) = 22.992$, $p < .001$).

Test of hypothesis 1: A one-way ANOVA indicated that there was a main effect of image manipulation on attitude towards the image ($F(1, 43) = 11.311$, $p < .01$), where participants rated the retouched image ($M = 4.754$) of the model significantly more favorably than the un-retouched image ($M = 3.167$). Even though, as expected, the un-retouched image ($M = 5.400$) was rated as significantly more honest than the retouched ($M = 4.159$, $F(1, 43) = 5.951$, $p < .05$). Participants also indicated that they aspire to look more like the retouched model ($M = 4.090$) than the un-retouched model ($M = 2.403$, $F(1, 43) = 20.160$, $p < .001$).

Moreover, the variables "currently dieting" and whether participants ever dieted did not significantly interact with image and influence any of the dependent variables.

Regression Analysis: Regression analyses with image and BMI and with image and weight perception as independent variables revealed no significant two-way interaction on participant's attitudes toward the image, perceived image honesty, or on model attractiveness therefore I dropped BMI, weight perception, currently dieting, and whether participants ever dieted from further analysis.

Mediation analysis: Following Zhao, Lynch, and Chen (2010) a bootstrap test of mediation was performed. Preacher and Hayes (2004, 2008) and Zhao et al. (2010) argue that bootstrap test performs better than the Sobel test previously proposed by Baron and Kenny (1986). In this and all following mediation analyses 5,000 bootstrap resamples and a bias-corrected and accelerated 95% confidence interval were utilized as recommended by Preacher, Rucker, and Hayes (2007).

Mediation analysis shows that aspiring to look like the model significantly mediates effect of image on attitude towards the image where the mediated effect ($a \times b$) is significant with a 95% confidence interval excluding zero (.5482 and 1.8024). The direct effect of image on attitude towards the image (c') is not significant revealing an indirect effect only; indicating that aspiring to look like the model fully mediates the effect of image on attitude towards the image. Subjects aspire to look more like the model in the retouched image and therefore rate the retouched image more favorably.

Discussion: Contrary to previous literature, Study 1 results show that consumers prefer images depicting attractive models, albeit digitally enhanced, even though they perceive un-retouched images to be more honest.

However, disclosure effects could not be fully captured based on Study 1 because there was no basis of comparison in which consumers are not informed of any digital manipulation. Moreover, study 1 does not assess effects of disclosure and digital manipulation in an advertising context capturing their attitude towards advertisements, brand evaluations, and purchase intentions.

STUDY 2

Objective: Study 2 was designed to find evidence for hypotheses 2 – 3. To that end, mock-up ads for a fictitious brand (ESPOIRE) for perfume were created. The study focused on examining consumer preferences for disclosed retouched ads, undisclosed retouched ads and un-retouched ads, both disclosed or not. It is expected that consumers will perceive the disclosed retouched ads as two-sided advertisements and hence convey more favorable ratings for the ad and the brand and higher purchase intentions than any other type of ad.

Participants and Design: 143 female undergraduate students from a northeastern university participated in this study in exchange for course credit. Participants were randomly assigned to one of the conditions of a 2 (Ad: Un-Retouched vs. Retouched) \times 2 (Disclosure: No Disclosure vs. Disclosure) between subjects design. Reaves et al. (2004a) found that the order in which the thin ideal versus restored to healthy images made a difference on participants' behavioral intentions. They found that those who were exposed to healthy images prior to the thin ideal were significantly more inclined to protest the use of digital manipulations and want warnings posted. And so, I manipulated the order in which the un-retouched versus retouched advertisements were presented to participants. In the no disclosure condition, participants only saw the retouched (*un-retouched*) ad. In the disclosure condition participants were instructed to view the retouched (*un-retouched*) ad first then the un-retouched (*retouched*). Finally they were instructed to go back to the retouched (*un-retouched*) ad and evaluate it.

Procedure: Upon arrival, participants were seated in front of a desktop computer and given a paper and pencil questionnaire that included the instructions as well as the questionnaire items. Participants were asked to click on a file named "Advertisement" on the computer. They were

told that this file includes pictures of advertisements and we are interested in their opinions and attitudes concerning the advertisement itself and the advertised brand. They were then, asked about their attitudes towards the ad (items were the same as attitude towards the image used in study 1). To assess whether participants perceived the disclosed retouched ad as a two-sided advertisement participants we asked to complete measures that capture the ad's honesty anchored at dishonest – honest, insincere – sincere, and unethical – ethical. In addition, participants were asked to indicate brand evaluations on a 9-point semantic differential scale anchored at dislike – like, negative – positive, unfavorable – favorable, bad – good, and ineffective – effective (Cronbach's $\alpha = 0.970$). This was followed by model attractiveness, and how much participants aspired to look like the model.

Further, participants were asked to indicate their purchase intentions (How likely would you be to purchase the advertised product, how interested are you in purchasing the advertised product, Cronbach's $\alpha = 0.932$) on a scale of 1 (not at all) to 7 (very much). Finally, participants completed a series of demographic variables, were debriefed and dismissed.

Results:

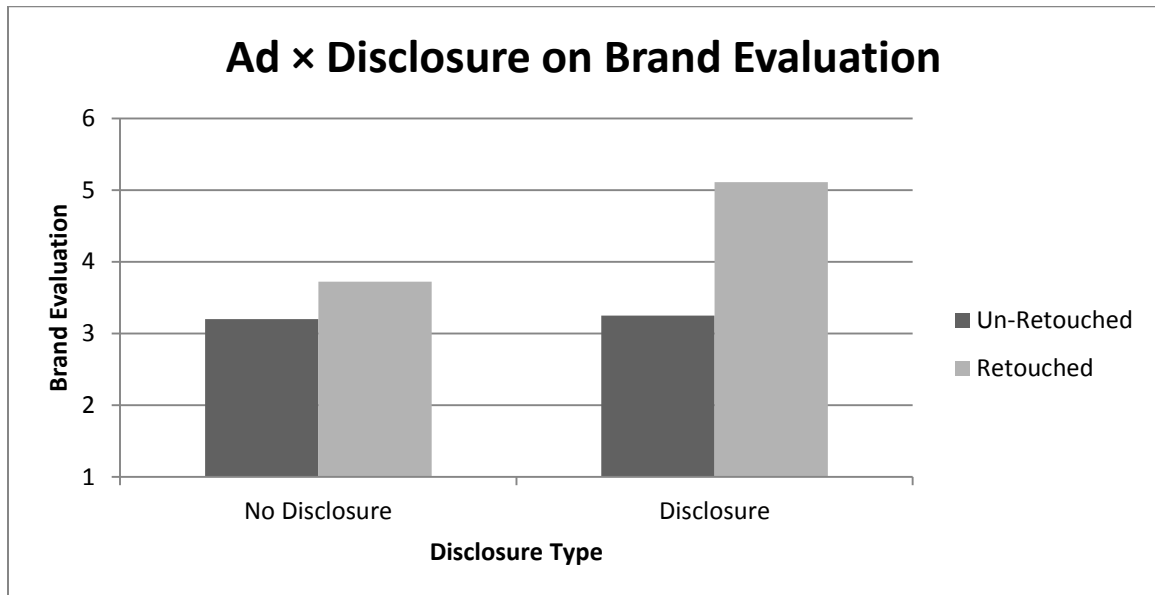
Manipulation Check: A one-way ANOVA revealed that Ad has a main effect on model attractiveness ($F(1, 140) = 80.973, p < 0.01$). Subjects rated the model in the retouched ad ($M = 4.928$) as more attractive than the model in the un-retouched ad ($M = 3.041$).

Moreover, results revealed a significant main effect of disclosure on ad honesty ($F(1, 140) = 15.158, p < .001$) where participants perceived the ad to be more honest when they were told that it has (has not) been digitally enhanced ($M = 5.319$) than those who were not provided

with such disclosure ($M = 4.001$). This indicates that disclosure in itself is perceived as a positive argument of the ad regardless of its content.

Product Evaluation: A $2(\text{Ad}) \times 2(\text{Disclosure})$ ANOVA revealed a significant two-way interaction on attitude towards the ad ($F(1, 138) = 5.946, p < .01$), where consumers evaluate the retouched ad ($M_{\text{No Disclosure}} = 3.700, M_{\text{Disclosure}} = 5.649$) more favorably than the un-retouched ad ($M_{\text{No Disclosure}} = 2.686, M_{\text{Disclosure}} = 3.129$) whether they were told that the ad has (has not) been digitally enhanced or not. Results also show a significant two-way interaction on brand evaluations ($F(1, 139) = 4.118, p < .05$) where participants evaluated the brand in the retouched ad more favorably ($M = 5.108$) than the brand in the un-retouched ad ($M = 3.247$) when they were told that the ad has (has not) been digitally enhanced. However, when no such disclosure was provided, consumers' brand evaluations ($M_{\text{original}} = 3.200, M_{\text{retouched}} = 3.724$) did not differ across the two types of advertisements. Interestingly, planned contrast revealed that, within the retouched ad, participants like the retouched ad and brand more when they are told that the ad has been digitally enhanced versus when no such disclosure is provided.

Figure 1:



Moreover, results indicate a significant main effect for disclosure on purchase intention ($F(1, 139) = 7.960, p < .05$) where participants had a higher purchase intention ($M = 2.607$) when they were told that the ad has (has not) been digitally enhanced than when no such disclosure was provided ($M = 1.946$).

Consistent with study 1, there was a significant main effect of ad on how much participants aspired to look like the model ($F(1, 138) = 29.924, p < .001$) where they indicated that they aspire to look more like the model in the retouched ad ($M = 3.890$) than the one in the un-retouched ad ($M = 2.535$).

Finally, ANOVA revealed a significant two-way interaction on ad honesty ($F(1, 138) = 13.185, p < .001$), where consumers rated the retouched ad ($M = 3.883$) as less honest than the un-retouched ad ($M = 6.755$). However, when no such disclosure was provided, consumers' perceived ad honesty did not differ across the two types of advertisements. This shows that

subjects perceive the disclosed retouched ad as two-sided advertisement in that the positive argument is the disclosure in itself and the negative argument is the content of this disclosure (i.e., the ad has been digitally enhanced). However, the disclosed un-retouched ad is perceived as one-sided advertisements in that both the disclosure and its content (i.e., the ad has not been digitally enhanced) are both positive arguments.

Mediated Moderation: Mediation analysis revealed that ad honesty significantly mediates the effect of ad \times disclosure on attitude towards the ad, brand evaluations, and purchase intentions, where the mediated effect ($a \times b$) is significant with a 95% confidence interval excluding zero (-2.0211 to -5.245, -2.0354 to -.5155, and -1.2095 to -2.599 respectively), but the direct path (c') for all three mediations is also significant ($p < .05$) and is of the opposite sign as the mediated effect indicating a competitive mediation. Thus, the theoretical framework is incomplete, where there could be an omitted mediator in the direct path. Participants perceive the disclosed retouched ad as two-sided advertisement and therefore prefer it, evaluate the brand better, and have higher purchase intentions than the one-sided advertisements.

Discussion: The results of study 2 provide empirical evidence for hypothesis 2 that disclosure affects consumer's product evaluations for retouched advertisements. Specifically, it was demonstrated that when consumers were told that the ad has (has not) been digitally enhanced they liked the retouched (vs. un-retouched) ad more and evaluated the brand more favorably. Moreover, results support the hypothesis that consumers' perception of disclosed retouched ad as a two-sided ad, measured through ad honesty, mediates the effect of ad and disclosure on product evaluations in that consumers perceive the disclosed retouched ad to be less honest than the disclosed un-retouched ad, hence perceiving it as a two-sided advertisement. This perception, in

turn, leads consumers to like the retouched ad more, evaluate the brand more favorably, and exhibit increased purchase intentions.

Even though results did not indicate a significant interaction effect on purchase intentions, Zhao et al. (2010) argue that there need not be a significant zero-order effect of the independent variable on the dependent variable to establish mediation. Thus, in this case the effect of disclosed retouched ads on purchase intentions occurs due to consumers' perceptions of these ads as two-sided advertisements.

Study 2, however, does not capture self-evaluation as a measure of social comparison and hence it was not possible to fully assess which process is explaining the underlying mechanisms behind these effects.

STUDY 3

Objective: Study 2 suggested that consumers do perceive disclosed retouched ads as two-sided advertisements by rating them the least honest advertisements and that this ad honesty mediates the ad \times disclosure interaction effect on product evaluations as measured through consumers' attitudes towards the ad, the brand, and their purchase intentions. However, research also suggests that when exposed to advertisements depicting thin-idealized body images, females automatically engage in social comparison whether they were explicitly asked to do so or not and that this upward comparison would adversely affect their self-esteem (Smeesters and Mandel 2006; Smeesters et al. 2010) and their satisfaction with their own physical attractiveness (Richins 1991). Therefore, this study explore the moderating effect of disclosure on the influence of exposure to thin-idealized body images on females' self-evaluation as measured through appearance self-esteem, satisfaction with own physical attractiveness and emotional distress. More importantly, study 3 examines the mediating effect of perceived attainability of the model's looks of the ad \times disclosure interaction on these self-evaluation measures.

Participants and Design: 176 females from a northeastern American university participated in the study for course credit. They were assigned to one condition of a 2 (Ad: Un-Retouched vs. Retouched) \times 2 (Disclosure: No Disclosure vs. Disclosure) between subjects design.

Procedure: The procedure of this study followed that of study 2. In addition to attitude and purchase intention measures participants were asked to rate their satisfaction with their own physical attractiveness by answering the following questions, adapted from Trampe, Stapel and Siero (2007): how attractive do you find yourself, how satisfied are you with your appearance, and how satisfied are you with yourself. This was followed by a measure of appearance self-

esteem based on the Appearance Self-Esteem subscale of the State Self-Esteem Scale (SSES; Heatherton and Polivy 1991).

Then, they were given the Model's looks attainability measure assessed on 2 adjectives (do you think you can reach the same weight, have the same skin clarity as the model; Cronbach's $\alpha = 0.775$)

Next, Participants were asked to compare themselves to the model and indicate how they would feel about themselves. Specifically, they were asked: "when you compare yourself to the model you feel: e.g. happy, excited, enthusiast, cheerful, joyful, pleased, proud (Positive emotions) and sad, angry, upset, nervous, depressed (Negative emotions). Finally, participants were asked to indicate how large they felt their thighs, buttocks, and stomach were when they compared themselves to the model to assess participants' perceptions of their own physical shape.

Results:

Manipulation Check: As expected, the model in the retouched ad was rated as more attractive ($M = 4.228$) than the model in the un-retouched ad ($M = 2.683$, $F(1, 174) = 75.508$, $p < .001$).

Moreover, consistent with study 2, results indicated a significant main effect of disclosure on ad honesty ($F(1, 174) = 22.602$, $p < .001$) where participants perceived the ad to be more honest when they were told that it has (has not) been digitally enhanced ($M = 5.535$) than those who were not provided with such disclosure ($M = 4.170$). This indicates that disclosure in itself is perceived as a positive argument of the ad regardless of its content.

Product Evaluation: A 2 (Ad) \times 2 (Disclosure) ANOVA revealed a significant interaction effect of ad \times disclosure on attitude towards the ad ($F(1, 172) = 4.490$, $p < .05$) and brand evaluations

($F(1, 172) = 6.383, p < .05$). Participants indicated that they liked the retouched ad ($M_{\text{No Disclosure}} = 4.115, M_{\text{Disclosure}} = 6.060$) and brand ($M_{\text{No Disclosure}} = 4.119, M_{\text{Disclosure}} = 6.185$) more than the un-retouched ad ($M_{\text{No Disclosure}} = 2.448, M_{\text{Disclosure}} = 3.244$) and brand ($M_{\text{No Disclosure}} = 2.642, M_{\text{Disclosure}} = 3.278$) whether they were told that the ad has (has not) been retouched or not. More interestingly and consistent with results found in the second study, planned contrasts revealed that, within the retouched ad, participants who were told that the retouched ad has been digitally enhanced like it more and evaluated the brand more favorably than those who were not provided with such information.

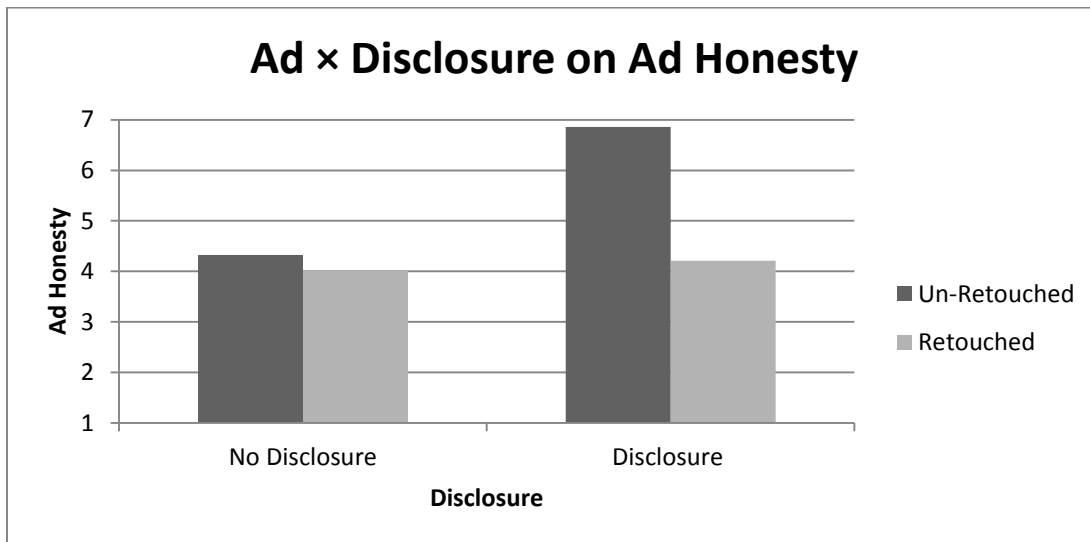
Self-Evaluation: Moreover, ANOVA also indicated a significant ad \times disclosure interaction effect on participants' satisfaction with their own physical attractiveness ($F(1, 172) = 6.731, p < .01$). Participants were more satisfied with their own physical attractiveness when they were exposed to a disclosed retouched ad ($M = 5.142$) than a disclosed un-retouched ad (4.407). When no disclosure was provided, participants' satisfaction with their own physical attractiveness was not significantly different when they were exposed to a retouched (vs. un-retouched) ad. Furthermore, after seeing a retouched ad, they rated their own physical attractiveness higher when they were told that the ad has been retouched as compared to those who were not given this information.

Moreover, ANOVA indicated a significant ad \times disclosure interaction effect on appearance-self-esteem ($F(1, 172) = 6.438, p < .05$), indicating that participants who were told that the ad has (has not) been retouched reported higher appearance self-esteem when they were exposed to a retouched advertisement ($M = 3.271$) than when they were exposed to an un-retouched advertisement ($M = 2.870$). However, there was no significant difference in appearance self-esteem when no such information was provided. Moreover, participants who

were exposed to the retouched ad reported higher appearance self-esteem when they were told that the ad has been retouched ($M = 3.271$) than those who were not provided with such disclosure ($M = 2.837$), confirming hypotheses 4 and 5.

Two-Sided Advertisement: Results revealed a significant interaction effect on ad honesty ($F(1, 172) = 16.591, p < .001$). In particular, when participants were told that the ad has (has not) been digitally manipulated, they rated the retouched ad as significantly less honest ($M = 4.208$) than the un-retouched ad ($M = 6.861$). However, when this information was not provided, there was no significant difference as to which ad was perceived as more or less honest. This indicates that the disclosed retouched ad was perceived as a two-sided advertisement since the ad's dishonesty is perceived as a negative content and the disclosure is perceived as positive content.

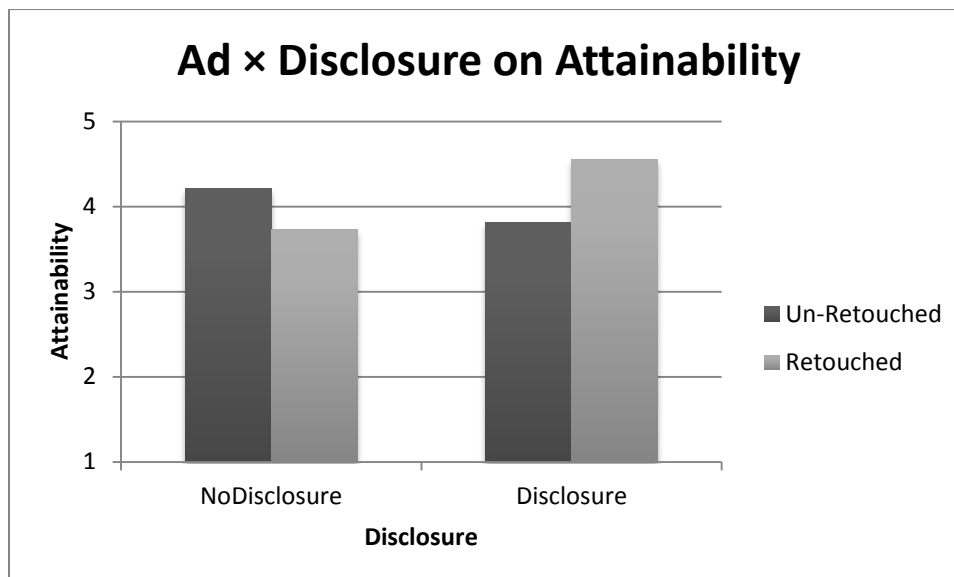
Figure 2:



Social Comparison: Results indicated a significant 2-way interaction on model's looks attainability ($F(1, 172) = 5.19, p < .05$). In particular, participants believed that they could reach

the same looks as those of the model in the retouched ad ($M = 4.55$) more than those of the model in the un-retouched ad ($M = 3.806$) when they were told that the ad has (has not) been digitally enhanced. However, when no such disclosure was provided participants' perceptions of reaching the same looks as the model did not differ across the two types of ads. Moreover, Participants who were exposed to the retouched ad indicated that they believe they could reach the same looks of the model when they were told that the ad has been digitally enhanced ($M = 4.55$) than when they were not provided with this information ($M = 3.731$).

Figure 3:



Mediated Moderation:

Ad Honesty: Consistent with results found in study 2, ad honesty mediates the effect of image x disclosure on attitude towards the ad, brand evaluation, and purchase intention where the mediated effect ($a \times b$) is significant with a 95% confidence interval excluding zero (-1.4805 to -

.3020, -1.5747 to -.3489, and -1.0125 to -.2316 respectively), but the direct path (c') for all three mediations is also significant ($p < .05$) and is of the opposite sign as the mediated effect indicating a competitive mediation thus subjects perceived the disclosed retouched ad as two-sided and hence prefer it, evaluate the brand more favorably and demonstrate higher purchase intentions.

Attainability: Model's looks attainability significantly mediates the effect of image \times disclosure interaction on satisfaction with own physical attractiveness, positive emotions and perception of own physical shape. The mediated effect ($a \times b$) is significant with a 95% confidence interval excluding zero (.0428 to .4934, .0055 to .5115, .1511 to 1.737, and -.6438 to -.0530 respectively). The direct path (c') was not significant for all three mediations indicating an indirect effect only. Thus, attainability is fully mediating this effect. Participants who were exposed to the retouched ad and were told that it was retouched experienced higher levels of attainability than all other participants. This in turn led to higher satisfaction with their physical attractiveness, increased positive emotions, and decreased perception of large physical shape.

Moreover, attainability significantly mediates the effect of the two-way interaction on negative emotions and appearance self-esteem with a 95% confidence interval excluding zero (-3.923 to -.0249, .0088 to .2302 respectively). However, in this case the direct path (c') was significant ($p < .05$) and is of the same sign as the indirect effect ($a \times b$) revealing a complementary mediation. This indicates that when subjects are exposed to a disclosed retouched ad, they believe that they can reach the level of the model's attractiveness and therefore, have decreased negative emotions and higher appearance-self-esteem as compared to exposure to disclosed un-retouched ad, or undisclosed retouched ad. However, this theoretical framework is incomplete and there is an omitted variable in the direct path.

When ad honesty is added as a second mediator to explore its effect, along with attainability, on the interaction effect on negative emotions and appearance self-esteem, both mediators are significant with a 95% confidence interval excluding zero and the direct path (c') becomes insignificant. This indicates that ad honesty and attainability taken together fully explain the process such that participants believe that the disclosed retouched ad is less honest yet the models' looks are attainable and hence increase their appearance self-esteem and decreases their emotional distress.

However, attainability is not a significant mediator for the effect of the ad \times disclosure interaction on product evaluation measures: attitude towards the ad, brand evaluations, and purchase intentions. Therefore social comparison theory could be ruled out as an explanation for effect of disclosed retouched ads on product evaluations; it is only the perception of disclosed retouched ads as two-sided that explains this effect. However, social comparison theory's role is central in explaining digital manipulation disclosure effects on self-evaluation measures.

Discussion: These results replicated and extended study 2's findings by broadening the process to include social comparison as an added mediator. Consistent with study 2, subjects had the highest product evaluations for the disclosed retouched ad than any other type of ad. Moreover, results clearly indicate the importance of ad honesty in producing high or low product evaluations and the importance of attainability in producing assimilative or contrastive changes in self-evaluation. Hypotheses 4 and 5 were confirmed in that when participants were exposed to a disclosed retouched ad they exhibited higher self-evaluations than those subjects who were exposed to a disclosed un-retouched ad or an undisclosed retouched ad. Moreover, mediation analysis confirmed hypothesis 6 in that attainability mediates the effects of ad and disclosure on self-evaluation measures such that disclosed retouched ad lead to higher attainability which in

turn leads to a higher satisfaction with own physical attractiveness. Furthermore, ad honesty also plays a role in explaining the effect of disclosed retouched ads on appearance self-esteem and emotional distress.

Even though the direct effect of the two-way interaction was not significant on negative and positive emotions, Zhao et al. (2010) argue that there need not be a significant zero-order effect of the independent variable on the dependent variable to establish mediation. Thus, in this case the effect of disclosed retouched ads on emotions occurs due to consumers' perceptions of these ads as two-sided advertisements and their perceptions of the model's looks attainability.

More importantly, the results of this study rule out social comparison theory in explaining the effects of digital manipulation disclosure on product evaluation. It is indeed subjects' perception of advertiser honesty that explains the underlying mechanism behind these effects.

STUDY 4

Objective: The objective of this study is to investigate whether the effect of disclosure on consumers' attitudes, evaluations, and behavior is moderated by different product categories featuring different benefits.

Participants and Design: eighty-eight participants of a northeastern university were randomly assigned to one of the conditions of a 2 (Disclosure: No Disclosure vs. Disclosure) × 2 (Attractiveness-Relevant Product type: Problem-Solving vs. Enhancing) between subjects design.

Procedure: Study 4 follows the same procedure as study 2. However, since two aspects of two-sided advertisements are being explored, in this study the ad was not manipulated, participants always saw the retouched version of the advertisement. Participants were asked to click on a file named "Advertisement" on the computer. They were told that this file includes pictures of advertisements of products that will soon be launched in their city and that we are interested in their opinions and attitudes concerning the advertisement itself and the advertised brand. Half of the participants were given a retouched version of an ad for body lotion (problem-solving product) and the other half were also given the retouched version of the ad but for perfume (enhancing product). Then participants were instructed to answer the questionnaire items. However, those in the disclosure condition read the following statement before proceeding to answer the questionnaire items.

"Please note that this ad has been digitally altered (retouched) to enhance the looks of the model."

Then, participants were asked about their attitudes towards the ad, brand evaluations, ad honesty, and purchase intentions.

To assess whether disclosure of digital manipulation is negatively correlated with product effectiveness subjects were asked to indicate whether using this product will likely make them feel as attractive as the model, and whether their skin, their body, and/or their facial features is a factor (product usage).

Finally, participants completed the product type manipulation check (this ad demonstrated how this product would improve unsatisfactory body appearances, and this ad demonstrated how this product would fix a beauty problem, Cronbach's $\alpha = .902$). Finally participants completed a series of demographic variables, were debriefed and dismissed.

Results:

Manipulation Check: ANOVA results revealed a main effect of product type on the manipulation check items. Specifically, participants indicated that body lotion ($M = 2.984$) was more problem-solving product than perfume ($M = 1.714$) $F(1, 83) = 15.998, p < .001$. There was also a significant main effect of product type on product usage items ($F(1, 84) = 7.386, p < .01$). Specifically, participants who saw the body lotion ad indicated that using the product would make them feel as attractive as the model ($M = 2.588$) more than those who saw the perfume ad ($M = 1.850$).

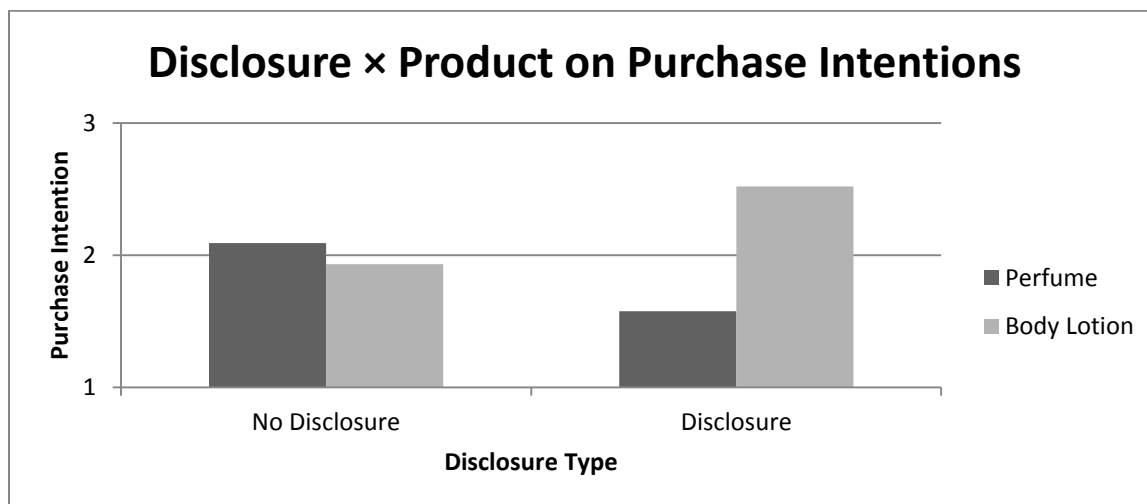
Product Evaluation: A 2 (Disclosure) \times 2 (Product Type) ANOVA analysis revealed a significant 2-way interaction on attitude towards the ad ($F(1, 84) = 4.253, p < .05$). Planned contrasts show that, as expected, when informed that the ad has been digitally enhanced, participants rated the ad featuring body lotion ($M = 4.433$) more favorably than the ad featuring

perfume ($M = 3.490$). However, there was no significant difference when no such disclosure was provided. Interestingly, contrast analysis also revealed that the ad featuring body lotion was more liked in the disclosure condition ($M = 4.433$) than in the no disclosure condition ($M = 3.645$).

Results also revealed a significant 2-way interaction effect on brand evaluation ($F(1, 83) = 8.875, p < .01$). Where participants rated the body lotion brand ($M = 4.548$) more favorably than the perfume brand ($M = 3.240$) when they were told that the ad has been digitally enhanced. This difference was not significant when participants were not given any information about digital manipulation of the advertisement. Planned contrasts also revealed that the brand in the ad featuring body lotion was more liked in the disclosure condition ($M = 4.548$) than in the no disclosure condition ($M = 3.573$).

Moreover, results indicate a marginally significant 2-way interaction effect on purchase intentions ($F(1, 84) = 3.919, p = .051$). Specifically participants were willing to purchase body lotion ($M = 2.521$) more than perfume ($M = 1.575$) in the disclosure condition. However, no such difference was found in the no disclosure condition.

Figure 4:



Discussion: Since participants indicated that using body lotion would make them feel as attractive as the model more than using perfume, it would be assumed that once they are told that the model is not naturally this attractive and that the ad was digitally manipulated to enhance her looks they would evaluate the body lotion ad less favorably. However, quite the opposite, results support hypothesis 7 in that attractiveness-relevant product type moderates the effect of disclosure of digital enhancement on consumers' product evaluations (i.e., attitude towards the ad, brand evaluations, and purchase intentions). When they were told that the ad has been digitally enhanced, participants indicated higher product evaluations for an ad featuring a problem-solving product (body lotion) than for an ad featuring an enhancing product (perfume). However, their product evaluation did not differ significantly across advertisements when no such information was provided.

GENERAL DISCUSSION

The findings of this research suggest that disclosure of digital manipulation generates higher product evaluations. Three studies show that consumers constantly prefer the retouched advertisements and even more so when they are told that these ads have been digitally enhanced. It was proposed that this disclosure would lead consumers to perceive the disclosed retouched ad as two-sided advertisement and to increase perceptions of model's looks attainability and subsequently lead to favorable product evaluations and higher self-evaluations. Analysis revealed that consumers' perceptions of attainability explains the effect of disclosed retouched advertisements on self-evaluation measures but not on product evaluation measures. However, consumers' perceptions about disclosed retouched ads as two-sided advertisements is responsible for their higher product evaluations for these ads and some measures of self-evaluation as well. This indicates that there are two processes that consumers engage in when they are shaping their opinions about product related attitudes such as brand evaluations and purchase intentions and when they are shaping their opinions about self-related measures such as satisfaction with own physical attractiveness and emotional distress.

This research challenges previous findings in that persuasion knowledge is often characterized as knowledge about the ulterior, usually negative motives of a marketer or advertiser. However, this research demonstrates that persuasion knowledge is a more complex phenomenon which includes balancing the negative motives with the positive ones as reflected in advertisers' perceived honesty. Contrary to prior research, I argue and show that even when supplied with external warnings about digital enhancement and even though consumers judge the disclosed retouched advertisement to be less honest, disclosure of such digital enhancement has a

positive impact on consumers' persuasiveness conveyed in their attitudes and purchase intentions (vs. no disclosure).

Moreover, this research has public policy implications based on ethical concerns of fairness and honesty. For example, European public policy makers have been considering regulating retouched photos by requiring that all digitally altered photographs of people used in advertising be labeled as "retouched". The reasoning behind these moves is to protect those who read these magazines and especially those who are affected by them. However, this research shows that disclosing such digital enhancement may have unintended consequences where: 1) disclosure would be thought, based on prior research, to evoke negative persuasion knowledge, in fact it evokes consumer perceptions of advertiser's unusual honesty and hence leads to favorable outcomes and 2) disclosure reverses the effect thin-idealization have on self-evaluations such that females perceive the looks of such an attractive model as attainable and thereby increases their self-evaluation.

LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

Results of studies 2 and 3 indicate that although ad honesty mediates the effect of ad and disclosure on subjects' product evaluations, the mediation was a competitive one and did not fully explain the theoretical framework. One important factor that may have contributed to the findings in this current investigation is subjects' "willing suspension of disbelief", a term coined by Samuel Taylor Coleridge (1817). People engage in suspension of disbelief when they are willing to accept as true the premises of a work of fiction, even if those premises are impossible. In this regard, consumers viewing ads depicting thin-idealized body images do not invoke the usual knowledge that these images are constructed by advertisers to increase persuasiveness. Instead, they choose to believe that these images are genuine and represent an ideal self that they aspire to look and live like one day (Hirschman and Thompson 1997). Therefore, future research might explore the role of suspension of disbelief in explaining the findings of this research.

While most of the literature on social comparison uses explicit measure to determine its effects on self-perceptions (Stapel and Suls 2004), social comparison research has shown that individuals usually compare themselves with others in an implicit and spontaneous manner (Wheeler and Miyake 1992). According to the reflective impulsive model (Strack and Deutsch 2004; Strack, Werth, and Deutsch 2006), there are two systems that operate in parallel in shaping human behavior and evaluations: the more thoughtful, explicit, or reflective process and the more spontaneous, implicit, or impulsive process. Based on this model, Hafner and Trampe (2009) show that exposure to round models enhances explicit product evaluations and purchase intentions, whereas exposure to thin models enhances implicit product evaluations and purchase intentions. However, in the current research I show that exposure to digitally enhanced advertisements depicting thin models generate more positive explicit product evaluations such as

more favorable brand evaluations and higher purchase intentions. Future research exploring whether digital manipulation disclosure affects implicit evaluations differently is certainly important.

The generalizability of the findings is somewhat limited until the hypotheses are tested with regard to products other than attractiveness-relevant ones. Petty, Cacioppo, and Schumann (1983) proposed the Elaboration Likelihood Model: a two-process model of response to advertising stimuli. High vs. low involvement implies different processing strategies affecting which route attitude change travels, the central route or the peripheral route. In situations of high involvement, arguments but not celebrities influenced attitudes, whereas in situations of low involvement, celebrities but not arguments influenced attitudes. Additional research might, for instance, examine how different levels of involvement might affect consumers' attitude change towards ads with highly attractive models.

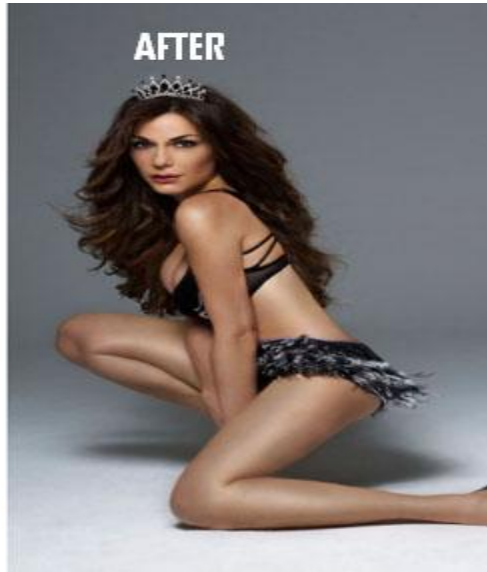
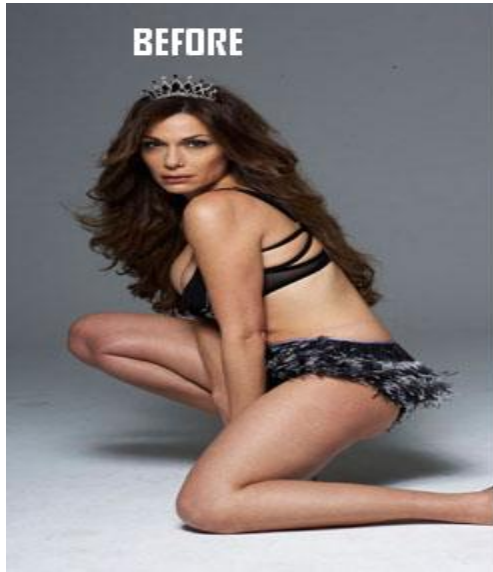
Future research should consider the relative effect of disclosing a model has not been retouched versus she has been retouched by adding a disclaimer within the ad rather than a warning outside the ad. In this regard, the mediation effects could be further explored by delineating between what type of honesty is actually explaining the underlying mechanism of these effects. Therefore, explaining whether consumers are persuaded by disclosure honesty or image honesty or both.

Moreover, the results of this investigation would be more robust if they were tested under other conditions as well. For example, regulatory practices in the food industry advocates mandatory labeling on food items such as labeling for genetically modified food products or labeling country of origin for food products sold in the US. Thus, it would be interesting in

future research to look at the moderating role of mandatory vs. voluntary disclosure of digital manipulation.

APPENDIX A

Image:



APPENDIX B:

Disclosure Condition:

On the Computer, please go to My Documents. You will see a file named Advertisements. Please click on it. This file includes pictures of advertisements and we are interested in your opinions and attitudes concerning the advertisement itself and the advertised brand.

Please open Ad 1:

PLEASE NOTE THAT AD 1 HAS (HAS NOT) BEEN DIGITALLY ALTERED (RETOUCHED) TO ENHANCE THE LOOKS OF THE MODEL.

Now please open Ad 2:

PLEASE NOTE THAT AD 2 HAS NOT (HAS) BEEN DIGITALLY ALTERED (RETOUCHED) TO ENHANCE THE LOOKS OF THE MODEL.

Please close Ad 2

Now please go back to Ad 1:

We are interested in your opinions and attitudes concerning the RETOUCHED (UNRETOUCHED) Advertisement (Ad 1):

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