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ORIGINAL PAPER

The Self-Deceived Consumer: Women's Emotional and Attitudinal Reactions to the Airbrushed Thin Ideal in the Absence Versus Presence of Disclaimers

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Abstract The use of airbrushed "thin ideal" models in advertising creates major ethical challenges: This practice deceives consumers and can be harmful to their emotional state. To inform consumers they are being deceived and reduce these negative adverse effects, disclaimers can state that the images have been digitally altered and are unrealistic. However, recent research shows that such disclaimers have very limited impact on viewers. This surprising result needs further investigation to understand how women who detect that images have been airbrushed are still harmed by them. Three studies reported in this article address this question. The authors identify a typology, based on a combination of three emotional reactions experienced by women who are exposed to the airbrushed thin ideal. In further analyses, they investigate how detection of airbrushing—whether spontaneous or with the help of a disclaimer—relates to these emotional reactions and women's attitudes to altered images. Results show that detection of airbrushing does not systematically protect women from either wanting to look like airbrushed thin models or the negative emotions triggered by exposure to thin ideal images, nor does it always generate defensive reactions toward ads using such images. Women who detect that images have been airbrushed may still process these images as realistic. In addition to discussing this irrational process of self-deception, this article suggests policy interventions to prevent it.

Keywords Deceptive advertising · Self-deception · Airbrushed images · Female thin ideal · Disclaimers · Negative emotions

Introduction

In recent years, the use of airbrushed "thin ideal" images of female models in the media and advertising has captured the attention of both academics and policymakers (Bishop 2000; Cohan 2001; Frederick et al. 2016; Lin and Yeh 2009). Such images—created by digital retouching—portray women who are unrealistically thin and attractive (Ata et al. 2013; Donovan 2012). Their use in advertisements presents major ethical challenges. First, these ads are dishonest and deceiving to consumers (Spurgin 2003). Second, by promising a beauty standard that cannot be achieved in reality, airbrushing creates ideals of beauty and thinness that can increase women's perceived self-discrepancy and negative feelings. The use of such images has been blamed for its negative impact on women's emotions (Bower 2001) and body satisfaction (Grabe et al. 2008).

To reduce these negative effects and inform consumers they are being deceived, many countries (e.g., Australia, Israel, France, UK) urge the media and advertising industries to include disclaimers when images have been digitally altered. For example, members of the French parliament recently voted to force model agencies to

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clearly identify all photographs of models that had been airbrushed to alter their body shapes (Telegraph 2015).

Despite the increasing use of such regulations, existing research generally shows that disclaimers do *not* reduce body dissatisfaction or negative mood (Ata et al. 2013; Frederick et al. 2016; Selimbegovíc and Chatard 2015) and may even *worsen* the negative effects of exposure to the digitally enhanced, airbrushed thin ideal in advertising (Bury et al. 2016a, b). Some authors attempt to explain these results by suggesting that disclaimers actually direct *more* visual attention to the airbrushed models (Bury et al. 2014, Selimbegovíc and Chatard 2015). Research shows that consumers tend to pay more attention to highly deceptive ads, to analyze their deceptive content (Craig et al. 2012). However, attention to deceptive contents triggers defensive reactions toward the stimulus (Craig et al. 2012). Therefore, we might expect that consumers who are aware of the deceptive practice of airbrushing of female models develop defensive reactions, because they would judge the stimulus as unrealistic and deceiving. Detection of airbrushing should then decrease identification with the model, reduce the negative impact on emotions, and generate negative attitudes toward the ad. Although previous research has demonstrated the negative impact of perceived deception on consumer responses to ads, brands, or products (e.g., Newell et al. 1998; Xie et al. 2015), researchers have not yet examined the links between detection of airbrushing and women's emotional and attitudinal reactions. Our research addresses this important question and answers calls for further research on the use of disclaimers and visual literacy (Bury et al. 2016a, b), as well as more broadly the ethics of deceptive advertising (Craig et al. 2012; Darke and Ritchie 2007; Hyman 2009; Hyman et al. 1994; Wible 2011; Xie et al. 2015).

In Study 1, we develop a typology of four different types of women, categorized according to their level of detection of airbrushing (in the absence of a disclaimer), their emotional reactions to airbrushed thin models, and their attitudes toward images of such models. The typology reveals that most women are able to detect that the models' images have been airbrushed, and experience a range of positive and negative reactions to the models. In Study 2, we test whether this typology is replicable in a large sample of women and investigate the relationships among the detection of airbrushing, the perceived unreality of the images, and women's emotional and attitudinal reactions. Finally, in Study 3, we explore the effects of disclaimers on women's detection of airbrushing, perceived unreality, emotional reactions, and attitudinal responses to an ad. Taken together, these studies show that even when women are aware—either on their own or with the help of a disclaimer—that thin ideal models are Photoshopped, some still deceive themselves; they still want to resemble the airbrushed models, they still experience negative emotions from their exposure, and they still develop positive attitudes toward the altered images. Most importantly, they still perceive these images as somewhat realistic.

Our research contributes to extant literature in three ways. First, it provides new insights into female consumers' vulnerability to deceptive advertising. Understanding how women's capacity to detect the unrealistic nature of thin ideal images is linked to their emotional reactions (whether positive or negative) can help policymakers implement more targeted, efficient interventions to protect them from the potential deleterious effects of such exposures. Second, it provides new comprehension of the effect (or lack thereof) of labeling disclaimers. By showing that consumers can be self-deceived (i.e., detect when images have been airbrushed but still process the images as real), our results challenge the efficacy of disclaimers as a scheme to decrease women's identification with the idealized models. Third, our research proposes a new typology of emotional reactions to the airbrushed thin ideal. Marketing managers who understand how their target consumers react to the use of unrealistically thin female models in advertising will be better able to predict the performance of their advertising and implement responsible campaigns.

Conceptual Background

The Deceptive Nature of the Airbrushed Thin Ideal in Advertising

In the last few decades, the ideal female body type featured in advertising has shifted from curvy and voluptuous to angular and skinny (Silverstein et al. 1986, Tiggemann 2011). In addition, it is common for photos of models' bodies to be digitally altered to eliminate any flaws in skin complexion and body size (Tiggemann et al. 2014; Paraskeva et al. 2015). As a result, female models represented in advertising are unrealistically thin, and most women do not correspond to this ideal (Spitzer et al. 1999). The gap between media images of feminine beauty and reality has even widened, with models becoming increasingly thinner while Western women increase in body mass (Wiseman et al. 1992). The use of the airbrushed thin ideal in advertising raises major ethical concerns (Bishop 2000; Cohan 2001), because deceptive advertising is both morally wrong and potentially harmful to consumers (Xie et al. 2015). The use of airbrushed, idealized models in advertising is morally wrong as it can be a strategy for motivating people to buy a particular product using deceptive techniques. Advertising has been accused of being a tool for manipulation that circumvents

individual decision-making processes to achieve the advertiser's desired outcome (Brenkert 2008). The practice is even more questionable when the persuasive message is based on deceptively unrealistic images. Furthermore, images of idealized models can be harmful to consumers, generating perceived body discrepancy and negative emotions (Bower 2001; Cahill and Mussap 2007; Peterson 1987). This effect might become more acute through cumulative exposures to the airbrushed thin ideal, which might lead women to accept artificial thinness as a norm.

In response to such concerns, some countries have adopted, or are in the process of adopting, various policies to regulate the practice of image airbrushing. For example, France, Australia, and Israel have recommended or introduced regulations to add a disclaimer label to digitally altered advertising images (Geuss 2012; Lubitz 2015; Paxton 2015). The main objectives of such disclaimers are to make salient the practice of photo retouching and to increase consumers' awareness of the unrealistic nature of these images.

Detection of Airbrushing and Consumers' Reactions

In past decades, consumers began to feel that advertising was often unreal and untruthful (Calfee and Ringold 1994). Today, they appear to be increasingly suspicious of marketing strategies (Darke and Ritchie 2007; Darke et al. 2010). Given that airbrushing in advertising is widely discussed in academia and in the media, we expect female consumers to be aware of the prevalent use of digital retouching of female models. However, research shows that consumers are not equally susceptible to deception (Riquelme and Román 2014), so not all women are equally competent to detect whether an image of a model has been Photoshopped. Therefore, an important objective of this research is to investigate differences in how female consumers detect airbrushing. Another objective is to examine the impact of detection of airbrushing on women's reactions. Being able to detect airbrushing should make women more critical of advertisements that feature such images and less vulnerable to deception.

When consumers detect advertising deception, they develop negative feelings and attitudes toward the ad (e.g., Craig et al. 2012; Darke and Ritchie 2007; Newell et al. 1998; Romani 2006; Wilkins et al. 2016). For example, female bloggers who commented on an ad that was withdrawn because of excessive Photoshopping perceived the incriminated brand as less credible and appeared to develop suspicion toward advertising (Waller 2015). Therefore, when women perceive—either spontaneously or with the help of a disclaimer—that images of thin ideal models are digitally retouched and unrealistic, we expect they will exhibit defensive reactions and develop less favorable attitudes toward airbrushed images and ads.

Also, detection of airbrushing should weaken the ad's potential to harm vulnerable consumers. Once women become aware of the deceptive nature of digitally thin models, they should stop wanting to resemble a beauty ideal that is unreal and impossible to reach (Rollero 2015). Awareness of digital retouching should help women realize that these images are unrealistic, not attainable, and not the right source of physical appearance comparison (Tiggemann et al. 2013). In other words, detection of airbrushing should be linked to a lower likelihood that women will choose the airbrushed, thin ideal model as their beauty standard and experience negative emotions as a result. However, with the exception of surveys conducted by Slater et al. (2012) and Rollero (2015), recent research does not seem to validate these predictions (Bury et al. 2016a; Frederick et al. 2016; Selimbegovíc and Chatard 2015; Tiggemann et al. 2013; Ata et al. 2013). For example, Selimbegovíc and Chatard (2015) show that disclaimers result in greater accessibility to negative thoughts and Frederick et al. (2016) find that disclaimers have no effect on women's body images. These surprising results need further investigation to better understand how female consumers who detect airbrushing in thin ideal models—whether on their own or with the help of a disclaimer—can still be harmed by them. It is crucial to explore the emotional and attitudinal reactions of female consumers who are exposed to the airbrushed thin ideal images, and to study how they are linked with the detection of airbrushing.

Study 1

The objectives of our first exploratory study are to (1) identify whether women detect airbrushing in images of digitally altered, thin ideal models; (2) identify the emotional and attitudinal reactions of women after exposure to the airbrushed thin ideal; and (3) develop a typology of women according to these reactions.

Research Method

We used a qualitative method, divided into two stages. In the first stage, we contacted 22 French women, aged 25–45 years, with diverse socio-demographic profiles (see "Appendix 1"). We focused on this age range because most studies have used only adolescent or student samples to

explore female reactions to female models (e.g., Duke 2002); it is important to investigate *adult* women's reactions to thin ideal models, because they represent an important target for advertising campaigns. We provided the participants with three different women's magazines that included images of airbrushed thin ideal female models. Some participants also browsed their own women's magazines. Two experts from the advertising industry confirmed that the images of the models featured in the magazines were digitally retouched and that they reflected the socioculturally derived thin ideal. We asked participants to browse the magazines and then write an account of what they felt when seeing the models. Because women tend to read women's magazines in a private setting, we encouraged participants to be involved with the research topic over a period of 3 weeks, by browsing the magazines at home and recording their observations. This methodology ensured a real-life context and avoided interviewer bias.

In the second stage, we conducted in-depth interviews with 12 women arbitrarily selected from the first sample, to better understand their emotional and attitudinal reactions to the models. The length of the interviews ranged from 1 to 1.75 h. We conducted all interviews face-to-face in the workplaces or homes of the respondents. We asked participants to bring six images of idealized female models from the magazines used during the first stage. For each image, we asked them to describe what they saw and what they felt when looking at the models. The interviews were recorded and transcribed in their entirety. We used category saturation for sample verification and analyzed the collected data using content analysis (Corbin and Strauss 2014).

Main Findings

We identified four profiles of women: resistant, indifferent, hedonist, and victim (see Table 1). We briefly describe each of these profiles next.

Resistant: A Repulsive Experience from a Defensive Consumer

The women who belong to this group openly criticize the deceiving nature of images of Photoshopped female models in the magazines. They are mainly opposed to the norms of beauty dictated by the magazines; they find them demanding and unrealistic.

> I still criticize them because I find it so blatant, a real piss-take. Her back has been smoothed out using Photoshop: she hasn't even got any shoulder blades, the poor thing! (Interview, Camille, 32)
> It annoys me because they show us things that aren't true, it's not possible for foundation to produce that … it's just not possible. I feel like I have quite an extreme viewpoint, like I'm not very tolerant. (Interview, Gislaine, 43)

In this profile, the exploration of images of feminine beauty is almost non-existent. Participants refuse to look at images of beauty.

> Leave me alone (laughs). Stop hassling me with your image…. They piss me off. (Interview, Gislaine, 43)

Emotional reactions are very strong, ranging from negative surprise to disgust and anger.

Table 1 Typology of women based on their reactions to the airbrushed thin ideal (Study 1)

	Detection of airbrushing	Emotional reactions	Attitudinal reactions	Perceived self-discrepancy	Attention paid to the models
Resistant (defensive)	Yes Mentions digital manipulation	Aversion (disgust, negative surprise)	Negative	No	Low Refuses to look at the models
Indifferent (detached)	Yes Mentions digital manipulation (after being prompted)	None	Neutral	No	Low Does not notice the models
Hedonist (naïve)	No Does not mention digital manipulation	Pleasure (delight, well-being)	Positive	No	High and broad Looks at many models and dreams
Victim (self-deceived)	Yes Mentions digital manipulation (after being prompted)	Mixed emotions: Pleasure and displeasure (jealousy, depression)	Positive	Yes	High and narrow Spends time looking at and comparing with a model

> It's a shame! I am very quickly disgusted by these models. (Written account, Laetitia, 34)

Indifferent: A Neutral Experience from a Detached Consumer

Women in this category show little interest in female models in magazines, the glamorous world of fashion, and physical attractiveness in general. They do not criticize the models and do not spontaneously mention that they could have been digitally modified. However, after prompting, they acknowledge that the pictures were edited. Overall, indifferent women have more to say about the editorial content or informative advertisements.

> I'm not interested in all of the glamour emphasizing superb girls. (Written account, Chloé, 32)
> I don't look at the models…. I suppose I would say it's more the message, often the technical demonstration that will make me buy a product, but rarely the effect of the image…. Yes, they are Photoshopped, it's obvious. (Interview, Aurélie, 29)

In this profile, the exploration of the images is broad and has little intensity. Participants either do not see the images featuring models or pass over them quickly.

> I scan them more or less quickly … I have a very detached focus. (Written account, Karine, 35)
> I zap. (Written account, Laurence, 35)

The indifference of these women toward images of beauty in advertising is accompanied by a neutral emotional state; few emotions are evoked. The process of identifying with and comparing oneself with the models is not activated.

> I just flick through like this, nothing is going to attract my attention…. That there doesn't do anything for me. I'm quite indifferent, she's very pretty but it doesn't affect me any more than that. (Interview, Patricia, 40)

Hedonist: A Fun and Pleasurable Experience from a Naïve Consumer

The women in this category regard exposure to thin ideal models as a fun experience, a delightful break from their daily routine. They do not spontaneously mention that the images have been digitally retouched, and they do not seem to be interested in knowing the making of them. Hedonists look for immediate pleasure and a reduction of the stress and tensions associated with daily life; they seek escape from reality.

> I am the perfect target and I like this game! (Written account, Isabelle, 36)
> This is a dream. Each page is a feast for the eyes: luxury, beauty, wellbeing. (Interview, Soraya, 45)

In this category, there is a broad and intense exploration of the image of feminine beauty. Participants comment on several images and provide precise details.

> I have just bought the latest edition of 'ELLE Spécial Beauté'…. I adore looking at the photos of the models on paradise beaches. (Written account, Emma, 31)

Reactions of enjoyment are characteristic of women in this category. They do not seem to suffer from exposure to idealized images of female beauty.

> Relaxation, escapism, freedom, silence, daydreaming… the playful side of things: being on an island, in the sun, not thinking about anything, emptying your head of all thoughts, that's what it's all about. (Interview, Soraya, 45)

Victim: An Ambivalent Experience from a Self-Deceived Consumer

The women in this category have a very ambiguous relationship with idealized female models. They strongly identify with the models, even though they know they are unrealistic.

> I know that this is not real … but I can't help to compare myself. (Interview, Audrey, 32)
> I do not resist the urge, or the need to compare myself…. It is an irrepressible impulse…. I am desperate to be sensitive to these images. (Written account, Emilie, 34)
> You can identify with it… you always try to identify with it. (Interview, Clara, 25)

In this category, the exploration of the image of feminine beauty is narrow and intense. Participants stop to look at the images and observe them for a long time.

> I spend time looking at her beauty and fantasizing about the ideal life she might have… (Written account, Stéphanie, 32)

In this group, we observed ambivalent emotional reactions. On one hand, participants show positive reactions of wonder and fascination. Social comparisons are a source of motivation and pleasure.

> I think to myself that I would like to look like her…. I feel good, I like seeing an ad like that, I would really like to look like her. (Interview, Léa, 25)

On the other hand, we observed negative emotional reactions such as frustration and jealousy, the result of social comparisons with models who are perceived as inaccessible. This perceived inaccessibility seems to stem

not from the unrealistic representation of the thin ideal but from the perceived physical discrepancy with the models. This process of social comparison makes the difference between victims' actual physical appearances and the model's ideal physical appearance salient, and this perceived difference seems to trigger negative emotions.

> I just would love to look like this model. She is so beautiful! But I can't…. I'm so different. I'm overweight and short. It's so depressing… (Emilie, 34)
> It makes me heave a sigh of frustration…. I end up hating them. (Interview, Léa, 25)

Discussion

In this study, we identify four profiles of women according to their emotional and attitudinal reactions to the digitally altered thin ideal: resistants, who adopt a defensive attitude; indifferents who are detached; hedonists, who appear to be naïve; and victims, who are prone to self-deception. The resistant and indifferent participants display a distance in their relationship with regard to the airbrushed thin ideal. Resistants show strong negative reactions of aversion, and indifferents display an absence of emotional reaction. Both of these categories of women are aware that models in advertising have been airbrushed; they do not regard them as ideals of beauty. However, while the indifferents seem unconcerned by the thin ideal, the resistants strongly criticize and reject it. Hedonists and victims would like to look like the models; they tend to accept airbrushed models while experiencing pleasurable (hedonists) or ambivalent (victims) emotions, feeling both pleasure and displeasure. However, these categories differ in terms of perceived deception: While the hedonists do not mention digital manipulation, the victims are likely to detect the practice. This finding is surprising, given that victims view the airbrushed models as their beauty ideals and suffer from exposure to their depiction—despite knowing that the images are unrealistic and their standard of beauty is unattainable. Our analysis of interview transcripts reveals that perceived self-discrepancy seems to trigger negative emotions of displeasure among the victims, which is in line with the suggestion of researchers that congruence with the ideal self and perceived self-discrepancy play crucial roles in women's reactions to idealized female models (Dittmar et al. 2009). In our research, the victims were the only group that experienced high levels of displeasure and self-discrepancy when exposed to the thin ideal. This result highlights the importance of accounting for the participant's perceived self-discrepancy with the models in our subsequent studies.

Finally, the results of this study reveal that exposure to the digitally altered thin ideal generates three types of emotional reactions: positive emotions of pleasure (e.g., joy, enthusiasm, well-being), negative emotions of displeasure (e.g., jealousy, prostration, depression), and negative emotions of aversion (e.g., disgust, negative surprise). Existing scales measuring emotions in advertising (e.g., Batra and Ray 1986; Edell and Burke 1987; Batra and Holbrook 1990) fail to capture the emotions of women who are exposed to the airbrushed thin ideal; the scales rely on either two-dimensional measures (positive and negative emotions) or three-dimensional measures (positive emotions, negative emotions, and arousal) without distinguishing types of negative emotions. None of the existing scales distinguishes negative emotions that do not produce the same cognitive consequences, that is, negative emotions such as depression (displeasure) and disgust (aversion). Our results emphasize the importance of considering these specific emotional dimensions to capture reactions to the digitally enhanced thin ideal. This is achieved in Study 2.

Study 2

This study explores the generalizability of the typology based on women's emotional reactions to the airbrushed thin ideal identified in Study 1 and determines whether detection of airbrushing and perceived unreality are more pronounced in certain profiles of women. We also test whether this typology is related to women's ideal selves, their perceived self-discrepancy, their attitudes toward the images, and their profile in terms of age and BMI.

Pre-test

To assess the generalizability of the typology, we created a scale to measure women's emotions related to airbrushed thin models. We generated a list of 28 items based on the three core emotions expressed by participants in Study 1 (see "Appendix 2"). We pre-tested the items with a sample of 150 women, aged 18–50 years. We exposed respondents to six photographs of thin, idealized female models that we selected from 20 images found in women's magazines. After we added a gray background and removed logos and products from the photographs, ten women rated the models in terms of perceived fit with the current thin ideal beauty standard. We selected the six pictures with the highest scores. Two experts from the advertising industry confirmed that the images of the models featured in these six images had been digitally retouched.

Using the pre-test sample ($n = 150$), we ran a principal component analysis with Varimax rotation to examine the structure of the construct. The results suggested that we delete 15 items due to cross-loadings and low

communalities. After we deleted these items, the construct provided a three-factor structure and explained 75% of the total variance (24% for the pleasure dimension, 42% for displeasure, and 9% for aversion). A Cronbach's alpha of 0.91 for the pleasure dimension and 0.93 for the displeasure dimension and a correlation level for the two aversion items (disgust and negative surprise) that was moderately strong and positive ($r = 0.47$) confirmed the reliability for all three factors. In total, we retained 13 items in three dimensions: pleasure (five items, positive emotions), displeasure (six items, negative emotions related to jealousy and depression), and aversion (two items, negative emotions related to repulsion).

Research Method

Following the pre-test, we conducted a study with 509 French women ($M_{age} = 27.31$, SD = 7.72). We recruited participants online through various female-focused websites (both from student and generalist websites); we asked them to send the link to the survey to their female contacts. We exposed participants to the same six pictures of idealized female models used in the pre-test. We also asked them to confirm on a seven-point Likert scale that the selected models fitted the sociocultural thin ideal ($M = 6.23$; SD = 1.14), then indicate the degree to which they experienced the set of emotions from the 13-item scale developed in the pre-test. We scored all measures on seven-point Likert scales. We measured detection of airbrushing by asking how digitally retouched they judged the models to be (single item). We measured perceived unreality with three items: "fictitious," "virtual," and "unreal" (Cronbach's alpha = 0.88). We then asked participants to indicate their attitude toward the images using a four-item scale adapted from Holbrook and Batra's (1987) measure of attitude toward an advertisement (Cronbach's alpha = 0.89). To describe the four profiles of women on the basis of their perceived discrepancy with the models, we measured the perceived fit with participants' ideal and actual selves. We used three items to measure the ideal self ("the physical appearance of these models fits the physical appearance I would like to have," "I would like my physical appearance to be similar to these models," and "I would like to physically resemble these models") and three items to measure the actual self ("The physical appearance of these models matches my physical appearance," "My physical appearance is similar to these models," and "I physically resemble these models"). The Cronbach's alphas were 0.95 for the fit with the ideal-self dimension and 0.93 for the fit with the actual-self dimension. To calculate self-discrepancy, we subtracted the average actual-self score from the average ideal-self score. Finally, participants offered information about their age, weight, and height. Their body mass index (BMI) was computed as their weight in kilograms divided by the square of their height in meters.

Results

Results from principal component analysis using Varimax rotation show three factors explaining 72% of variance, with the largest single factor accounting for 31% (displeasure), the second factor accounting for 28% (aversion), and the third factor accounting for 13% (pleasure). The Cronbach's alpha is 0.90 for the pleasure and displeasure dimensions, and the correlation level of the two aversion items (disgust and negative surprise) is strong and positive ($r = 0.60$) (see Table 2). These three dimensions also present good convergent and discriminant validity, with coefficients exceeding the recommended minimum of 0.5 (average variance extracted [AVE] for pleasure = 0.714; AVE for aversion = 0.758; AVE for displeasure = 0.700). The discriminant validity between the three dimensions is also established; the AVE for each dimension is higher than the squared correlation between them (Fornell and Larcker 1981). To confirm the pertinence of a scale with a three-dimensional structure and its sound psychometric qualities, we also studied the possibility of a two-dimensional factorial structure. The results of the comparison between the models reveal that the three-dimensional structure of the scale is superior, with better psychometric qualities (see Table 2).

Following the confirmatory factor analyses, we conducted a hierarchical cluster analysis[1] to profile participants according to the emotions they experienced from the visuals. The analysis produced four distinct groups of women. An analysis of variance (ANOVA) indicated that the four groups differed significantly in terms of the three core emotions (see Table 3).

The first group (resistants) accounts for 18.5% of the total sample ($n = 94$) and registers significantly higher levels of aversion toward airbrushed thin female models than the three other groups, with low levels of pleasure and displeasure. The second group (indifferents, 39% of the sample, n = 198) registers low scores on all three emotions. Women from this group are relatively neutral toward the female models. The third group (hedonists, 18.5% of the sample, $n = 94$) shows significantly more pleasure than the three other groups, with relatively little displeasure and aversion. The fourth group (victims, 24%, $n = 123$) is ambivalent. Women in this group have mixed emotions:

[1] For continuous variables, it is recommended to perform a hierarchical cluster analysis first, using Ward's method, and then use the results generated from this as input for the k-means method (Janssens et al. 2008).

Table 2 Exploratory and confirmatory analyses of emotional reactions to the airbrushed thin ideal (Study 2, final sample, $n = 509$)

Principal component analysis KMO = 0.873; Bartlett $\chi^2 = 3647$ (78 *df*, sig. 0.000)									
			Ext.	Comp.					
				1		2		3	
Displeasure 1—Frustration			0.716	0.845		–		–	
Displeasure 2—Guilt			0.705	0.834		–		–	
Displeasure 3—Depression			0.712	0.829		–		–	
Displeasure 4—Jealousy			0.703	0.824		–		–	
Displeasure 5—Regret			0.667	0.806		–		–	
Displeasure 6—Shame			0.633	0.775		–		–	
Aversion 1—Negative surprise			0.795	–		0.888		–	
Aversion 2—Disgust			0.791	–		0.861		–	
Pleasure 1—Joy			0.768	–		–		0.876	
Pleasure 2—Enthusiasm			0.775	–		–		0.870	
Pleasure 3—Delight			0.750	–		–		0.859	
Pleasure 4—Well-being			0.679	–		–		0.822	
Pleasure 5—Pleasant surprise			0.654	–		–		0.795	
Total explained variance				71.92%					
Cronbach's alpha				0.90		0.60*		0.90	
CMIN	DF	CMIN/DF	GFI	AGFI	SRMR	RMSEA	NFI	AIC	CFI
Model fit (three-dimensional model)									
177.749	62	2.867	0.946	0.921	0.044	0.061	0.952	235/3711	0.968
Model fit (two-dimensional model)									
420.478	64	6.570	0.882	0.921	0.091	0.105	0.886	474/3711	0.901

* Correlation level for the two-item dimension

They report the highest levels of displeasure (significantly higher than the three other groups) but indicate moderate pleasure (significantly more than the indifferent and resistant groups) and aversion (significantly more than the indifferent and hedonist groups).

Next, we conducted a series of one-way ANOVAs to determine the links of the four profiles with detection of airbrushing, perceived unreality, perceived fit with ideal self, self-discrepancy, and attitudes toward the images (see Table 3). With regard to detection of airbrushing, we find that the average is relatively high across the four groups ($M_{\_\text{Airbrushing}} = 5.36/7$; SD = 1.88). The average score of perceived unreality is inferior to detection of airbrushing ($M_{\_\text{Unrealism}} = 3.88/7$; SD = 1.87), indicating that women consider these images somewhat realistic, despite knowing they were airbrushed. Unsurprisingly, resistants register the highest levels of perceived airbrushing and unreality of the models, while hedonists register the lowest scores on both variables. Interestingly, victims score relatively high on detection of airbrushing (scoring similarly to the other groups) and have an average score on perceived unreality (scoring similarly to hedonists and indifferents but lower than resistants).

With regard to self-discrepancy, the four groups differ significantly. Victims register the highest scores ($M = 3.01$) and resistants register the lowest scores ($M = 0.64$), with the hedonists ($M = 1.79$) and the indifferents ($M = 1.27$) in between. These findings demonstrate that the airbrushed thin ideal is not desirable to resistants and does not fit with their actual selves. Indifferents indicate a slightly stronger belief that the airbrushed thin ideal fits with their ideal selves, which explains why they score higher than resistants on self-discrepancy. Hedonists indicate that the airbrushed thin ideal fits with their ideal selves, and they have the strongest belief that they resemble it. As a result, their level of self-discrepancy remains low. Finally, victims strongly believe that airbrushed thin models are desirable, but they do not believe they resemble these models. The differences between their actual selves and ideal selves explain not only their high scores on self-discrepancy but also probably their high scores on displeasure. In short, they certainly feel jealousy, depression, shame, and other negative emotions because they believe they do not resemble the desirable thin ideal.

With regard to attitudes toward the images, we find the four profiles score significantly differently. Resistants and

Table 3 Cluster groups—final cluster center means, ANOVA, and post hoc analyses (Study 2)

	Cluster 1 Resistant $N = 94$ Mean	Cluster 2 Indifferent $N = 198$ Mean	Cluster 3 Hedonist $N = 94$ Mean	Cluster 4 Victim $N = 123$ Mean	*F*-value	Post hoc Tukey's test[a]
Emotional reactions						
Pleasure	Low	Lowest	Highest	Medium 2.35	241.269***	1–3; 1–4; 2–3; 2–4; 3–4
	1.54	1.50	3.88			
Displeasure	Low	Lowest	Low	Highest 4.58	319.650***	1–2; 1–4; 2–3; 2–4; 3–4; 4–3
	2.10	1.64	1.95			
Aversion	Highest	Low	Lowest	Medium	287.878***	1–2; 1–3; 1–4; 2–4; 3–4; 4–3
	4.74	1.65	1.56	2.65		
Perceived self-discrepancy						
Fit ideal self	2.13	2.96	4.15	4.61	49.098***	1–2; 1–3; 1–4; 2–3; 2–4
Fit actual self	1.49	1.69	2.35	1.61	13.146***	3–1; 3–2; 3–4
Self-discrepancy	0.64	1.27	1.79	3.01	36.000***	1–2; 1–3; 1–4; 2–3; 2–4; 3–4
Perceived deception						
Detection airbrushing	5.78	5.44	5.04	5.15	3.077**	1–3
Perceived unreality	4.71	3.89	3.21	3.74	10.971***	1–2; 1–3; 1–4; 2–3
Attitudinal reactions						
Attitude to the images	1.60	2.51	4.67	3.07	103.236***	1–2; 1–3; 1–4; 2–3; 2–4; 3–4
Profile						
Age	28.4	28.3	25.6	26.2	4.056**	1–3; 2–3
BMI	21.9	21.2	21.1	22.4	5.021***	2–4; 3–4

Respondents were exposed to a set of images featuring airbrushed thin ideal models in the absence of disclaimers

$N = 509$; *** $p < 0.001$, ** $p < 0.05$

[a] Significant differences ($p < 0.05$) between the clusters

indifferents have the least and second-least positive attitudes ($M = 1.60$ and $M = 2.51$, respectively), while hedonists display the most positive attitudes ($M = 4.67$). Interestingly, victims—who register very high levels of negative emotions of displeasure—show a relatively favorable attitude toward images of airbrushed thin ideal models ($M = 3.07$).

Finally, we attempt to describe the cluster groups on the basis of individual characteristics. Some groups do differ significantly in terms of age [F (508) = 4.506, $p < 0.01$] and BMI [F (496) = 5.021, $p < 0.01$]. More specifically, the hedonists ($M_{\text{Age}} = 25.6$) are significantly younger than the indifferents ($M_{\text{Age}} = 28.3$) and the resistants ($M_{\text{age}} = 28.3$) while the victims register a significantly higher BMI ($M_{\text{BMI}} = 22.41$) than the indifferents ($M_{\text{BMI}} = 21.21$) and the hedonists ($M_{\text{BMI}} = 21.07$).

Discussion

The results of this study validate the typology of women identified in Study 1 (resistants, indifferents, hedonists, and victims) and confirm the high level of detection of airbrushing across these four groups. The results also show significant differences between the profiles in terms of the perceived unreality of images featuring airbrushed thin models, perceived discrepancy with these models, and attitudes toward the images. We confirm the three core emotions experienced by women when exposed to the airbrushed thin ideal: pleasure, displeasure, and aversion.

In line with Study 1, we show that victims regard the thin ideal to be airbrushed and somewhat unrealistic, but also desirable. Furthermore, victims—who indicated a higher BMI than most of the other groups—experience the highest levels of displeasure (e.g., depression, jealousy) and perceived self-discrepancy. These findings suggest that victims experience negative emotions of displeasure, fuelled by the notion that their own bodies are significantly different than the ideal they want to resemble, despite knowing this ideal is unachievable. In other words, perceived self-discrepancy seems to be the key vulnerability factor, and detection of airbrushing does not appear to protect these women. Our results also indicate that victims develop a somewhat favorable attitude toward images featuring the airbrushed thin ideal, a finding that seems counterintuitive, considering that deceptiveness is supposed to trigger defensive reactions from consumers

(Darke and Ritchie 2007) and is linked to negative evaluations of deceptive visuals (e.g., Craig et al. 2012; Newell et al. 1998). But victims do not follow this pattern; they have positive attitudes toward deceptive images of Photoshopped models.

The findings with regard to hedonists again indicate that detection of airbrushing does not play a significant role in women's emotional and attitudinal reactions. Hedonists and victims register similar scores of detection of airbrushing and perceived unreality, but they react significantly differently when exposed to the airbrushed thin ideal. Unlike victims, hedonists—composed of younger women than most of the other groups—report high levels of positive emotions and low levels of negative emotions and self-discrepancy. These results reinforce the notion that perceived self-discrepancy—not detection of airbrushing—influences emotional and attitudinal reactions to the airbrushed thin ideal.

Resistants experience the highest level of aversion to the airbrushed thin ideal and develop the most negative attitudes to such images. These strong levels of aversion and defensive reactions can be explained not only by the group's high levels of detection of airbrushing and perceived unreality but also by their very low desire to resemble these models. In other words, it is likely that resistants feel aversion (i.e., disgust and negative surprise) and evaluate the images negatively because they do not want to resemble a standard of beauty that they feel is unattainable.

Finally, and in line with Study 1, it is likely that indifferents do not experience any strong emotional reactions to the thin ideal because they do not want to resemble it, even though their beliefs that the images are unrealistic are not as strong as those of resistants.

In Studies 1 and 2, we have investigated how detection of airbrushing relates to women's emotional reactions and attitudes toward retouched images. The results of these studies indicate that detection of airbrushing is not always correlated with women's emotional and attitudinal reactions. In these first two studies, respondents were not informed of the digital manipulation of the models. In the next study, we manipulate the salience of digital manipulation by adding a disclaimer. The objective is to verify that the acknowledgement of digital manipulation is not related to women's emotional and attitudinal reactions toward the airbrushed thin ideal.

Study 3

This study investigates the effects of adding a disclaimer on detection of airbrushing, perceived unreality, and perceived self-discrepancy, as well as consumers' emotional reactions and attitudes to an ad. On the basis of the results of our previous studies, we predict that a disclaimer increases detection of airbrushing and perceived unreality but does not significantly affect women's emotional and attitudinal reactions.

Research Method

The sample consisted of 200 women (mean age = 27 -years, SD = 4.6) recruited in France by the Creatests online survey panel. We assigned participants randomly to one of two experimental groups: an ad with a disclaimer ($n = 100$) and an ad without a disclaimer ($n = 100$). A total of 30 respondents from the disclaimer group were removed from the analyses because they indicated at the end of the questionnaire that they did not notice the disclaimer.

Before answering questions, participants were exposed to an ad that promoted a firming cream made by a fictitious brand; the ad featured one of the thin ideal models used in Study 2. Data confirmed that the model featured in the ad was perceived as fitting the current sociocultural thin ideal ($M = 6.04$ on a seven-point Likert scale; SD = 1.21). The disclaimer was largely inspired by the text proposed by a member of the French parliament (Boyer et al. 2009; Telegraph Media Group [TMG] 2009): "This image was digitally retouched with the use of an image processing software to change the physical appearance of the individual depicted in the advertisement."

We exposed participants to a magazine containing the ad and asked them to make a series of judgments about the magazine. We then exposed them to the ad before moving on to the questionnaire. We used the same measures as in Study 2, as well as a three-item measure of attitude toward the ad (pleasant, likeable, good), adapted from Madden et al. (1988), on a seven-point Likert scale. The Cronbach's alpha scores ranged from 0.85 to 0.96.

Results

We performed a series of t tests to compare the results between the two experimental conditions (see Table 4).[2] In accordance with our predictions, respondents in the disclaimer condition were more likely to acknowledge that the picture had been digitally retouched [$M = 6.54$ vs. 5.60, $t\,(168) = 3.657$, $p < 0.001$]. However, they were *not* more likely to perceive it as unrealistic [4.75 vs. 4.50, $t\ (168) = -0.834$, $p = 0.405$]. As we expected, the

[2] Results of Study 2 indicate that Age and BMI are potential moderators. Because the pattern of results does not change when these two variables are controlled in Study 3, the analyses reported do not include age and BMI as control variables.

Table 4 Results of Study 3

	No disclaimer		Disclaimer		*t*	*p*
	N = 100		*N* = 70			
	Mean	SD	Mean	SD		
Emotional reactions						
Pleasure	3.14	*1.60*	3.08	*1.67*	0.236	0.813
Displeasure	2.46	*1.52*	2.81	*1.63*	−1.459	0.146
Aversion	1.97	*1.34*	2.10	*1.36*	−0.643	0.521
Perceived self-discrepancy						
Fit ideal self	4.57	*2.00*	4.64	*1.85*	−0.225	0.822
Fit actual self	2.14	*1.51*	1.84	*1.14*	1.377	0.170
Self-discrepancy	2.43	*2.58*	2.80	*2.29*	−0.942	0.348
Perceived deception						
Detection of airbrushing	5.68	*1.76*	6.54	*1.06*	−3.657	<0.001
Perceived unreality	4.50	*2.00*	4.75	*1.79*	−0.934	0.405
Attitudinal reactions						
Attitude to the ad	3.30	*1.59*	3.26	*1.65*	0.166	0.868

Participants were exposed to an advert featuring an airbrushed thin ideal model in the absence versus presence of a disclaimer

presence of the disclaimer did not significantly affect respondents' emotional reactions, perceived fit with their ideal selves, self-discrepancy, or attitudes toward the ad.

Discussion

Study 3 confirms that knowing that models' images have been airbrushed does not protect women from the potential harm inflicted by ads featuring such models and does not generate defensive reactions toward the ads using them. In other words, consumers exposed to a disclaimer can still process these images as realistic. The results of this survey show that being warned that the model has been Photoshopped does not increase the level of perceived unreality or prevent women from wanting to look like the model and suffering from the exposure. As a result, female consumers are self-deceived; their belief in the reality and the possibility of looking like airbrushed thin models persists in spite of disconfirming evidence (Chance and Norton 2015). The possible adaptive function of this irrational process of self-deception will be discussed in the next section.

General Discussion

Because the use of airbrushed thin ideal models is a deceptive advertising strategy that is morally wrong and potentially harmful to vulnerable female consumers, some countries have recommended the use of disclaimer labels when advertising images have been digitally altered. However, recent research has shown the lack of effect of such disclaimers on women's emotional well-being (Ata et al. 2013; Selimbegovíc and Chatard 2015; Frederick et al. 2016). With this article, we clarify this surprising result by explaining how female consumers who detect airbrushing—in both the absence and the presence of a disclaimer that an image has been airbrushed—can still be harmed by the altered ads.

In Studies 1 and 2, we identified four different groups of women based on three emotional reactions to the airbrushed thin ideal (pleasure, displeasure, and aversion), without the presence of a disclaimer: self-deceived victims, defensive resistants, detached indifferents, and naïve hedonists. Overall, all four groups—the naïve hedonists to a lesser extent—are able to detect when models have been digitally altered. This first result seems to challenge the utility of disclaimers.

Next, we found that victims, who register a higher BMI than most of the other groups, are the most vulnerable consumers because they experience the strongest levels of perceived discrepancy from the airbrushed thin ideal models, as well as negative emotions of displeasure such as depression and jealousy. However, these women are just as aware as the other groups that airbrushed thin models have been Photoshopped, and they perceive these images as just as unrealistic as the sample average. If being aware that the thin ideal featured in advertising is the result of airbrushing does not prevent women from the potential harm of this exposure, the protective role of disclaimers is in dispute. Women in the victim group also desire to look like the airbrushed thin ideal; they experience somewhat positive emotions after being exposed to it (i.e., pleasure), and they

develop a positive attitude toward images of this ideal. If women know that the images have been airbrushed but still regard the models as beauty ideals, and still develop a positive attitude toward the images, the efficacy of disclaimers as a scheme to decrease women's identification with the models also is seriously challenged. In sum, it appears that victims seek the thin ideal even when they know that images have been digitally manipulated, and even though their seeking causes them to experience negative emotions. These women seem to be deceiving themselves and paying an emotional price for this self-deception.

The other groups appear less vulnerable. Resistants have strong defensive attitudes to the airbrushed thin ideal. They are very critical of the ideal and experience high levels of aversion to it. Their low desire to look like the thin ideal, combined with their high level of perceptions of airbrushing and the unreality of the images, seem to leave them less vulnerable to negative emotions of displeasure. Indifferents are very detached. They do not experience high levels of emotions and do not wish to reach the thin ideal that they perceive as unrealistic. Hedonists, who are younger than most of the other groups, experience very positive emotions while registering the lowest levels of perceived airbrushing and unreality. They strongly endorse the thin ideal and develop very positive attitudes to images of it. This result shows that regarding the airbrushed thin ideal as somewhat realistic is not harmful to women in this group.

Taken together, the results of Studies 1 and 2 suggest that awareness of the digital manipulation of models does not necessarily have the protective effects we expected. This finding helps explain the lack of efficacy of disclaimers as a prevention strategy; it is also confirmed in Study 3. We show that even when women are warned by a disclaimer that the model is Photoshopped, they still want to resemble the airbrushed model, develop positive attitudes toward the ad containing such model, and experience negative emotions and feelings of self-discrepancy. Contrary to previous research (e.g., Bury et al. 2016a, b), we do not show that disclaimers increase the negative impact of exposure to the thin ideal. Most importantly, knowing an image has been digitally retouched does not impact the perceived unreality of that image. In other words, women who know that the image of a model has been airbrushed still process this image as real. Our findings suggest that women are deceiving themselves, because they still want to look like models in advertising even when disclaimers suggest the images should not be trusted. As a result of this process of self-deception, their emotional and attitudinal reactions to thin ideal models in ads are unchanged. We therefore consider the theoretical, ethical, and managerial implications of this irrational process of self-deception.

Theoretical Implications

Our research offers compelling empirical evidence of consumers' self-deception and extends knowledge on deception in advertising (e.g., Craig et al. 2012; Hyman 2009; Xie et al. 2015). According to our results, some female consumers appear self-deceived; they deny the evidence of the unrealistic nature of the thin ideal in advertising. We show that some women (victims) are drawn to images of thin ideal models but feel ambivalent toward them, experiencing both negative and positive emotions. This indicates that these women are not passive recipients but rather are active seekers of exposure to the thin ideal, despite knowing that it is a result of airbrushing and despite the ensuing psychological costs. Why do some women convince themselves of the reality of airbrushed thin models, despite knowing they have been digitally manipulated and despite feeling self-discrepancy and strong negative emotions? What is the adaptive function of this irrational process of self-deception?

One possibility is that these women enjoy identifying with airbrushed models and obtain valuable information from this process, no matter how painful and unrealistic it is. This valuable information may be related to social comparison (Fitzsimmons-Craft et al. 2012) and female–female competition for attractive mates (Vaillancourt 2013; Kyrousi et al. 2016). Some authors suggest that female models act as a reminder of the intense intrasexual competition that takes place in real life to gain access to the most desirable mates (Ferguson et al. 2011). Female consumers might be willing to get immediate access to information regarding how they measure up to these idealized competitors, despite the unfavorable comparison. It has been shown that self-deception relies on a preference for an immediate reward, despite possible long-term negative repercussions (Lauria et al. 2016). In addition, as our data suggest, it is possible that the most vulnerable consumers have strongly internalized the unrealistic norm of the airbrushed thin ideal. Research shows that when a norm that has been internalized is salient, women do not dismiss the unattainable model as irrelevant for the purposes of comparison (Strahan et al. 2006).

While resistants decide to opt out of exposure to these unrealistic images, the victims either do not want to resist (because of a cost of information acquisition that is insufficient to offset the benefits) or do not succeed in resisting, as some participants in Study 1 seem to indicate (e.g., "I know that this is not real, but I can't help to compare myself;" "I don't resist the urge or the need to compare myself to these images…. It's an irrepressible impulse"). This novel finding calls for further investigation of the benefits to recipients of exposure to the airbrushed thin ideal, to explain why some women actively search

despite their awareness of the deceptive practice and the potential psychological costs. Further research should also investigate factors that enhance women's abilities to resist exposure to unrealistic images.

Ethical Implications

Our studies make an important contribution to the controversy surrounding the use of disclaimer labels in advertising. In line with recent research (Bury et al. 2014, 2016a, b; Frederick et al. 2016; Selimbegovíc and Chatard 2015), we show that disclaimers do not prevent women from experiencing negative emotions. We also extend prior research by showing that knowing that a model's image has been airbrushed does not prevent women from wanting to resemble the model or developing a favorable attitude to ads picturing such a model. Remarkably, this knowledge does not necessarily increase the perceived unreality of the image, which explains why some women still process airbrushed, thin models as realistic. Our results thus question the value of using current disclaimers to alert consumers to the digital alteration as a protective intervention. Rather, our results suggest that new interventions should focus on preventing self-deception.

A possible intervention is to produce disclaimers with stronger messages. The wording of the disclaimer label used in this research is based on disclaimer labels proposed by various countries (e.g., France, Israel) and tested in previous research (e.g., Ata et al. 2013; Bury et al. 2014). These disclaimers state that the image has been "retouched," "airbrushed," or "altered" and that the physical appearance of the model has been modified. They do not clearly state that the manipulated image features an unattainable standard of beauty. The viewer has to intuitively conclude that the manipulation led to an unrealistic body ideal. Therefore, disclaimers in the future might read: "This image was digitally retouched with the use of an image processing software to change the physical appearance of the individual depicted in the advertisement. The physical appearance of this individual is neither realistic nor attainable." More research is needed to identify the correct wording of a disclaimer (if any) that effectively protects women from self-deception and its negative effects on their emotional well-being. Most women interviewed in Study 1 (including the most vulnerable ones) were aware of the digital manipulation and unrealistic nature of these images. In our exploratory research, we did not warn participants with a disclaimer. Our results show that women already know that idealized models have been digitally retouched and that advertisements convey a distorted mirror of reality. This novel finding seriously challenges the protective role of disclaimers to avoid self-deception, no matter what wording is used.

Another possible intervention would be to prevent women from internalizing the airbrushed thin ideal. Such an option would offer a more targeted form of prevention than disclaimers that are directed at the entire population, regardless of individual risk factors. It appears that some women strongly internalize the airbrushed thin ideal and obtain some psychological benefits from being exposed to it, despite knowing that it is unrealistic. For example, literacy programs (e.g., Wilksch and Wade 2009) could be implemented to help women perceive airbrushed thin ideal models as unrealistic, dissimilar others and inappropriate targets for social comparison (Posavac et al. 2001). Women who are overweight should be targeted in priority by literacy programs, as our results show that victims—the most vulnerable women—tend to register a higher BMI than the hedonists and the indifferents. However, it is important to note that victims do not register a significantly higher BMI than the resistants—the least vulnerable women. Victims and resistants do not differ in terms of age either. Consequently, BMI and age alone are not sufficient to identify the most vulnerable consumers. What our data suggest is that internalization of the airbrushed thin ideal and the desire to look like this ideal are the true vulnerability factors.

Finally, a more extreme intervention would be to ban ads that picture unrealistic body images. This intervention has been chosen by the new Mayor of London, who recently pledged to ban ads that promote unhealthy or unrealistic body images (BBC 2016). In the same line, the British edition of *Vogue* magazine will publish a model-free issue in November 2016 that will feature only "real" women. Such actions could lead to the replacement of unrealistic models with more natural models, thereby preventing women from deceiving themselves. Some international brands, such as Dove, have not waited for drastic political measures; they have begun to feature more natural models in their advertising campaigns for more than a decade. However, recent research shows that these natural models can trigger repulsion and hurt advertising performance among women with high body mass indexes, probably because natural models do not fit these women's ideal selves (Borau and Bonnefon 2016). If natural models do not help sell products as much as ideal models, it is unlikely that managers and advertisers will stop using airbrushed, thin models.

Managerial Implications

The scale developed in this research can be used by market researchers who wish to identify emotional states such as displeasure, aversion, or pleasure that female consumers experience as a result of the airbrushed thin ideal in advertising. The proposed three-dimensional scale supports the measurement of specific emotions elicited by the airbrushed thin ideal; it goes beyond existing scales that measure

reactions to advertising in general (e.g., Batra and Holbrook 1990; Batra and Ray 1986; Edell and Burke 1987). Our research also demonstrates the importance of distinguishing between the negative responses of an individual who is dominated, passive, and powerless and one who resists, as previous research suggests (Laros and Steenkamp 2005; Raghunathan and Pham 1999; Shaver et al. 1987). With this three-dimensional scale, we can identify the affective ambivalence felt by certain women with regard to the airbrushed thin ideal and show that mixed emotions can be experienced simultaneously (Williams and Aaker 2002). Consequently, this scale could also help responsible managers identify their most vulnerable consumers, that is, those who admire airbrushed thin models while being harmed by them and while knowing they are unrealistic. This information is crucial in helping managers choose the right model to appear in their advertisements and guiding them in implementing more responsible advertising practices.

Unfortunately, the airbrushed thin ideal is routinely used by marketers to sell their products and services. As argued before, and as shown in this research, this practice is highly unethical because of its deceptive nature and the potential harm it can inflict to the most vulnerable consumers. In the same way as deliberately misleading consumers on the features of a product is illegal, intentionally deceiving consumers with a false and unattainable beauty ideal should be challenged and considered as unethical. Therefore, we seriously question the use of the airbrushed thin ideal in advertising and we invite marketers to change their practices if they truly care about their customers—as they routinely state.

Compliance with Ethical Standards

Conflict of interest None.

Research Involving Human Participants and/or Animals All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. This article does not contain any studies with animals performed by any of the authors.

Informed Consent Informed consent was obtained from all individual participants included in the study.

Appendix 1: Respondent Profiles (Study 1)

Name	Age	Description
Léa	25	Housewife, 1 child
Clara	25	Sales administrator
Corinne	29	Recruitment manager
Aurélie	29	Research analyst
Emma	31	Recruitment manager, 1 child
Stéphanie	32	Social worker, 1 child
Camille	32	Manager of an association, 1 child
Chloë	32	Unemployed, 1 child
Audrey	32	Senior manager
Coralie	32	Merchandiser
Tamara	33	Housewife, 2 children
Laetitia	34	Freelancer, 2 children
Emilie	34	Housewife, 2 children
Karine	35	Sound engineer, 1 child
Vanessa	35	Professor
Laurence	36	Artist
Isabelle	36	Unemployed
Florence	37	Nanny
Patricia	40	Secretary, 3 children
Brigitte	40	Analyst
Gislaine	43	Personal assistant, 2 children
Soraya	45	Switchboard operator

To preserve respondents' anonymity, first names have been modified

Appendix 2: Items Used for the Exploratory Factor Analysis in the Pre-test Phase—Emotions Toward the Airbrushed Thin Ideal Model

Pleasure	Aversion	Displeasure
Pleasant surprise	Unpleasant surprise	Sadness[a]
Joy	Annoyance[a]	Concern[a]
Curiosity[a]	Disgust	Stress[a]
Delight	Anger[a]	Jealousy
Enthusiasm		Guilt
Fun[a]		Discomfort[a]
Well-being		Depression
Admiration[a]		Regret
Sympathy[a]		Resignation[a]
Relief[a]		Frustration
Interest[a]		Shame
		Fear[a]
		Boredom[a]

[a] Items excluded after factor analysis

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