The effect of facial expression on emotional contagion and product evaluation in print advertising

Giuliana Isabella[a,*] and Valter Afonso Vieira[b]

[a]*Department of Marketing, Insper – Institute of Education and Research, São Paulo, Brazil and*
[b]*Department of Marketing, State University of Maringa, Maringa, Brazil*

Abstract

Purpose – The purpose of this paper is to investigate the emotional contagion theory in print ads, and expand the literature of smiling to different type of smiles and gender congruency. Emotional contagion happens when an emotion is transferred from a sender to a receiver by the synchronization of emotions from the emitter. Drawing on emotional contagion theory, the authors expand this concept and propose that smiles in static facial expressions influence product evaluation. They suggest that false smiles do not have the same impact as genuine smiles on product evaluation, and the congruence between the model gender–product in a static ad and the gender of the viewer moderates the effects.

Design/methodology/approach – In Experiment 1, subjects were randomly assigned to view one of the two ad treatments to guard against systematic error (e.g. bias). In Experiment 2, it was investigated whether viewing a static ad featuring a model with a false smile can result in a positive product evaluation as was the case with genuine smiles (*H3*). In Experiment 3, it was assumed that when consumers evaluate an ad featuring a smiling face, the facial expression influences product evaluation, and this influence is moderated by the congruence between the gender of the ad viewer and the product *H* gender of the model in the ad.

Findings – Across three experiments, the authors found that the model's facial expression influenced the product evaluation. Second, they supported the association between a model's facial expression and mimicry synchronization. Third, they showed that genuine smiles have a higher impact on product evaluation than false smiles. This novel result enlarges the research on genuine smiles to include false smiles. Fourth, the authors supported the gender–product congruence effect in that the gender of the ad's reader and the model have a moderating effect on the relationship between the model's facial expression and the reader's product evaluation.

Originality/value – Marketing managers would benefit from understanding that genuine smiles can encourage positive emotions on the part of consumers via emotional contagion, which would be very useful to create a positive effect on products. The authors improved upon previous psychological theory (Gunnery et al., 2013; Hennig-Thurau et al., 2006) showing that a genuine smile results in higher evaluation scores of products presented in static ads. The theoretical explanation for this effect is the genuine smile, which involves contraction of both zygomatic major and orbicularis oculi muscles. These facial muscles can be better perceived and transmit positive emotions (Hennig-Thurau et al., 2006).

Keywords Mimicry, Emotional contagion, Advertising, Smile

Paper type Research paper

RAUSP Manag. J.
Vol. 55 No. 3, 2020
pp. 375-391
Emerald Publishing Limited
2531-0488
DOI 10.1108/RAUSP-03-2019-0038

In a static advertisement ("ad" from now), an image can replace text to demonstrate an idea and be the sole means of communicating, a concept or feeling. Unsurprisingly, static ads use a wide variety of distinctive facial expressions from both male and female models. Human faces are one of the first stimuli that gets consumers' attention in an image (Bindemann, Burton, Langton, Schweinberger, & Doherty, 2007; Cerf, Frady, & Koch, 2009).

Emotional contagion theory has been used to explain how an emotion from a facial expression affects consumer behavior (Dallimore, Sparks, & Butcher, 2007; Lewinski, Fransen, & Tan, 2014). As consumers interact with others, they consciously and unconsciously mimic others' fleeting emotional expressions and can synchronize their influential facial expressions with those with whom they are interacting (Hatfield, Cacioppo, & Rapson, 1994). This motor mimicry synchrony produces a response generated by a concurrent congruent experience and leads to a consequent emotional reaction (Dallimore et al., 2007). Thus, emotional contagion is the transferred emotion from the sender to the receiver who shows synchronization and empathy with the emitter (Hatfield et al., 1994).

In marketing, emotional contagion theory has been used in face-to-face interaction studies, supporting the notion that genuine smiling improves product evaluation and satisfaction (Barger & Grandey, 2006; Howard & Gengler, 2001). In static ads, Wang, Xu, Cui, Wang, and Ouyang (2016) investigated the effects of a smile's intensity on the receiver's perception of warmth and competence. They used emotional contagion theory to explain consumer behavior but did not test for the effects of the motor mimicry mechanism or product evaluation, provoking an opportunity for future studies. Previous literature recognizes the importance of studying how emotional facial expressions affecting consumer behavior (Xiao & Ding, 2014), including in specific situations such as static ads (Ilicic, Kulczynski, & Baxter, 2016; Vijayalakshmi & Bhattacharyya, 2012; Wang, Mao, Li, & Liu, 2016). However, some gaps remain in the literature.

First, the investigation of emotional mimicry feedback that is part of the emotional contagion theory is currently absent from the advertising literature in the case of print ads (Wang et al., 2016). This offers an opportunity for research in this area. We address this problem by analyzing the effects of a positive facial expression of a conventionally attractive model in a static ad on emotional mimicry and product evaluation.

Second, while some studies have investigated different types of smiles (Fernandez-Dols & Ruiz-Belda, 1995; Hennig-Thurau, Groth, Paul, & Gremler, 2006; Krumhuber & Manstead, 2009), previous contagion literature has not investigated the effects of a false smile on consumer product evaluations. We address this gap by examining whether a false smile of a conventionally attractive model in a static ad can influence product evaluation. We based our analysis on the Duchenne effect to elaborate our hypothesis.

Third, previous research has explored the gender effects on emotional contagion (Vijayalakshmi & Bhattacharyya, 2012; Xiao & Ding, 2014) as women tend to manifest more smiles than men (Fischer & LaFrance, 2015) and decode facial expressions more accurately than men (Thompson & Voyer, 2014). The few studies from the field of psychology that focus on the mimic effect of gender dyads did not find an interaction between gender and product (Hess & Bourgeois, 2010). Other previous studies that investigated the facial expression mechanism did not focus on product evaluations. We include the gender effect by studying the influence of product–gender congruence on product evaluations in a static ad. The present paper focuses on the product–gender congruency effect proposing that there is a gender congruency effect when the product–gender of the model matches the receptor (e.g. male model with male receptor).

Research context

The context for our research is emotional contagion theory as it contributes to deepening the understanding of the mimic process in print. Xiao and Ding (2014) analyzed press advertising with controlled facial expressions to understand the viewer's reaction to faces (e.g. baby-faced, feminine, unattractive and untrustworthy) according to advertising metrics. Xiao and Ding's results confirmed that different facial expressions influence viewers' attitude' toward advertisements, the brand and their purchase intention. However, they neither studied similar facial expressions (e.g. smiles) nor focused on emotional contagion. Barger and Grandey (2006) proposed that facial expressions indirectly influence encounter satisfaction through mimicry. However, they did not analyze how facial expressions can have a central effect on product evaluation. We contribute to the existing contagion theory by proposing that facial expression in press advertising influences emotional contagion and product evaluation because of the mimic mechanism – feedback response (Hatfield, Cacioppo, & Rapson, 1992; Hennig-Thurau et al., 2006; Howard & Gengler, 2001).

Ambadar, Cohn, and Reed (2009) explored the morphological characteristics included in the activation of facial expressions, observing smiles in amused, embarrassed, nervous and polite situations. By comparing three perceptually distinct types of smiles, these authors found that perceived smile meanings were related to specific variations in smile morphological and dynamic characteristics. However, they did not compare genuine smiles with fake smiles in print advertising. In addition, Messinger, Fogel and Dickson (2001) investigated whether all smiling or specific types of smiling provoked a positive emotion early in life while examining when infants produced different types of smiling and other facial expressions. The authors found that cheek-raise (Duchenne effect) smiling was relatively more likely than smiling alone only when mothers were smiling. Nonetheless, they did not investigate the Duchenne effect with fake versus genuine smile. We extend previous genuine smiles research by investigating if consumers can differentiate a Duchenne effect in print advertising.

A "common sense" cultural assumption asserts that women are more emotional emotionally expressive than men (Fischer, 1993). This gender hypothesis assumes that, "since women appear to be more expressive, they must be more emotional," especially as relates to smiling (Fischer & LaFrance, 2015, p. 22). Empirical evidence shows that viewers perceive a female stimulus as more communicative than a male stimulus (Dimberg & Lundquist, 1990). We assume that in cases of emotional contagion (Czarna, Wrobel, Dufner, & Zeigler-Hill, 2015), women would be influenced to a greater extent by women in print advertising. The gender of advertising recipients can have an interactive effect with the gender of the model in the advertising. We advance the gender hypothesis congruence literature by showing that products can be evaluated more positively in situations of gender congruence between models and consumers.

Theoretical background

Emotional contagion theory

Emotional contagion theory explains how the manifestation of one person's emotion can provoke a similar emotion and behavior in other individuals (Hess, Houde, & Fischer, 2014). According to the theory, emotional contagion occurs in two steps. First, the perception of the emitter's expressive conduct causes the receiver to replicate the behavior covertly by motor mimicry (Trougakos, Jackson, & Beal, 2011). Second, this replication automatically affects and elucidates the receiver's emotional state (Hatfield et al., 1994). Research on emotional contagion uses face-to-face interactions

(Barger & Grandey, 2006) or videos (Dallimore et al., 2007; Lewinski et al., 2014). Studies using static facial expressions are common in psychology, but they do not investigate the effects of ads in marketing or consumer behavior fields. Table I summarizes the empirical studies on emotional contagion and smiles.

Duchenne smile effect
The Duchenne smile triggers positive and genuine emotions, whereas non-Duchenne smile involves only the zygomatic major muscle (Ambadar et al., 2009; Ekman et al., 1990; Messinger, Mattson, Mahoor, & Cohn, 2012), which is usually more conscious and may not be perceived as genuine. Thus, based on zygomatic major muscle differences (Ekman et al., 1990), consumers should note the difference between fake and genuine smiles in print advertising, thus influencing their judgment. Duchenne smiling refers to a genuine smile that happens when someone is very happy, for example, the smile of a championship winner. A championship winner displays a clear smile, presenting evidence of how he/she is feeling (Matsumoto & Willingham, 2006; Medvec, Madey, & Gilovich, 1995). On the contrary, when someone is a runner-up, there is a false (forced) smile.

Authors	Face-to-face interaction or video	Product evaluation	Mimicry	Different types of smiles	Gender difference – Receiver	Product – gender congruence effect (hypothesis)
Barger and Grandey (2006)	X		X			
Barsade (2002)	X					
Czarna et al. (2015)	X					
Dimberg and Lundquist (1990)			X		X	
Dimberg and Thunberg (2012)			X			
Ekman, Davidson, and Friesen (1990)				X		
Ekman and Friesen (1982)				X		
Hennig-Thurau et al. (2006)	X			X		
Hess and Blairy (2001)	X		X			
Hess and Bourgeois (2010)	X				X	
Hess et al. (2014)			X			
Howard and Gengler (2001)	X	X	X			
Huang and Dai (2010)	X					
Ilicic et al. (2016)						
Krumhuber and Manstead (2009)	X			X		
Lewinski et al. (2014)	X					
Manera, Grandi and Colle (2013)				X		
Messinger, Fogel and Dickson (2001)	X					
Pugh (2001)	X	X				
Ramanathan and McGill (2007)	X		X			
Sonnby-Borgstrom, Jonsson, and Svensson (2003)			X			
Thunberg and Dimberg (2000)					X	
Wang, Xu et al. (2016)				X		
Wang, Mao et al. (2016)			X	X		
This paper		X	X	X	X	X

The gender hypothesis difference
The gender difference hypothesis is based on the assumption that women appear to be more sensitive and emotional, especially in smiling (Fischer & LaFrance, 2015). Studies have supported the gender difference hypothesis analyzing the expressions of women and men (Schwartz et al., 1980; Buck, Savin, Miller, & Cam, 1972; Doherty, Orimoto, Singelis, Hatfield, & Hebb, 1995). Previous research suggests that, "since women appear to be more expressive, they must be more emotional," particularly in relation to smiling (Fischer & LaFrance, 2015, p. 22). Under the gender difference hypothesis, women are more emotional than men, and consumers should thus be more likely to be influenced by female models in static ads.

Hypotheses

We propose that the display of a positive facial expression using a conventional model in a printed ad improves consumer product evaluation. Positive facial expressions transmit a positive manifestation of effect to observers (Freitas-Magalhães, Castro, & Baptista, 2009). This positive influence of facial expressions can provide emotional incentives and modulate motivational systems (Lang, 1995). Emotional incentives from facial expressions influence a quick decision-making, an important element of consumers' product evaluations. This positive influence on decision-making explains why happy people commonly evaluate a situation more positively in situations of less structured decision-making (Elsbach & Barr, 1999). Following exposure to positive facial expressions, customers could perceive this positive emotion and then change their product evaluation (Elsbach & Barr, 1999) as happens with face-to-face interaction stimuli (Barger and Grandey, 2006; Howard and Gengler, 2001; Pugh, 2001). Therefore:

> *H1*. Positive facial expressions (vs neutral ones) of models in static advertisements positively influence consumer product evaluations.

Communication occurs by face-to-face interaction and in facial expressions (Ekman, 1993). As part of human communication, there is a process of behavioral mimicry that occurs during a social interaction (Hess & Bourgeois, 2010). Howard and Gengler (2001) demonstrated the occurrence of facial expression mimicries in face-to-face interactions. According to these authors, the emotion from the emitter was successfully transmitted to an object. The incidence of emotional contagion linked to the process of mimicry is explained by the facial feedback hypothesis which states that facial movement can stimulate emotional experiences. According to Hatfield et al. (1994), when there is a skeletal muscle feedback from facial expressions, the receiver regulates the emotional experience and can also adapt his/her behavior, generating facial feedback. Although this mimicry behavior has been shown to be part of the communication process, studies have also shown that people mimic others even in a situations where the person has no real interaction with the emitter, such as in a video (Hess & Blairy, 2001). This imitation occurs because the mimicry response is an unconscious motor feedback (Hess et al., 2014). Based on this facial feedback hypothesis (Hess & Bourgeois, 2010), we propose that:

> *H2*. When the receptor (who in this case reads a magazine) sees a model's positive facial expression in a static advertisement, he/she will mimic it.

Gunnery et al. (2013) instructed participants to create or "pose" facial expression (more specifically, to smile) whilst enacting genuine versus contrived scenarios. In some cases, participants were asked to mask the expression of disappointment, fatigue or irritation with a smile. In the genuine situation, participants were oriented to feel happy, as if they were

with friends. According to results, the rates of genuine smiling provided evidence that a substantial minority of people can produce a genuine smile deliberately, upon request. Because the genuine smile is sincere (Hennig-Thurau et al., 2006; Maringer et al., 2011) and may induce a positive emotion and influence consumer behavior, we submit that a genuine smile (as opposed to a false smile) provokes higher product evaluation scores in response to a static ad.

The genuine smile effect is related to the emotional smile. It is completely symmetrical and involves the *zygomatic major* and *orbicularis oculi* muscles. A genuine smile raises the muscles in the corners of the mouth and forms "crow's feet" around the eyes (Ekman, 1993; Ekman & Friesen, 1982). In studies of face-to-face interactions, the genuine smile has been found to trigger positive emotions in those who observe it (Howard & Gengler, 2001; Sato, Fujimura, Kochiyama, & Suzuki, 2013). On the other hand, a false smile involves only the *zygomatic major* muscle (Ambadar et al., 2009; Ekman et al., 1990; Messinger et al., 2012). We hypothesize that consumers can unconsciously detect the difference between a false and a genuine smile even in static advertising. If people perceive that a smile is not genuine, they will not "catch" a positive emotion from the emitter. In this situation, we believe that:

H3. A genuine smile (versus a false smile) by a model in a static advertisement positively influences product evaluations.

According to the literature, women tend to outwardly display more sensations than men (Dimberg & Lundquist, 1990; Schwartz, Brown, & Ahern, 1980). Doherty et al. (1995) showed that women were significantly more susceptible to the emotions of others than men (with the important exception of anger) on all subscales. As women tend to outwardly display more sensations than men (Schwartz et al., 1980), we hypothesize that in situations of gender congruence, when the product is aimed at a female and both the model and receptor are female, the positive emotion from the model positively influences product evaluation.

In a neutral condition (with no emotional contagion), with a male receptor and a female oriented product (incongruent scenario), we believe that emotional contagion would not occur because the product is aimed at the other gender even when the product is presented by a female model. The rationality of thinking about how, when and why the other person would use the product limits the capacity of emotional contagion. In an incongruent situation, the contrasting effect of gender and product does not generate the convergence of emotions between the sender and receiver (Hatfield et al., 1994). Figure 1 presents our theoretical framework.
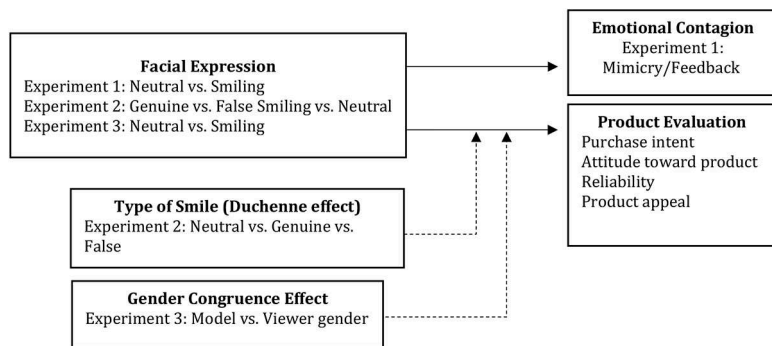
Figure 1.
Proposed theoretical framework

Thus, our fourth hypothesis is that:

H4. The gender match of the model in the ad and the reader in a smiling condition (vs neutral) moderates the effect of facial expression on product evaluation, generating a congruence effect (vs incongruence effect).

Experiment 1

Our *Research Goal* was to determine whether facial expression changes consumer evaluations of a product (*H1*) and produces mimicry (*H2*). In all, 154 people participated in the experiment. Participants were students who went to a computer lab to participate in the experiment as part of a class assignment.

Research design

To make our experiment reflect a real marketing situation, we created a print advertisement that incorporated the facial expression that we wanted to incorporate. We manipulated facial expressions happy vs neutral emotion. Subjects were randomly assigned to view one of the two ads to guard against systematic error (e.g. bias). The ads consisted of two similar static ads that incorporated the image of a blonde woman of approximately 35 years posed close to an electronic product with some basic product information. We manipulated the facial expression of the woman to portray two different conditions: an expression of joy (e.g. a smile) *vs* a neutral expression. We chose these two different expressions based on Paul Ekman (Ekman et al., 1990). To isolate any confounding variables, we controlled for the position of the head and the neck of the model.

Participants

We invited students to go to a computer lab to participate in the study. They were randomly allocated to the ads (Huber & Zwerina, 1996). In all, 171 students participated in the research.

Product selection

We carried out in-depth individual interviews with six male and five female undergraduate students from the same college to determine the product to be featured in the experiment. None of those interviewed participated in the experiment. The results of in-depth interviews revealed unisex products, in which an electronic product was chosen for the ad in the experiment. A fictitious brand name was used.

Cover story

A two-study cover story was introduced in the computer-based experiment. The cover story for Experiment 1 used the example of a documentary movie. The documentary movie was about John Nash, Ph.D., which had already been used in previous research (Andrade, 2005). Respondents were instructed to watch a video on the computer screen and answer a few questions. The idea of the video was to neutralize participants' emotions.

Product

Participants analyzed a black and white newspaper print advertisement, with a Finnish advertising text about an MP3 player. Information about the MP3 player in the ad was in Finnish, a language that any participant could read, and the MP3 brand name was unfamiliar to participants. During second stimulus, the computer automatically videotaped

all the participants with a webcam (Video Graphics Array (VGA) 640 × 480) for 15-20 s. We used YupSoft® Cam Video Capture Monitoring. We analyzed the participant's facial videos to confirm the presence (or absence) of mimicry on participants' faces. At the end of the experiment, all participants were informed that their faces had been recorded.

We conducted a pre-test to analyze whether the documentary was creating emotional responses and whether the facial expression used in the advertising stimuli was being perceived as neutral and positive. The results showed that in the smiling condition, 89 per cent of the participants confirmed that the model was happy. In the neutral condition, 67 per cent reported that the model was neutral.

Training procedures and laboratory
To determine whether motor mimicry was caused by the unconscious feedback process of viewing a smiling face in the ad, three trained judges analyzed the participants' recorded videos. According to the Facial Action Coding System (FACS), a positive smile involves a combination of Action Unit (AU), AU6 (Cheek Raiser), AU12 (Lip Corner Puller) and AU25 (Lips Part). Three junior researchers received 60 min of training on distinguishing smiling facial micro-expressions. We coded the smile mimicry with 0, meaning no mimicry and 1 involving open eyes and corners of the mouth turned up (Ekman & Friesen, 1982).

Measurement
We used product evaluation scales developed by Berens, van Riel and van Bruggen (2005). The scale for product evaluation achieved the required levels of reliability as follows: attitude toward the product $\alpha = 0.81$, reliability $\alpha = 0.82$, sympathy, $\alpha = 0.86$ and purchase intention, $\alpha = 0.85$.

Manipulation check
All manipulation checks were consistent with predicted and previously pre-tested neutral and positive emotions. In all, 141 participants responded that the documentary was neutral. We found no difference when comparing the documentary as neutral and in the smiling condition ($\chi^2(1) = 1.614$, $p = $ NS). Second, we tested if participants perceived the ad with the smiling woman as expressing a positive emotion and whether the ad with the neutral-faced woman expressed a neutral emotion. The chi-square test showed that the two groups were able to recognize the stimulus appropriately ($\chi^2(1) = 121.165$, $p < 0.001$). Third, we asked participants to identify the feeling expressed by the model. Participants answered either very happy, happy, neutral, sad, or very sad (as an ordinal question). Of those who viewed the ad containing the model with the neutral expression, 66 per cent identified that the model had a neutral expression. Of those who viewed the ad with the smiling model, 84 per cent identified the model as happy or very happy. The chi-square test confirmed the stimulus difference ($\chi^2(4) = 88.070$, $p < 0.001$).

Empirical results
The distribution of the 154 participants in the experiment was 48 per cent in the neutral condition ($n = 31$ females and $n = 43$ males) and 52 per cent in the smiling condition ($n = 35$ females and $n = 45$ males). There was no difference in the number of participants in each group $\chi^2(1) = 0.054$; $p = $ NS. All dimensions achieved high levels of reliability: attitude toward the product, $\alpha = 0.81$, reliability, $\alpha = 0.82$, product appeal, $\alpha = 0.86$ and purchase intention, $\alpha = 0.85$.

The results indicated that the ad with the smiling model resulted in higher attitude scores when compared to the ad with the neutral expression ($M_{\text{neutral}} = 3.25$ vs $M_{\text{smiling}} = 3.77$; $F(1,152) = 10.98$, $p < 0.001$). The same results occurred for reliability ($M_{\text{neutral}} = 2.95$ vs $M_{\text{smiling}} = 3.31$; $F(1,152) = 18.97$, $p < 0.001$), product appeal ($M_{\text{neutral}} = 2.45$ vs $M_{\text{smiling}} = 3.24$; $F(1,152) = 15.29$, $p < 0.001$) and purchase intent ($M_{\text{neutral}} = 2.23$ vs $M_{\text{smiling}} = 2.90$; $F(1,152) = 10.78$, $p < 0.001$). These findings supported H_1.

Next, we examined the effects of a positive facial expression on emotional contagion based on mimicry (H_2). Results confirmed the effect of emotional contagion by the number of mimicries found in the participants' recorded facial expression videos. The chi-square test showed a significant association between the expression of the model in the ad and the participant's mimicry ($\chi^2(129) = 11.691$, $p < 0.001$).

Experiment 2

Research goal

In Experiment 2, we investigated whether viewing a static ad featuring a model with a false smile can result in a positive product evaluation as was the case with genuine smiles (H3). To test this hypothesis, the experiment focused on three types of facial expressions: neutral, a false smile and a genuine smile. The neutral expression was our baseline, and the genuine and false smiles were based on the principles of a *zygomatic major* muscle analysis (Ambadar et al., 2009; Messinger et al., 2001). We used three facial expressions (neutral vs genuine smiling vs fake smiling) between subjects' design. The model used in the print advertising was a 30-year-old conventionally attractive racialized woman.

Research design

We created static ads for a fictitious TV brand featuring a conventionally attractive model displaying three different types of facial expressions. To achieve a genuinely happy facial expression, we recorded the model talking about pleasant circumstances. To achieve a false smile, we asked her to comment about a negative situation and then smile for the camera. In this way, we ensured that the smile was false and that she was not transmitting a positive emotion. To accomplish a neutral face, we asked her to talk about her routine. With the frames from the videos, we created the final photos and using Photoshop to ensure that the model's neck and hair were identical in each (Figure 2). We developed a television press advertising changing only the facial expressions. Throughout a 10-minrecording the model shared happy situations that had happened in her life We then asked her to tell us about her job. We selected pictures to build the genuine smiling face and the fake smile from this recording. Using Photoshop, we controlled the images to maintain the model's neck and hair the same in all the print ads. In this way, we were able to guarantee that only the facial expression was different.

Figure 2.
Neutral, false and genuine facial expressions, respectively

Procedure
We invited students to go to the lab and they were randomly allocated to one of the three treatments ensuring against systematic errors (bias). Participants viewed the press ad at a resolution of VGA 800×600 and then answered dependent variable and demographic questions.

Sample
Similar to the procedure used in Experiment 1, 206 undergraduate students from languages and accounting courses were invited to take part in the experiment. The students went to the computer lab to participate in the experiment as part of a class assignment. Participants watched a neutral documentary (Andrade, 2005) and then answered a few questions. Next, they were instructed to evaluate a television featured in an ad with a fictitious brand. Just as in Experiment 1, the ads contained technical information about the product alongside the model. After seeing the ad, participants responded to the Berens et al. (2005) scale to measure product evaluation. In a separate group of 34 students, we conducted a pre-test to check the clarity of instructions, the cover history and the questionnaires. No problems were identified, and so we proceeded to the experiment in the laboratory.

Manipulation check
We tested the participants' perception of the model's expression (smiling vs non-smiling). We found a significant relationship ($\chi^2(1) = 90.997$, $p < 0.001$) between the model's expression and the participants' answers (neutral vs false vs genuine smiling by the facial expression; $\chi^2(4) = 94.587$, $p < 0.001$). Results confirmed our assumption that smiling evokes a positive emotion ($\chi^2(4) = 37.839$, $p < 0.001$). In terms of scales, we found high scores on reliability such as attitude toward the television $\alpha = 0.89$, reliability $\alpha = 0.89$, product appeal, $\alpha = 0.93$ and purchase intent, $\alpha = 0.87$, as expected.

Empirical results
Of 206 individuals, 95 of them considered themselves Caucasians; 100 of them considered mixed race (Blacks and Caucasians) and 11 of them self-identified as Blacks. Among the conditions, we found a non-significant association between the participants' skin colors and the three conditions ($\chi^2(2) = 1.686, p =$ NS).

To test the hypotheses, we created four general linear models (GLM) to test *H1* and *H3*. As expected, we found a main effect of facial expression on attitude toward the product ($M_{neutral} = 2.17$, vs. $M_{false} = 2.24$, vs $M_{genuine} = 2.75$; $F(2,203) = 4.393$, $p < 0.01$), product appeal ($M_{neutral} = 1.94$, vs $M_{false} = 2.34$, vs $M_{genuine} = 2.78$; $F(2,203) = 6.436$, $p < 0.01$), reliability ($M_{neutral} = 1.85$, vs $M_{false} = 2.24$, vs $M_{genuine} = 2.67$; $F(2,203) = 6.603$, $p < 0.01$) and purchase intention ($M_{neutral} = 1.84$, vs $M_{false} = 2.14$, vs $M_{genuine} = 2.61$; $F(2,203) = 5.694$, $p < 0.01$).

To test whether genuine smiles affect evaluation of ads (supporting H_1,) we relied on Bonferroni's post-hoc analysis comparing genuine vs neutral. In this test, we found a significant difference in attitude toward the product ($M_{\Delta mean\_difference} = 0.583$, $p < 0.05$), purchase intention ($M_{\Delta mean\_difference} = 0.771$, $p < 0.005$), product appeal ($M_{\Delta mean\_difference} = 0.839, p < 0.001$) and reliability ($M_{\Delta mean\_difference} = 0.823, p < 0.001$).

To verify whether false smiles impacted evaluation of ads differently than genuine smiles, we compared false versus genuine smiles. Results showed that there is a marginal effect in attitude toward the product ($M_{\Delta mean\_difference} = 0.511$, $p < 0.06$) and reliability ($M_{\Delta mean\_difference} = 0.429$, $p < 0.06$) but no effect on intention to purchase ($M_{\Delta mean\_difference} =$

0.471, $p = 0.14$) or on product appeal ($M_{\Delta mean\_difference} = 0.433$, $p = 0.21$), thus marginally supporting *H3*.

Experiment 3
Research goal
In Experiment 3, we assumed that when consumers evaluate an ad featuring a smiling face, the facial expression would influence product evaluation and that this influence would be moderated by the congruence between the gender of the ad viewer and the product–gender of the model in the ad. We advance from previous studies (Dimberg & Lundquist, 1990; Buck et al., 1972; Schwartz et al., 1980) in three different ways. First, we used two genders in the advertising and not a unisex one. Second, we elaborated a more realistic experiment in which consumers see more than one advertisement to create their judgments. Finally, we controlled for both positive and negative effects.

Research design
We elaborated four print advertisements for a t-shirt. We used a mix factorial design. The experiment design was 2 advertising models (male and female) that were in 4 different stimuli (two print advertisements for t-shirts with male models and two with female models) × 2 facial expressions (neutral *vs* smiling) × 2 recipient/viewer gender (male and female). The gender models were manipulated within subjects and the facial expression and viewer¨s genders were manipulated in between subject condition. This eight stimuli design ($2 \times 2 \times 2$) was created based on real advertising from an online fashion company. The ads were created based on the real photos and products from an online store. Manipulation stimuli can be seen upon request, as publication is not allowed. For experiment design we operationalized a gender model (male *vs* female) × facial expressions (neutral *vs* smiling) × viewer gender (male *vs* female) based on advertisements from an online fashion company. Each participant viewed four ads with just one type of facial expression (neutral *vs* smiling). The combination of ads had two male model ads and two female model ads. The gender of the models was manipulated within subjects and facial expressions while facial expressions were manipulated between-subject conditions. We used a mixed factorial design. Each factorial model wore the same shirt while either smiling or displaying a neutral expression. The male model wore a men's shirt, and the female model wore a woman's shirt. Basic information about the shirt such as sizing and fabric type was included in the ad.

Confounding effects
To isolate any confounding effects, we controlled the position of the head and neck of the model, all the ads were the same size, and the participants were blinded to the product's brand name and price. We obtained the models' images from the original photo on the fashion company website. The smiling facial expressions and neutral expressions were created using the actual facial expressions of the models. Two different ads were created with each of the male and female models.

Participants
One hundred and twelve students participated in the research as part of a class assignment. After viewing each ad, they completed the product evaluation scale (Berens et al., 2005). We also measured the positive and negative effect of each participant using a Richin (1997) scale with the following dimensions: unhappy, depressed, pleased, cheerful, sad or happy, before the stimuli presentation as a covariate.

Measurement
As in the previous experiments, we adapted the product evaluation scales from Berens et al. (2005). The product evaluation scales' reliabilities were $\alpha = 0.83$ for attitude, $\alpha = 0.81$ for reliability, $\alpha = 0.81$ for sympathy and $\alpha = 0.94$ for buying intention. We added six questions to control the following emotions: unhappiness, depressed, pleased, cheered up, sadness and happiness. Cronbach alpha values were $\alpha = 0.84$ for negative emotion and $\alpha = 0.83$ for positive emotion.

Empirical results
Of the 112 participants, 50 were males and 62 females. From the total sample, 60 participants viewed the static ads with smiling models, and 52 viewed ads featuring models with neutral expressions. To check for facial expression manipulation, we asked whether the participants perceived that the model was either smiling or presenting a neutral expression at the end of the questionnaire. As predicted, the two groups were able to recognize the stimulus appropriately ($\chi^2_{(1)} = 6.379$, $p < 0.012$), supporting manipulating check. None of the participants discovered the true purpose of the activity.

We added the emotional questions to control for participants' emotions (Richin, 1997). Cronbach alpha values were $\alpha = 0.84$ for negative emotion and $\alpha = 0.83$ for positive emotion. We investigated whether the initial emotions were different between conditions. No statistical difference was found, in either positive emotion ($M_{smiling} = 3.74$ and $M_{neutral} = 3.97$; $t(111) = -0.999$, $p < 0.320$) or negative emotion ($M_{smiling} = 2.69$ and $M_{neutral} = 2.66$; $t(111) = 0.097$, $p < 0.923$) for the two expressions.

To test the hypothesis, we ran the GLMs with repeated measures to verify the gender–product congruency effect. The results indicated a three-way interaction effect between facial expression $\times$ model's gender $\times$ viewer's gender on attitude toward the advertising ($F(1,108) = 6.420$, $p < 0.013$). Male participants recorded higher attitude scores when the models were smiling. The higher score-to-product attitude was in the t-shirt advertising from the male models (gender congruency) compared to the female models, exactly as predicted. These results confirmed *H3* about gender congruency.

The outcomes also confirmed a gender congruency effect ($F(1,108) = 4.177$, $p < 0.043$). This gender congruency effect did not happen in the neutral condition. The interaction effect between facial expression $\times$ model's gender $\times$ viewer's gender impacted perception of reliability ($F(1,108) = 9.485$, $p < 0.003$). Men perceived the t-shirts as more reliable when they were worn by male models. Product appeal also showed an interaction ($F(1,108) = 6.738$, $p < 0.011$). Figure 3 shows the means for each stimulus.

Theoretical implications
First, our findings are consistent with the literature on face-to-face emotional contagion (Hess & Bourgeois, 2010; Howard & Gengler, 2001; Pugh, 2001), as applied in service encounters (Dallimore et al., 2007). We expanded the literature on emotional contagion of static images/photos confirming that the facial expression of a model in a static ad (different than the usual celebrity ads studied (Hasford et al., 2015; Ilicic et al., 2016) influences the evaluation of the product featured in the advertising. Hence, we demonstrated that the facial expression of a model in a static ad influences product evaluation. As in previous studies with face-to-face interaction or videos (Barger & Grandey, 2006; Hess & Fischer, 2014; Howard & Gengler, 2001; Trougakos et al., 2011),
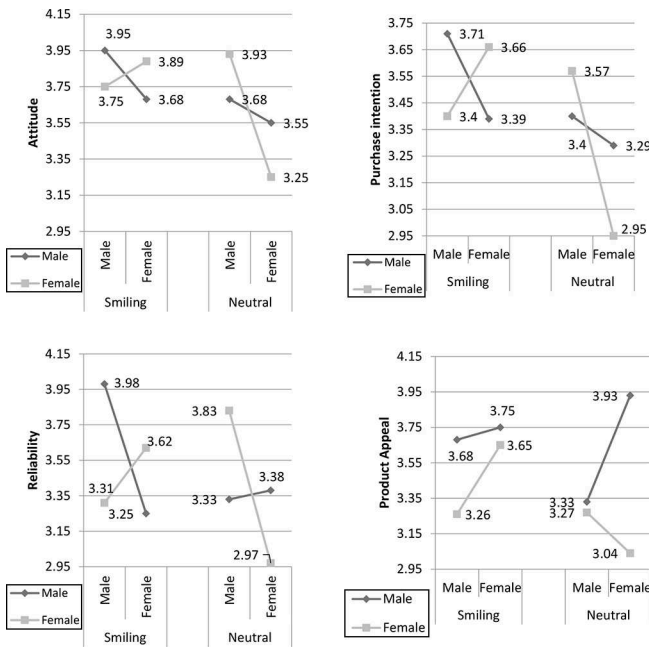
Figure 3.
Interaction of facial
expression × model's
gender × viewer's
gender (means)

the facial expression of a conventionally attractive model influences the viewer through the mechanism of mimicry.

Second, we improved upon previous psychological theory (Gunnery et al., 2013; Hennig-Thurau et al., 2006) by showing that a genuine smile results in higher evaluation scores of products presented in static ads. The theoretical explanation for this effect is the genuine smile, which involves contraction of both *zygomatic major* and *orbicularis oculi* muscles. These facial muscles can be better perceived and transmit positive emotions (Hennig-Thurau et al., 2006). According to Gunnery and Ruben (2015), when people evaluate genuine smiles they evaluate the model more positively as being authentic, genuine, real, attractive and trustworthy. Before this study, there was no empirical evidence of the genuine smile's influence on consumer judgment.

Third, previous research has explored the difference between men and women as emitters or receptors of emotion (Dimberg & Lundquist, 1990; Öhman, Juth, & Lundqvist, 2010). The few studies of emotional contagion focus exclusively on the receptor's gender (Doherty et al., 1995; Fischer & LaFrance, 2015; Hess & Bourgeois, 2010). Our study fills this gap by showing that the emitter gender is also an important factor to be considered. Different results can be found varying the emitter because there is a (now confirmed) gender effect on product evaluation.

Managerial implications

Marketing managers would benefit from understanding that genuine smiles can encourage positive emotions on the part of consumers via emotional contagion, which would be very useful to create a positive effect on products. Static media such as newspapers, magazines, catalogues, billboards and blogs use models with false smiles that are usually posed and do not have high emotional content.

Our data show that genuine smiles increase product evaluation scores and, based on this information, advertising agencies and other decision makers should show models with genuine smiles to influence consumer product evaluation. Our results show that there is a gender interaction congruence effect on that effects product evaluation in static ads. Products that are appealing to both genders, such as tablet computers, printers, televisions and books can be better evaluated by females. When the product is related to the model, there is congruence with the viewer. Therefore, advertising professionals need to consider the facial expressions of models to reach their target audience.

In addition, when a product is related to the model, advertising needs to contemplate presenting the stimuli using a smiling expression. When advertising professionals consider the facial expressions of models (instead of presenting models in a neutral condition), there is a congruence effect with the viewer which effectively reaches the target segment and increases product evaluation scores. With the support of our hypothesis, companies can use smiling facial expressions in press ads to influence their consumers but need to adjust the facial expressions according to the target gender and product.

Suggestions for future research

Future investigations could explore the effect of emotional contagion on other dependent variables or moderators such as product level-involvement, attention, memory or even perception of brand differentiation (Soscia, Girolamo, & Busacca, 2010). People tend to automatically and continuously mimic and synchronize their movements with the facial expressions, voice, posture, movements and other instrumental behaviors of their conversation partners (Hatfield et al., 1994). This study focused on only one stimulus, the facial expression. Analogous to the Howard and Gengler (2001) study, we assumed the theory that mimicry brings emotional contagion (people feel better). Because we assumed that facial expressions could produce emotional contagion (Howard & Gengler, 2001), future research could use different theoretical explanations to analyze the influence of emotional contagion.

References

Ambadar, Z., Cohn, J. F., & Reed, L. I. (2009). All smiles are not created equal: Morphology and timing of smiles perceived as amused, polite, and embarrassed/nervous. *Journal of Nonverbal Behavior*, *33*, 17–34. https://doi.org/10.1007/s10919-008-0059-5

Andrade, E. B. (2005). Behavioral consequences of affect: Combining evaluative and regulatory mechanisms. *Journal of Consumer Research*, *32*, 355–362. https://doi.org/10.1086/497546

Barger, P. B., & Grandey, A. A. (2006). Service with a smile and encounter satisfaction: Emotional contagion and appraisal mechanisms. *Academy of Management Journal*, *49*, 1229–1238. https://doi.org/10.5465/AMJ.2006.23478695

Barsade, S. G. (2002). The ripple effect: Emotional contagion and its influence on group behavior. *Administrative Science Quarterly*, *47*, 644–675. https://doi.org/10.2307/3094912

Berens, G., Van Riel, C. B., & Van Bruggen, G. H. (2005). Corporate associations and consumer product responses: The moderating role of corporate brand dominance. *Journal of Marketing*, *69*, 35–48. https://doi.org/10.1509/jmkg.69.3.35.66357

Bindemann, M., Burton, A. M., Langton, S. R. H., Schweinberger, S. R., & Doherty, M. J. (2007). The control of attention to faces. *Journal of Vision*, *715*, 1–8. https://doi.org/10.1167/7.10.15

Buck, R., Savin, V. J., Miller, R. E., & Cam, W. F. (1972). Communication of affect through facial expressions in humans. *Journal of Personality and Social Psychology*, *23*, 362–371.

Cerf, M., Frady, E. P., & Koch, C. (2009). Faces and text attract gaze independent of the task: experimental data and computer model. *Journal of Vision*, *9*, 10–10. https://doi.org/10.1167/9.12.10

Czarna, A. Z., Wrobel, M., Dufner, M., & Zeigler-Hill, V. (2015). Narcissism and emotional contagion: do narcissists 'catch' the emotions of others? *Social Psychological and Personality Science*, *6*, 318–324. https://doi.org/10.1177/1948550614559652

Dallimore, K. S., Sparks, B. A., & Butcher, K. (2007). The influence of angry customer outbursts on service providers' facial displays and affective states. *Journal of Service Research*, *10*, 78–92. https://doi.org/10.1177/1094670507304694

Dimberg, U., & Lundquist, L. O. (1990). Gender differences in facial reactions to facial expressions. *Biological Psychology*, *30*, 151–159. https://doi.org/10.1016/0301-0511(90)90024-Q

Dimberg, U., & Thunberg, M. (2012). Empathy, emotional contagion, and rapid facial reactions to angry and happy facial expressions. *PsyCh Journal*, *1*, 118–127. https://doi.org/10.1002/pchj.4

Doherty, R. W., Orimoto, L., Singelis, T. M., Hatfield, E., & Hebb, J. (1995). Emotional contagion. *Psychology of Women Quarterly*, *19*, 355–371. https://doi.org/10.1111/j.1471-6402.1995.tb00080.x

Ekman, P. (1993). Facial expression and emotion. *American Psychologist*, *48*, 384–392. https://doi.org/10.1037/0003-066X.48.4.384

Ekman, P., Davidson, R. J., & Friesen, W. V. (1990). The duchenne smile: Emotional expression and brain physiology. *Journal of Personality and Social Psychology*, *58*, 342–353. https://doi.org/10.1037/0022-3514.58.2.342

Ekman, P., & Friesen, W. V. (1982). Felt, false, and miserable smiles. *Journal of Nonverbal Behavior*, *6*, 238–252. https://doi.org/10.1007/BF00987191

Elsbach, K. D., & Barr, P. S. (1999). The effects of mood on individuals' use of structured decision protocols. *Organization Science*, *10*, 181–198. https://doi.org/10.1287/orsc.10.2.181

Fernandez-Dols, J. -M., & Ruiz-Belda, M. -A. (1995). Are smiles a sign of happiness? Gold medal winners at the olympic games. *Journal of Personality and Social Psychology*, *69*, 1113–1119. https://doi.org/10.1037/0022-3514.69.6.1113

Fischer, A. H. (1993). Sex differences in emotionality: Fact or stereotype?. *Feminism and Psychology*, *3*, 303–318. https://doi.org/10.1177/0959353593033002

Fischer, A., & LaFrance, M. (2015). What drives the smile and the tear: Why women are more emotionally expressive than men. *Emotion Review*, *7*, 22–29. https://doi.org/10.1177/1754073914544406

Freitas-Magalhães, A., Castro, E., & Baptista, J. (2009). Expressão facial: A retribuição do sorriso em interacção social: estudo empírico com portugueses. *Revista Da Faculdade de Ciencias Da Saúde*, *6*, 420–426. Retreived from https://core.ac.uk/download/pdf/61007870.pdf

Gunnery, S. D., Hall, J. A., & Ruben, M. A. (2013). The deliberate duchenne smile: Individual differences in expressive control. *Journal of Nonverbal Behavior*, *37*, 29–41. https://doi.org/10.1007/s10919-012-0139-4

Gunnery, S. D., & Ruben, M. A. (2015). Perceptions of duchenne and non-duchenne smiles: A meta-analysis. *Cognition and Emotion*, *9931*, 1–15. https://doi.org/10.1080/02699931.2015.1018817

Hasford, J., Hardesty, D., & Kidwell, B. (2015). More than a feeling: Emotional contagion effects in persuasive communication. *Journal of Marketing Research*, *52*, 836–847. https://doi.org/10.1509/jmr.13.0081

Hatfield, E., Cacioppo, J.T., & Rapson, R. (1992). Primitive emotional contagion. In M. S. Clark (Ed.), *Emotion and social behavior: Review of personality and social psychology* (Vol. 14, pp. 151–177). Newbury Park, CA: Sage.

Hatfield, E., Cacioppo, J.T., & Rapson, R. L. (1994). *Emotional contagion (studies in emotion and social interaction*, Cambridge, United Kingdom: Cambridge University Press.

Hennig-Thurau, T., Groth, M., Paul, M., & Gremler, D. D. (2006). Are all smiles created equal? How emotional contagion and emotional labor affect service relationships. *Journal of Marketing*, *70*, 58–73. https://doi.org/10.1509/jmkg.70.3.58

Hess, U., & Blairy, S. (2001). Facial mimicry and emotional contagion to dynamic emotional facial expressions and their influence on decoding accuracy. *International Journal of Psychophysiology*, *40*, 129–141. https://doi.org/10.1016/S0167-8760(00)00161-6

Hess, U., & Bourgeois, P. (2010). You smile–I smile: Emotion expression in social interaction. *Biological Psychology*, *84*, 514–520. https://doi.org/10.1016/j.biopsycho.2009.11.001

Hess, U., & Fischer, A. (2014). Emotional mimicry: Why and when we mimic emotions. *Social and Personality Psychology Compass*, *8*, 45–57. https://doi.org/10.1111/spc3.12083

Hess, U., Houde, S., & Fischer, A. (2014). Do we mimic what we see or what we know? In C. von Scheve, & M. Salmela (Eds.), *Collective emotions* (pp. 94–107). Oxford, United Kingdom: University Press

Howard, D. J., & Gengler, C. (2001). Emotional contagion effects on product attitudes. *Journal of Consumer Research*, *28*, 189–201. https://doi.org/10.1086/322897

Huang, P. -F., & Dai, C. -W. (2010). The impacts of emotional contagion and emotional labor perception on employees' service performance. *International Journal of Electronic Business Management*, *8*, 68-79. Retrieved from https://pdfs.semanticscholar.org/f533/75731aef35f44144d830b325d83297adceb1.pdf

Huber, J., & Zwerina, K. (1996). The importance of utility balance in efficient choice designs. *Journal of Marketing Research*, *33*, 307–317. https://doi.org/10.1177/002224379603300305

Ilicic, J., Kulczynski, A., & Baxter, S. (2016). How a smile can make a difference: Enhancing the persuasive appeal of celebrity endorsers. *Journal of Advertising Research*, *59*, 1–49. https://doi.org/10.2501/JAR-2016-003

Krumhuber, E. G., & Manstead, A. S. R. (2009). Can duchenne smiles be feigned? New evidence on felt and false smiles. *Emotion*, *9*, 807–820. https://doi.org/10.1037/a0017844

Lang, P. J. (1995). The emotion probe – studies of motivation and attention. *American Psychologist Association*, *50*, 372–385. https://doi.org/10.1037/0003-066X.50.5.372

Lewinski, P., Fransen, M. L., & Tan, E. S. H. (2014). Predicting advertising effectiveness by facial expressions in response to amusing persuasive stimuli. *Journal of neuroscience: Psychology, and Economics*, *7*, 1–14. https://doi.org/10.1037/npe0000012

Manera, V., Grandi, E., & Colle, L. (2013). Susceptibility to emotional contagion for negative emotions improves detection of smile authenticity. *Frontiers in Human Neuroscience*, *7*, 1–17. https://doi.org/10.3389/fnhum.2013.00006

Maringer, M., Krumhuber, E. G., Fischer, A. H., & Niedenthal, P. M. (2011). Beyond smile dynamics: Mimicry and beliefs in judgments of smiles. *Emotion*, *11*, 181–187. https://doi.org/10.1037/a0022596

Matsumoto, D., & Willingham, B. (2006). The thrill of victory and the agony of defeat: Spontaneous expressions of medal winners of the 2004 Athens olympic games. *Journal of Personality and Social Psychology*, *91*, 568–581. https://doi.org/10.1037/0022-3514.91.3.568

Medvec, V. H., Madey, S. F., & Gilovich, T. (1995). When less is more: Counterfactual thinking and satisfaction among olympic medalists. *Journal of Personality and Social Psychology*, *69*, 603–610. https://doi.org/10.1037/0022-3514.69.4.603

Messinger, D. S., Fogel, A., & Dickson, K. L. (2001). All smiles are positive, but some smiles are more positive than others. *Developmental Psychology*, *37*, 642–653. https://doi.org/10.1037//0012-1649.37.5.642

Messinger, D. S., Mattson, W. I., Mahoor, M. H., & Cohn, J. F. (2012). The eyes have it: Making positive expressions more positive and negative expressions more negative. *Emotion*, *12*, 430–436. https://doi.org/10.1037/a0026498

Öhman, A., Juth, P., & Lundqvist, D. (2010). Finding the face in a crowd: Relationships between distractor redundancy, target emotion, and target gender. *Cognition & Emotion*, *24*, 1216–1228. https://doi.org/10.1080/02699930903166882

Pugh, S. D. (2001). Service with a smile: Emotional contagion in the service encounter. *Academy of Management Journal*, *44*, 1018–1027. https://doi.org/10.2307/3069445

Ramanathan, S., & McGill, A. L. (2007). Consuming with others: Social influences on moment-to-moment and retrospective evaluations of an experience. *Journal of Consumer Research*, *34*, 506–524. https://doi.org/10.1086/520074

Richin, M. L. (1997). Measuring emotions in the consumption experience. *Journal of Consumer Research*, *24*127–146. https://doi.org/10.1086/209499

Sato, W., Fujimura, T., Kochiyama, T., & Suzuki, N. (2013). Relationships among facial mimicry, emotional experience, and emotion recognition. *PloS One*, *8*, e57889 Vol https://doi.org/10.1371/journal.pone.0057889

Schwartz, G. E., Brown, S. L., & Ahern, G. L. (1980). Facial muscle patterning and subjective experience during affective imagery: Sex differences. *Psychophysiology*, *17*, 75–82. https://doi.org/10.1126/science.1257786

Sonnby-Borgstrom, M., Jonsson, P., & Svensson, O. (2003). Emotional empathy as related to mimicry reactions at different levels of information processing. *Journal of Nonverbal Behavior*, *27*, 3-23. https://doi.org/10.1023/A:1023608506243

Soscia, I., Girolamo, S., & Busacca, B. (2010). The effect of comparative advertising on consumer perceptions: Similarity or differentiation? *Journal of Business and Psychology*, *25*, 109-118. https://doi.org/10.1007/s10869-009-9130-4

Thompson, A. E., & Voyer, D. (2014). Sex differences in the ability to recognise non-verbal displays of emotion: A meta-analysis. *Cognition and Emotion*, *28*, 1164–1195. https://doi.org/10.1080/02699931.2013.875889

Thunberg, M., & Dimberg, U. (2000). Gender differences in facial reactions to fear-relevant stimuli. *Journal of Nonverbal Behavior*, *24*, 45–51. http://dx.doi.org/10.1023/A:1006662822224

Trougakos, J. P., Jackson, C. L., & Beal, D. J. (2011). Service without a smile: Comparing the consequences of neutral and positive display rules. *Journal of Applied Psychology*, *96*, 350–362. https://doi.org/10.1037/a0021880

Vijayalakshmi, V., & Bhattacharyya, S. (2012). Emotional contagion and its relevance to individual behavior and organizational processes: A position paper. *Journal of Business and Psychology*, *27*, 363–374. https://doi.org/10.1007/s10869-011-9243-4

Wang, Q., Xu, Z., Cui, X., Wang, L., & Ouyang, C. (2016). Does a big duchenne smile really matter on e-commerce websites? An eye-tracking study in China. *Electronic Commerce Research*, *17*, 1–18. https://doi.org/10.1007/s10660-016-9237-4

Wang, Z., Mao, H., Li, J. Y., & Liu, F. (2016). Smile big or not? Effects of smile intensity on perceptions of warmth and competence. *Journal of Consumer Research*, *43*, 787–805. https://doi.org/10.1093/jcr/ucw062

Xiao, L., & Ding, M. (2014). Just the faces: Exploring the effects of facial features in print advertising. *Marketing Science*, *33*, 338–352. https://doi.org/10.1287/mksc.2013.0837

*Corresponding author
Giuliana Isabella can be contacted at: giuliana.isabella@gmail.com

Associate Editor: Otavio Freire