

# The Differential Effects of Extrinsic and Intrinsic Cue-utilization in Hedonic Product Consumption—An Empirical Investigation

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Abstract: Hedonic consumption gives multisensory product usage experiences (e.g., fun and excitement), which are highly important to consumers. Therefore, this study examines the impact of intrinsic and extrinsic product cues on purchase intention for hedonic products. Executing a laboratory experiment and using the example of perfume, the findings extend previous research in several ways. First, this paper shows that for hedonic products intrinsic product cues (i.e., scent) dominate extrinsic product cues (i.e., flacon) when forming a purchase intention. Second, the positive effect of a pleasant scent as intrinsic product cues have to match one another to convey a uniform message. Finally, the paper finds that the impact of extrinsic cues on the purchase intention for hedonic products is greater for female consumers than for male consumers. Implications for researchers and practitioners are discussed.

Key words: consumer behavior; gender; perfume; cue-utilization theory

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# **1. Introduction**

During the last decades, research on hedonic consumption has grown significantly. Hedonic products, such as designer items, clothes, jewellery etc., provide experiential consumption, sensory experience and enjoyment (Hirschman & Holbrook, 1982). Scholars from several disciplines agree that consumers increasingly value consumption styles and products that enable them to pursue favourable experiences, enjoyment, fun, or amusement (Dhar & Wertenbroch, 2000; Okada, 2005).

To date, research on hedonic consumption reveals a strong focus on the differentiation between product categories and consumer motives for purchasing hedonic products (Okada, 2005). However, only few studies have investigated factors that affect the evaluation, purchasing process and decision-making of consumers regarding

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hedonic products (e.g., Dhar & Wertenbroch, 2000). Research so far also has not assessed product cues in explaining purchase decisions of hedonic products. This is surprising, as hedonic products are consumed for affective and sensory benefits, whereas utilitarian products are consumed for functional benefits (Micu & Coulter, 2012), hence, differences in decision making can be expected. Consequently, research is needed on factors that influence the consumption of hedonic products in order to broaden the understanding of product evaluation and subsequent decision making for products that provide a hedonic value.

Cue-utilization theory has been widely acknowledged as a rationale for explaining consumers' evaluation of products and product attributes. Broadly speaking, cue-utilization theory posits that consumers rely on "cues" or characteristics of products in their product evaluations (e.g., Richardson et al., 1994). The literature distinguishes between intrinsic and extrinsic cues. Intrinsic product cues (e.g., ingredients) pertain to the product itself whereas extrinsic product cues (e.g., price, brand name, warranty or packaging) belong to the product without being physically a part of it (e.g., Miyazaki et al., 2005; Richardson et al., 1994). Considering the relative impact of intrinsic versus extrinsic cues, previous research provides a rather inconsistent picture. On the one hand, several studies support the notion that intrinsic cues are more influential than extrinsic cues when evaluating the quality of a product (Olson & Jacoby, 1972; Szybillo & Jacoby, 1974). On the other hand, MacInnis and Price (1987) assume that extrinsic cues may be more relevant to consumers than intrinsic cues when it comes to evaluation of hedonic products.

Against this background, this paper aims at investigating the impact of intrinsic and extrinsic cues on the purchase intention for hedonic products. Taking the example of perfume, a laboratory experiment with 160 subjects is executed, demonstrating that for hedonic products the scent as intrinsic cue has a higher impact than the packaging design as extrinsic cue. Thereby, we provide theoretical contribution on the differential effects of intrinsic and extrinsic cues in evaluation of hedonic products. Moreover, we provide insights on how consumers perceive olfactory and visual cues. Thus, our study also contributes to sensory marketing. Finally, we shed light on gender differences regarding the impact of intrinsic and extrinsic cues on consumers' purchasing decision for hedonic products. Since gender differences play an important role in consumer decision-making (Costa et al., 2001; Holbrook, 1986) and previous research on hedonic products neglected the gender aspect, we explicitly include gender in our research design. By this means, more differentiated implications for practice can be made.

The rest of this paper is organized as follows. First, we present our theoretical framework and our hypotheses. Then, attention turns toward our empirical study which examines consumers' purchasing decisions for perfumes. Perfume is a typical hedonic product involving characteristics such as experiential consumption, enjoyment, and pleasure (Crowley et al., 1992). After illustrating our results, we provide a discussion of our findings and provide suggestions for future research as well as managerial implications.

## 2. Theoretical Framework and Hypotheses

## 2.1 Cue-utilization Theory

#### 2.1.1 Overview

According to the cue-utilization theory, consumers rely on product attributes to reduce their perceived risk of the approaching purchase decision (e.g., Cox et al., 2006). These attributes are intrinsic (e.g., ingredients) and extrinsic cues (e.g., price, brand name, warranty or packaging) that describe a product and signal its quality to consumers. Intrinsic cues are related to the product itself and cannot be changed without altering the characteristic

of the product. Extrinsic cues, in turn, are related to the product without being physically a part of it (Miyazaki et al., 2005; Richardson et al., 1994).

Consumers are using intrinsic and extrinsic cues to the same extent but vary between them across different product categories and their product experience level (Jacoby et al., 1971; Lee & Lou, 1996; Rao & Monroe, 1988). Studies found that intrinsic cues are more reliable indicators for product quality than extrinsic cues (Olson & Jacoby, 1972). That is, intrinsic cues are more powerful in influencing consumers' product evaluation and dominate extrinsic cues. However, when intrinsic cues are scarce or considered as not useful, extrinsic cues are used as an indicator for quality (Miyazaki et al., 2005; Rao & Monroe, 1988). The question remains, to what extent intrinsic and extrinsic cues affect consumers' purchase intentions for hedonic products. This is important as consumers shop hedonic products for affective and sensory benefits and utilitarian products for functional benefits (Micu & Coulter, 2012), that is, resulting in differential cue-utilization and, hence, product evaluation for hedonic products.

Research on cue-utilization theory focuses in particular on visual and verbal product attributes as extrinsic cues. These studies include brand advertising, store name, brand names, and price (e.g., Brucks et al., 2000; Doods & Monroe 1985; Erdem et al., 2008; Rao & Monroe, 1989). Product inherent attributes, which have been studied as intrinsic cues, are for instance the scent of sunscreen and household cleaner (Bone & Jantrania, 1992).

The purchase of a perfume is highly experimental in nature (Bone & Ellen, 1999) and provides customers a primarily hedonic value (Dhar & Wertenbroch, 2000). As intrinsic cue we consider the scent, that is, an olfactory cue because it is the main benefit of a perfume and generates its hedonic value. In related research on store environment, ambient scent has received considerable attention and is shown to influence customer's purchase decision (e.g., Bone & Jantrania, 1992; Milotic, 2003; Mitchell et al., 1995; Spangenberg et al., 1996). As extrinsic cue we consider the design of the packaging, that is, a visual cue because the packaging design serves as an eye-catcher to get attention. For in-store buying processes getting attention still plays a key role to acquire new customers (Clement, 2007). In previous literature the price and brand name are often analyzed (e.g., Brucks et al., 2000; Erdem et al., 2008). However, we decided for the scent and packaging design since both are major product attributes for perfume as hedonic product, which are designed during the product development process and can be hardly altered afterwards, while the perfume's price and also the brand can be more freely set and changed after the perfume has been created.

## 2.1.2 Relation of Intrinsic and Extrinsic Cues

On the one hand, consumers infer about a product from its package as important extrinsic cue (Clement, 2007; Garber, 1995). Hence, packaging has been recognized as relevant extrinsic cue when forming a purchase intention (Mueller et al., 2010). Especially for hedonic products, design and packaging is highly relevant as it shapes consumers' perception of the potential experience or enjoyment the product potentially provides. In this vein, Reimann et al. (2010) show that for prestigious brands with a higher price and higher experiential values consumers prefer an aesthetic and pleasant packaging rather than a standardized package.

In the case of perfume, the packaging design appears as "eye-catching" extrinsic cue which attracts consumers' attention, adds value to the product and, hence, triggers the purchase intention. We define a pleasant packaging design as aesthetic, appealing and good looking perfume flacon that arouses consumer's curiosity. The packaging with its design elements such as material, illustration, colour, shape and typography (Milotic, 2003) signals a certain quality, hence, adds value to the perfume. On a communicative level the packaging design not only signals quality but also attracts consumers' attention, determines their first impression and, hence, promotes

the perfume's value and message (Underwood et al., 2001).

However, on the other hand the scent of a perfume serves as a powerful intrinsic cue. A perfume's scent generates an olfactory experience that is able to generate pleasure because it evokes strong associations and past memories when smelling it (Orth & Bourrain, 2008). A perfume's scent is perceived as pleasant when it triggers associations and past memories that recall positive emotions. Conversely, consumers perceive a scent as unpleasant when it evokes associations and past memories that recall emotions connected to negative experiences. The pleasantness of a scent generates a high hedonic value that is considered in consumers' perfume evaluation processes (Spangenberg et al., 1996). Consumers emphasize a pleasant scent, because they perceive enjoyment and it is a way to define their personality and individuality (Higuchi et al., 2005; Schleidt, 1992). Taking into account the positive impact of intrinsic cues on product evaluations (Olson & Jacoby, 1972) and its predominance on extrinsic cues as quality indicator (Miyazaki et al., 2005; Rao & Monroe, 1988), we derive the following hypothesis:

*H1:* Scent, as intrinsic cue, has a stronger positive effect on purchase intention than the packaging design, as extrinsic cue.

2.1.3 Interaction of Intrinsic and Extrinsic Cues

Previous literature suggests an interdependent relationship between intrinsic and extrinsic cues. According to cue-consistency theory (Maheswaran & Chaiken, 1991; Miyazaki et al., 2005; Solvic, 1966), the set of intrinsic and extrinsic cues need to be consistent to arrive at product evaluation. Mitchell et al. (1995) suggest that inconsistent cues evoke cognitive dissonance and the product evaluation becomes more difficult for consumers. Consistent cues facilitate and enhance subsequent judgments (Mitchell et al., 1995; Miyazaki et al., 2005). In terms of the scent Bosmans (2006) reveals that consumers' product evaluations are affected by an ambient scent that is congruent with the product. As Reimann et al. (2010) show, consumers infer the scent of a product by evaluating the packaging design. Hence, both perfume attributes, namely scent as intrinsic cue and packaging design as extrinsic cue, are assumed to affect the purchase decision for hedonic products resulting in an affirmation effect, that is, the combination of both cues leads to a strengthened effect of the scent, as intrinsic cue, on consumers' purchase intentions. Therefore, we hypothesize:

*H2:* A pleasant packaging design, as extrinsic cue, enhances the positive effect of the scent, as intrinsic cue, on consumers' purchase intention.

# 2.1.4 Gender

It is reasonable to assume that consumers' pursuit of favourable experiences and enjoyment is gender-specific. Hence, we suggest that the impact of extrinsic and intrinsic cues on the purchase decision for hedonic products is different for male and female customers. This assumption finds support from previous research on gender-related differences in information processing. Information processing differs between male and female consumers as they exhibit different cognitive and affective states (Coley & Burgess, 2003; Petrevu, 2001). Men tend to process explicit product information on a logical and analytical level (Costa et al., 2001). Women additionally refer to nonverbal and visual cues when evaluating an object's attributes (Holbrook, 1986). Furthermore, it has been shown that women place more emphasis on aesthetics than men do (Dittmar et al., 1995; Rook & Hoch, 1985). These observations provide a rationale for the assumption that women rather than men infer the hedonic value of a product from its visual appearance, aesthetics or design (Coley & Burgess 2003; Dittmar et al., 1995; Meyers-Levy & Maheswaran, 1991; Underhill, 2009). With regard to these gender-specific differences in decision-making, we postulate the following hypothesis:

*H3:* The positive effect of the packaging design, as extrinsic cue, on purchase intentions is stronger among women than among men.

## 3. Methodology

## 3.1 Experimental Design and Sample

To test our hypotheses a  $2 \times 2 \times 2$  between-subjects factorial design was employed with scent (pleasant/unpleasant), packaging design (pleasant/unpleasant) and gender (male/female) as the experimental factors. The participants were 160 students (80 men, 80 women) with ages ranging from 19 to 25 years. Both gender groups were randomly assigned to one of the four treatments.

#### 3.2 Pre-test

A pre-test involving 32 participants was conducted in order to check manipulation of scent and packaging design. Manipulations were based upon scent and packaging design of two real existing unisex perfumes. Scent and packaging design were evaluated independently in order to check if each product attribute on its own is perceived as intended. Thus, participants were not able to associate the scent with the packaging design. The perfume brand was anonymised.

The pleasantness of the scent was measured with a four-item scale ( $\alpha = .96$ ). Scent scale items were "I find the scent pleasant", "I find the scent fragrant", "I find the scent appealing" and "I find the scent good smelling". Also, a four item scale was used to measure the pleasantness of the packaging design ( $\alpha = .96$ ). Packaging design scale items were "I consider the packaging design as aesthetic", "I consider the packaging design as good looking", "The packaging design arouses my curiosity" and "I find the packaging design appealing". For both the scent and packaging design five-point Likert-type scales were used ranging from 1 (strongly disagree) to 5 (strongly agree).

A series of t-tests were carried out to analyze manipulation check. Results indicated significant differences between the scents in terms of pleasantness ( $M_{pleasant} = 3.69$ ,  $M_{unpleasant} = 2.87$ , t = 2.414, p < .05). Likewise, significant differences in means were found between the packaging designs in terms of pleasantness ( $M_{pleasant} = 3.2$ ,  $M_{unpleasant} = 2.17$ , t = 2.887, p < .05). Summarizing, participants judged the scent and packaging design of perfume number one as pleasant and the scent and packaging design of perfume number two as unpleasant. Thus, the perfume treatments of the main study were based on the scent and packaging design of these both perfumes.

## 3.3 Procedure and Measurements of the Main Study

Participants entered a room in groups of five and took their seats at a table offering enough space as to not disturb each other. Based on the respective treatments, participants were handed a pleasant or an unpleasant packaging design with a pleasant or unpleasant scent. The perfume's brand name, shown on the packaging design's front, was again anonymised. Then, they were asked to view the packaging design and smell the scent at the same time. Thus, a typical perfume decision was simulated. Finally, participants were given a questionnaire to rate their purchase intentions and probabilities.

As dependent variables we used purchase intention as well as purchase probability. Purchase intention is widely used in marketing research (e.g., Gelbrich & Roschk, 2011). However, Juster (1966) criticizes the predictive accuracy of purchase intention and proposes to use purchase probability as it is more specific in terms of purchase horizon and situation. Wright and MacRae (2007, p. 623) conclude in their study "(...) purchase intention perform well, (...) purchase probabilities perform better". Therefore, we use both measures.

A participant's intention to buy a perfume was measured with a four-item scale ( $\alpha = .95$ ). The scale items were "My willingness to buy the product is" (very low/very high), "It is very likely that I will buy the perfume" (strongly disagree/strongly agree), "I would purchase the perfume" next time I need a perfume" (strongly disagree/strongly agree) and "I would definitely try the perfume" (strongly disagree/strongly agree). These items were based on purchase intention scales from Petrevuand Lord (1994) and Doods et al. (1991). Participants responded to all items on a seven-point Likert scale. The purchase probability was measured on an eleven-point scale (0% = no chance, almost no chance; 100% = certain, practically certain) based on the purchase probability scale from Juster (1966).

# **3.4 Covariates**

To account for inter-individual differences in forming a purchase decision we included involvement (with the product, the purchase, and the purchase decision), the annual purchase rate for perfumes, and the amount of perfume use as covariates. They have been shown to be related to consumer behavior including consumers' purchase intentions and purchase decisions (Laurent & Kapferer, 1985; Lockshin et al., 1997; Mittal & Lee, 1989; Mittal, 1989). All covariates were found not to be statistically significant and were, therefore, not considered in the subsequent analysis.

# 4. Results

To analyze our data, we ran two separate ANOVAs for our dependent variables purchase intentions and purchase probability. Independent variables were scent, packaging design and gender. The ANOVA results for purchase intentions are reported in Table 1 and the cell means in Table 2.

Table 1         ANOVA Results for Purchase Intention					
	df	F	$Sig^{a}$	$\eta^2$	
Scent <sup>b</sup>	1	35.783	0.000	0.194	
Packaging Design <sup>b</sup>	1	13.947	0.000	0.086	
Scent*Packaging Design <sup>b</sup>	1	19.430	0.000	0.115	
Gender*Packaging Design <sup>b</sup>	1	7.307	0.008	0.047	
Error	149				
Total	153				
R <sup>2</sup> <sub>corrected</sub>	0.312				

Table 1 ANOVA Results for Purchase Intention

Note. <sup>a</sup>  $\alpha = .05$ . <sup>b</sup> Hypothesis supported.

Table 2	Cell Means and Standard Deviations for Purchase Intention	

Scent	Packaging Design	Men	Women	Mean
Pleasant	Pleasant	3.65 (1.64)	4.03 (1.43)	3.84 (1.53)
	Unpleasant	2.44 (1.26)	2.02 (1.00)	2.23 (1.14)
Unpleasant	Pleasant	1.71 (0.65)	1.82 (1.15)	1.77 (0.92)
	Unpleasant	2.50 (1.77)	1.34 (0.38)	1.92 (1.40)
	Mean	2.57 (1.54)	2.30 (1.47)	2.44 (1.51)

Note. Measured on a seven-point Likert scale (1 = strongly disagree; 7 = strongly agree).

The results of the ANOVA indicate a significant main effect for scent (F = 35.783, p < 0.001) and packaging design (F = 13.947, p < 0.001) on consumers' purchase intention. It is shown that a pleasant scent positively

influences the intention to purchase a perfume ( $M_{unpleasant scent} = 1.84$ ;  $M_{pleasant scent} = 3.03$ ). The same applies to the packaging design ( $M_{unpleasant packaging} = 2.0$ ;  $M_{pleasant packaging design} = 2.80$ ). It is also shown that the scent has with a partial eta square  $\eta^2 = .194$  a stronger effect on the purchase intention as the packaging design with a partial eta square  $\eta^2 = 0.086$ . Therefore, Hypothesis 1 is supported. A significant interaction effect was found for scent and packaging design (F = 19.430, p < 0.001) and is depicted in Figure 1. An examination of cell means show that a pleasant scent has a stronger positive effect on purchase intentions when packaging design is pleasant ( $M_{unpleasant scent} = 1.77$ ,  $M_{pleasant scent} = 3.84$ ). The effect is smaller with an unpleasant packaging design ( $M_{unpleasant scent} = 1.92$ ,  $M_{pleasant scent} = 2.23$ ). Therefore, Hypothesis 2 is supported.

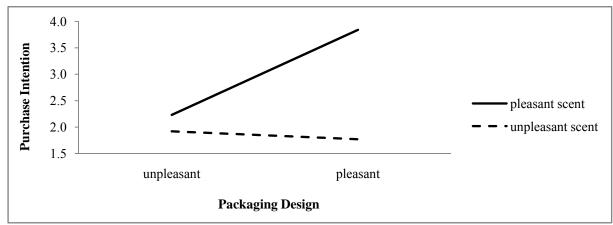
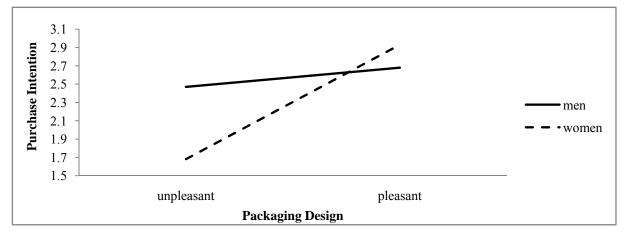


Figure 1 Significant Interaction Effect between Scent and Packaging Design for Purchase Intention

We also found a significant interaction effect between gender and packaging design (F = 7.307, p = 0.008) which is depicted in Figure 2. It is shown that a pleasant packaging design has a stronger positive effect on the purchase intention among women ( $M_{unpleasantpackaging design} = 1.68$ ,  $M_{pleasantpackaging design} = 2.95$ ) than among men ( $M_{unpleasantpackaging design} = 2.68$ ). Therefore, Hypothesis 3 is supported.





The ANOVA results with purchase probability as dependent variable are shown in Table 3 and the cell means in Table 4. Significant results were also found for the main effects of scent (F = 22.299, p < 0.001) and packaging design (F = 10.698, p = 0.001), which positively influence purchase probability ( $M_{unpleasant scent} = 16.13$ ,  $M_{pleasantscent} = 31.00$ ;  $M_{unpleasantpackaging design} = 18.50$ ;  $M_{pleasantpackaging design} = 28.63$ ). Furthermore, scent ( $\eta^2 = 0.130$ ) also shows a

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stronger effect on purchase probability as packaging design ( $\eta^2 = 0.0067$ ). The interaction effect between scent and packaging design (F = 10.930, p = 0.001) and gender and packaging design (F = 7.354, p = 0.007) is found to be significant too. An examination of cell means shows that a pleasant scent has a stronger positive effect on purchase intentions when packaging design is pleasant (M<sub>unpleasant scent</sub> = 16.00; M<sub>pleasant scent</sub> = 41.25) than when it is unpleasant (M<sub>unpleasant scent</sub> = 16.25; M<sub>pleasant scent</sub> = 20.75). Also, women's purchase intention is more influenced by a pleasant packaging design (M<sub>unpleasantpackaging design</sub> = 10.50, M<sub>pleasantpackaging design</sub> = 27.25) than are men's (M<sub>unpleasantpackaging design</sub> = 26.50, M<sub>pleasantpackaging design</sub> = 28.50). Summarizing, results are in line with those of repurchase intentions, thus, supporting Hypothesis 1, 2 and 3.

	df	F	$Sig^{a}$	$\eta^2$	
Scent <sup>b</sup>	1	22.299	0.000	0.130	
Packaging design <sup>b</sup>	1	10.698	0.001	0.067	
Scent*Packaging design <sup>b</sup>	1	10.930	0.001	0.068	
Gender*Packaging design <sup>b</sup>	1	7.354	0.007	0.047	
Error	149				
Total	153				
R <sup>2</sup> corrected	0.247				

Table 3 ANOVA Results for Purchase Probability

Note. <sup>a</sup>  $\alpha = .05$ . <sup>b</sup> Hypothesis supported.

		Gender			
Scent	Packaging design	Men	Women	Mean	
Pleasant	Pleasant	41.50 (26.81)	41.00 (19.71)	41.25 (23.23)	
	Unpleasant	25.00 (21.89)	16.50 (13.49)	20.75 (18.45)	
Unpleasant	Pleasant	15.50 (14.68)	16.50 (16.31)	16.00 (15.33)	
	Unpleasant	28.00 (28.21)	4.50 (5.10)	16.25 (1.40)	
	Mean	27.50 (24.88)	19.63 (19.65)	23.56 (23.28)	

Note: Measured on a seven-point Likert scale (1 = strongly disagree; 7 = strongly agree).

#### 5. Discussion

## **5.1 Theoretical Contributions**

To date, the marketing literature lacks empirical evidence for the impact and, hence, relative importance of extrinsic and intrinsic cues on the purchase intention for hedonic products. Addressing this research gap, our study adds to the marketing literature in several ways. First, this paper demonstrates that intrinsic as well as extrinsic cues influence consumers' purchase intention for hedonic products.

Second, paralleling past research on cue utilization for quality assessments, we provide empirical evidence on the fact that intrinsic cues are more relevant to consumers' purchasing decisions for hedonic products than extrinsic cues. Regarding the scent as an intrinsic cue we find a stronger effect on consumers' purchase intention than for the packaging design as an extrinsic cue. A possible explanation for these results may pertain to the fact that the scent as the main benefit of a perfume triggers emotions and therefore enjoyment and pleasure rather than the packaging design does.

Third, in line with cue-consistency theory, this paper shows that the packaging design supports perceptions

based on the scent. That is, the positive effect of a pleasant scent as intrinsic cue on the purchase intention is enhanced by a pleasant packaging design as extrinsic cue. Therefore, the results confirm the cue-consistency theory as scent and packaging design have to match one another to convey a uniform message. It is shown that inconsistent scent and packaging design evaluation is almost equally low when both cues are unpleasant. Consumers form a certain expectation about the scent based on the packaging design and if the scent does not fulfil consumers' expectations, disconfirmation arises and influences consumers' purchase intention negatively (Miyazaki et al., 2005).

Fourth, our results support the notion that the impact of extrinsic and intrinsic cues differs between male and female consumers. We find that for women extrinsic cues have a stronger influence on the purchase intention for hedonic products than for men. Women emphasize a pleasant packaging design as extrinsic more than men do. This result is in line with findings from previous research that suggests that women rely to a greater extent on visual attributes, design or aesthetics than men do (Fischer & Arnold, 1994; Holbrook, 1986). Notwithstanding, our study reveals that men base their product assessments not only on functional product features but also on extrinsic attributes such as a product's design or package.

## 5.2 Managerial Implications

Conclusions for marketing managers especially of perfume brands are threefold. First, our results show that a perfume's scent is the main driver of consumers' purchase intention. Because of its ability to trigger individual associations, managers should focus on the scent as intrinsic and emotional related cue that can be used to strengthen the bond with the brand. Second, the study reveals that packaging design foster individuals' purchase intention. Hence, it is also important to make an effort to develop an eye-catching packaging design to attract the attention of consumers. As an extrinsic cue, packaging design can be highlighted in advertising in magazines, television, and internet, to support positive assumptions on intrinsic product attributes and to elevate consumers' purchase intention. Notably, as our findings show, purchase intentions are highest when scent and packaging design communicate a consistent message. Therefore, managers need to make sure that the packaging design reflects the scent visually. Third, results show that women and men prefer a pleasant packaging design, although the packaging design is more important for women than for men. Obviously, women prefer other design elements (e.g., soft shaped, warm, light, and round) than men (straight-shaped, cool, black, and angular) to underline their gender belonging (Wellmann et al., 2004). Therefore, the industry's preference to increasingly offer unisex perfumes may represent a significant challenge since unisex perfumes are a design compromise, which often results in more masculine packaging design elements, thus limiting purchase preferences of both women and men. Therefore, managers might refrain from offering unisex perfumes on a mass market and instead focus on sufficiently differentiated target groups.

## **5.3 Limitations and Future Research**

This study explores the impact of extrinsic and intrinsic cues on the purchase intention for hedonic products using the example of perfume as a typical hedonic product. As any scientific work, this study has several limitations. A first limitation refers to the context of our study. In order to generalize our findings, future studies should investigate this research question in other product categories, such as clothes, fashion, designer ware etc. Second, our dependent variable poses a limitation to our study. Measuring purchase intentions instead of real purchasing behavior always includes the risk to overestimate consumers' preference for a given product. Hence, future studies should capture consumers' real purchasing behavior. Third, the means for participants' purchase intentions are rather low. This might be due to the artificial study procedure and that the perfume decision is made

on a highly emotional and individual level. Furthermore, due to its exploratory character, our study neglects further factors that may have an impact on consumers' purchase intention for perfumes, including perfume brand, price, advertising or store displays. These factors need to be included in future studies. Also, context variables such as the age and status of consumers should be considered. Several studies show that these factors influence consumer behaviour as well (Hervé & Mullet, 2009; Kotler & Armstrong, 2010). Finally, since gender differences have become a wide research area, cultural differences in gender-specific perfume decision making should be investigated.

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