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Stefan Thomas, Heribert Gierl

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Too Sexy for this Price? The Effectiveness of Erotic Advertising Depending on the Brand's Price Level

By Stefan Thomas and Heribert Gierl

Many companies use erotic advertising to promote their brands. A review of this practice shows that this strategy is not only employed for high-price brands belonging to categories with a natural fit with eroticism (e. g., premium brands of perfume or sexy underwear) but also for numerous products with a low fit to eroticism and low-price brands. We investigated the effectiveness of erotic advertising depending on the brand's price level. Our findings show that for high-price brands, eroticism evokes affect in consumers (in terms of emotions) that efficiently spills over into brand evaluations. For low-price brands, our results indicate that erotic advertising is not effective.

1. Introduction

1.1. Usage of erotic advertising in the past and present

The strategy of erotic advertising is as old as the phenomenon of advertising. When the first product brands emerged in the market at the end of the 19th century, artists of the art-nouveau period such as Leopoldo Metlicovitz and Adolfo Hohenstein created paintings that showed naked women and that were used as advertise-



Stefan Thomas is a former research assistant at the chair of Marketing at the University of Augsburg.



Heribert Gierl is professor of Marketing at the University of Augsburg, Universitaetsstr. 16, D-86159 Augsburg, Tel.: +49/821 598 4052, E-mail: heribert.gierl@wiwi.uni-augsburg.de.
* Corresponding author

ments to promote the brands. In parallel to advertising based on fine art, more simple erotic advertisements appeared (e. g., pin-up girls promoting Duke Cigarettes in the 1880s). Woodbury, a supplier of facial soap in the US, was the first company or one of the first companies that promoted its brand in the "Lady's Home Journal" by publishing photos of completely naked females in 1936/37. The Frances Denney brand promoted its cosmetics in 1939 by showing a photo of a naked woman. In Germany at the end of the 70s, the naked "Fa woman" was depicted in print ads and commercials to promote the soap. In the early 90s, the naked "Lenor man" attracted the attention of the consumers; he was shown in commercials to promote fabric softener.

From these beginnings, erotic advertising was widely applied to promote brands, and it is still used to promote brands. For instance, the sexy "Dream Angels" commercial launched in 2018 that promotes the Victoria's Secret brand was uploaded to 8.3 million times until January 2019 on YouTube. Undoubtedly, Super Bowl commercials gain high attention in the US. The commercials that were shown in the last years could be viewed on the Internet when using the appropriate keywords (e. g., "Super Bowl commercials"); brands such as Campari (alcoholic beverage) and Tabasco (sauce) and even Peta, an animal-protection organization, have used Super Bowl commercials with considerable eroticism. If we consider the activities of a famous "sexy" celebrity such as Kim Kardashian, we find that she presents herself in a semi-nude pose in commercials promoting Sketchers shoes and the telecommunication company T-Mobile Online (Super Bowl commercials 2016 and 2017). If we consider another culture and focus on current print advertisements promoting cars in China, we find that sexy, semi-nude female models are depicted in ads for Mercedes and Cadillac along with the promoted car. In summation, there is no doubt that, at present, numerous companies use moderately and highly erotic print ads and commercials. Obviously, they do not fear any damage to their reputation when relying on this strategy. As one exception, we might point to Carl's Jr., a company that sells hamburgers and has been very famous for its erotic commercials in the US. In March 2017, this company announced a change its advertising strategy. However, in fact, they only partly changed their style of erotic advertising. For instance, in a 2005 commercial, Paris Hilton

was shown in a highly erotic car-washing spot to promote the company's hamburgers. In a 2018 spot, this sexy celebrity was replaced by Celeste Barber, a comedian, in the same erotic car-washing scene which could be interpreted as a parody of its own sexy ads.[1]

We focus on the question of whether there are product-related factors that determine the effectiveness of erotic advertising. We focus on the eroticism triggered by models and thus use the terms "ad eroticism" and "model eroticism" interchangeably. We do not investigate different sources of eroticism.[2]

1.2. Previous research on the moderating role of the product category

An important question that soon arose in the advertising research was as follows: If the advertiser uses erotic advertising, in what product categories is highly erotic advertising effective? In what categories should the level of eroticism be low?

Numerous academic researchers who are cited in the next chapter have stated that categories must have a natural fit to eroticism to make highly erotic advertising effective. They counted perfume, textiles, and cosmetics in these categories.

Findings in previous academic research: Peterson and Kerin (1977), Reidenbach and McCleary (1983), and Simpson et al. (1996) analyzed the effect of different levels of eroticism in ads with regard to response variables such as perceptions of product quality, attitudes toward the brand, or ad liking and included both eroticism-related products (e. g., body oil, perfume) and less eroticism-related products (e. g., wrench set, frying pan) in the studies. While moderate or high levels of eroticism in these studies were found to be more effective than low levels for eroticism-related products, the results for the relationship between model eroticism and evaluations for less eroticism-related products were mixed. In additional studies, Bello et al. (1983) found that a high level of eroticism is advantageous for promoting Levi's jeans. La-Tour (1990) reported that a low level of eroticism is most effective for promoting perfume. Bicycles and bakery stores could be counted as less eroticism-related categories. Jones et al. (1998) showed that a highly erotic model is disadvantageous for promoting bicycles. For a bakery store, Liu et al. (2006) found a null effect of the level of eroticism of the depicted models. Taken together, these findings are contradictory and indicate that the product category (eroticism-related or not) is not well-suited for predicting the conditions under which a high versus low eroticism of models in advertising is advantageous.

Advertising practice: In contrast to the advice of researchers to avoid erotic advertising to promote products with low natural fit to eroticism as mentioned above, the practice has also frequently used mildly or even strongly erotic advertising to promote brands from product categories with low natural fit to eroticism. For instance,

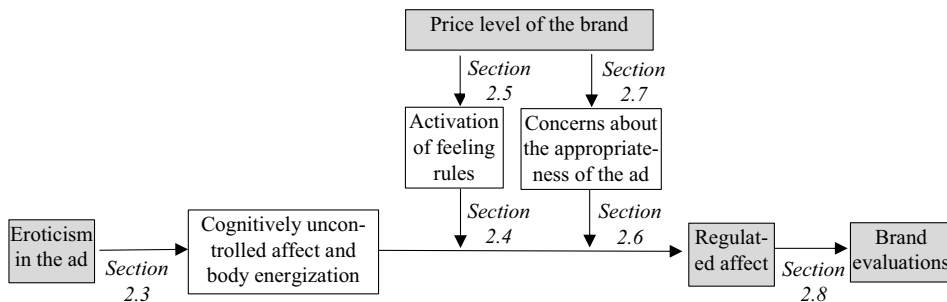
mildly erotic advertising was used to promote champagne (e. g., Rotkäppchen, a low-price brand sold in Germany); furniture (e. g., occasionally Ikea); coffee (e. g., occasionally Lavazza); cameras (e. g., occasionally Nikon); beverages (e. g., when introducing Coca Cola light onto the market); sweets (e. g., Skittles); and beer (e. g., formerly Schöfferhofer, which is sold in Germany). For hamburgers (e. g., formerly Carl's Jr.) and even Lindner brand coffins, which is Europe's largest coffin producer, highly erotic motifs are used. Manufacturers such as Würth (screws and fasteners), Stihl (chainsaws), and Pirelli (car tires) promote their products with the means of calendars containing erotic depictions of females. If we also take into account magazines such as the TV guides distributed in Germany, which depict women in more or less erotic poses on the cover pages, we find that advertisers do not care about whether the product category has a high or low fit to eroticism when they decide about using or not using erotic advertising and when they select the level of eroticism.

Thus, we must conclude that the natural fit of eroticism to product categories is not an important factor that limits the effectiveness of erotic advertising. It is likely that consumers have learned that eroticism – even at a high eroticism level – is also used in ads that promote products from product categories with weak connections or no logical connection to eroticism.

1.3. Considering a different moderating variable: the brand's price level

From the research on the relevance of the product category, one might conclude that erotic advertising is a universally suitable instrument for promoting brands of any product category. However, the brand's price level might limit the effectiveness of erotic advertising.

Why consider a different moderating variable? Recently, a critical debate about eroticism has emerged. This fact can be illustrated with a few examples. At the end of 2017, there was a controversial debate about whether New York's Metropolitan Museum should or should not remove the painting of Balthus entitled "Thérèse Dreaming" (painted in 1938). The artwork depicts a young girl, and opponents argued that the picture could trigger associations of pedophilia. Similar debates have occurred in Germany. In 2016, the lingerie brand Calzedonia installed a large billboard at a central place in the city of Munich that portrayed a female model wearing a bikini. In response to the ad, in 2018, the administration of Munich decided that such "sexist advertising" would no longer be allowed on urban billboards. In 2017, the Alice-Salomon Hochschule in Berlin became famous in Germany due to manifold media reports. The following poem by Eugen Gomringer was printed on its facade: "avenidas/avenidas y flores/flores/flores y mujeres/avenidas/avenidas y mujeres/avenidas y flores y mujeres y un admirador" (Avenues/Avenues and flowers/flowers/flowers and women/avenues/avenues and women/avenues and



Notes: The empirically tested model is contained in boxes which are highlighted in gray color. The additional variables are used and needed to derive the hypotheses.

Fig. 1: Theoretical framework

women and flowers and an admirer). The text was white-washed because it was considered to be sexist. In October 2017, the market research institute YouGov interviewed a total of 8,490 women and men in Germany, Britain, France, Denmark, Sweden, Finland and Norway and asked questions about eroticism and annoyance. They found that even winking is considered to be a nuisance to many French people. As a consequence of these recent developments, we conclude that erotic advertising may become less effective because, for instance, people may develop concerns about its adequate usage and advertisers may be well advised to change or limit the practice of using highly erotic advertising. However, if the aspect of the product category (eroticism-related or not) does not clearly limit the effectiveness of highly erotic advertising, what else could be a limiting factor?

In this paper, we test whether the price category of the brand is a factor that determines the effectiveness of erotic advertising. Consumers may be particularly critical of strongly erotic advertising when used in ads for cheap brands.

Findings in previous research: To date, previous academic research has not systematically varied brands' price levels (for overviews of the research on erotic advertising, see Reichert 2002; Lull and Bushman 2015; Thomas and Gierl 2015). We therefore ask whether the effect of eroticism on brand evaluations is systematically contingent on a brand's price level.

Advertising practice: In our investigations, we did not find that advertisers consider a brand's price level when deciding to use erotic advertising. For instance, numerous brands from the category of premium perfumes (e. g., YSL, Dolce & Gabbana) as well as the categories of low-price perfumes and cosmetics (e. g., Axe and Nivea cosmetics) used advertising that is to a considerable extent erotic. The same observation could be made for premium textiles (e. g., Louis Vuitton, Gucci, Armani, and Calvin Klein) as well as low-price textiles (American Apparel).

1.4. Expected contribution

Thus, we contribute to the research on erotic advertising and consider a different moderating variable. While previous research focused on the brand's product category

(low versus high product category fit with eroticism), we focus on the brand's price category. From a theoretical point of view, insights into the role of a brand's price level for the relationship between eroticism in advertising and brand evaluations contribute to the understanding of the conditions under which individuals regulate the affect elicited by erotic stimuli. Thus, new insights increase knowledge about affect regulation due to feeling rules and particular advertising practices. From the perspective of advertising practice, our results promise answers to the question of whether it is efficient to use erotic advertising both for low-price and high-price brands. These answers are helpful because – as illustrated by our above-listed examples – the advertising practice uses erotic ads independent of a brand's price level.

2. Theoretical background

2.1. Framework

In this section, we derive a hypothesis about the moderating role of the brand's price level on the effect of ad eroticism on affective states in consumers and brand evaluations. Therefore, we develop a theoretical framework that theoretically predicts this moderating effect. In this framework, we explain (i. e., provide theory-based arguments in favor of) the reason why erotic stimuli automatically cause pleasant affect and energize the perceiver's body, why feeling rules and concerns about the appropriateness of the ad regulate automatically occurring pleasant affect, and why regulated affect spills over into brand evaluations. Moreover, we explain (i. e., provide theory-based arguments in favor of) the reason why a brand's price level is expected to affect the activation of feeling rules and concerns about the appropriateness of an ad. Fig. 1 indicates the sections of this paper in which particular arguments are presented to arrive at the conclusion that a brand's price level shapes the ad eroticism-brand evaluation relationship.

2.2. Methodological issues

In our study, we use the set of variables shown in Fig. 1. One set of the variables is used to empirically test our hypotheses (eroticism → regulated affect → brand evaluations; brand's price level as a variable that shapes the

“eroticism → regulated affect” relationship), and the other set is used to provide theory-related arguments in favor of the validity of the hypotheses (concerning uncontrolled effect and body energization, activation of feeling rules, and concerns about the appropriateness of the ad). Thus, the question arises of whether both sub-sets of variables must be included in a model that is tested empirically. We differ with regard to theory (explanations of the relationships among variables) and models (selection of a part of the relationships). Theories are used to provide reasons why certain relationships are presumed to exist among a set of empirically observable variables and result in hypotheses. Models are used to increase the accuracy of the tested relationships and are often visualized graphically.

In the theoretical aspects of marketing studies, researchers provide theory-based reasons for why they expect a relationship, e. g., $X \rightarrow Y$. The result (i. e., “→”) is a denoted hypothesis and can be visualized by a basic model. Researchers usually provide verbally stated arguments in favor of the validity of the postulated hypothesis (i. e., the study’s theory section). They often do not empirically test the arguments themselves, for instance, because they refer to the findings of other authors who already have tested the arguments successfully. However, under certain conditions, researchers may be interested in the validity of the arguments themselves, for instance, to gain deeper insights into the processes that trigger the $X \rightarrow Y$ effect. Then, they transfer the reasons for “→” (i. e., the arguments in favor of) the relationship between X and Y into mediating (intervening) variables (e. g., Med 1, Med 2) resulting in an expanded model (see Fig. 2). In doing so, they must provide arguments for why they expect an $X \rightarrow \text{Med 1}$ effect, $\text{Med 1} \rightarrow Y$ effect, etc. which results in a more detailed set of hypotheses. Researchers might even be interested in the validity of these arguments, for instance, in those that are relevant to the $X \rightarrow \text{Med 1}$ effect. Then, they will include an even more detailed set of mediators (Med 1a, Med 1b, etc.) resulting in model relationships such as $X \rightarrow \text{Med 1a} \rightarrow \text{Med 1}$, $X \rightarrow \text{Med 1b} \rightarrow \text{Med 1}$, etc. and again the researchers have to provide reasons for why they expect these relationships. The

same aspects are relevant when a moderating effect of Mod 1 on the $X \rightarrow Y$ relationship is postulated. To conclude, if the research is theory-based (which is common practice in marketing research, see Kuß and Kreis 2013), there is always a higher number of arguments (i. e., variables) in favor of the hypotheses than variables for which the relationships are empirically tested.

As a consequence, researchers must decide which variables they will include in a model that will be tested empirically (the “boxes” in the model) and which are the variables that will be used to derive the hypotheses (the arguments in favor of the “arrows” in the model). Admittedly, it is evident that this procedure (dividing variables into model variables and variables that serve as explanations of the model relationships) never allows for testing the ultimate reasons why a relationship exists. Ladyman (2002, p. 162) argues that “[d]ata underdetermine the correct theory when the data are insufficient to determine which of several theories is true.” The same problem is described by Anderson (1983, p. 22): “theory choice is said to be underdetermined by the data.” As a consequence, researchers never can test a “full model” that contains the explanations (variables used to derive hypotheses) as well as the model variables (variables for which relationships are tested); it would be an infinite regress.

We use the variables highlighted in gray color in Fig. 1 as model variables and the variables that are not highlighted in color as variables to derive the hypotheses concerning the relationships among the model variables.

2.3. Effect of ad eroticism on cognitively uncontrolled affect and body energization

Our considerations in this section are used to provide arguments in favor of the presumption that depictions of erotic persons (frequently of the opposite gender) cause favorable affective responses in perceivers through a biologically prepared, cognitively uncontrolled process.

What stimuli produce biologically prepared responses? Researchers postulate the existence of a certain type of

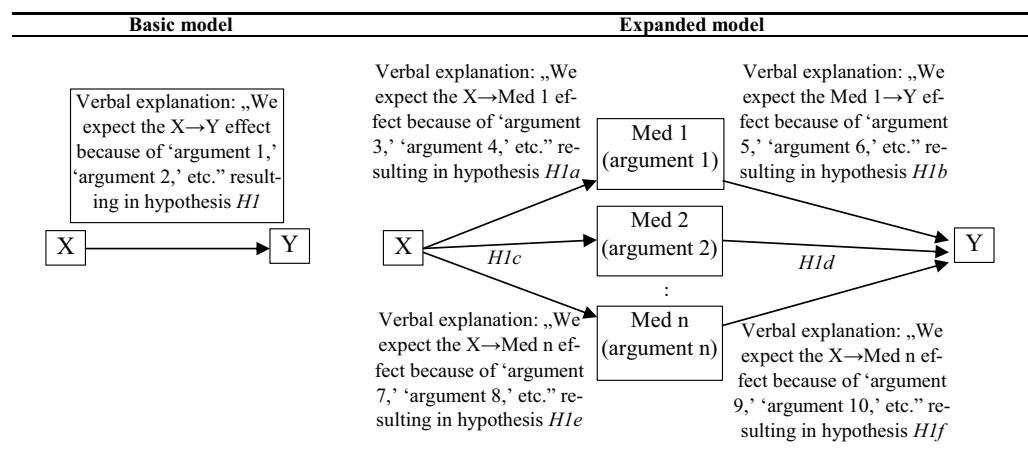


Fig. 2: Model variables and variables used to explain model relationships

stimuli that evoke affective states in individuals independent of “whether (they) want it or not and whether the stimulus has been represented in consciousness” (Öhman and Mineka 2001, p. 485). Recognizing and processing these stimuli are denoted as “preattentive,” and processing these stimuli is presumed to occur quickly and automatically. The response to these stimuli is assumed to be determined by the human genes that have been developed in human evolutionary history, and the reaction is presumably not affected by the individual’s culture (Plutchik 1980, p. 8). According to evolution theory, stimuli such as food, drink, and opportunities to recover and sleep that enable the individual to survive are considered to be approach stimuli with biologically prepared responses. Spiders, snakes, images of mutilations, threatening stimuli, and disgust-evoking smells are counted as “hard-wired” avoidance stimuli (Schupp et al. 2004, p. 197). Generally, the presence of erotic persons (mostly of the opposite gender) is also included in the category of approach stimuli.

Emotional brain activity: The biological perspective suggests that individuals automatically divide incoming stimuli into approach stimuli (positively valenced, pleasure-evoking stimuli), avoidance stimuli (negatively valenced, pain-causing stimuli), and neutral stimuli. The foundation of this distinction was laid in Lewin’s (1935) field theory. Approach and avoidance stimuli activate particular brain areas. Basic models are based on the presumption of the existence of two brain areas (neural systems), which are denoted as appetitive and defensive motivational networks (Lang et al. 1997, p. 101; Cacioppo et al. 1999, p. 842). For the past two decades, there has been no doubt in the literature that contacts with such stimuli cause certain patterns of brain activity. This certainty is based on findings in the neuroscience research in the 90s that patients with certain brain injuries were not capable of indicating particular affective states. On the contrary, healthy individuals were able to describe certain patterns of brain activation with particular terms such as happiness, sadness, rage, fear, anger, disgust, joy, and surprise (Damasio 1995, p. 20; Rolls 2007, p. 137; Vytal and Hamann 2010, p. 2870). Several of these authors have also provided overviews of brain areas whose activation represents particular affective states. In these experiments, researchers exposed individuals to erotic stimuli and assessed patterns of brain activation by the means of positron emission tomography (Redouté et al. 2000) and functional magnetic resonance imaging fMRI (Safron et al. 2007; Sescousse et al. 2014; Vezich et al. 2017). They consistently found activations of the appetitive motivational networks of the brain indicating that erotic stimuli indeed induce cognitively uncontrolled pleasant affect.

Body energization (physiological arousal): Stimuli that trigger brain activities that indicate the presence of affective states are associated with the immediate, uncontrolled activation of other body parts, which is denoted as physiological arousal. In this sense, affective states are

associated with “action readiness,” which has been discussed by researchers for over a century (e. g., James 1890; Berlyne 1967, p. 10; Kroeber-Riel 1979). Physiological arousal enables the individual to react to an incoming stimulus in a very short time and in an adequate way. According to the biological perspective, affect triggered by an approach stimulus provides the individual’s body with the “energy” to automatically approach the stimulus (e. g., increased heart rate and blood pressure). Affect due to avoidance stimuli provides the individual’s body with energy to respond with withdrawal (Elliot and Covington 2001). There are different options for how individuals might respond. First, affect energizes the human body in the sense that the individual actually makes physical movements (locomotion) toward the stimulus or steps back. In the case of an extreme avoidance stimulus such as an approaching predator, the activation of these networks and the immediate responses are responsible for guaranteeing one’s own survival. Loud noise likely results in the “energization” of the individual’s body to automatically leave a place and move to a quiet place. Second, individuals could shift their gaze toward approach stimuli or look away from avoidance stimuli (Lang et al. 1997, p. 98). Third, affective states can result in cognitively uncontrolled “action tendencies” (Cohen et al. 2008, p. 310). Numerous authors have transferred these considerations to erotic stimuli and have stated that the presence of a strongly erotic person (with the opposite gender) activates the preparedness of the perceiver’s body for approaching behavior (e. g., Griffitt and Kaiser 1978, p. 850). Obviously, this automatic physiological response is contingent on the individual’s age, and its strength is gender-specific.

2.4. Regulation of cognitively uncontrolled responses due the activation of feeling rules

Individuals are also characterized as intellectual and cognitively controlled beings who are not defenselessly forced to physically approach seductive persons or other approach stimuli. Individuals’ behavior is constrained by personal norms (i. e., social and individual norms) containing information about the rules with which an individual should comply and thus about how to adequately behave and feel. Such guidelines enable the individual’s mind to always be the master of the situation. In this sense, individuals have a large repertoire of measures for regulating their affective states and behavioral tendencies that automatically result from biologically prepared stimuli such as erotic persons.

Social norms: Social norms are defined as “rules and standards that are understood by members of a group and that guide and/or constrain social behavior without the force of laws” (Cialdini and Trost 1998, p. 152). They are criteria for evaluating one’s own behavior toward other persons as desirable and adequate or undesirable and inadequate. Social norms depend on culture and are time-contingent. They are based on knowledge about the behavior of others that is regarded as socially acceptable.

Thus, individuals learn social norms through the process of socialization as members of their social groups, in the role of consumers, and as members of society as a whole (Sherif 1973, p. 66). School, media, peers, religious institutions, and fashion leaders disseminate ideas and debates about proper sex-related behavior (e. g., in sexism debates), for example, debates about attitudes toward homosexuality and about sex-related fashion. Such sources are responsible for individuals' sexual socialization (Lapinski et al. 2005, p. 143). Human sexuality is generally strongly constrained by social norms (Manceau and Tissier-Desbordes 2006, p. 12). However, social norms with respect to sexuality can rapidly change as demonstrated by the sexual revolution in the 60s and 70s.

Individual norms: Individuals also develop individual norms, i. e., rules they obey independent of strong social influence such as "I should not eat meat and fish" as a rule of a vegetarian. These norms are activated independent of surroundings. Cialdini (2012) denotes guidelines for behavior that is considered to be ethically or morally undesirable by the individual as injunctive norms. With respect to affective states, a particular rule has been discussed for a long time: Individuals must not show signs of strong affect and physiological arousal to keep one's body under control which is a desirable state because following uncontrolled affect bears the risk of wrong evaluations and decisions (Berlyne 1967, p. 32).

Feeling rules: When an individual recognizes a conflict between her or his affective state and important social or individual norms, special affect-related norms (display and feeling rules) come into play. The individual is expected to consider whether her or his automatically generated affective responses are adequate (Scheier and Carver 1982, p. 161). In this context, the academic literature distinguishes between display and feeling rules. Display rules contain information about conditions in which individuals should mask (hide) their true affect when other persons can see one's affect (Ekman et al. 1987, p. 713); this aspect is important when researchers investigate facial expressions to infer affective states. Feeling rules are "guidelines that direct how we want to try to feel" (Hochschild 1979, p. 563). For instance, adults should avoid signs of fear, they should not cry, and they must not show signs of very intense affect or physiological arousal. Erotic stimuli that violate social norms (e. g., etiquette) or individual norms likely activate feeling rules such as "I am not allowed to experience pleasant feelings in this condition." This effect is likely to happen in response to particular erotic motifs such as extremely sexual motifs or depictions of a person in a humiliating erotic pose that violates a "social code".

Affect regulation: If feeling rules are activated, individuals can take measures for response modulation (Gross 2008, p. 504). Hull (1943, p. 68) states that individuals possess a repertoire of skills to cope with affect-norm conflict that have been acquired through a learning process. The literature discusses three measures: stimulus

reappraisal, input regulation, and impulse control. Stimulus reappraisal exists if individuals cognitively re-interpret an approach stimulus as an avoidance stimulus and vice versa (Koole 2009, p. 20). This opportunity exists if the affect-inducing stimulus is "doubly coded." For instance, experiencing pleasure due to an erotic person shown in an advertisement could be regarded as a sin. Byrne and Schulte (1990, p. 96) suggest that some individuals may even have learned stable attitudes to apply mechanisms of reappraisal to cope with eroticism. This attitude is denoted as erotophobia (Fisher et al. 1988, p. 134) and exists if individuals generally associate erotic stimuli shown in the public with badness and disgrace. Input regulation means that the individual avoids the undesired impact of a stimulus by averting her or his gaze, not listening, or moving away (Salovey et al. 2008, p. 541). For instance, if an individual watches a very erotic person at a nudist beach, the conflict between affect and norms could be resolved by walking away. Impulse control exists if the individual suppresses approach behavior in favor of a tempting stimulus by choosing redirection activities (Folkman et al. 1986, p. 995). Frijda (1986, p. 442) posits that measures such as "clenching one's teeth, relaxing, breathing deeply, or counting to ten may help the impulse to die down." Redirection activities could also be taken by turning to unrelated objects. Numerous authors posit that individuals employ such measures to comply with feelings rules in the case of erotic stimuli and erotic advertising (e. g., Sengupta and Dahl 2008, p. 63).

2.5. Role of the brand's price level on the activation of feeling rules

We can use sexual economic theory to predict a condition under which feeling rules are likely to be activated to respond to erotic stimuli. This theory is based on the presumption that sexual interactions carry a value that is similar to money or social recognition (Baumeister et al. 2001; Baumeister and Vohs 2004; Vohs et al. 2014). Although this approach focusses on gender differences (Vohs and Lasaleta 2008, p. 787), its key argument is that, independent of the individual's gender, sex is valuable from the biological, physical, and social perspective. Thus, we surmise that sexuality is naturally associated with aspects such as scarcity, rareness, and value.

From this point of view, there is a natural fit between high eroticism in ads and high-price brands. The argument is as follows: Erotic stimuli likely induce thoughts about worth and rareness. Because possessing products of high-price brands is also restricted, such brands likely also evoke thoughts about value and rareness. Thus, the combination of erotic ads with high-price brands could be seen as a high-fit condition while the combination of erotic ads and low-price brands could be regarded as a low-fit condition.

We surmise that when perceivers recognize fit or misfit, particular mental processes are likely to happen. Feeling

rules may suggest not responding to erotic stimuli contained in advertisements that promote low-price brands because there is low fit between the brand's price level and the ad's message regarding rareness and value.

2.6. Regulation of cognitively uncontrolled responses due to concerns about the appropriateness of the advertisement

Social norms exist not only with respect to one's own behavior but also with respect to the behavior of others. In the case of advertising, the audience likely compares the company's activities to the norms to which companies are expected to conform.

In each economic system, there are unwritten social contracts containing the unspoken promise of companies to obey to certain rules. For instance, one of these rules could be the informal agreement given by companies that they do not take advantage of the instincts of consumers to sell their products or to expose children to inappropriate types of stimuli (Gould 1994, p. 77). In the case of erotic advertising, the perceiver is expected to question whether the company as the source of an erotic stimulus acts or does not act in a morally acceptable manner (LaTour and Henthorne 1994, p. 84) because consumers could view the use of erotic motifs in advertising as a form of exploitation of human sexuality (Vohs et al. 2014, p. 279). Another rule could involve the aspect that companies must not contribute to the decay of morals (Widing et al. 1991, p. 5). Numerous researchers have analyzed whether norm violation occurs if erotic stimuli are included in advertising. Some have asked consumers to envision sexual advertising and provide judgments (e. g., Manceau and Tissier-Desbordes 2006, p. 24); they found remarkably high portions of people in their samples who indicated to be in opposition to "sex in advertising." Other authors exposed consumers to advertisements containing erotic motifs. For instance, Maciejewski (2004) showed an ad containing the image of an erotic female person to promote sunscreen. He asked the test participants to respond to the following questions: "It is right to use appeals involving sex when selling sunscreen?" and "It is right to use pictures of sexy-looking women in advertising, as in the previous ad, to sell sunscreen?" He found that female perceivers reported less concern than male perceivers. However, in the condition of very strong eroticism in advertisements, concerns might even emerge in female perceivers. Concerns about whether the advertiser uses appropriate stimuli, i. e., cognitions, likely regulate automatically occurring affect and physiological states.

2.7. Role of the brand's price level on the activation of concerns

We argue that consumers are more accustomed to the fact that high-price brands utilize erotic stimuli (although this strategy is also used for low-price brands). Thus, they may feel discomfort if suppliers of low-price brands

adopt this practice. Additionally, low-price brands might be more strongly associated with utilitarian benefits whereas high-price brands might be more strongly connected to hedonic benefits. For instance, low-price cosmetics are used to clean one's body; hedonic aspects such as pleasure due to eroticism do not fit with such primarily utilitarian benefits. On the contrary, high-price cosmetics aim to fulfill needs for pleasure and sensory experiences; hedonic aspects such as pleasure due to eroticism have a higher fit with these benefits.

As a consequence, we surmise the emergence of stronger consumer beliefs that companies are exploiting the human need for sexuality when they promote low-price brands with the use of erotic advertising. Consumers might question why low-price brands with a focus on utilitarian benefits use eroticism to promote their products despite the low fit, and they might infer manipulative intent of the supplier. The activation of norms that contain information about what companies are allowed to do might regulate affect.

In summation, for low-price brands that are promoted with erotic ads, we expect that feelings rules and concerns are activated to a higher extent (compared to high-price brands); thus, cognitively uncontrolled affect is regulated (i. e., reduced) to a higher extent. We thus hypothesize the following:

H1: If a high-price brand (versus low-price brand) is promoted, there is a strong (versus weak) effect of eroticism in advertising on regulated affect.

2.8. Transfer of regulated affect to the evaluation of the promoted brand

Marketers do not directly benefit from affect and the body energizing of the audience (even if they are not strongly attenuated due to the influence of feeling rules and concerns about appropriate company behavior) because ads containing the image of an erotic person do not provide any opportunities to actually move toward the depicted erotic person. However, researchers presume that affect and energization spill over onto product or brand evaluations.

First, researchers have postulated the development of "evaluative associations" (Zajonc 1980, p. 154) that are created without cognitive control in response to biologically prepared stimuli (Clore and Schnall 2005, p. 444). For instance, when researchers presented images showing angry or laughing faces for a very short time and then neutral unknown Chinese characters, they found that the evaluations of these characters were contingent on the valence of the shown faces (Murphy and Zajonc 1993; Winkielman et al. 1997, p. 436). This approach has commonalities with the affect-as-information theory (Schwarz and Clore 2007). It suggests that individuals consult their affect by asking "How do I feel about it?" and transfer their affective state to co-present stimuli in a cognitively uncontrolled process. Second, researchers in

the field of mood argue that individuals try to avoid the interruption of pleasant affective states (Isen et al. 1988, p. 716; Isen 1993, p. 272). Thus, products or brands that are promoted by ads that elicit pleasant affect are presumed not to be evaluated skeptically (i. e., thoughts about product disadvantages are suppressed). Third, we can refer to the argument that the desire to approach the promoted product is the next best alternative to approaching the erotic person itself (redirection activity). This argument is adopted from other areas of research in which this mechanism is used for explaining affect transfers (e. g., in the research on the effect of feelings of nostalgia; e. g., Pascal et al. 2002). Thus, we conclude the following:

H2: Regulated affect is a mediating variable in the relationship between ad eroticism and brand evaluations.

3. Experiment

We conducted an experiment to investigate the role of a brand’s price level on the effect of eroticism in advertising on affective states and brand evaluations.

3.1. Objective of the experiment

As explained above, we do not test all of the relationships depicted in *Fig. 1* in the empirical study. Instead, we focus on testing the relationships between the concepts highlighted in gray color in *Fig. 1*. As we used another sub-set of variables to derive the hypotheses, we refrained from assessing cognitively uncontrolled affect and body energization and do not measure feeling rules and concerns about the appropriateness of the usage of erotic ads. Moreover, we do not include additional vari-

ables in the model to test which mechanisms are the cause of the transfer of regulated affect to brand evaluations. We only used these concepts in the Theory section to derive the hypotheses about the moderating role of the a brand’s price level and about the mediating role of regulated affect in the ad eroticism/brand evaluation relationship; this is because the objective of this paper is to analyze the role of a brand’s price level.

Evidently, one *could* include cognitively uncontrolled affect, body energization, feeling rules, concerns about the appropriateness of the usage of erotic ads, and variables reflecting causes of the affect transfer in the tested model (and then – to derive theoretical arguments in favor of the extended relationships – one would be compelled to provide explanations in the sense of additional arguments that go beyond these variables). However, we did not expand the model primarily due to measurement issues. Why did we not include measurements of uncontrolled affect and physiological arousal in the experiment?

In general, to assess affective states, there are a multitude of options. The instruments aiming to assess affective states can be divided into four categories (*Tab. 1*). There are measurements that assess uncontrolled affect and techniques that have been developed to assess the individual’s self-perceptions of affective states. Moreover, measurements could focus on brain activity or the activation of other body parts.

The use of devices for assessing emotional brain activity is rather difficult and expensive. There have been some studies in which brain activity due to erotic stimuli was assessed by the means of magnetoencephalography (Costa et al. 2003) and electroencephalography (Costell et al. 1972; Waismann et al. 2003). However, the researchers found that these techniques only allow for the

	Observations of affective states	Surveys assessing self-perceptions of affective states
Brain	<p>Emotional brain activity Measurement techniques:</p> <ul style="list-style-type: none"> ■ Magnetoencephalography (Huettel et al. 2009) ■ Electroencephalography (Pizzagalli 2007) ■ Positron emission tomography (Andreassi 2007) ■ Functional magnetic resonance imaging (Ogawa et al. 1990) 	<p>Self-perceptions of regulated affect (emotions) Measurement techniques:</p> <ul style="list-style-type: none"> ■ Verbal scales containing adjectives (e. g., pleasure component of PAD of Mehrabian and Russell 1974; Plutchik 1980; Edell and Burke 1987; PANAS of Watson et al. 1988; CES of Richins 1997) ■ Pictorial scales (e. g., self-assessment face scales of Cuceloglu 1972 and Lorish and Maisiak 1986; manikin scale of Bradley and Lang 1994; PrEmo of Desmet et al. 2000) ■ Assignments of images to express emotions (e. g., EmoSensor of Gröppel-Klein et al. 2010)
Other body parts	<p>Affect-related physiological arousal Measurement techniques:</p> <ul style="list-style-type: none"> ■ Galvanic skin response (Dawson et al. 2007) ■ Immediate changes in facial expressions (Ekman and Friesen 1978) ■ Changes in the heart rate (Poels and Dewitte 2006) ■ Changes of blood pressure ■ Vaginal photo plethysmography (Woodard and Diamond 2009) and penile plethysmography (Barlow et al. 1970) for assessing sexual arousal 	<p>Self-perceptions of affect-related physiological arousal Measurement techniques:</p> <ul style="list-style-type: none"> ■ Autonomic perception questionnaire (Mandler et al. 1958) ■ Somatic perception questionnaire (Stern and Higgins 1969) ■ Activation/deactivation adjective checklist (Thayer 1978) ■ Free elicitation technique

Tab. 1: Techniques for assessing affect

assessment of activity in the cerebral cortex; the reward areas of the human brain are located in the inner parts of the brain. On the contrary, positron emission tomography (PET) and functional magnetic resonance imaging (fMRI) allow for the examination of brain activity in the brain's "reward areas." However, for PET measurements, stimuli must be shown for a rather long time. For instance, Redouté et al. (2000) presented three-minute pornographic videos to obtain affective responses. The use of fMRI seems to be suitable when images are shown for a short time (3.5 seconds in Safron et al. 2007; 1.5 seconds in Sescousse et al. 2014; and 4 seconds in Vezich et al. 2017). However, fMRI involves very loud noise, and the application requires fixing the test participants' heads. Therefore, the researchers used only very small sample sizes (22 to 38 test persons overall). In part, the researchers themselves took over the role of the test persons. We surmise that the artificial environment of fMRI would inhibit the collection of valid data for our experiment.

The use of most devices for assessing physiological arousal such as instruments for assessing skin conductance (Belch et al. 1982) may allow for the measurement of intensities of affect but not the valence of the affect. Vaginal photo plethysmography and penile plethysmography might be used in clinical environments to test abnormal phenomena such as pedophilia. Thus, we are unlikely find test participants who are willing to provide such data for the purpose of investigating advertising effectiveness. Changes in facial expressions can be easily obtained for erotic stimuli (Greenwald et al. 1989). However, facial expressions are regulated by display rules; thus, people likely do not show "true" emotions (Izard 1977, p. 83). Because erotic stimuli likely activate norms that are associated with display rules, this technique seems problematic in measuring affective states in response to erotic advertising.

Although there is no consensus in the academic literature about the definition of the concept of emotions, numerous authors have created scales for assessing the self-perceptions of regulated affective states and denoted the resulting data as emotions (e. g., Plutchik 1980). This concept is based on the assumption that individuals have abilities to recognize emotional brain activity and affect-related physiological arousal (if they are strong enough). Moreover, they are able to denote these states with positive labels such as joy, amazement, or surprise and with negative labels such as anger, sadness, or disgust. Basically, emotions are cognitive interpretations of affective states that might have been regulated by feeling rules and other mitigating factors. There is a multitude of suggestions for how to measure emotions by means of verbal scales, pictorial scales, and image assignment. Most researchers who investigate affective responses to erotic stimuli use such scales (e. g., Reichert et al. 2011). The weakness of this method consists in the fact that individuals do not necessarily cognitively recognize the activation of particular brain areas and bodily changes. For in-

stance, Kahneman and Frederick (2002, p. 56) state the following: "There is now compelling evidence for the proposition that every stimulus evokes an affective evaluation, and that this evaluation can occur outside of awareness."

Finally, self-perceptions of physiological arousal could be assessed to infer affective states. In this condition, researchers ask test participants to indicate the extent to which a presented stimulus has consequences such as "My face was becoming hot," "My heart rate was increasing," "I was perspiring," or "I experienced a change in breathing." Furthermore, when pornographic material is presented, numerous authors ask test participants to report self-perceptions of sexual arousal (e. g., Chivers et al. 2007). For the latter measure, researchers report that these data have only low validity.

Considering the strengths and weaknesses of these options for measuring affect, we decided to focus on the analysis of self-perceptions of regulated affect (i. e., emotions) in our study. We refrain from including additional measures as outlined in this section.

Why did we not measure norm activation? We did not ask the test participants to indicate norms (feeling rules and norms with respect to appropriate company behavior) because valid assessment of these concepts is difficult. Individuals are likely to report socially desirable answers instead of valid answers to such questions.

Why did we not include variables in the model to test the mechanism of affect transfer? To the best of our knowledge, valid scales to assess concepts such as "activation of the 'How-do-I-feel-about it' heuristic" have not been developed in literature thus far.

3.2. Experimental design

We manipulated brand price (two levels: low or high) and the level of the eroticism in the advertisements (three levels: low, moderate, or high). This manipulation resulted in six ad versions. We created each of the six ad versions for four brands from the following product categories: perfume, wrist watches, Bluetooth speakers, and lighters. We included the product-category factor because previous researchers have presumed that there is a higher effect of advertising eroticism for highly eroticism-related categories compared to categories that are not eroticism-related. Perfume and wrist watches were included in the first product category, and speakers and lighters were included in the second product category. Finally, we considered consumer gender (female, male) as a factor. In total, our study is based on a full 2 (brand price level) \times 3 (level of ad eroticism) \times 4 (product category) \times 2 (consumer gender) factorial experimental between-subjects design.

Manipulation of the brand price level: We decided to use real brands to make the ad versions appear realistic. Based on pre-test results, we selected two brands from each product category that did not differ regarding brand



Fig. 3: Ads promoting the Watchowl wrist watch (low-price brand)

awareness. Brand knowledge was rather low for all brands. We chose the Jean-Paul Gaultier and La Rive brands as representative of high-price and low-price perfume, respectively. For the wrist watches, we chose the Tade Wade and Watchowl brands. For the Bluetooth speakers, we selected the Loewe and om/one brands. For the lighters, we selected the Yibao and Tokai brands to manipulate the brand price-level. Note that we also included slogans in the ads such as “Because time is luxury” for the high-price wrist watch or “Built for eternity” for the high-price lighters to emphasize the price level of the brand.

Manipulation of ad eroticism: For each product category, we selected one female model (or one couple consisting of a female person and a male person), which means that the same person was depicted in different poses and degrees of nudity to create different ad versions. To provide an example, we show the ad versions in Fig. 3 for the Watchowl brand, the selected low-price brand for watches.[3] For the high-price brand of wrist watches (Tade Wade), the brand logo, the slogan, and the product images were replaced while the same female person was used to create the eroticism conditions. If there was a female version and a male version of the product (watches, perfume), both product versions were shown in the ad. For instance, in the case of the watches, a watch targeting female consumers and a watch targeting male consumers was shown.

Manipulation of the eroticism-relatedness of the product categories: We followed the suggestions of Reidenbach and McCleary (1983), LaTour (1990), Reichert et al. (2011), and Theodorakis and Painesis (2018) and selected perfume as an eroticism-related product. According to Sengupta and Dahl (2008), watches are also highly related to eroticism. We presumed that Bluetooth speakers and lighters do not have any commonality with eroticism. For a pre-test, we adopted the statements of Gould (1995, p. 404), Sherman and Quester (2005, p. 69), and Black et al. (2010, p. 1463) and asked a sample of 70 students whether they agreed or disagreed with the following statements: “Products from the category of (...) help

to attract the attention of potential sexual partners,” “Using products of the category of (...) increases my sexual attractiveness,” “I would expect to see nudity in advertising for the product category of (...),” and “The use of sexual motifs in advertising fits the product category of (...)” (seven-point scale, $\alpha = .90$). Agreement with these statements was above the scale center for perfume ($M = 5.32$) and watches ($M = 4.96$) and rather low for the speakers ($M = 1.32$) and lighters ($M = 1.22$).

3.3. Sample and procedure

In total, 1,626 consumers participated in the experiment ($M_{\text{age}} = 25.84$, years, $SD = 6.81$; 54 % females, 74.2 % students). The sample size per condition equals approximately 34. We used products from categories that are bought by students (perfume, watches, speakers, lighters). None of our test participants reported that they had never bought a product from the categories. Students belong to the target group of the products and thus the effects of eroticism should also be observable in student samples (for a discussion of student samples, see Peterson 2001; Peterson and Merunka 2014).

The data were collected with the use of an online-survey tool in the time interval between March 2015 and August 2016 in Germany. We distributed the survey on websites targeting students. One quarter of the test participants indicated that they were not students; most probably, these persons were former students. The test participants were asked to imagine that they were looking for a high-price (or low-price) product from a particular product category and that they found a particular advertisement. They could view one version of the 24 advertisements as long as they wished, and then they completed a German language questionnaire. They reported their attitude toward the promoted brand and then their affective state. This sequence is in line with the suggestions of Geuens and De Pelsmacker (2017) on how to create a questionnaire design.[4] Subsequently, measurements to check the success of the manipulation of the eroticism factor and the price-level factor were taken. Then, the test participants indicated their gender, age, and further control variables

(interest in the product category, purchase frequency). Finally, we thanked the test persons and revealed the purpose of the study.

3.4. Measurement

The brands were evaluated by asking the test participants to indicate their agreement with the adjectives “good,” “appealing,” “attractive,” and “interesting.” We averaged these measures because Cronbach’s Alpha was .864, which exceeded the .7 level. Similar adjectives have been used in numerous previous studies investigating attitudes toward promoted brands in response to erotic ads (e. g., Bello et al. 1983; Simpson et al. 1996; Jones et al. 1998).

To assess regulated affect, we asked the test participants whether they agree or disagree with the following statements: “I feel excited,” “I feel joy,” “I feel passion,” and “I feel pleasure” ($\alpha = .871$). These adjectives are adopted from the scales created by Edell and Burke (1987), Watson et al. (1988), and Richins (1997).

We used factor analysis to check whether the items used to assess brand evaluations and regulated affect were correctly assigned to the factors. The lambda values that are the correlations of the eight items with the two estimated common factors are shown in *Tab. 2*. The factor correlation is .666. Additionally, we calculated the AVE (average variance extracted) and CR (composite reliability) of both factors. The AVE values (.689 and .823) exceed the squared factor correlation (.444), which conforms to the Fornell and Larcker (1981) criterion for discriminant validity of the variables. Note that we did not use common factors to infer the values of evaluations and regulated affect; instead, we arithmetically averaged the items to calculate composite scores. The latter procedure is common in the experimental research. The correlation between the arithmetically averaged scores between brand evaluations and regulated affect is .710.

The degree of an ad’s eroticism was assessed by asking the test participants to report the degree of agreement with “The ad has a strong relationship to sex” and “The motif is very erotic” ($R = .779$). The statements were adopted from Huang (2004), Reichert and Fosu (2006), and Sengupta and Dahl (2008).

We refrained from directly asking questions about a brand’s price level because perceptions of “cheapness” could be affected by perceptions of the image of the de-

picted person(s) and her/their dress/es, pose/s, and degree of nudity. Thus, we asked the test participants to estimate the quality of a brand’s products (“The products are of high quality”) assuming that low price is associated with perceptions of low quality and vice versa. All scales were seven-point scales anchored with 1 = totally disagree and 7 = totally agree.

3.5. Manipulation checks

The perceptions of quality of a brand’s products were different for the low-price compared to the high-price brands (quality: $M_{\text{low price}} = 2.88$, $M_{\text{high price}} = 4.21$, $t_{(1624)} = 8.575$, $p < .001$). The same pattern of results was found for each product category. The perceptions of eroticism were contingent on the ad version (amount of eroticism: $M_{\text{weakly erotic motif}} = 3.10$, $M_{\text{moderately erotic motif}} = 4.10$, $M_{\text{highly erotic motif}} = 5.32$; $F_{(2, 1623)} = 74.192$, $p < .001$). The same result patterns were found for each product category. Thus, we conclude that our experimental manipulations were successful.

3.6. Description of results

In *Tab. 3*, we report the mean values of self-perceptions of affective states and the brand evaluations depending on the level of eroticism expressed by the ad, the brand’s price level, and consumer gender. For the high-price brands, at first glance we find that regulated affect and brand evaluations are affected by the amount of eroticism contained in the advertisements. For the low-price brands, no significant effect of ad eroticism was observed. Moreover, our data indicate for high-price brands that a high level of eroticism is advantageous for promoting perfume, while a moderate level results in the highest evaluations of watches, speakers, and lighters. These findings are rather consistent across the consumers’ gender.

3.7. Test of H1

In *H1*, we hypothesized that a brand’s price level will shape the effect of ad eroticism on regulated affect; we presumed that the effect of ad eroticism on affect is stronger for high-price brands compared to low-price brands.

For the high-price brands, we found that affect increases with the level of eroticism in the case of the perfume and that a moderate level of eroticism results in the most

	Factor 1 (brand evaluations)				Factor 2 (regulated affect)			
	good	appealing	attractive	interesting	excited	joy	passion	pleasure
Loadings on factor 1	.928	.854	.873	.608	-.005	.141	-.071	.026
Loadings on factor 2	-.079	.012	.008	.220	.899	.775	.956	.981

Average variance extracted: $AVE_{\text{evaluations}} = .680$, $AVE_{\text{regulated affect}} = .823$.
Composite reliability: $CR_{\text{evaluations}} = .893$, $CR_{\text{regulated affect}} = .953$.

Tab. 2: Factor loadings, AVE and CR values of brand evaluations and regulated affect

	Product category	Brand's price level	Male consumers			Female consumers			Both genders			
			Low eroticism	Moderate eroticism	High eroticism	Low eroticism	Moderate eroticism	High eroticism	Low eroticism	Moderate eroticism	High eroticism	
Regulated affect	Perfumes	High	3.09 _a	3.27 _a	4.20_b	3.38 _a	3.13 _a	4.37_b	3.23 _a	3.20 _a	4.29_b	
		Low	3.10 _a	3.33 _a	3.17 _a	3.37 _a	3.34 _a	3.34 _a	3.24 _a	3.34 _a	3.26 _a	
	Watches	High	2.92 _a	3.75_b	2.75 _a	2.87 _b	3.61_c	1.91 _a	2.90 _b	3.68_c	2.33 _a	
		Low	3.10 _a	3.26 _a	2.89 _a	3.08 _a	2.72 _a	2.84 _a	3.09 _a	2.99 _a	2.86 _a	
	Speakers	High	4.17 _a	4.52 _a	4.00 _a	3.70 _a	4.38_b	3.76 _{ab}	3.93 _a	4.44_b	3.87 _a	
		Low	3.45 _a	3.14 _a	3.49 _a	3.17 _a	3.26 _a	3.03 _a	3.31 _a	3.20 _a	3.26 _a	
	Lighters	High	3.14 _a	4.05_a	2.92 _a	3.18 _b	3.97_c	2.41 _a	3.15 _b	4.01_c	2.67 _a	
		Low	2.05 _a	2.37 _a	2.56 _a	2.35 _a	1.85 _a	2.25 _a	2.21 _a	2.11 _a	2.39 _a	
	Brand evaluations	Perfumes	High	2.93 _a	3.16 _a	4.32_b	3.55 _a	3.46 _a	4.33_b	3.24 _a	3.31 _a	4.32_b
			Low	3.06 _a	2.98 _a	3.35 _a	3.76 _a	3.49 _a	3.34 _a	3.42 _a	3.26 _a	3.35 _a
Watches		High	3.82 _a	4.68_c	3.80 _b	3.73 _a	4.67_b	3.51 _a	3.77 _a	4.67_b	3.65 _a	
		Low	3.59 _a	3.99 _a	3.65 _a	3.03 _a	2.73 _a	2.68 _a	3.31 _a	3.36 _a	3.16 _a	
Speakers		High	3.56 _a	4.30_b	3.55 _a	3.26 _a	3.93_b	3.31 _a	3.40 _a	4.09_b	3.42 _a	
		Low	3.20 _a	3.26 _a	3.45 _a	2.90 _a	3.23 _a	2.98 _a	3.05 _a	3.25 _a	3.21 _a	
Lighters		High	3.39 _a	4.16_b	3.49 _a	2.88 _a	4.10_b	2.78 _a	3.13 _a	4.12_b	3.14 _a	
		Low	2.74 _a	2.96 _a	3.14 _a	2.39 _a	2.40 _a	2.01 _a	2.55 _a	2.68 _a	2.53 _a	

Notes: Scale ranges from 1 = negative to 7 = positive affect and from 1 = negative evaluation to 7 = positive evaluation of the brand, mean values with different subscripts are different at the .10 level (Scheffé-Test).

Tab. 3: Effect of eroticism on regulated and brand evaluations depending on the brand's price level

pleasant affective states in the cases of the wrist watch, Bluetooth speakers, and lighter. An explanation for category-specific findings could be seen in the fact that perfume has a stronger fit to eroticism than the remaining three categories.

For the low-price brands, we did not find effects of eroticism on the self-perceptions of one's affective state.

Taking these findings together, we conclude that affect regulation is stronger for low-price brands. For instance, in the high-price-perfume/male-consumer condition, high eroticism resulted in more favorable regulated affect (as compared to low or moderate eroticism) (4.20 exceeds 3.09 and 3.27 significantly); this positive effect does not exist for the low-price brand (3.17 is not significantly higher than 3.10 and 3.33). Because in the low-price-brand conditions, an increase of ad eroticism did not influence the regulated affective state, we conclude that our data conform to *H1*.

3.8. Test of H2

In *H2*, we presumed that regulated affect is a mediating variable in the relationship between ad eroticism and brand evaluations. As we have provided evidence for the presumption that a brand's price level shapes the effect of ad eroticism on regulated affect, we used a moderated-mediation model to test *H2*.

We calculated two binary variables as independent variables to express the levels of eroticism (d1: 1 = moderate eroticism, 0 = else; d2: 1 = high eroticism, 0 = else). We used regulated affect as the mediating variable and the brand evaluations as the dependent variable of this model. For the purpose of model estimation, we collapsed the data across consumer gender because gender-specific analyses did not reveal deeper insights into the mediating

effect of the consumer's affective state. We used Hayes and Preacher's (2014) statistical procedure developed for an analysis with a multi-categorical independent variable. The resulting estimates can be seen in *Tab. 4*.

To explain the model results for the eroticism-affect-evaluation relationship, we use the findings for the perfumes.

Effect of ad eroticism on regulated affect: The calculation of the mean values for affect across consumer gender provides the following results for the perfumes: $M_{\text{high price, low eroticism}} = 3.23$, $M_{\text{high price, moderate eroticism}} = 3.20$, $M_{\text{high price, high eroticism}} = 4.29$, $M_{\text{low price, low eroticism}} = 3.24$, $M_{\text{low price, moderate eroticism}} = 3.34$, $M_{\text{low price, high eroticism}} = 3.26$; these data are contained in *Tab. 3* in the upper two rows). Thus, in the high-price condition, the effect of moderate (compared to low) eroticism on affect equals $b_{d1 \rightarrow \text{affect} | \text{high price}} = 3.20 - 3.23 = -.03$ (ns), and the effect of high (compared to low) eroticism is $b_{d2 \rightarrow \text{affect} | \text{high price}} = 4.29 - 3.23 = 1.05$ ($p < .001$; see the upper two rows of *Tab. 4*). These findings indicate that the effect of ad eroticism (high versus low) on affect is significantly positive and that there is no significant effect when the moderate level is compared to the low effect. In the low-price condition, the impact of moderate (compared to low) eroticism equals $b_{d1 \rightarrow \text{affect} | \text{low price}} = 3.34 - 3.24 = .10$ (ns), and the effect of high (compared to low) eroticism is $b_{d2 \rightarrow \text{affect} | \text{low price}} = 3.26 - 3.24 = .02$ (ns). Overall, we find a positive effect of ad eroticism for the high-price brand of perfume (but not for the low-price brands of perfume) when the high level is compared to the moderate or low level of eroticism.

Moderating effect of the brand's price level on the eroticism-regulated affect relationship: Further employing Hayes and Preacher's technique, to additionally test whether there is a moderating effect of the price level, differences of means differences must be considered. If

Estimated coefficient	Perfume	Watches	Speakers	Lighters
$b_{d1 \rightarrow \text{affect|high price}}$	-.03 ($t = -.13$)	.78 ($t = 4.24^{***}$)	.51 ($t = 2.23^*$)	.85 ($t = 4.44^{***}$)
$b_{d2 \rightarrow \text{affect|high price}}$	1.05 ($t = 4.52^{***}$)	-.56 ($t = -3.04^{**}$)	-.06 ($t = -.27$)	-.49 ($t = -2.55^{**}$)
$b_{d1 \rightarrow \text{affect|low price}}$	.10 ($t = .64$)	-.10 ($t = -.46$)	-.11 ($t = -.49$)	-.10 ($t = -.39$)
$b_{d2 \rightarrow \text{affect|low price}}$	.02 ($t = .16$)	-.23 ($t = -1.05$)	-.05 ($t = .22$)	.18 ($t = .74$)
$b_{d1 \rightarrow \text{affect|high price}} - b_{d1 \rightarrow \text{affect|low price}}$	-.13 ($t = -.46$)	.88 ($t = 3.10^{***}$)	.62 ($t = 2.55^{**}$)	.95 ($t = 3.04^{***}$)
$b_{d2 \rightarrow \text{affect|high price}} - b_{d2 \rightarrow \text{affect|low price}}$	1.03 ($t = 3.67^{***}$)	-.33 ($t = -1.17$)	-.01 ($t = -.04$)	-.67 ($t = -2.16^*$)
$b_{\text{affect} \rightarrow \text{evaluations}}$	.90 ($t = 30.86^{***}$)	.75 ($t = 20.40^{***}$)	.61 ($t = 15.40^{***}$)	.72 ($t = 22.53^{***}$)

d1: binary variable with 1 = moderate level of eroticism, 0 = else;
 d2: binary variable with 1 = high level of eroticism, 0 = else.
 * $p < .05$, ** $p < .01$, *** $p < .001$.

Tab. 4: Effects of a moderated-mediation analysis to estimate the effect of eroticism (d1, d2) via the regulated affect on brand evaluations depending on the brand's price level

we compare the regulated affect resulting from moderate versus low eroticism in the high-price condition (3.20 versus 3.23, i. e., $b_{d1 \rightarrow \text{affect|high price}} = -0.03$) with regulated affect resulting from moderate versus low eroticism in the low-price condition (3.34 versus 3.24, i. e., $b_{d1 \rightarrow \text{affect|low price}} = .10$), the moderating effect of the price level results in $-.03 - .10 = -.13$ (ns). Analogously, if we compare the regulated affect resulting from the high versus low eroticism condition, the moderating effect of the price level equals $1.05 - .02 = 1.03$ ($p < .001$).

In sum, for the perfumes, the findings indicate that there is no difference between the moderate and low levels of eroticism in the influence on regulated affect; there is a positive difference between high versus low eroticism to influence affect, and the latter difference is stronger for high- compared to low-price perfume. These findings additionally conform to *H1*.

Effect of the regulated affect on brand evaluations: The coefficient $b_{\text{affect} \rightarrow \text{evaluations}}$ can be interpreted as a regression slope and is equal to .90 for the perfume category ($p < .001$). Because for high-price brands, ad eroticism influences the consumer's affective state and the affective state (independent of the brand's price level) influences brand evaluations, *H2* is confirmed.

For the wrist watches, speakers, and lighters, the mediating effect of affect is also confirmed; the difference from perfume consists in the finding that the moderate level of eroticism results in the highest values of regulated affect. For all product categories, $b_{\text{affect} \rightarrow \text{evaluations}}$ is positive ($ps < .001$) and ranges from .90 to .61. As a side effect, we found that this relationship is strongest for perfume ($b = .90$), which is the most eroticism-related product category contained in our investigation.

3.9. Interpretation

In this study, we investigated the role of the price level of the promoted brand for the relationship between the eroticism of ad stimuli and brand evaluations. We found that

the moderate or the highest levels of eroticism are associated with the highest level of regulated affect when high-price brands are promoted. The finding that a high level of eroticism is advantageous for high-price perfume while a moderate level is advantageous for high-price watches, speakers, and lighters might be explained by the fact that the category of perfumes is more eroticism-related than the other categories (as confirmed by our pre-test results). Moreover, we found that this "surplus" of regulated affect was reduced (attenuated) when low-price brands were promoted. We found the same patterns of data for brand evaluations. The moderated-mediation analysis provided evidence for the presumption that (regulated) affect is used by consumers to make brand evaluations.

3.10. Limitations

Obviously, there are numerous weaknesses of our experiment that should be mentioned. Limitations of the validity of our findings may result from the method, the test subjects, and the chosen test products.

We used an artificial laboratory experiment. The test persons knew that they were taking part in an experiment, which might have activated norms containing information about how to respond to the statements contained in the questionnaire in a socially and morally correct way. Thus, we might have found too weak effects of eroticism; they might be higher in a more realistic setting. If our sample contained numerous people who provided biased data (i. e., socially desirable data), we underestimated the effect of eroticism. In our study, the test participants completed a rating task, i. e., they used rating scales to indicate their affective state and brand evaluations. However, in advertising practice, often numerous advertisements containing more or less erotic stimuli compete for the awareness of perceivers. For instance, in magazines, there are both highly erotic and less erotic ads promoting different brands of the same category. In this condition, exposing test participants to a "choice

task” would be more realistic; the percentages of choices could then be compared. It would be interesting to know if choice percentages deviate from 50 % to 50 % if two ads are presented to promote low-price brands: one ad with high eroticism and one ad with low eroticism. Because we did not consider such conditions, the validity of the results of our experiment is limited. In our experiment, we did not apply a measurement to identify socially desirable answers.

We used students and people who just had finished their studies as test participants. On the one hand, young people might be more tolerant toward eroticism in advertising compared to older consumers and consumers with young children. Young people are in a state of looking for partners or comparing their physical attractiveness to the attractiveness of others and thus might be more interested in erotic stimuli. On the other hand, in recent years, debates about sexual stimuli in fine art and in advertising have attracted the attention of people while, some decades ago, attitudes toward sexual stimuli were more liberal (e. g., toward naturism, the mini-skirt, and erotic-related scenes in movies). If the latter position is true, we may have underestimated the effect of eroticism in advertisements.

We considered only a few product categories and did not include further manifestations of eroticism (e. g., more or erotic male models) in our studies.

We did not include unregulated affect in the tested model. Previous research on the effect of eroticism on unregulated affect is rather scarce and does not consider advertising stimuli (Redouté et al. 2000; Sescousse et al. 2014; Safron et al. 2007; Verzicht et al. 2018). Moreover, we refrained from assessing affect-related physiological arousal, norms, and concerns about the appropriate use of erotic stimuli for advertising purposes.

We did not consider a non-erotic condition in our experiments, i. e., an advertisement that shows only the product.

4. Implications

4.1. Implications for theory

The results of our experiment are in line with our presumptions: Ad eroticism has little or no effect on the evaluations of low-price brands. We predicted this finding from the presumptions that feeling rules demanding that one should not experience pleasant affect due to erotic motifs and that activated concerns about whether the company uses an appropriate advertising strategy are more relevant for low-price brands. These processes result in stronger affect regulation, which has an impact on brand evaluations. We argued that a brand’s price level influences the fit between the brand and human sexuality (joint connotations of high-price brands and eroticism may refer to scarcity, rareness, and worth) and that the brand’s price level influences the fit between the thoughts about the product (hedonic benefits in the case

of high-price brands) and the thoughts due to eroticism in the ad (hedonic aspects such as pleasantness). These aspects are likely reasons why the price-level plays a role in the effectiveness of erotic advertising. As stated above, we did not analyze feeling rules, concerns about the appropriate advertising strategy, and fit of connotations. However, on the general level, the data provide evidence for the presumption that such processes could be responsible for differences in evaluations.

4.2. Implications for advertising practice

We recommend that marketers be cautious when considering the use of erotic advertising for low-price brands. Admittedly, erotic advertising for low-price beer (e. g., the Astra brand in Germany), low-price cosmetics (e. g., Axe), hamburgers (e. g., formerly Carl’s Jr), or textiles (e. g., formerly American apparel) increases the awareness of such brands in their target groups. However, the question of whether brand evaluations are also positively affected must be answered in the negative (at least based on our findings). Thus, we recommend choosing other advertising strategies for low-price brands.

One might argue that highly erotic advertising garners attention for low-price brands and differentiates them from competitor brands. However, there are numerous different advertising strategies that can be used for low-price brands to attract consumers’ attention, differentiate them from competitor strategies, and positively affect brand evaluations (e. g., sponsorships, nostalgic advertising, and romantic scenes).

4.3. Suggestions for future research

The measurement of emotions (self-perceptions of regulated affect) uses a rather simple method to infer affective states. In further studies, additional tools should be used. In *Section 3.1*, we noted the fact that fMRI measures are very difficult to obtain; however, meaningful changes in the test person’s facial expressions might be observed when the experimenter is able to hide the purpose of her or his experiment. Moreover, we suggest collecting data from samples with characteristics other than students. Students frequently take part in experiments and thus may have acquired skills for hiding affect. In addition to advertising stimuli, erotic packaging for low-price brands (e. g., the packaging of a winter edition of dairy products of the Müller Milch brand) could be tested. We surmise that scarcity cues (e. g., limited editions) fit both to sexuality and high-price brands; thus, it would be interesting to learn whether information about product scarcity increases the effect of eroticism for high-price brands.

Notes

- [1] Carl’s Jr. commercial showing Paris Hilton: www.youtube.com/watch?v=944aw95wOaE; Carl’s Jr. parodic commercial showing Celeste Barber: www.youtube.com/watch?v=D-3X__BsB-o.

- [2] There are different sources of eroticism in advertising. We manipulate eroticism by using motifs showing a person in different degrees of nudity and in different poses. Alternatively, ad eroticism could result from using sexual humor, sexual symbolism, or provocative sexual cues.
- [3] The stimulus material is available from the authors.
- [4] If the influencing variable is assessed prior to the measurement of the influenced variable, a priming effect exists. For instance, Ofir and Simonson (2007) showed that merely asking for expectations prior to indicating satisfaction influenced measures of satisfaction.

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Keywords

Market Communication, Affect, Norms, Eroticism, Brand Evaluation.