

HENRIK HAGTVEDT and VANESSA M. PATRICK*

In this research, the authors investigate the phenomenon of “art infusion,” in which the presence of visual art has a favorable influence on the evaluation of consumer products through a content-independent spillover of luxury perceptions. In three studies, the authors demonstrate the art infusion phenomenon in both real-world and controlled environments using a variety of stimuli in the contexts of packaging, advertising, and product design.

Keywords: visual art, luxury, aesthetics, spillover effects, packaging, advertising, product design

Art Infusion: The Influence of Visual Art on the Perception and Evaluation of Consumer Products

How does the presence of visual art alter the way people view a consumer product? Throughout history, art has had the ability to arouse the imagination and capture the attention. Therefore, it is not surprising that art images are often used to promote unrelated products—for example, by being displayed in advertisements (Hetsroni and Tukachinsky 2005). It is proposed that such “high-culture images reach more people more often through advertising than through any other medium” (Hoffman 2002, p. 6). Other times, art becomes an integrated part of a product, such as when furniture is artistically designed or a painting is printed on a shirt. Some companies, such as De Beers, use art in image promotion, conveying the idea that diamonds, like paintings, are unique works of art (Epstein 1982). Sometimes, art is even created for the sole purpose of marketing a product, such as in the enduring Absolut Vodka advertising campaign (Lewis 1996).

It is clear that influential marketing practitioners believe that art somehow has the power to influence consumer per-

ceptions. Vast amounts of money are spent on representing visual art in conjunction with products, in the hope that the products will become more marketable as a result. However, the issue of whether these beliefs are well founded remains unresolved. Furthermore, there is little evidence to suggest that marketing professionals have been provided with the scientific basis necessary to use visual art in a strategic manner rather than purely on the basis of experience and intuition. Supplying this basis is a complex endeavor. However, the current research represents an initial step to analyze systematically the influence of visual art on consumer evaluations of the products with which it is associated. This influence represents a fundamental gap in current understanding, not only in terms of the \$23.5 billion global art market (Kusin & Company 2002) but also in terms of the potential impact of art on other markets and marketing activities.

In this research, we examine the phenomenon of “art infusion,” which we broadly define as the general influence of the presence of art on consumer perceptions and evaluations of products with which it is associated. More specifically, we theorize that perceptions of luxury associated with visual art spill over from the artwork onto products with which it is associated, leading to more favorable evaluations of these products. Furthermore, we propose that this influence does not depend on the content of the specific artwork—that is, what is depicted in the artwork—but rather on general connotations of luxury associated with visual art.

In Study 1, we demonstrate the art infusion phenomenon in a real-world setting. In this study, consumers are briefly exposed to art or nonart images, which are matched for

*Henrik Hagtvedt is a doctoral student in Marketing (e-mail: hhagtvedt@yahoo.com), and Vanessa M. Patrick is Assistant Professor of Marketing (e-mail: vpatrick@uga.edu), Terry College of Business, University of Georgia. Both authors contributed equally to this research. They express their appreciation to the anonymous *JMR* reviewers for their thoughtful comments and encouragement and to the marketing faculty at the University of Georgia for their support of this research. They also thank Reidar Hagtvedt, John Mowen, Gavan Fitzsimons, Shashi Matta, Piyush Kumar, and Srinivas K. Reddy for their input and Nicole Patrick, Simone Patrick, and Colin Heacock for their help in creating some of the stimuli used in this article. Chris Janiszewski served as associate editor for this article.

content, on the packaging of a product before evaluating the product. Study 2 replicates the results from Study 1 in a controlled setting. In this study, art and nonart images, which are matched both for content and for connotations of luxury and quality, are presented in advertisements for the product to be evaluated. In Study 3, a positive art image, a negative art image, and a positive nonart image are incorporated onto the product itself. All three studies demonstrate the art infusion effect and show that the presence of visual art has a favorable influence on consumer evaluations compared with nonart images with matched content. We demonstrate this effect using three sets of images associated with the product either indirectly (through packaging and advertising; see Studies 1 and 2, respectively) or directly (through product design; see Study 3). Furthermore, the results reveal that products associated with art are perceived as more luxurious than those associated with nonart and that these perceptions of luxury mediate the influence of art on product evaluation, thus providing insight into the process underlying the art infusion effect.

THE ART INFUSION PHENOMENON

There is a long-standing general notion that the perception of art differs from the perception of other objects (Joy and Sherry 2003). Extensive investigation of the perception and appreciation of art has led to the establishment of art as a distinct field of inquiry (Berlyne 1974; Funch 1997). Despite this, considerable disagreement exists among experts about the definition of art. For example, Wartenberg (2006) discusses 29 different perspectives on the philosophical question of “what is art?” This is an age-old debate that is beyond the scope of this research. However, for the purposes of investigating art as it pertains to the art infusion effect, we adopt a consumer-focused perspective: Art is that which viewers categorize as such (Bourdieu and Darbel 1997; Dewey 1989). This definition is particularly relevant because viewers’ or consumers’ perceptions matter in this context, regardless of scholarly debates about what does or does not constitute art. Furthermore, we restrict ourselves to the investigation of a classic form of visual art—namely, painting.

Even within this framework, it is likely that some people will have different opinions about which works should be categorized as art. However, this variety notwithstanding, prior research has suggested that consumers possess a general schema for art (Joy and Sherry 2003). Indeed, while acknowledging that part of the richness of art lies in the notion that its power to “disturb and arouse” varies among individuals, Zeki (2001) asserts that this subjectivity and variability is based on a commonality, which is ultimately linked to common neurobiological processes. It seems reasonable that this would be the case, especially if the creation and perception of visual art has evolved through the millennia of human prehistory and is tied to aesthetics as a form of prelinguistic communication (see, e.g., Averill, Stanat, and More 1998; Lindgaard and Whitfield 2004). It seems natural that the universal human impulse to apply skill and creative effort to express oneself artistically would also be reflected in the recognition of the objects thus created as belonging to a special category.

We also found evidence in support of the notion of such a general schema in a descriptive survey, in which we gave 77 participants a sorting task and asked them to distinguish

art images from nonart images and to describe why they considered certain images art and others nonart. Respondents consistently emphasized that art images are expressive (“emotion,” “expression”) and that the manner of creation is a central feature of a work of art (“talent,” “creativity and skill,” “I couldn’t do it”), whereas a statement without this manner of creation (“symbol ... not creativity and skill”) is not enough to constitute art. Based on these self-reports and the extant literature, the process of identifying artworks may be facilitated by preselecting works perceived as embodying human expression, in which a perceived main feature of the work is the manner of its creation and/or execution rather than just a concept, idea, or message underlying it or conveyed by it, and this manner is not primarily driven by any other contrived function. Indeed, other works may depend on a context, such as being placed in a gallery, for their impact. However, in the current research, we deemed it to be more expedient to concentrate on works that consumers view as art, regardless of context.

On the basis of the foregoing discussion, we broadly define artworks as works that are perceived as skillful and creative expressions of human experience, in which the manner of creation is not primarily driven by any other function. In addition, a cultural element exists, in that viewers may not immediately categorize images/objects as fine art if they are entirely unfamiliar with them, especially if the skill and creativity involved in making the artwork is not apparent to them (Hagtvedt, Hagtvedt, and Patrick 2008). For example, it is feasible that some abstract expressionist paintings might seem like random blobs of color to an untrained viewer. Furthermore, scholars have commented on the emergence of a cultural hierarchy (Levine 1988; Shrum 1996) that “extends between two poles—variously labeled as highbrow/lowbrow, elite or high culture/mass or pop culture, art/entertainment, or legitimate taste/popular taste” (Holbrook 1999, p. 144). Consequently, a wide variety of objects may be categorized as art, but they may be differentiated along this continuum as being either high art or low art.

For the purposes of this research, when we refer to “art,” we refer to high art. Furthermore, we limit our focus to paintings by well-established masters that have passed the test of time and are considered classic exemplars of Western visual art. This also ensures a focus on works in the public domain, which is of practical importance from a marketing standpoint. Moreover, the concept of art exemplified by such works should evoke general connotations of sophistication, culture, luxury, and prestige (Margolin 1992; Martorella 1996; Tansey and Kleiner 1996).

Spillover Effects

The question whether the presence of visual art spills over onto consumer products to influence how they are perceived and evaluated remains unexplored in the extant literature. However, various theoretical perspectives have been proposed to explain spillover effects in other domains of investigation. For example, music has been found to affect consumers’ assessments of unrelated products. Relying on classical conditioning theory, Gorn (1982) demonstrates that listening to liked versus disliked music while being exposed to a product directly affects product preferences. Furthermore, Alpert and Alpert (1990) argue that music has a direct impact on audience moods and purchase

intentions without necessarily influencing intervening cognitions. Similar studies with odors reveal that ambient scents influence consumer perceptions in a retail environment (Spangenberg, Crowley, and Henderson 1996).

Halo effects have also been examined in marketing, though there is some confusion about the conceptualization and measurement of these effects (Balzer and Sulsky 1992; Thorndike 1920). It could be argued that if a work of art carries with it a general feeling of some kind, a different object, when presented in conjunction with the work of art, could assume the same general feeling. In turn, this could lead to similar perceptions and evaluations of the two objects.

Contagion effects represent a related mechanism in which direct or indirect contact between two objects can lead to a permanent transfer of properties from one object (the source) to another (the recipient). The contact involves a transfer of the “essence” of the source to the recipient that remains even after the physical contact ceases (Rozin, Millman, and Nemeroff 1986). Recent research on consumer contagion demonstrates that when a product has been touched by other consumers (Argo, Dahl, and Morales 2006) or by a “disgusting” product (Morales and Fitzsimons 2007), the product becomes “contaminated,” and evaluations of and purchase intentions for the product decrease. On the basis of this extant literature, we develop an understanding of the art infusion process, which we theorize constitutes a special kind of spillover effect, in which key properties of art spill over onto the product with which it is associated, thus influencing the evaluation of that product.

Art Infusion: The Spillover Effect of Art

To understand the influence of the presence of art on the products with which it is associated, it is critical to determine what drives the art infusion effect. We propose that art infusion is a special category of spillover effect, but the question of what aspect of art spills over remains. We theorize that there are two possible aspects of visual art that could spill over and lead to different influences. First, the specific content of the artwork or what it depicts might spill over; second, general connotations of art and what it represents might spill over (for a similar distinction in the domain of music, see Zhu and Meyers-Levy 2005).

Content-dependent influence of art. Visual images of various kinds are often used in advertisements and product design, and previous research has revealed that such images influence consumer evaluations of products (Peracchio and Meyers-Levy 2005). If the art infusion effect involved the spillover of the specific content of the artwork, the impact of art on the products with which it was associated would not be a generalizable effect. Rather, it would depend on what that content was and would vary from one artwork to the next. For example, the emotional appeal tied to the specific content of the artwork is arguably a salient feature of art (Feldman 1992; Margolis 1999). Therefore, it could be argued that an art image with positively valenced content would cause positive product evaluations whereas one with negatively valenced content would cause negative product evaluations.

Generalized content-independent influence of art. Art is intrinsically tied to a heritage of high culture, with connotations of exclusivity, luxury, and sophistication (Hoffman

2002; Margolin 1992; Martorella 1996; Shrum 1996; Tansey and Kleiner 1996). It seems natural that these general connotations may spill over and influence the perception and evaluation of the product associated with the art. According to this perspective, art infusion should depend on the artwork being perceived as art, with the associated positive connotations. Indeed, this aspect distinguishes visual art from other sensory phenomena, such as odor, sound, or even visual stimuli such as nonart images. For example, it may not be surprising that a pleasant (unpleasant) odor could lead to positive (negative) evaluations of associated products (Morrin and Ratneshwar 2000). However, unlike other sensory stimuli, art has general connotations that are positive per se. Thus, regardless of any content-dependent influence of visual art, we expect that there is a favorable influence stemming from the general connotations of art.

Of these two perspectives, we propose that the latter generalized influence of art drives the art infusion effect. We theorize that the presence of art spontaneously evokes perceptions of luxury and exclusivity, regardless of the content of the artwork. As Fiske and Neberg (1990, p. 2) argue, “category-based processes have priority over attribute-based processes,” such that what a stimulus represents is often more accessible than the content of the stimulus (Zhu and Meyers-Levy 2005). Therefore, we propose that regardless of any influence stemming from the specific content of the artwork, the general connotations of art will have a favorable influence on consumer evaluations. Thus, we hypothesize that the presence of visual art (versus nonart) has a favorable influence on consumer evaluations of products and that this effect is mediated by the spillover of luxury perceptions from the art onto the product with which it is associated. We investigate these issues in the three studies that follow.

STUDY 1: FIELD STUDY

Method and Procedure

We contracted a deal with a local restaurant to survey 100 of its patrons in exchange for conducting a customer satisfaction survey. The study was conducted over a week-end during the restaurant’s popular weekend brunch. One hundred people participated in the study (53% male, 47% female; $M_{\text{age}} = 43$ years; average family income = \$5,600 per month).

Stimuli. The target stimulus was a typical set of silverware (a set of a spoon, fork, knife, teaspoon, and steak knife). Black velvet boxes were custom-made for the study by a professional designer. The interior of the boxes were lined with white satin on which the silverware was placed. The top of the box had a print of either Van Gogh’s *Café Terrace at Night* (art image) or a photograph of a café at night (nonart image).¹ We pretested these images with 20 participants. We presented the two images to participants

¹As we discussed previously, images/objects may have artistic aspects to varying degrees or may fall higher or lower on what scholars have referred to as a “cultural continuum” (Holbrook 1999; Levine 1988; Shrum 1996). For example, Van Gogh’s painting of a café at night is likely to be considered high art compared with a photograph of an outdoor café taken at night. However, in this research, we use the labels of art and nonart for the sake of clarity and convenience.

side by side and counterbalanced the order of the images between subjects. We asked participants to look at the images and report on separate seven-point Likert scales whether each image was a work of art (1 = “not at all,” and 7 = “definitely”) and to indicate the extent to which they agreed that the images were very similar (1 = “disagree,” and 7 = “agree”). The pretest revealed that the art image was identified as art to a greater degree than the nonart image ($M_{\text{art}} = 6.70$ versus $M_{\text{nonart}} = 4.10$; $F(1, 19) = 36.28$, $p < .05$), though they were viewed as similar in content ($M = 5.35$, $SD = 1.09$). Order of presentation of the images had no influence on the results (for stimuli, see Figure 1).

Procedure. Each time the food was cleared off the table and the patrons were waiting for their check, we approached the table and requested them to participate in a survey, purportedly to provide feedback to the restaurant. Participants were told that the restaurant was considering changing its silverware and were asked to provide feedback

on the silverware displayed in the box. Participants were briefly exposed to the front face of the box before it was opened and then answered a set of questions about the silverware. They evaluated the product on seven-point semantic differential scales as “unfavorable/favorable,” “negative/positive,” “bad/good,” “unpleasant/pleasant,” and “dislike very much/like very much.” We combined the items to form a product-evaluation index ($\alpha = .98$). Then, participants rated on seven-point Likert scales their impression of the product as luxurious, prestigious, attractive, and high class. We combined these items to form a perceptions-of-luxury index ($\alpha = .92$). Finally, participants completed a customer satisfaction/feedback form unrelated to the study.

Results

A one-way analysis of variance (ANOVA) on the product-evaluation index indicated that the art image led to higher product evaluations than the nonart image ($M_{\text{art}} =$

Figure 1
STIMULI FOR STUDY 1

A: Box with Art Image



B: Box with Nonart Image



C: Inside of Boxes



Notes: In this field study conducted at a busy restaurant, fleeting exposure to an art image (versus a nonart image) on the cover of a box containing silverware resulted in patrons evaluating the silverware more favorably. Enhanced perceptions of luxury explain the effect.

5.41 versus $M_{\text{nonart}} = 4.47$; $F(1, 97) = 7.22, p < .05$, partial $\eta^2 = .07$), demonstrating the art infusion effect. A similar ANOVA on the perceptions-of-luxury index revealed that when the product was associated with the art image, it was perceived as significantly more luxurious than when it was associated with the nonart image ($M_{\text{art}} = 4.47$ versus $M_{\text{nonart}} = 3.46$; $F(1, 97) = 24.78, p < .05$, partial $\eta^2 = .11$). Mediation analysis (Baron and Kenny 1986) confirmed that perceptions of luxury fully mediate the influence of the presence of art on product evaluation (see Figure 2), thus providing insight into the process underlying the art infusion effect.

Discussion

This study demonstrates the phenomenon of art infusion in a busy restaurant environment, in which participants were briefly exposed to an art image (versus a nonart image) on the box of the product they evaluated. The results revealed that fleeting exposure to an art image resulted in a spillover of luxury perceptions, leading to favorable evaluations of the product.

Other images, objects, and people may also have connotations of luxury. For example, glamorous celebrities may be associated with products and confer associations of luxury. However, the status and luxury associated with these popular culture icons is qualitatively different from that associated with high art. Although it seems reasonable that positive connotations, such as the sophistication, excellence, creativity, and skill associated with high art, will cause enhanced product evaluations, it is not immediately obvious whether other luxury cues will have the same effect. We designed Study 2 to replicate the results from Study 1 in a controlled environment in the context of advertising and to investigate the differential influence of two types of luxury cues.

STUDY 2

The objective of Study 2 was to demonstrate the content-independent nature of the art infusion phenomenon—that is, that the influence of visual art does not depend on what is depicted in the artwork but rather on general connotations of luxury associated with the artwork. Thus, this study compares the influence of an art image, a nonart image with identical content and matched connotations of luxury and quality, and a no-image control on the evaluation of an advertised product. The art image chosen was Johannes

Vermeer’s painting *Girl with a Pearl Earring*. The nonart image was a photograph of the actress Scarlett Johansson in the same pose and wearing the same garments as the girl in the painting. This photograph, which was a poster for the motion picture *Girl with a Pearl Earring*, was chosen as an optimal match with the painting in terms of content.

Pretest

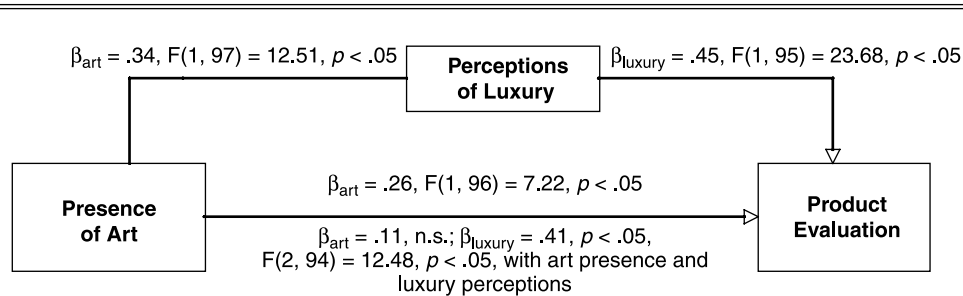
We pretested the images to ensure that they conveyed equivalent perceptions of luxury and quality. We presented the two images to participants side by side and counterbalanced the order of the images between subjects. Twenty-six undergraduate participants reported on seven-point Likert scales how luxurious and how high quality each image was (1 = “not at all,” and 7 = “extremely”). The results revealed that both images were perceived as equally luxurious ($M_{\text{art}} = 4.12$ versus $M_{\text{nonart}} = 4.26$, not significant [n.s.]) and equally high quality ($M_{\text{art}} = 4.00$ versus $M_{\text{nonart}} = 4.69$, n.s.). Participants also reported (1 = “disagree,” and 7 = “agree”) the extent to which they agreed that pairing the image with a product suggested that the product was high quality ($M_{\text{art}} = 4.00$ versus $M_{\text{nonart}} = 4.23$, n.s.). Finally, they reported (1 = “not at all,” and 7 = “definitely”) whether the image was a work of art ($M_{\text{art}} = 6.07$ versus $M_{\text{nonart}} = 4.38$; $F(1, 25) = 19.90, p < .05$). The Vermeer painting was considered art to a greater degree than the poster with identical content.

Method and Procedure

For the main study, 107 undergraduate students were randomly assigned to an art, a nonart, or a no-image control condition. Three questionnaires were returned incomplete, resulting in 104 completed questionnaires. Participants were presented with an advertisement for bathroom fittings that contained the art image, the nonart image, or no image. Participants were asked to look at the advertisement and respond to a set of questions that followed.

Participants reported their evaluations of the product and perceptions of luxury on the same scales used in the previous study ($\alpha = .92$, and $\alpha = .94$, respectively). To account for the possible influence of familiarity with the image, participants in the two image conditions reported on seven-point Likert scales how familiar they were with the image (1 = “not at all,” and 7 = “extremely”) and whether they recognized the image (1 = “not at all,” and 7 = “definitely”).

Figure 2
MEDIATION ANALYSIS FOR STUDY 1



Sobel test: $z = 2.83, p < .05$; Goodman test: $z = 2.87, p < .05$

Furthermore, we assessed participants' general knowledge of art by having them report on seven-point Likert scales how familiar they were with art in general (1 = "not at all," and 7 = "extremely") and their level of knowledge of art history (1 = "low," and 7 = "high"). The art image was perceived as a work of art to a greater degree than the nonart image ($M_{\text{art}} = 5.23$ versus $M_{\text{nonart}} = 3.86$; $F(1, 70) = 10.92$, $p < .05$).

Results

Product evaluation. A one-way ANOVA on the product-evaluation index revealed that the product in the advertisement with the art image was evaluated more favorably than the product in the advertisement with the nonart image or with no image ($M_{\text{art}} = 4.38$ versus $M_{\text{nonart}} = 3.66$ versus $M_{\text{no-image}} = 3.65$; $F(2, 100) = 6.29$, $p < .05$, partial $\eta^2 = .11$). Contrast analysis revealed a significant difference between the art and the nonart conditions ($F(1, 100) = 9.27$, $p < .05$) and between the art and the no-image conditions ($F(1, 100) = 9.66$, $p < .05$) but not between the nonart and the no-image conditions. Thus, the results reveal that the presence of art favorably influences product evaluation compared with a nonart image with identically matched content. This supports the content-independent nature of the art infusion effect.

Perceptions of luxury. A one-way ANOVA on the perceptions-of-luxury index revealed that the product in the advertisement with the art image (versus the nonart image or no-image advertisement) was perceived as more luxurious ($M_{\text{art}} = 4.15$ versus $M_{\text{nonart}} = 3.36$ versus $M_{\text{no-image}} = 2.78$; $F(2, 101) = 10.38$, $p < .05$, partial $\eta^2 = .17$). Contrasts revealed a significant difference between the art and the nonart conditions ($F(1, 101) = 6.96$, $p < .05$), between the art and the no-image conditions ($F(1, 101) = 21.16$, $p < .05$), and between the nonart and the no-image conditions ($F(1, 101) = 3.85$, $p = .05$).

Mediation by perceptions of luxury. Mediation analysis (Baron and Kenny 1986) confirmed that perceptions of luxury fully mediate the influence of the presence of art on product evaluation (see Figure 3). In this analysis, we compared the Vermeer condition (art) with a combination of the Scarlett condition and the control condition (nonart).

Familiarity. The results revealed no differences in familiarity ($M_{\text{art}} = 3.57$ versus $M_{\text{nonart}} = 3.69$, n.s.) or recognition ($M_{\text{art}} = 3.94$ versus $M_{\text{nonart}} = 4.03$, n.s.) of the images. Furthermore, participants in the two image conditions reported

no differences in their familiarity with art ($M_{\text{art}} = 3.77$ versus $M_{\text{nonart}} = 3.70$, n.s.) or their level of knowledge of art history ($M_{\text{art}} = 3.40$ versus $M_{\text{nonart}} = 3.14$, n.s.). Importantly, none of these variables significantly influenced the perceptions of luxury or the evaluations of the advertised product. Specifically, including these variables as covariates in the analysis revealed no significant effects. Furthermore, a median split on familiarity and knowledge within the art condition revealed no differences in the means between the two groups.

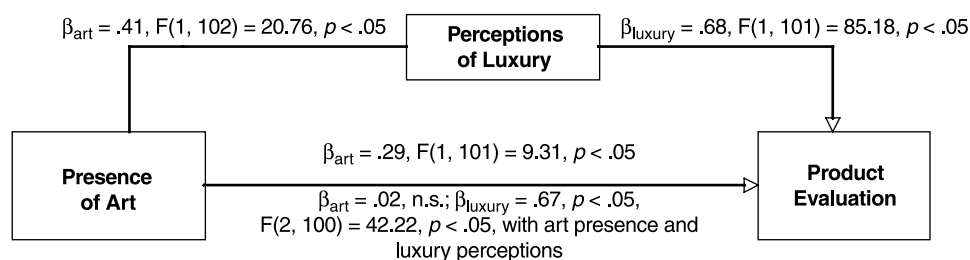
Discussion

This study demonstrated the phenomenon of art infusion in a between-subjects experiment that presented a product (bathroom fittings) in an advertisement with an art image, a nonart image, or no image (control condition). Although the content of the two images was identical and matched for connotations of luxury and quality, the art image resulted in more favorable product evaluations and increased perceptions of luxury compared with the nonart image and the control condition. Again, the results demonstrate that perceptions of luxury mediate the influence of art presence on product evaluations, indicating a general spillover of luxury that does not stem from the content of the image.

Although popular celebrities, such as Scarlett Johansson, are often used to connote a luxury image for a product, the extant research on celebrity endorsement reports a mixed influence of celebrities on actual product evaluations (Kaikati 1987). Indeed, as the results of Study 2 reveal, the presence of Scarlett Johansson in the advertisement conveyed a luxury image, but it did not enhance product evaluations relative to the no-image control condition. Furthermore, visual art may have benefits over alternatives, such as celebrity endorsement, not only in terms of the cost of using celebrities but also in terms of the transient nature of celebrity reputation, which is often dependent on the latest movie or news story.

Study 3 replicates the art infusion effect by incorporating art and nonart images onto the face of the product itself. Furthermore, we designed Study 3 to demonstrate content independence in two ways: by comparing an art image and a nonart image that depict the same scene (matched content) and demonstrating that they have a differential effect on product evaluations and perceptions of luxury and by comparing two art images that differ in the valence of the emotion conveyed by the image itself (different content) but

Figure 3
MEDIATION ANALYSIS FOR STUDY 2



Sobel test: $z = 4.07$, $p < .05$; Goodman test: $z = 4.09$, $p < .05$

similarly influence product evaluations and perceptions of luxury.

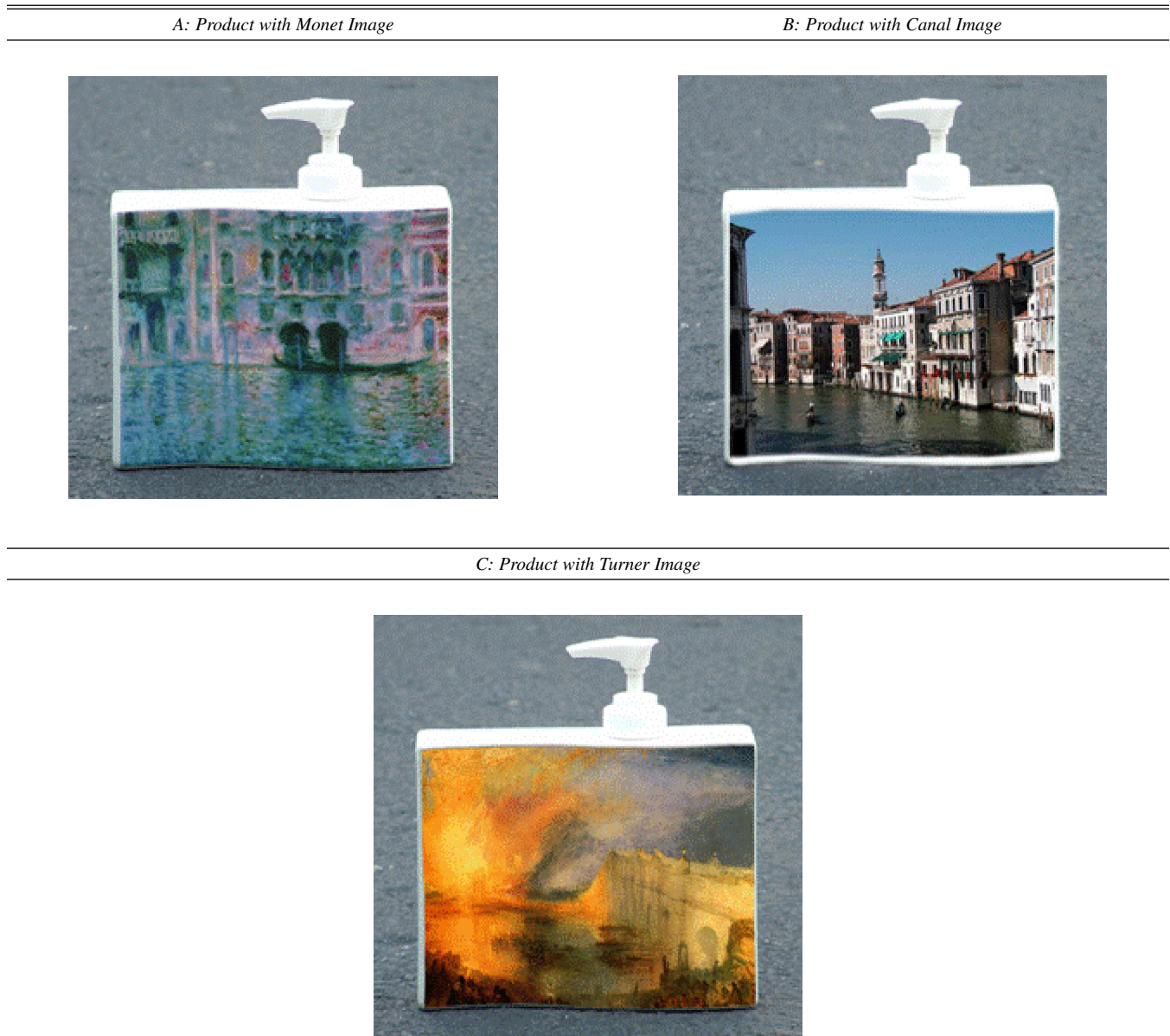
STUDY 3

We designed Study 3 with three conditions. We used a soap dispenser as the stimulus with one of three different images on its front face: an artwork with positive content, an artwork with negative content, and a photograph with content similar to that of the positive artwork. The objectives of Study 3 were twofold: to replicate the results from the previous studies using an art image and a nonart image with similar content and to provide further evidence for content independence by contrasting two art images that differed with respect to the valence of their content. The

three images we chose for the face of the soap dispenser were Claude Monet’s painting *Palazzo da Mula* (depicting buildings overlooking a Venetian canal; henceforth referred to as Monet), a photograph of buildings overlooking a Venetian canal (henceforth referred to as Canal), and J.M.W. Turner’s painting *The Burning of the House of Lords and Commons* (October 16, 1834; depicting the violent image of burning buildings on the banks of the River Thames; henceforth referred to as Turner) (for stimuli, see Figure 4).

We chose these images on the basis of a pretest with 15 participants, in which Monet and Canal were rated on seven-point Likert scales (1 = “not at all similar,” and 7 = “very similar”) to be similar in content ($M = 5.20$), and

Figure 4
STIMULI FOR STUDY 3



Notes: This study further demonstrated the content-independent influence of art on the products with which it is associated. A negatively valenced art image (Turner in Panel C) resulted in the same enhanced product evaluations as did a positively valenced art image (Monet in Panel A), whereas a photograph matched for content with the latter (Canal in Panel B) did not. Again, enhanced perceptions of luxury explain the effect.

more so than Monet and Turner ($M = 3.33$) or Canal and Turner ($M = 2.73$; $F(1, 14) = 16.67, p < .05$). In addition, participants assessed these images on seven-point semantic differential scales (“negative/positive” and “unpleasant/pleasant”). They viewed Monet ($M = 4.97$) and Canal ($M = 6.23$) as relatively positive in content and rated Turner ($M = 2.57$; $F(1, 14) = 50.60, p < .05$) as more negative than both these two. They identified Monet ($M = 6.68$) and Turner ($M = 6.68$) as art on seven-point scales (“nonart image/art image” and “not art/definitely art”) but did not identify Canal ($M = 3.79$; $F(1, 14) = 32.01, p < .05$) to the same degree.

We expect that if the art infusion effect is content dependent, the positive art image (Monet) will result in positive product evaluations, and the negative art image (Turner) will result in negative product evaluations. Conversely, if the art infusion effect is content independent, Monet and Turner will result in equally favorable product evaluations, and Canal will result in less favorable product evaluations.

Method and Procedure

Seventy-six undergraduate students participated, and each was randomly assigned to one of three experimental conditions: the soap dispenser with the Turner painting, the soap dispenser with the Monet painting, or the soap dispenser with the photograph of a Venetian canal. Participants were given a photograph of the product and were asked to answer the questions that followed. Participants evaluated the product using the same product-evaluation index ($\alpha = .97$) and the same perceptions-of-luxury index ($\alpha = .92$) as in the previous studies.

Results

Product evaluation. A one-way ANOVA on the product-evaluation index revealed that participants evaluated products with art (both Monet and Turner) more favorably than products without art (Canal), lending support to the content-independent nature of the art infusion effect ($M_{\text{Monet}} = 5.29$ versus $M_{\text{Turner}} = 4.84$ versus $M_{\text{Canal}} = 3.47$; $F(2, 73) = 18.34, p < .05$, partial $\eta^2 = .33$). Contrast analysis revealed a significant difference between the Canal and the Monet conditions ($F(1, 73) = 33.38, p < .05$) and between the Canal and the Turner conditions ($F(1, 73) = 18.97, p < .05$) but not between the Monet and the Turner conditions.

Perceptions of luxury. A one-way ANOVA on the perceptions-of-luxury index revealed the same pattern of results ($M_{\text{Monet}} = 4.80$ versus $M_{\text{Turner}} = 4.59$ versus $M_{\text{Canal}} = 3.06$; $F(2, 73) = 19.17, p < .05$, partial $\eta^2 = .34$). Contrast analysis revealed a significant difference between the Canal and the Monet conditions ($F(1, 73) = 31.96, p < .05$) and between the Canal and the Turner conditions ($F(1, 73) = 24.94, p < .05$) but not between the Monet and the Turner conditions.

Mediation by perceptions of luxury. Again, mediation analysis (Baron and Kenny 1986) confirmed that perceptions of luxury mediate the influence of the presence of art on product evaluations (see Figure 5).

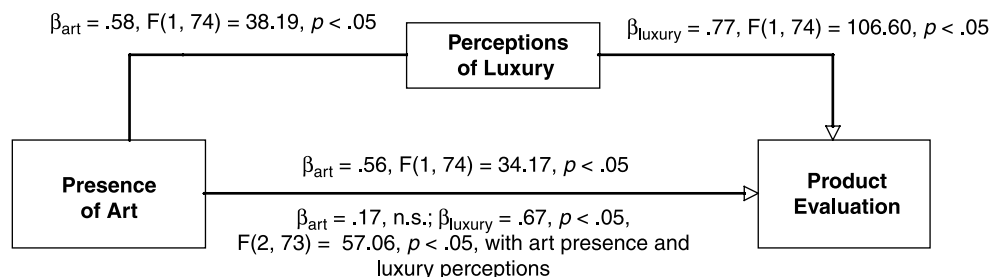
Discussion

Study 3 demonstrated the art infusion phenomenon, revealing that participants evaluated the product considerably more favorably when it was presented with either of the art images than when it was presented with the nonart image. By using paintings with positive versus negative content as stimuli, we provided further evidence of the content-independent influence of visual art. In a content-dependent spillover, we would expect the positive (negative) content to cause positive (negative) product evaluations, but the results revealed no significant differences between the two. The photograph of a Venetian canal, similar in content to the Monet painting, replicated the results from the previous studies. Finally, mediation analysis revealed that perceptions of luxury fully mediated the influence of art on product evaluations. Moreover, whereas Study 1 presented the art and nonart images through packaging and Study 2 did so in an advertisement, Study 3 incorporated the artwork on the product itself, with the same effect. Taken together, these three studies provide evidence that the art infusion phenomenon is a result of a content-independent spillover of luxury perceptions of art onto the products with which the art is associated.

GENERAL DISCUSSION

Previous literature in marketing has identified art as a worthwhile area of research and as a consumption category that is perceived differently from other categories (Joy and Sherry 2003). Marketers and scholars are also aware that artistic elements may successfully be employed in marketing to influence consumers in a favorable way (Crader and Zaichkowsky 2007). However, to date, virtually no empiri-

Figure 5
MEDIATION ANALYSIS FOR STUDY 3



Sobel test: $z = 5.29, p < .05$; Goodman test: $z = 5.31, p < .05$

cal research has been conducted to systematically measure and analyze the influence of the presence of visual art on the perception and evaluation of consumer products. The current research represents an initial attempt to investigate this area. Specifically, we investigate the phenomenon of art infusion, in which the presence of visual art has a favorable impact on the evaluation of consumer products. We theorize that a general, content-independent influence of visual art stems from the spillover of luxury perceptions from the artwork onto products with which it is associated. We demonstrate this art infusion phenomenon in three studies, using art versus nonart images in packaging (Study 1), in advertising (Study 2), and in product design (Study 3).

Theoretical and Managerial Contributions of the Research

The theory of art infusion as a content-independent spillover of luxury perceptions contributes to the literature that examines sensory perceptions and the processing of visual stimuli. For the most part, research on sensory perceptions (e.g., odor, music) results in congruency effects on product evaluation (e.g., pleasant odor results in positive evaluation, and vice versa). We contribute to this literature by demonstrating that art infusion is content independent and that luxury connotations of art spill over onto the products with which the art is associated, regardless of content.

Luxury is itself a domain in which little research has been conducted, but it is becoming increasingly important to marketers. Consumers are increasingly trading up to luxury products and brands (Silverstein and Fiske 2003), so the importance of understanding the causes and effects of perceptions of luxury is increasing along with this trend. Many other stimuli also cue luxury, such as jewelry, sports cars, or celebrity endorsements. However, different cues may have inherent advantages, depending on the context in which luxury is to be cued. For example, although it is not difficult to think of instances in which it would be unnatural to incorporate jewelry and sports cars into a promotion, visual art appears to be relatively versatile in this capacity. It has been successfully used in the marketing of a variety of products, ranging from luxury automobiles to perfumes to alcoholic beverages (Hoffman 2002). Indeed, the current research used it in connection with silverware, bathroom fittings, and soap dispensers and in the context of packaging, advertising, and product design. In addition, visual art is a relatively unobtrusive cue, setting it apart from other cues, such as premium price. By using visual art as a marketing tool, managers may avoid important strategic implications inherent in the use of other luxury cues, such as the effect of a premium price on consumer demand. Furthermore, visual art does not need to be an expensive tool, especially not if the artworks used are in the public domain.

However, certain limitations are associated with the use of visual art as a marketing tool. For example, marketers may not always know which images will be recognized as visual art or, more specifically, as high art. Indeed, a debate about what should rightfully be called art seems futile in the current context. However, in line with the consumer-centric conceptualization of art, marketers may follow the strategy of using images that are perceived as art by their target market, regardless of scholarly disputes about what does or does not constitute art. In the current research, we limited our focus to classic exemplars of Western visual art—in other words, paintings by well-established masters

that have passed the test of time. However, this may not be a viable option when the target market is unlikely to be familiar with these types of artworks. Furthermore, it may be more useful to identify artworks in terms of a continuum rather than absolute category membership. Although our respondents indicated that the photographs used in the studies were also art to a certain degree, the paintings were identified as art to a significantly greater degree.

Although the art infusion effect relies on this characterization rather than on the content of the artwork, marketers may also choose an art image with a content that matches the specific promotion, thus capitalizing on any potential content-dependent influence as well as on the art infusion effect. The possible content-dependent influence of visual art also presents a viable direction for further research in marketing.

Although content often necessitates conscious processing, Study 1 indicated that a great deal of conscious attention and cognitive resources is not necessary for the art infusion effect to occur. Processes that require little or no conscious attention and use minimal resources are managerially important because they will occur more consistently over time and constitute the default set of reactions to most occasions (Bargh and Chartrand 2000). Furthermore, because consumers do not always scrutinize advertisements or packages very closely and because marketing communication often occurs in environments in which many stimuli compete for the attention of the consumers, any marketing tool that has a systematic influence on consumers and also requires little or no processing resources is a useful one. Further research is needed to establish the extent to which art infusion is an automatic process, as well as the advantages and limitations associated with automaticity in this context.

Directions for Further Research

The category of art remains one with more questions than answers. This research demonstrates that visual art can have a favorable influence on consumer evaluations, but many unresolved issues remain. For example, there may be specific products, brands, or firms that work particularly effectively or not at all well with the concept of visual art. Related research indicates that counter to popular conceptions, visual art works harder for functional products than for hedonic products, endowing the former with hedonic properties and thus increasing evaluation. However, if the product offering emphasizes the rugged outdoors (e.g., survival gear) or brute strength (e.g., powerful trucks), this may not fit well with visual art. Further research should investigate the influence of art when coupled with other product dimensions, such as price and nature of the product (e.g., durability, functionality).

These issues pertain to differences in the products, but differences in the artworks themselves also need further investigation. For example, the current research used figurative art, but further research could investigate the potential influence of abstract art on consumer evaluations. Furthermore, art from different periods or art executed in different styles might influence consumer evaluations in specific ways. Perhaps there is even a medium-specific influence, such that bronze sculptures differ in their influence from marble sculptures or acrylic paintings differ from tempera or oils. Moreover, although the current research

demonstrated that the art infusion effect occurred independently of the content of the artwork and even for artworks with a negative content, this effect may be limited. For example, it seems likely that extremely grotesque content would interfere with the art infusion effect. The interaction between the content-independent and the content-dependent influences of art could be examined in further research. Indeed, Zhu and Meyers-Levy (2005) make a similar distinction between the content of music (referential meaning) and what it represents independent of content (embodied meaning). The interaction of art with other sensory stimuli, such as music, taste, and odor, might also be viable areas for further research.

The role of symbolism in art constitutes another area for further research. Tapping into the symbolic imagery of artworks, promotions may elicit consumer responses through mechanisms that are not explicitly tied to the content of the artwork but that nonetheless spark the imagination through metaphors. Alternative uses of art may involve distortions of the artworks or verbal messages that link the artwork in a novel way to the product in question. An example is the use of humor, such as in an advertisement using *The Annunciation* by Fra Angelico, in which the angel Gabriel gives the Virgin Mary the news of her pregnancy. Mary responds, "Thanks, but I already know." It is an advertisement for Clearblue pregnancy tests (Hoffman 2002, p. 35). It seems reasonable that such use of art may offend certain consumers and entertain others. The moderating impact of such mechanisms on art infusion is a topic for future investigation.

A related issue is the influence of known versus unknown artworks. It may be that well-known artworks have specific connotations and that these connotations either interact with or operate independently of the art infusion effect. For example, Michelangelo's *David* might be associated with strength, courage, or independence, whereas Rodin's *Thinker* might be associated with contemplation, melancholy, or the troubled spirit of humankind when confronted with divine or demonic forces. Note also that consumers' degree of familiarity with art in general may moderate the influence of visual art on product evaluations. In the current research, we did not find this to be the case, possibly because of the relatively homogeneous target population. However, further research might find an inverted U shape, such that consumers who are somewhat familiar with the kind of art in question are more favorably influenced than those who are either completely unfamiliar with it or thoroughly familiar with it. The latter would be expected if connoisseurs found the use of art to be tacky or overly simplistic. Conversely, this group of consumers might be favorably influenced if the use of art is sophisticated or discreet. For example, it seems reasonable that nonobvious references to artworks may delight a connoisseur but mean nothing to someone who is uninterested in art. In an advertisement for Campari, *The Bar at the Folies-Bergère* by Manet is alluded to in a photograph that clearly emulates the painting, apparently inviting those who would recognize the artwork to share a special story (Hoffman 2002, p. 22). Such references to art also raise the question whether an art image is even necessary to invoke the art infusion effect. The influence of mere references to art or artists or naming a product after a famous artist (e.g., the

Citroën Xsara Picasso) on consumer evaluations is a topic for further research. Furthermore, a person simply walking through a museum may prime the art infusion effect, even when the art is not directly tied to the product being evaluated. Prior research indicates that mere exposure to a brand name or product package may encourage more favorable attitudes toward a brand, even when consumers do not remember the initial exposure (Janiszewski 1993). It remains to be investigated whether previous preattentive exposure to artworks influences consumer evaluations.

The scope of the art infusion effect is not known. Recent research suggests that priming luxury (versus value) elicits nonconscious goals of luxury (versus value), which in turn influence choice (Chartrand et al. 2008). This implies that an art-infused product may serve as a luxury prime that automatically influences choices in unrelated product categories. The influence of art, not only on the product with which it is associated but on other products as well, is a worthwhile area for further research.

Visual art has a substantial influence on consumer behavior. For this reason and for the reasons we outlined previously, the phenomenon of art infusion is an area that merits further research from a managerial perspective, a theoretical perspective, and a general human interest perspective.

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