

# The Role of Ad-Evoked Consumption Visions in Predicting Brand Attitudes: A Relevancy Principle Model

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## ABSTRACT

**This study examined ad-evoked consumption visions to argue that when people are concerned about consumption experiences, they consider consumption visions relevant in formulating brand attitudes. To the degree that consumers perceive consumption visions as relevant, they should significantly influence brand attitudes. This research proposed a relevancy principle model to show that three possible factors likely enhance the relevancy of consumption visions and thus increase their influences on brand attitudes: product characteristics (i.e., hedonic nature), ad characteristics (i.e., consumption ad copy), and consumer characteristics (i.e., processing styles). © 2012 Wiley Periodicals, Inc.**

When a consumer reads an ad promoting a mountain bike that emphasizes its new technology and multiple features, along with a picture depicting a bike rider in the background, will the background picture evoke consumption visions and account for that consumer's evaluations of the bike? The degree to which consumers can form consumption visions, or mental images involving consuming the product, correlates positively with attitudes toward the advertised product (Phillips, 1996). People commonly imagine themselves in a setting portrayed in advertising, yet such consumption visions have not received much attention from advertising researchers. This article therefore reports on an investigation of situations in which consumption visions affect consumers' evaluations, which can offer insights and directions for practitioners and researchers.

Scant extant research on consumption visions has focused on which ad designs best trigger consumption visions (e.g., Krishnamurthy & Sujan, 1999). However, not all consumption visions always affect brand attitudes. As prior research has suggested, consumers do not take all information into account when evaluating a product; they focus only on that which is relevant to their processing goals (e.g., Pham, 1998). In line with this idea, even if an ad evokes consumption visions, the degree to which those consumption visions influence brand attitudes formation should hinge on the relevancy of the visions themselves. Therefore, this article proposes a relevancy principle model, in which consumers concerned about consumption experiences or sensations experience perceive consumption visions high in relevancy. In these situations, the consumers

should integrate consumption visions into their evaluations of advertised brands.

The proposed framework contains three possible factors that may increase the relevancy of consumption visions. First, in terms of product characteristics, the motives underlying consumption in that product category can be influential, because consumption visions provide indirect product experiences. When buying or consuming a product involves an experience-oriented goal, such as gaining hedonic enjoyment, consumption visions likely are more relevant and account for significant variance in brand attitudes. Second, regarding ad characteristics, when ad copy depicts consumption experiences, it should signal to consumers that consumption visions are relevant and thereby encourage them to include such visions in their brand attitude formation process. Third, consumer characteristics may be critical, because when consumers are oriented more toward experiences or mental imagery, their consumption visions should be more relevant and exert a significant influence on their brand attitudes.

## DETERMINANTS OF BRAND ATTITUDE FORMATION

Advertising usually presents product benefits and makes claims about product attributes. Consumers thus evaluate advertised products on the basis of evaluations of the performance of attributes they consider important (i.e., attribute expectancy-based evaluations;

Mitchell & Olson, 1981). But how likely are people to take consumption visions into account in their evaluations when they view attribute-based ads with pictures? This research used this type of ads to achieve a more conservative test than would a test with ads that featured nothing but consumption imagery. Therefore, attribute expectancy should be the dominant determinant of brand attitudes, and consumption visions should influence brand attitudes only when consumers consider them relevant.

### Attribute Expectancy

Early expectancy value models of attitude formation (e.g., Fishbein & Ajzen, 1975) suggested that attitudes toward an object form in a piecemeal, computational way, as functions of the integration of information about the object. For product evaluations, consumers may consider the likelihood that a product has certain attributes and the favorability of each attribute, then sum or average these conclusions to form an overall brand judgment (Nakanishi & Bettman, 1974). This attribute expectancy-based approach constitutes a common brand evaluation approach when people view ads (Mitchell & Olson, 1981).

### Consumption Visions

Consumer research has defined consumption visions as visual images of “product-related behaviors and their consequences . . . in the form of short drama . . . [that] might include images of a consumer using a product . . . and experiencing the psychological consequences of that behavior” (Walker & Olson, 1997, p. 159). Phillips, Olson, and Baumgartner (1995, p. 281) reasoned that these visions are “stories created by the decision-making consumer,” usually in the form of a narrative with characters, plot, and setting. The consumers play the main character, acting in a consumption situation, such as a diner eating a meal in a restaurant or a moviegoer watching a film in a theater. Adaval and Wyer (1998) also argued that when consumers develop product attitudes or make purchase decisions, they form consumption visions. Because these visions enable potential consumers to experience the product indirectly, without actually purchasing or consuming (Walker & Olson, 1997), they form a basis for preferences (Phillips, Olson, & Baumgartner, 1995).

In an ad-viewing context, consumption visions correlate positively with attitudes toward the ad, attitudes toward purchasing the product, and intention to purchase (Phillips, 1996). The accessibility of consumption visions rendered by ad exposure also improves brand attitudes (Petrova & Cialdini, 2005). Furthermore, consumption visions mediate the influence of an ad’s visual attractiveness on attitudes toward the advertised brand (Miniard, Bhatla, Lord, Dickson, & Unnava, 1991). As Krishnamurthy and Sujana (1999) demonstrated, asking people to imagine

themselves in consumption situations influences their brand evaluations by prompting consumption visions. Similarly, Babin and Burns (1997) found that instructing participants to imagine themselves using the product affects their brand evaluations by increasing product usage imagery, a concept similar to consumption visions. Phillips, Olson, and Baumgartner (1995, p. 281) also recognized that consumption visions vary in their complexity, with some running like a miniature play and others resembling “a sequence of static images or frames in [a] comic strip.” Therefore, even static visuals in print ads might induce consumption visions.

## AD PICTURES AND CONSUMPTION VISIONS

Prior research on the visual elements of advertising has focused on their effects on ad recall (Childers & Houston, 1984; Costly & Brucks, 1992; Houston, Childers, & Heckler, 1987; Lutz & Lutz, 1977; Unnava & Burnkrant, 1991) and the question of how ad visuals encourage consumers to adopt different modes of information processing (Edell & Staelin, 1983; Meyers-Levy, 1989). However, the question of how visual ad elements evoke consumption visions has been relatively neglected. Researchers have explored the influence of ad pictures on activating imagery in general but not their effects on inducing consumption visions. MacInnis and Price (1987; see also Lutz & Lutz, 1977) argued that pictures easily induce imagery, defined as “a mental event involving visualization of a concept or relationship” (p. 611). For example, seeing a picture of a beach activates mental images of a beach. Consumption visions are a special type of mental imagery, in which the self consumes a product. Miniard et al. (1991) found that 17% of thoughts generated after reading print ads relate to picture-evoked images. For example, when participants exposed to a juice ad with a beach picture reported, “I thought of somewhere tropical,” their thought would represent a picture-evoked image. In contrast, if they said, “I imagined myself drinking the juice on a tropical beach,” it would provide an example of a consumption vision. Consumption visions are self-relevant imagery, which better predicts brand attitudes than imagery involving other consumers (Bone & Ellen, 1992). Therefore, the experiments herein focused specifically on consumption visions.

Existing research into consumption visions instead has sought to address exactly what triggers greater consumption visions, including the types of ad copy and pictures. For example, when instructed by ad copy to imagine themselves in an ad, consumers reported more thoughts of imagining themselves using the product (Babin & Burns, 1997). Concrete pictures also generated more consumption visions than abstract pictures (Walters, Sparks, & Herington, 2007). Missing from extant literature though has been any discussion of

whether consumption visions are always relevant to the formation of brand attitudes.

## CONSUMPTION VISIONS IN BRAND ATTITUDE FORMATION: A RELEVANCY PRINCIPLE MODEL

In contexts in which ads feature attribute information, attribute expectancy value is the dominant determinant of brand attitudes. Consumption visions may not always be relevant or important to consumers' formulation of brand attitudes. That is, ad pictures likely induce consumption visions, but the degree to which consumers take these consumption visions into account should vary in different contexts. In particular, the influence of consumption visions on brand attitudes may depend on relevancy, such that the perceived relevancy of consumption visions should be higher when consumers focus on the consumption sensation or experiences that the advertised product might offer. The tendency to rely on consumption visions as judgment inputs therefore should depend on people's concern about consumption experiences during the course of their evaluations. In a similar vein, Pham (1998) argued that when people evaluate a product, their experience-based, emotional responses influence brand evaluations only if those responses are relevant to the consumers' processing motives. For example, he showed that emotional responses affected brand evaluations when participants had a hedonic motive rather than an instrumental motive.

The spirit of the relevancy principle is similar to that of the compatibility principle (Tversky, Sattath, & Slovic, 1988), such that the weight of inputs should increase when inputs are compatible with processing goals. Extending this compatibility principle to product evaluations, Shiv and Huber (2000) proposed that compatibility between information inputs and processing goals increases product preference. For example, when processing product information with a satisfaction expectation goal, consumers generate more favorable ratings of a product option that they can easily imagine consuming. In such goal-compatible situations, consumers are more likely to take their own mental simulation into account. The relevancy principle also aligns with research that suggests the diagnosticity of an input for a judgment hinges on consumers' processing goals; to the extent the input is relevant to an activated goal, it is more diagnostic and likely to influence judgments (Keller, 1991; Lynch, Marmorstein, & Weigold, 1988). According to Keller (1991), consumers generate ad and brand-related cognitive responses when they process the ad, but the former receives more weight if consumers are primed to believe that ad-related cognitive responses are relevant to their judgments.

With this theoretical background, the current research proposes that the proclivity to rely on consump-

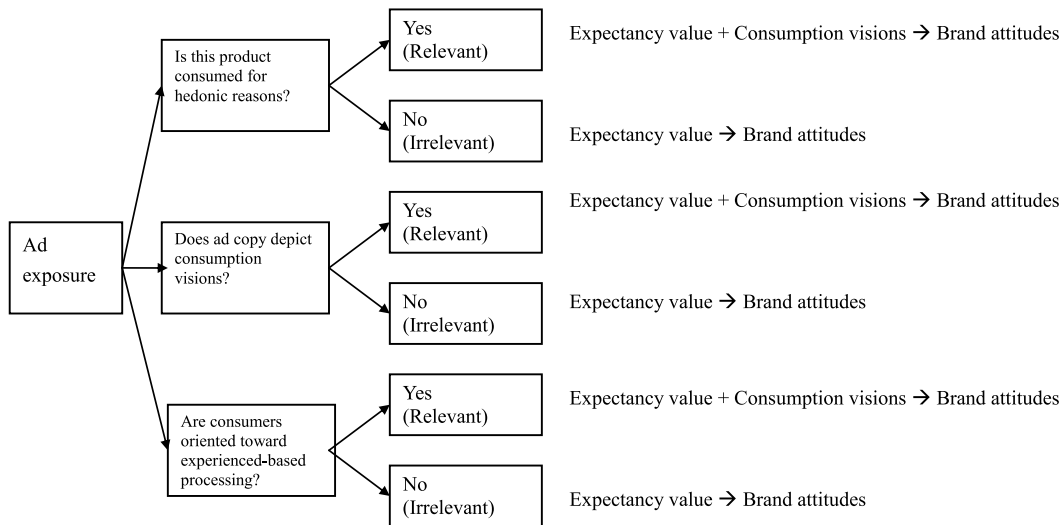
tion visions in formulating brand attitudes increases when people are concerned about consumption experiences. In these conditions, consumption visions appear relevant to evaluations. The tests of the proposed relevancy principle model in Figure 1 explored three possible situations in which consumption visions could be relevant.

### Product Characteristics: Hedonic Nature

Products can be utilitarian or hedonic (Dhar & Wertenbroch, 2000; Kempf, 1999). People consume hedonic products for sensory gratification and experiences associated with pleasure, fantasy, and fun; they consume utilitarian products to solve problems or accomplish tasks (Hirschman & Holbrook, 1982; Kempf, 1999; Sloot, Verhoef, & Hans Franses, 2005). Extending this dichotomy, researchers have suggested that most products offer some combination of hedonic and utilitarian benefits but differ in their relative degrees (Sloot, Verhoef, & Hans Franses, 2005). Thus some products (e.g., shampoo) offer both benefits, and even utilitarian products (e.g., milk) can provide some hedonic satisfaction.

Because consumers purchase products for different purposes, they evaluate them using different criteria (Kempf, 1999). To evaluate a hedonic product, the focal concern is the pleasure the product provides, so consumers assess sensual, experiential, and affective gratifications. To evaluate a utilitarian product, they need to know how well the product can solve problems, so they assess its functions and potential performance. Kempf (1999) confirmed these predictions and showed that the influence of a feeling of arousal offered a significant predictor of attitudes toward hedonic products but not toward utilitarian products. Pham (1998) also demonstrated that affective responses determined brand attitudes only if participants had a pleasure-oriented consumption motive.

These studies tested the influence of affective responses on brand attitudes and offered predictions in line with the proposed relevancy principle. Although they did not address consumption visions, their similar underlying principles provided a foundation for the theoretical claims in this article. That is, when evaluating a product associated with hedonic motives, experience-based consumption visions are relevant and get taken into account as consumers formulate brand attitudes. Similar to Sloot, Verhoef, and Hans Franses (2005), this research proposed that a product can offer some combination of hedonic and utilitarian benefits, but the hedonic nature of the product, regardless of the degree of its utilitarian functions, determines the relevancy of consumption visions. When products offer hedonic benefits, experience-based responses (e.g., consumption visions) provide significant predictors of product evaluations, regardless of whether the products serve utilitarian functions too.



**Figure 1.** Proposed relevancy principle model.

**H1:** Consumption visions predict brand attitudes when ads feature products that serve hedonic functions.

### Ad Characteristics: Consumption Vision Copy

There are many ways to induce consumption visions. An ad that directly instructs readers to imagine themselves in consumption situations (Babin & Burns, 1997; Krishnamurthy & Sujun, 1999) or presents product information in a narrative form, as opposed to an attribute list, encourages consumers to imagine themselves in the consumption situation (Adaval & Wyer, 1998). Rather than exploring which ad execution triggers more consumption visions, this study examines how ad executions might prime consumers to believe that consumption visions are relevant to brand evaluations.

Ad copy can address product benefits, depict consumption visions, or both. Depicting consumption situations should send direct signals to consumers that the consumption visions are relevant. Keller (1991) similarly suggested that exposure to an ad execution cue could prime consumers to perceive the relevance of ad-related cognitive responses to their judgments, such that consumers weight them more heavily in their subsequent product evaluations. Such arguments support the proposition that some ad copy provides cues of the relevancy of consumption visions. That is, ad copy that specifically depicts consumption visions should signal to consumers that such information is relevant and should be considered.

**H2:** Consumption visions predict brand attitudes when ad copy depicts consumption visions, but not when ad copy does not depict consumption visions.

### Consumer Characteristics: Processing Styles

When consumers' processing styles are experience oriented, consumption visions, which are also experience based, should be more relevant and influence brand attitudes. This study explores two processing styles: experiential/rational and visual/verbal.

**Experiential Versus Rational Processing.** Cognitive-experiential self-theory has featured two parallel, interactive information-processing systems: a rational system and an experiential system (Epstein, 1990). According to Epstein (1994, p. 715), the rational system is predominantly analytical and verbal, because it "operates primarily in the medium of language" and is a "deliberative, effortful, abstract system." In contrast, the experiential system is "holistic, associationistic and primarily nonverbal" (Epstein, Pacini, Denes-Raj, & Heier, 1996, p. 391) and "represents events primarily concretely and imagistically" (Epstein, 1994, p. 715), in the automatic, effortless system.

Each mode of processing leads to specific judgmental consequences. For example, experiential processing contributes to ratio bias (e.g., Denes-Raj & Epstein, 1994; Kirkpatrick & Epstein, 1992), such that when participants considered a tray of 10 (1 red and 9 white) jellybeans and a larger tray of 100 (10 red and 90 white) jellybeans, with the knowledge that they would win a prize if they picked a red jelly bean, they were more likely to want to draw from the larger than the smaller tray, even though the chances of drawing a red jellybean were the same for each tray. Epstein and colleagues have reasoned that this bias reflects an experiential processing mode, such that participants "felt" they had a better chance if they drew from a larger tray. The ratio bias also has emerged in real-life settings (e.g., Denes-Raj & Epstein, 1994;

Kirkpatrick & Epstein, 1992) and in scenario presentations with vivid visualization information (Epstein & Pacini, 2000/2001). However, the bias disappeared with verbal descriptions; to explain these varying effects, Epstein and Pacini (2000/2001) reasoned that imagery information communicates with the experiential processing system better than does verbal information. In the same vein, Epstein (1994, 1998) has argued that advertising pictures appeal more to the experiential system.

Individual differences in affinity for each processing orientation affect information processing as well. People with a greater experiential processing orientation tend to rely more on subjective experiences. For example, Danziger, Moran, and Rafaely (2006) found that people with high versus low experiential processing orientations focus more on their subjective experiences and are more likely to rely on the ease of retrieval as a judgment input.

Therefore, individual differences in experiential processing orientation should help determine whether people take consumption visions into account when formulating their brand attitudes. Specifically, consumption visions, which are experience-based, likely influence brand attitudes only for participants with a high experiential processing orientation, whereas for those with a high rational processing orientation, consumption visions might not affect brand attitudes. Prior literature has indicated that experiential and rational processing orientations are independent constructs and can operate simultaneously (Pacini & Epstein, 1999), such that people high in experiential processing can be high or low in rational processing. When consumers exhibit high levels in both forms of processing, their rational processing orientation may attenuate the influence of their experiential processing orientation. Among consumers with a high experiential processing orientation, only those who are also low in rational processing should take consumption visions into account.

**H3:** Consumption visions predict brand attitudes for consumers with high experiential processing orientations but low rational processing orientations, not for consumers with other combinations of processing orientations.

**Visual Versus Verbal Processing.** People also differ in their cognitive styles, or “information-processing habits representing people’s dominant or preferred modes of perceiving, thinking, remembering, and problem solving” (Green & Schroeder, 1990, p. 939). People with a propensity toward a visual processing mode orient toward images and prefer to see information presented visually; those with a propensity toward a verbal mode are oriented toward words and prefer to read about ideas (Childers, Houston, & Heckler, 1985). These different propensities then cause people to process information differently. Learning tends to improve when the teaching materials use the format most con-

gruent with a learner’s preferred processing orientation (Riding & Ashmore, 1980). When people have a visual processing style, they can more accurately reproduce a complex figure from memory (Casey, Winner, Hurwitz, & Dasilva, 1991) and quickly locate a position on a map (Schofield & Kirby, 1994), compared with those who are less visually oriented. Furthermore, consumers with a propensity toward visual processing recall more ad pictures than those with a propensity toward verbal processing (Heckler & Houston, 1993); when instructed to imagine, visual processors exhibit more favorable attitudes toward the advertised brand than do verbal processors (Burns, Biswas, & Babin, 1993). Moreover, visually oriented consumers tend to visualize what they are going to buy when they plan a shopping trip (Gould, 1990), in a process similar to a consumption vision. Finally, visually oriented consumers have a higher tendency to process affect (Sojka & Giese, 2001), which is also experience oriented.

Because the mental imagery of product consumption is compatible with their processing orientation, people with a high visual processing orientation should consider it relevant and thus take it into account when formulating their brand attitudes. In contrast, consumers who rely on verbal processing do not regard consumption visions as compatible with their processing orientation and might consider them irrelevant. Because visual and verbal processing are independent (e.g., Gould, 1990; Mendelson & Thorson, 2004), visual processors might be high or low in verbal processing. Prior research has suggested that imagery-eliciting tactics enhance brand attitudes and purchase intentions only for consumers oriented toward visual processing, but they can backfire and harm attitudes for those who are not (Petrova & Cialdini, 2005). Therefore, when people are high in both forms, the expected effects for those high in visual processing may be attenuated. Only consumers with high visual processing and low verbal processing modes should take consumption visions into account.

**H4:** Consumption visions predict brand attitudes for consumers with high visual processing orientations but low verbal processing orientations, not for consumers with other combinations of processing orientations.

## METHOD OVERVIEW

This study consisted of two experiments: Experiment 1 to test H1 and Experiment 2 to examine H2–H4.

## METHOD OF EXPERIMENT 1

### Design and Stimuli

This experiment used a between-subjects design with two manipulated factors: *product type* (high versus low hedonic nature) and *picture type* (four product use

scenarios). Mini-stereo systems represented the high hedonic nature products; printers were the low hedonic nature products. Both were high involvement products, commonly consumed by the college students who represented the sample of participants. To reduce the possibility that the results might be caused by idiosyncratic characteristics of the specific ad setting, each participant randomly received one of four versions of the ad, each with a background picture that featured a different consumption setting but the same ad copy.

As manipulation checks for product type, on a 7-point scale, participants rated the following utilitarian items for printers and stereo systems: "I would buy \_\_\_\_ for a utilitarian purpose" and "the reason I buy \_\_\_\_ is to help accomplish tasks" (Cronbach's  $\alpha = 0.72$ ). They similarly rated hedonic items for both products: "I would buy \_\_\_\_ for a hedonic purpose" and "the reason I buy \_\_\_\_ is to gain hedonic pleasure" (Cronbach's  $\alpha = 0.73$ ). As expected, mini-stereo systems generated higher hedonic ratings,  $F(1, 196) = 127.21, p < 0.01, M_{\text{stereo}} = 5.62, SD = 1.10, M_{\text{printer}} = 3.47, SD = 1.54$ , and lower utilitarian ratings,  $F(1, 196) = 14.99, p < 0.01, M_{\text{stereo}} = 5.70, SD = 1.21, M_{\text{printer}} = 6.31, SD = 1.00$ , than printers. Furthermore, stereo systems represented dual function products, in that their hedonic and utilitarian ratings did not differ significantly,  $t(96) = 0.57, p = 0.57$ , whereas printers were utilitarian products with significantly higher utilitarian ratings,  $t(100) = 16.66, p < 0.01$ .

The ad copy listed important product features. For the printer ads, a pretest ( $N = 154$ ) identified four important product attributes using a 7-point scale: good quality ( $M = 6.55$ ), high ink efficiency ( $M = 6.50$ ), easy-to-change ink cartridges ( $M = 6.32$ ), and fast printing speed ( $M = 6.06$ ). For the stereo system ads, another pretest ( $N = 62$ ) determined four product attributes that students considered important for these purchase decisions: sound quality ( $M = 6.26$ , again on a 7-point scale), multiple inputs ( $M = 6.08$ ), design ( $M = 5.66$ ), and ease of operation ( $M = 5.52$ ). The ad copy suggested the advertised products performed well on all four attributes.

## Procedures

Participants ( $N = 198, 47\%$  male) were recruited from a university campus in Taiwan and paid for their participation. They received a folder containing instructions and a magazine segment including a cover, an inside cover with an editorial page, one filler article, a filler ad, the target ad, and then another filler article. They were instructed to read the magazine segment as if they were at home. When they finished reading, they completed scales regarding their attitudes toward the advertised brand, consumption vision, estimation of the likelihood that the advertised product possessed each of a list of four attributes, the favorability of each of the attributes, and manipulation check items.

## Measures

All items were rated on 7-point Likert scales. Participants' responses to the items in all the scales were averaged, with higher ratings indicating a greater degree or level of the construct.

Participants completed Phillips' (1996) four-item *consumption vision* scale: "It is easy to see myself using the advertised printer," "While reading the advertisement for the printer, I am able to transport myself into the ad," "The advertisement brings to mind concrete images or mental pictures of using the product," and "My thoughts about using the advertised printer were vivid or detailed" (Cronbach's  $\alpha = 0.89$ ).

Participants also rated the likelihood that the advertised printer had the four attributes identified in the pretest and indicated how favorable each of the attributes was to them. The *attribute expectancy* value calculation summed the product of the likelihood score and the favorability score for each attribute.

Participants rated their *brand attitudes* using Chang's (2008) scale, indicating how good, likable, pleasant, and positive they considered the brand (Cronbach's  $\alpha = 0.87$ ).

## RESULTS

### Hypothesis Testing

The test of H1 regressed brand attitudes on consumption visions and expectancy value. For the stereo system, consumption visions,  $\beta = 0.21, p = 0.02$ , and expectancy value,  $\beta = 0.43, p < 0.01$ , were both significant predictors of brand attitudes ( $R^2 = 0.29$ ). For printers though, expectancy value,  $\beta = 0.59, p < 0.01$ , was a significant predictor, whereas consumption visions,  $\beta = 0.37, p = 0.71$ , were not ( $R^2 = 0.36$ ). Therefore, H1 received support.

### Additional Testing

The primary focus of Experiment 1 was on when consumption visions influenced product attitudes; therefore, no hypotheses predicted the main or interaction effects of the manipulated factors. Furthermore, an analysis of variance (ANOVA) indicated that *picture type* influenced neither consumption visions,  $F(3, 190) = 0.79, p = 0.50$ , nor brand attitudes,  $F(4, 121) = 0.60, p = 0.62$ , as the results in Table 1 showed.

## DISCUSSION

When ads feature products with a hedonic nature, consumption visions significantly affect brand attitudes, along with expectancy value. These findings support the proposed model. Consumers consider consumption visions relevant, and thus allow them to influence their

**Table 1. ANOVA and ANCOVA Results.**

	Consumption Visions			Brand Attitudes		
	<i>F</i>	<i>p</i>	$\eta_p^2$	<i>F</i>	<i>p</i>	$\eta_p^2$
Experiment 1						
Product type (P)	3.46	0.07	0.02	2.53	0.11	0.01
Photo type (O)	0.79	0.50	0.01	0.60	0.62	0.01
P × O	0.77	0.51	0.01	0.08	0.97	0.01
Experiment 2						
Covariates						
Gender	0.68	0.41	0.01	0.24	0.63	0.01
Product involvement	13.56	0.01	0.08	6.91	0.01	0.04
Picture type (I)	0.05	0.82	0.01	10.58	0.01	0.06
Copy type (C)	0.31	0.58	0.01	0.09	0.76	0.01
I × C	5.45	0.02	0.03	1.12	0.29	0.01

brand attitudes, when they consume the products for hedonic reasons.

## METHOD OF EXPERIMENT 2

### Design and Stimuli

This experiment featured a 2 × 2 factorial design with two manipulated factors: *copy type* (presence versus absence of consumption copy) and *picture type* (product consumption vs. product pictures). The focal product, shoes, provided both hedonic and utilitarian benefits, according to a pretest ( $N = 100$ ), in which participants indicated whether “I buy shoes for a utilitarian purpose (e.g., protecting feet and providing support)” and “I buy shoes to gain hedonic pleasure (e.g., experiencing comfort and enjoying the look).” The two ratings did not differ significantly,  $t(99) = 0.32, p = 0.75$ . All ads featured the product information in a bottom panel. A pretest ( $N = 100$ ) revealed that the most important attribute for shoe purchases was comfort ( $M = 6.32$ , 7-point scale). The product information therefore described the special design of the shoes and highlighted their comfort.

The manipulation of the first factor, *copy type*, entailed the presence or absence of ad copy describing a consumption situation, in addition to product attribute information. The manipulation of *background picture type* aimed to show that both pictures of product consumption and simple product illustrations can trigger consumption visions. The ads in the consumption picture condition featured a picture of a person walking in the woods wearing the advertised shoes. To eliminate a potential confound with the gender of the people featured in the ad, two versions depicted either a man or a woman wearing the advertised shoes and similar outfits. Participants viewed ads with a character of their own gender. In the product picture condition, the ad contained just an illustration of the shoes.

## Procedures

Participants ( $N = 166$ ) were recruited from a university campus in Taiwan and paid for their participation. They received a folder containing a short set of instructions, a filler ad, the target ad featuring shoes, and then another filler ad. Each participant randomly received ad pages featuring one of four versions of the target ad, according to the previously described manipulations.

The instructions indicated that participants should read the ads as if they were reading a magazine at home. After doing so, they completed measures of their brand attitudes and consumption visions, estimations of the likelihood that the advertised product possessed five attributes, and the favorability of each product attribute. Finally, they were asked to “help a psychology professor” by filling out a short survey on their values, lifestyle, and personality, including scales for visual/verbal processing and experiential/rational processing. All participants complied with this request.

## Measures

**Rational and Experiential Processing.** Using a 7-point Likert scale, participants completed Pacini and Epstein’s (1999) rational–experiential inventory. The reliabilities of both the experiential (Cronbach’s  $\alpha = 0.90$ ) and rational (Cronbach’s  $\alpha = 0.89$ ) processing scales were acceptable. Median splits for both experiential (median = 4.40) and rational (median = 4.60) processing categorized the participants into four groups: high–high ( $N = 52$ ), high–low ( $N = 33$ ), low–high ( $N = 34$ ), and low–low ( $N = 47$ ).

**Visual and Verbal Processing.** Again using a 7-point Likert scale, participants completed the visual and verbal processing subscales from Childers, Houston, & Heckler, (1985) style of processing scale. The reliabilities of the visual (Cronbach’s  $\alpha = 0.73$ ) and verbal (Cronbach’s  $\alpha = 0.87$ ) processing scales were acceptable. The median splits for both visual (median = 4.83) and verbal (median = 5.33) processing produced four groups of participants: high–high ( $N = 37$ ), high–low ( $N = 45$ ), low–high ( $N = 47$ ), and low–low ( $N = 37$ ).

**Consumption Vision Scale.** A 7-point Likert scale provided the possible responses to Phillips’ (1996) consumption vision scale (Cronbach’s  $\alpha = 0.82$ ).

**Attribute Expectancy Value.** Participants rated the likelihood that the advertised shoes possessed comfort, durability, lightweight, breathability, and in-style attributes, then indicated how favorable each attribute was to them. The attribute expectancy value equaled the sum of the product of the likelihood score and the favorability score for each attribute.

**Table 2. Standardized Regression Coefficients Predicting Brand Attitudes for Participants Categorized by Experiential/Rational and Visual/Verbal Processing Orientations.**

	Experiential/Rational Processing											
	High-High <sup>a</sup> (n = 47)			High-Low <sup>a</sup> (n = 34)			Low-High <sup>a</sup> (n = 33)			Low-Low <sup>a</sup> (n = 52)		
	$\beta$	<i>t</i>	<i>p</i>	$\beta$	<i>t</i>	<i>p</i>	$\beta$	<i>t</i>	<i>p</i>	$\beta$	<i>t</i>	<i>p</i>
Gender	0.09	0.79	0.43	0.01	0.07	0.94	-0.01	-0.08	0.94	0.06	0.45	0.65
Product involvement	0.10	0.79	0.43	0.05	0.43	0.67	-0.11	-0.71	0.48	-0.08	-0.49	0.63
Picture type (P)	0.28	2.43	0.02	0.30	2.74	0.01	0.34	1.93	0.07	0.05	0.39	0.70
Copy type (C)	0.01	0.09	0.93	0.23	1.94	0.06	-0.17	-1.15	0.26	0.33	2.61	0.01
P × C	0.15	0.27	0.21	-0.07	-0.65	0.52	-0.16	-1.04	0.31	0.05	0.39	0.70
Expectancy	<b>0.54</b>	<b>4.28</b>	<b>0.01</b>	<b>0.53</b>	<b>4.35</b>	<b>0.01</b>	<b>0.43</b>	<b>2.67</b>	<b>0.01</b>	<b>0.41</b>	<b>2.88</b>	<b>0.01</b>
Consumption visions	0.09	0.71	0.49	<b>0.59</b>	<b>4.49</b>	<b>0.01</b>	0.17	1.11	0.28	0.20	1.42	0.16

	Visual/Verbal Processing											
	High-High <sup>b</sup> (n = 37)			High-Low <sup>b</sup> (n = 47)			Low-High <sup>b</sup> (n = 45)			Low-Low <sup>b</sup> (n = 37)		
	$\beta$	<i>t</i>	<i>p</i>	$\beta$	<i>t</i>	<i>p</i>	$\beta$	<i>t</i>	<i>p</i>	$\beta$	<i>t</i>	<i>p</i>
Gender	-0.17	-1.17	0.25	0.10	0.79	0.43	-0.21	-1.42	0.16	0.15	1.05	0.30
Product involvement	-0.12	-0.67	0.51	-0.08	-0.56	0.58	0.02	0.11	0.92	0.16	1.07	0.29
Picture type (P)	0.48	2.98	0.01	0.03	0.27	0.79	0.21	1.57	0.13	0.30	2.03	0.05
Copy type (C)	0.04	0.24	0.81	0.10	0.74	0.46	0.19	1.24	0.22	0.01	0.05	0.96
P × C	0.16	1.00	0.32	-0.04	-0.33	0.75	0.04	0.29	0.78	0.08	0.54	0.60
Expectancy	<b>0.36</b>	<b>2.38</b>	<b>0.02</b>	<b>0.50</b>	<b>3.79</b>	<b>0.01</b>	<b>0.45</b>	<b>3.17</b>	<b>0.01</b>	<b>0.45</b>	<b>2.89</b>	<b>0.01</b>
Consumption visions	0.16	0.97	0.34	<b>0.35</b>	<b>2.43</b>	<b>0.02</b>	0.23	1.52	0.14	0.22	1.45	0.16

<sup>a</sup>“High-high” indicates high in both experiential and rational processing orientations; “high-low” indicates high in experiential and low in rational; “low-high” indicates low in experiential and high in rational; and “low-low” indicates low in both experiential and rational.

<sup>b</sup>“High-high” indicates high in both visual and verbal processing styles; “high-low” indicates high in visual and low in verbal; “low-high” indicates low in visual and high in verbal; and “low-low” indicates low in both visual and verbal.

Bold values indicate the predictors specified in the hypotheses.

**Attitudes Toward the Brand.** Finally, participants rated their attitudes toward the advertised brand using Chang’s (2005) scale to indicate how good, likable, pleasant, positive, and of good quality they considered the brand (Cronbach’s  $\alpha = 0.83$ ).

## RESULTS

### Preliminary Analysis

Experiential processing was not correlated with rational processing (Pearson’s  $r = 0.04$ ,  $p = 0.58$ ), so the two processing orientations were independent. However, a visual processing style was negatively associated with a verbal processing style (Pearson’s  $r = -0.28$ ,  $p < 0.01$ ). An experiential processing orientation indicated a positive association with a visual processing style (Pearson’s  $r = 0.19$ ,  $p = 0.02$ ), though the correlation was not strong.

### Hypotheses Testing

Because product involvement influences processing of ad pictures (Miniard et al., 1991), all the analyses included it as a covariate, measured with Laurent and Kapferer’s (1985) scale (Cronbach’s  $\alpha = 0.88$ ). Moreover, the gender of the participants was not equally

distributed across the processing difference categories, so it also appeared as a covariate.

The test of H2 regressed brand attitudes on product involvement, gender, picture type, consumption vision, and expectancy value in each copy type condition. In support of H2, participants in the consumption copy condition revealed that both expectancy value,  $\beta = 0.45$ ,  $p < 0.01$ , and consumption vision,  $\beta = 0.26$ ,  $p < 0.01$ , provided significant predictors ( $R^2 = 0.48$ ). For those who were not in that condition, only expectancy value,  $\beta = 0.47$ ,  $p < 0.01$ , accounted for significant brand attitudes ( $R^2 = 0.33$ ).

For each of the four experiential-rational processing groups, the test regressed brand attitudes on product involvement, gender, picture type, copy type, the interaction term between picture and copy type, consumption vision, and expectancy value. As expected, only among the high-low participants did both expectancy value,  $\beta = 0.59$ ,  $p < 0.01$ , and consumption vision,  $\beta = 0.53$ ,  $p < 0.01$ , provide significant predictors ( $R^2 = 0.71$ ; Table 2), in support of H3.

For the four visual-verbal processing groups, brand attitudes regressed on the same five predictors used for the experiential-rational processing groups showed that only for the high-low group, expectancy value,  $\beta = 0.50$ ,  $p < 0.01$ , and consumption visions,  $\beta = 0.35$ ,  $p = 0.02$ , were significant predictors ( $R^2 = 0.44$ ; see Table 2), in support of H4.



## Additional Analyses

According to an analysis of covariance (ANCOVA), picture type (consumption or product picture) did not affect consumption visions (see Table 1). This suggested that even ads with product illustrations could trigger consumption visions. However, the main effect of picture type on brand attitudes was significant,  $F(1, 160) = 10.58, p < 0.01, M_{\text{consumption}} = 5.13, SD = 0.77, M_{\text{product}} = 4.71, SD = 0.81$ .

The interactions between picture type and copy type were not significant, except for consumption visions,  $F(1, 160) = 5.45, p = 0.02$ . Simple effects tests showed that for ads featuring a consumption picture, additional ad copy describing the consumption situation did not increase consumption visions,  $F(1, 82) = 1.47, p = 0.23, M_{\text{presence}} = 4.56, SD = 1.56, M_{\text{absence}} = 3.96, SD = 1.84$ . When participants viewed the ad that featured a specific consumption scenario, reading the ad copy describing the scenario likely provided redundant information and thus did not further enhance their consumption visions. In contrast, when the ad featured a product picture, the presence of copy pertaining to consumption imagery reduced the level of consumption visions,  $F(1, 79) = 4.08, p = 0.05, M_{\text{presence}} = 3.81, SD = 1.73, M_{\text{absence}} = 4.49, SD = 1.61$ . This result implied that when consumers viewed an ad featuring a product illustration, they generated their own consumption visions. Reading a specific scenario in the ad copy might interfere with their consumption vision generation and thus reduce their consumption visions.

## DISCUSSION

Expectancy value consistently offers a significant predictor of brand attitudes, whereas the influences of consumption visions on brand attitudes vary across situations. In support of H2, consumption visions provide significant predictors of brand attitudes when ad copy describes a consumption situation. In support of H3 and H4, the relationship between consumption visions and brand attitudes varies as a function of the relevancy of consumption visions to people with certain processing styles. These findings are consistent with the proposed relevancy principle model.

## GENERAL DISCUSSION

### Findings

This study contributes to extant literature by illustrating how and when consumption visions, an important but relatively underexplored construct, affect brand attitude formation. Imagining oneself engaged in consumption scenarios is a specific type of mental imagery that can be triggered by ad exposure. To test the proposed relevancy principle model, this study has explored three possible determinants of the perceived

relevancy of consumption visions: product, ad, and consumer characteristics.

In terms of product characteristics, to the degree that a consumer purchases a product for hedonic reasons, consumption visions are more compatible with consumption goals and thus more relevant. Experiment 1 showed that consumption visions significantly influence brand attitudes when ads promote products associated with hedonic goals. In terms of ad characteristics, ad copy can signal the relevancy of consumption visions. Consistent with this expectation, Experiment 2 demonstrated that when ad copy depicts consumption situations, consumption visions account for significant variance in brand attitudes. Finally, in terms of consumer characteristics, experience-based processing styles are more compatible with consumption visions, making them relevant and thus more influential on consumers' brand attitudes. Experiment 2 showed that participants with a high experiential but low rational processing orientation consider their consumption visions when forming their brand attitudes; those high in visual but low in verbal processing style also grant significant weight to consumption visions when formulating their brand attitudes.

The central theorem of the proposed model—that consumption visions exert an influence only when they seem relevant—is consistent with other product evaluation theories, such as the accessibility–diagnosticity model (Feldman & Lynch, 1988), which suggests that product information becomes input for product judgments only when it is accessible and diagnostic. Although that model pertains to the impact of *external* information about a product, the proposed relevancy principle model extends previous literature by showing that when processing ads, people generate different responses, including expectancy value and consumption visions and the influence of these *internal responses* varies as a function of other factors (in this case, relevancy).

### Further Research

The consumption vision scale employed in this study measured only the degree of consumption imagery and could not distinguish positive from negative imagery. The findings of the two experiments showed that consumption visions *positively* predicted brand attitudes, which implied that these visions likely were positive. There are two possible explanations. First, people are less likely to imagine negative consumption experiences because of their inherent motivation to avoid unpleasant stimuli (Brendl, Markman, & Messner, 2005). Second, people usually do not generate negative consumption imagery of new products when the available information is positive (i.e., the ad information presented positive aspects of the products). If consumers have prior experiences with the advertised products, they may recall negative consumption scenarios though. Additional research therefore should

explore the valence of consumption visions and their ramifications.

The construct of consumption vision also needs to be explored further. For example, consumption visions may represent visual components of a more general construct that comprises both visual and verbal components. In turn, consumers with a visual orientation might generate more visual manifestations, whereas those with verbal orientations would generate more verbal manifestations of the construct. This question deserves more research attention.

The effects of picture content also might be addressed. The experiments reported herein did not manipulate the type of consumption setting, though Escalas and Luce (2003) have shown that mental simulation can be process-focused (i.e., imagining using a product, such as dyeing hair) or outcome-focused (i.e., imagining how the person would feel after using the product, such as enjoying a new hair color). For example, in Experiment 1, the background pictures simply showed possible consumption settings, without manipulating whether the pictures represented the process or consequences of use. The relevancy of consumption visions for brand attitudes may differ for ad images focused on the process versus the consequences of use. It also would be interesting to compare the effects of multiple versus single pictures on the relevancy of consumption visions. This study used only one background picture per ad. Depicting more consumption scenarios by showing multiple pictures may enhance the ease with which consumers develop relevant consumption visions.

Attribute type could affect consumption visions too. Keller and McGill (1994) have shown that when participants use imagery-based processing strategies to evaluate an apartment, easily imagined attributes (e.g., hardwood floors) exert a greater influence than difficult-to-imagine attributes (e.g., security levels). Consumption visions similarly could be encouraged or considered more relevant if ads focused on attributes that are easy to imagine.

Other individual differences could be explored in conjunction with consumption visions. Petrova and Cialdini (2008, p. 514) have argued that two individual differences warrant more research attention: dispositional imagery vividness, or "individuals' ability to generate vivid mental imagery," and internal focus. These authors posited as well that people with a higher internal focus are more sensitive to their internal representations and thus to mental imagery.

Further research also might compare media differences, within the proposed model. For television commercials and Web sites, visuals are salient and dynamic, so they could increase the relevancy of consumption visions. Consumption visions also may be more relevant when people view product catalogs; prior research has shown that an apparel catalog can trigger consumption visions and influence both product attitudes and purchase intentions (Fiore & Yu, 2001). When viewing a catalog, consumers likely entertain

ideas about how the product would look on them, for example, and such imagery should be highly relevant when consumers make purchase decisions.

Situational factors also might be pertinent, including cognitive capacity and buying purposes. For example, with constrained cognitive capacity, even consumers with verbal or rational processing styles could adopt different decision-making strategies. Different buying purposes also can alter the content of mental imagery. If consumers purchase for others rather than themselves, they likely adopt product consumption imagery that involves others. Whether self-related and other-involved consumption visions differ in their influences on brand attitudes in different situations demands further study.

Finally, other psychological mechanisms triggered by different types of pictures warrant research attention. Advertising research on narratives has indicated that mental imagery or simulation relates positively to positive emotional responses (Escalas, 2004). Formulating consumption visions likely triggers emotional responses that influence brand evaluations. An extended model might include all possible responses triggered by ad pictures, including emotional responses.

## Implications for Practitioners

The findings have several important practical implications. Experiment 1 demonstrated that consumption visions influence brand attitudes when the advertised product offers hedonic satisfaction. Marketers that advertise such products therefore should employ tactics to induce consumption visions. If the consumption visions are likely to be favorable, advertisers should try to enhance their relevancy. As Experiment 2 has suggested, depicting consumption scenarios in ad copy encourages consumers to take consumption visions into account when they formulate brand attitudes. Experiment 2 also revealed that people with an experiential processing orientation are more likely to consider consumption visions. If advertisers can find a relationship between demographics (e.g., age, gender) and experiential processing orientation, they can better design their ads to encourage consumption visions. For example, young people growing up in a video-oriented age may be more likely to exhibit high levels of experiential processing, in which case ads targeting them should feature consumption scenarios.

## Limitations

The findings of this study should be interpreted with certain limitations in mind. First, the samples consisted entirely of college students, who may exhibit greater or lesser visual or experiential processing orientations, such that their reliance on consumption visions could be lower or higher than those of general consumers. Second, the experimental setting may have induced greater levels of message involvement and

encouraged participants to pay particular attention to the ads in general or to the verbal rather than the visual elements of the ad. Third, this study tested the influence of consumption visions using print ads, but consumption visions could be induced more easily by televised commercials. Fourth, this study relied only on verbal measures. Participants with higher visual and experiential processing orientations may respond to verbal scales differently than those who adopt verbal and rational processing styles.

Despite these limitations, the findings of the two experiments reported herein highlight the importance of consumption visions for brand evaluation processes when they are high in relevancy and thus offer a well-supported theoretical framework. Further research should build on these findings by examining additional contingent factors that either affect consumption visions directly or alter the degree to which consumers use them in their brand evaluation processes.

## REFERENCES

- Adaval, R., & Wyer, R. S. (1998). The role of narratives in consumer information processing. *Journal of Consumer Psychology, 7*, 207–245.
- Babin, L. A., & Burns, A. C. (1997). Effects of print ad pictures and copy containing instructions to imagine on mental imagery that mediates attitudes. *Journal of Advertising, 26*, 33–44.
- Bone, P. F., & Ellen, P. S. (1992). The generation and consequences of communication-evoked imagery. *Journal of Consumer Research, 19*, 93–104.
- Brendl, C. M., Markman, A. B., & Messner, C. (2005). Indirectly measuring evaluations of several attitude objects in relation to a neutral reference point. *Journal of Experimental Social Psychology, 41*, 346–368.
- Burns, A. C., Biswas, A., & Babin, L. A. (1993). The operation of visual imagery as a mediator of advertising effects. *Journal of Advertising, 22*, 71–85.
- Casey, M. B., Winner, E., Hurwitz, I., & Dasilva, D. (1991). Does processing style affect recall of the Rey-Osterrieth or Taylor Complex figures? *Journal of Clinical and Experimental Neuropsychology, 13*, 577–583.
- Chang, C. (2005). Ad-self-congruency effects: Self-enhancing cognitive and affective mechanisms. *Psychology & Marketing, 22*, 887–910.
- Chang, C. (2008). Ad framing effects for consumption products: An affect priming process. *Psychology & Marketing, 25*, 25–47.
- Childers, T. L., & Houston, M. J. (1984). Conditions for a picture-superiority effect on consumer memory. *Journal of Consumer Research, 11*, 643–654.
- Childers, T. L., Houston, M. J., & Heckler, S. E. (1985). Measurement of individual differences in visual versus verbal information processing. *Journal of Consumer Research, 12*, 125–134.
- Costly, C. L., & Brucks, M. (1992). Selective recall and information use in consumer preference. *Journal of Consumer Research, 18*, 464–474.
- Danziger, S., Moran, S., & Rafaely, V. (2006). The influence of ease of retrieval on judgment as a function of attention to subjective experience. *Journal of Consumer Psychology, 16*, 191–195.
- Denes-Raj, V., & Epstein, S. (1994). Conflict between intuitive and rational processing: When people behave against their better judgment. *Journal of Personality and Social Psychology, 66*, 819–829.
- Dhar, R., & Wertenbroch, K. (2000). Consumer choice between hedonic and utilitarian goods. *Journal of Marketing Research, 37*, 60–71.
- Edell, J. A., & Staelin, R. (1983). The information processing of pictures in print advertisements. *Journal of Consumer Research, 10*, 45–61.
- Epstein, S. (1990). Cognitive-experiential self-theory. In L. A. Pervin (Ed.), *Handbook of personality theory and research: Theory and research* (pp. 165–192). New York: Guilford Publications, Inc.
- Epstein, S. (1994). Integration of the cognitive and the psychodynamic unconscious. *American Psychologist, 49*, 709–724.
- Epstein, S. (1998). Cognitive-experiential self-theory. In D. F. Barone, M. Hersen, & V. B. Van Hasselt (Eds.), *Advanced personality* (pp. 211–238). New York: Plenum.
- Epstein, S., & Pacini, R. (2000/2001). The influence of visualization on intuitive and analytical information processing. *Imagination, Cognition and Personality, 20*, 195–216.
- Epstein, S., Pacini, R., Denes-Raj, V., & Heier, H. (1996). Individual differences in intuitive-experiential and analytical-rational thinking styles. *Journal of Personality and Social Psychology, 71*, 390–405.
- Escalas, J. E. (2004). Narrative processing: Building consumer connections to brands. *Journal of Consumer Psychology, 14*, 168–180.
- Escalas, J. E., & Luce, M. F. (2003). Process versus outcome thought focus and advertising. *Journal of Consumer Psychology, 13*, 246–254.
- Feldman, J. M., & Lynch, Jr. J. G. (1988). Self-generated validity and other effects of measurement on belief, attitude, intention, and behavior. *Journal of Applied Psychology, 73*, 421–435.
- Fiore, A. M., & Yu, H. (2001). Effects of imagery copy and product samples on response toward the product. *Journal of Interactive Marketing, 15*, 36–46.
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley.
- Gould, S. J. (1990). Style of information processing differences in relation to products, shopping and self-consciousness. *Advances in Consumer Research, 17*, 455–460.
- Green, K. E., & Schroeder, D. H. (1990). Psychometric quality of the verbalizer-visualizer questionnaire as a measure of cognitive style. *Psychological Reports, 66*, 939–945.
- Heckler, S. E., & Houston, M. J. (1993). On the construct validity of the SOP scale. *Journal of Mental Imagery, 17*, 119–132.
- Hirschman, E. C., & Holbrook, M. B. (1982). Hedonic consumption: Emerging concepts, methods, and propositions. *Journal of Marketing, 46*, 92–101.
- Houston, M. J., Childers, T. L., & Heckler, S. E. (1987). Picture-word consistency and elaborative processing of advertisements. *Journal of Marketing Research, 24*, 359–369.
- Keller, K. L. (1991). Cue compatibility and framing in advertising. *Journal of Marketing Research, 28*(February), 42–57.
- Keller, P. A., & McGill, A. L. (1994). Differences in the relative influence of product attributes under alternative processing conditions: Attribute importance versus attribute ease of imaginability. *Journal of Consumer Psychology, 31*, 29–49.

- Kempf, D. (1999). Attitude formation from product trial: Distinct roles of cognition and affect for hedonic and functional products. *Psychology & Marketing*, 16, 35–50.
- Kirkpatrick, L. A., & Epstein, S. (1992). Cognitive-experiential self-theory and subjective probability: Further evidence for two conceptual systems. *Journal of Personality and Social Psychology*, 63, 534–544.
- Krishnamurthy, P., & Sujan, M. (1999). Retrospection versus anticipation: The role of the ad under retrospective and anticipatory self-referencing. *Journal of Consumer Research*, 26, 55–69.
- Laurent, G., & Kapferer, J. (1985). Measuring consumer involvement profiles. *Journal of Marketing Research*, 22, 41–53.
- Lutz, K. A., & Lutz, R. J. (1977). Effects of interactive imagery on learning: Application to advertising. *Journal of Applied Psychology*, 62, 493–498.
- Lynch, J. G., Jr., Marmorstein, H., & Weigold, M. F. (1988). Choice from sets including remembered brands: Use of recalled attributes and prior overall evaluations. *Journal of Consumer Research*, 15(September), 169–184.
- MacInnis, D. J., & Price, L. L. (1987). The role of imagery in information processing: Review and extensions. *Journal of Consumer Research*, 13, 473–491.
- Mendelson, A. L., & Thorson E. (2004). How verbalizers and visualizers process the newspaper environment. *Journal of Communication*, 54, 474–491.
- Meyers-Levy, J. (1989). Priming effects on product judgments: A hemispheric interpretation. *Journal of Consumer Research*, 16, 76–86.
- Miniard, P. W., Bhatla, S., Lord, K. R., Dickson, P. R., & Unnava, H. R. (1991). Picture-based persuasion processes and the moderating role of involvement. *Journal of Consumer Research*, 18, 92–107.
- Mitchell, A. A., & Olson, J. O. (1981). Are product attribute beliefs the only mediator of advertising effects on brand attitude? *Journal of Marketing Research*, 18, 318–332.
- Nakanishi, M., & Bettman, J. R. (1974). Attitude models revisited: An individual level analysis. *Journal of Consumer Research*, 1, 16–21.
- Pacini, R., & Epstein, E. (1999). The relation of rational and experiential information processing styles to personality, basic beliefs, and the ratio-bias phenomenon. *Journal of Personality and Social Psychology*, 76, 972–987.
- Petrova, P. K., & Cialdini, R. B. (2005). Fluency of consumption imagery and the backfire effects of imagery appeals. *Journal of Consumer Research*, 32, 442–452.
- Petrova, P. K., & Cialdini, R. B. (2008). Evoking the imagination as a strategy of influence. In C. Haugtvedt, P. M. Herr, & F. R. Kardes (Eds.) *Handbook of consumer psychology* (pp. 505–524). New York: Erlbaum.
- Pham, M. T. (1998). Representativeness, relevance, and the use of feelings in decision making. *Journal of Consumer Research*, 25, 144–159.
- Phillips, D. M. (1996). Anticipating the future: The role of consumption visions in consumer behavior. *Advances in Consumer Research*, 23, 70–75.
- Phillips, D. M., Olson, J. C., & Baumgartner, H. (1995). Consumption visions in consumer decision making. *Advances in Consumer Research*, 22, 280–284.
- Riding, R. J., & Ashmore, J. (1980). Verbaliser-imager learning style and children's recall of information presented in pictorial versus written form. *Educational Studies*, 6, 141–145.
- Schofield, N. J., & Kirby, J. R. (1994). Position location on topographical maps: Effects of task factors, training, and strategies. *Cognition and Instruction*, 12, 35–60.
- Shiv, B., & Huber, J. (2000). The impact of anticipating satisfaction on consumer choice. *Journal of Consumer Research*, 27, 202–216.
- Slout, L. M., Verhoef, P. C., & Hans Franses, P. H. (2005). The impact of brand equity and the hedonic level of products on consumer stock-out reactions. *Journal of Retailing*, 18, 15–34.
- Sojka, J. Z., & Giese, J. L. (2001). The influence of personality traits on the processing of visual and verbal information. *Marketing Letters*, 12, 91–106.
- Tversky, A., Sattath, S., & Slovic, P. (1998). Contingent weighting in judgment and choice. *Psychological Review*, 95, 371–384.
- Unnava, H. R., & Burnkrant, R. E. (1991). An imagery-processing view of the role of pictures in print advertisements. *Journal of Marketing Research*, 28, 226–231.
- Walker, B., & Olson, J. C. (1997). The activated self in consumer behavior: A cognitive structure perspective. *Research in Consumer Behavior*, 8, 135–171.
- Walters, G., Sparks, B., & Herington, C. (2007). The effectiveness of print advertising stimuli in evoking elaborate consumption visions for potential travelers. *Journal of Travel Research*, 46, 24–34.

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