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Mixed Products: How Adding Different Attributes Influences Consumer Perceptions and Product Evaluation*

Youjae Yi**

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During recent decades, the number of mixed attribute products (henceforth *mixed products*), which have both utilitarian and hedonic benefits, has increased dramatically. Despite these products' growing popularity, academic research has paid little attention to them, and there remains a gap between theory and the real world.

Hence, our study was undertaken to understand consumers' perceptions about and behaviors toward mixed products, as well as factors affecting the evaluation and choice of these products. We divided mixed attribute products into two categories: mixed utilitarian products (utilitarian products adding hedonic attributes) and mixed hedonic products (hedonic products adding utilitarian attributes). We then showed how adding different attributes affects consumers' perception, willingness to pay (WTP), and the choice of mixed attribute products compared to pure utilitarian or pure hedonic products.

We conducted an experiment using a within-subject design. A total of 160 office workers and college students participated in the study. The pure utilitarian product used in the study was orange juice, and the mixed utilitarian product was carbonated orange juice. The pure hedonic product was chocolate, and the mixed hedonic product was polyphenol enriched chocolate.

Results showed that consumers perceived a mixed utilitarian product to be less utilitarian, less pleasurable and more guilty than a pure utilitarian product. On the other hand, a mixed hedonic product was perceived to be more utilitarian, less pleasurable and less guilty than a pure hedonic product. Also, WTP for a mixed hedonic product was higher than WTP for a pure hedonic product, but WTP was lower for a mixed utilitarian product than for a pure utilitarian product. Furthermore, mixed hedonic products were likely to be evaluated more favorably when they were presented together with pure hedonic products, more so than when they were presented alone. Finally, when compared to low self-control participants, high self-control participants chose mixed hedonic products more frequently.

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The present study contributes to the existing literature on utilitarian and hedonic consumption by adding to the sparse literature on the consumption of products that have both utilitarian and hedonic purposes. Also, our research findings provide several useful implications for practitioners in related fields. First, the current study provides marketers with a useful guide for understanding consumers' perceptions of these types of products, and helps to predict how adding different attributes influences these products. Second, this study has examined the conditions that may moderate the evaluation and choice of hedonic base products and this finding will serve as a good reference for marketers of mixed hedonic products in marketing communication strategy, in-store marketing and targeting. Specifically, comparative advertising with a pure hedonic product will be beneficial for a mixed hedonic product. Also, displaying mixed hedonic products near pure hedonic products may enhance the effectiveness of in-store marketing of mixed hedonic products.

Key words: Mixed Products, Utilitarian Consumption, Hedonic Consumption, Utilitarian/Hedonic Trade-off

I. Introduction

Maxim Well-being Polyphenol coffee, the Korean coffee brand, claims that it contains elevated levels of polyphenol, a type of antioxidant thought to combat oxidative stress, a process associated with some neurodegenerative diseases and some cardiovascular diseases. Similarly, Lucky Star toothpaste makes a claim to "have sensible and sophisticated design and excellent flavor while making our teeth white and healthy."

Such claims do not only occur in the Korean market. PepsiCo, the second-largest food and beverage company in the world after Nestlé, has tried to embrace a healthy-concept image by introducing product lines ("good-for-you" product lines) which include ingredients such

as whole grains, fruits, vegetables; they have also introduced products with specifically formulated ingredients to provide a functional benefit such as boosting athletic performance. To take another example from outside the realm of food products, smart phones contain various hedonic functions to entertain users, such as games or video viewing applications. These come in addition to phones' basic functions of calling and sending text messages.

These are examples of products that have both utilitarian and hedonic benefits. Over the last decades, the number of such products has increased dramatically. However, despite their growing popularity, academic research has not paid much attention to these types of products and few studies have been conducted. Among them, Saldanha (2009) and Gill (2008) were

notable, but there remains an overall lack of research to investigate these products from a comprehensive perspective.

Saldanha (2009) examined these products, but her focus was on fundamentally hedonic products with added utilitarian attributes—or as she called them, ‘mixed indulgence’ products. Gill (2008) examined both fundamentally utilitarian and fundamentally hedonic products, but he was mainly interested in high-technology products. His use of the term ‘convergent products’ reflects this domain: convergence is a frequent method of new product development in hi-tech industries.

In our research, we define products that have both utilitarian and hedonic benefits as mixed products. In comparison with previous studies, we use more general terms in order to take a more holistic approach to various products, while also making a distinction between mixed utilitarian products (utilitarian products adding hedonic attributes) and mixed hedonic products (hedonic products adding utilitarian attributes). In this way, we attempt to examine these types of products from a broader perspective, in hopes of developing a better understanding of how consumers perceive them.

II. Theoretical Backgrounds and Hypotheses

2.1 Utilitarian and Hedonic Consumption and Mixed Products Consumption

Utilitarian and hedonic consumption can be distinguished in terms of motives. Utilitarian consumption has cognitive goals and is judged by how well the given product functions. It is instrumental and functional, thus one might argue that the utilitarian dimension derived from products’ functions is an essential feature of utilitarian consumption. On the other hand, hedonic consumption is motivated by a desire for pleasure and sensations, and affective gratification derived from the experience of using products is the basic reason for consumption (Dhar and Wertenbroch 2000; Hirschman and Holbrook 1982; Leclerc et al. 1994; Mano and Oliver 1993; Saldanha 2009; Voss, Sprangers and Grohmann 2003; Suh and Yi 2012). Thus, it is suggested that a vital component of hedonic consumption is whether it is pleasurable or not (Alba and Williams 2013).

In addition, many studies have reported that guilt is associated with hedonic consumption (Okada 2005; Prelec and Loewenstein 1998; Strahilevitz and Myers 1998). Hedonic products provide few practical benefits and are relatively more discretionary, ranking lower in the hierarchy of needs than utilitarian products. Thus,

a sense of guilt accompanies hedonic consumption (Okada 2005; Xu and Schwarz 2009).

Prior research seems to implicitly assume that utilitarian and hedonic attributes are competing and mutually exclusive. However, a growing body of literature suggests that utilitarian and hedonic properties are not necessarily two ends of a one-dimensional scale. For instance, in a pioneering study on hedonic consumption, Hirschman and Holbrook (1982) suggested that sensory-emotive stimulation seeking (hedonic) and cognitive information seeking (utilitarian) are independent. Also, Voss, Sprangenberg and Grohmann (2003) regarded utilitarian and hedonic dimensions as independent and demonstrated that using separate utilitarian and hedonic dimensions produces a stronger model than using a one-dimensional measure of brand attitude. Alba and Williams (2013) suggested that many acts of consumption are driven by some combination of utilitarian and hedonic motives, not by only one motive at a time. Further, studies such as Dhar and Wertenbroch (2000), Chandon, Wansink and Laurent (2000) and Okada (2005) assumed that utilitarian and hedonic dimensions are independent.

Based on these previous studies, Saldanha (2009) argued that viewing utilitarian and hedonic dimensions as independent, not as endpoints on a bipolar continuum, helps better represent the way in which mixed products have both utilitarian and hedonic attributes. Also, she suggested that it would be more useful to

separate the hedonic dimension into two factors - pleasure and guilt - in addition to the bivariate utilitarian-hedonic space; this would allow for better analysis of mixed products which possibly involve high pleasure and low guilt, or low pleasure and high guilt (which is rare but not impossible).

In the present study, which builds on Saldanha's work, we consider the utilitarian and hedonic dimensions as independent, and then divide the hedonic space into two factors - pleasure and guilt. We try to show that adding different attributes to products changes the perception of them in those dimensions. Also, we suggest that this change of perception may affect other dependent variables such as WTP (willingness to pay) and product choice. <Figure 1> provides a representation of the utilitarian and hedonic distinction of the present research.

2.2 Consumers' Lay Beliefs on Utilitarian/Hedonic Trade-off

Lay beliefs refer to the informal, common-sense explanations that people use in their everyday lives to understand their environment. These beliefs are often divergent from formal scientific explanations of what actually occurs (Deval, Mantel, Kardes and Posavac 2013; Furnham 1988) and are frequently used as a basis for inferences.

Certain lay beliefs reflect trade-off beliefs between product attributes. One widely known

〈Figure 1〉 Three Factor Model of Utilitarian and Hedonic Consumption (based on Saldanha 2009)

trade-off is between cost and benefit (or quality.) As the adage goes, there is a general belief that we get what we pay for. Another example is the goodness/ability trade-off. For instance, researchers have found that some consumers believe in a Corporate Social Responsibility (CSR)/Company Ability (CA) trade-off. This reflects the idea that CSR efforts detract from a firm's available resources for CA development. Consumers who believe in this trade-off react negatively when a company puts visible effort into its CSR activities (McGee 1998; Sen and Bhattacharya 2001).

In a similar vein, we assume that consumers believe in a trade-off between utilitarian and hedonic attributes. Though utilitarian and hedonic properties are not necessarily competing or mutually exclusive, many products are primarily high in one dimension and low in the other dimension. For instance, batteries, foil wrap and gasoline are high in the utilitarian dimension and low in the hedonic dimension; on the other hand, spa massages, dinners in exotic restaurants and chocolate cake are high in the hedonic dimension and low in the utili-

tarian dimension (Saldanha 2009). Hence, consumers may come to have a lay belief that when one attribute (e.g., utility) is high, then the other attribute (e.g. hedonism) must be low and vice versa, although this is not true for some products.

Previous research has found evidence that consumers perceive utilitarian and hedonic properties as conflicting. For example, Gill (2008) found that adding a utilitarian attribute to a hedonic product (i.e., adding electronic Yellow Pages to an MP3 player) was perceived to be a loss of hedonic value. He suggested that utilitarian attributes are associated with practical goals that are considered less pleasurable than hedonic goals, and consumers have a lay belief that utilitarian products are less fun. Similar evidence has shown that consumers believe that there is a compromise on the taste (hedonic) and function (utilitarian) of foods. For example, functional foods, which often include healthful ingredients and claim to improve overall health, are believed to be unappealing, as reflected in the adage "a good medicine tastes bitter" (Augustin 2001; Cox et al. 2004; Verbeke 2006).

Based on the rationale above, we predict that adding hedonic attributes to a utilitarian product will increase its hedonic values of pleasure and guilt, whereas it will decrease its utilitarian value. On the other hand, adding utilitarian attributes to a hedonic product will increase utilitarian value, whereas it will decrease the hedonic values of pleasure and guilt.

In fact, this assumption is somewhat different from that made by Gill (2008). In this study, adding a hedonic attribute (a satellite radio) to a utilitarian product (a PDA) increased both utilitarian and hedonic values. However, as the satellite radio was comparatively high in both the hedonic and utilitarian dimensions to begin with (hedonic value : 5.77 vs. utilitarian value : 5.23,) we note the possibility that adding further hedonic attributes may not have seriously affected the radio's existing utilitarian dimension. This assumption is different from the one made by Saldanha (2009): because the focus of her research was on the perception of mixed hedonic products, her study included only pure hedonic, mixed hedonic and pure utilitarian products, and compared mixed hedonic products with pure hedonic and pure utilitarian products.

Thus, we propose that the lay belief that consumers have about utilitarian and hedonic attributes influences their perceptions of products. More specifically, we assert that adding new attributes (either utilitarian or hedonic) influences a product's existing utilitarian and he-

donic dimensions. Hypothesis 1 and Hypothesis 2 are thus formulated below.

- H1: Mixed utilitarian products (utilitarian products adding hedonic attributes) will be perceived as less utilitarian, more pleasurable and more guilty than pure utilitarian products.
- H2: Mixed hedonic products (hedonic products adding utilitarian attributes) will be perceived as more utilitarian, less pleasurable and less guilty than pure hedonic products.

2.3 The influence on WTP

As predicted in H2, utilitarian additions to hedonic products are likely to make mixed hedonic products seem more utilitarian, less pleasurable and less guilty than pure hedonic products. Also, this increased utility and reduced guilt will contribute to increasing willingness to pay (WTP) for mixed hedonic products. However, the benefit of pleasurable aspects is more difficult to quantify than that of utilitarian aspects (Okada 2005) and the reduction in WTP possibly caused by lessened pleasure is likely to be smaller than the increase in WTP caused by increased utility and lessened guilt. Consequently, WTP for mixed hedonic products will be higher than WTP for pure hedonic products.

In a study of price-framing effects, Khan

and Dhar (2010) showed that in bundles containing both utilitarian and hedonic items, discounting a hedonic item is more effective in increasing bundle purchase than discounting a utilitarian item. They suggested that discounts provide a justification to increase the likelihood of purchasing hedonic items but have little impact on utilitarian consumption. They also showed that the anticipated guilt in a hedonic purchase mediates this different discount effect.

Discounted hedonic items are similar to mixed hedonic products in our research: we predict that adding utilitarian attributes also serves as a means to justify purchase by increasing a product's utilitarian value and decreasing the guilt associated with buying it. Thus, we predict that this justification effect will influence WTP by increasing it for mixed hedonic products.

However, we predict that WTP for a mixed utilitarian product will not be higher than WTP for a pure utilitarian product. On the basis of H1, a mixed utilitarian product will be perceived as less utilitarian, more pleasurable and more guilty than a pure utilitarian product. It is comparatively difficult to quantify the increase of pleasure gained by adding hedonic attributes. Conversely, lessened utility is likely to be more easily quantified than increased pleasure, because utilitarian benefit is more concrete and easier to evaluate (Okada 2005). Moreover, adding hedonic attributes may lead to an increase in guilt, which also influences WTP for a mixed utilitarian product negatively. This leads to our

hypotheses H3a and H3b:

H3a: WTP for a mixed hedonic product will be higher than WTP for a pure hedonic product.

H3b: WTP for a mixed utilitarian product will not be higher than WTP for a pure utilitarian product.

2.4 The Influence of Situational Factor on Hedonic Base Product Choice: The Moderating Role of Evaluation Context

Previous research suggests that utilitarian products are ones whose consumption is more cognitively driven and rational, and that these products are purchased in a deliberate manner (Barbin et al. 1994; Dhar and Wertenbroch 2000). Thus, it may be argued that decisions and judgments about utilitarian products are generally consistent, and less influenced by situational factors. In contrast, hedonic consumption is characterized as an affective and sensory experience (Hirschman and Holbrook 1982). Accordingly, hedonic consumption is more variable (Addis and Holbrook 2001). Thus, it may be argued that hedonic products are susceptible to situational factors in the decision-making and judgment process.

Various studies have shown that presentation of alternatives affects decisions and judgments. Among these, Hsee et al. (1999) classified de-

cision-making situations into two types: the first type is where alternatives are presented one at a time and evaluated in isolation, and this is called separate evaluation (SE). The second type, called joint evaluation (JE) is where multiple options are presented simultaneously and can be easily compared (Yi and Kim 2004). Hsee et al. (1999) demonstrated the importance of the evaluation context on product preference.

So, how are utilitarian and hedonic consumption linked with the evaluation context? In SE, consumers have limited information about other options and this absence of an explicit comparison makes it relatively easier to justify the purchase of hedonic items. On the other hand, in JE, products are evaluated in comparison with alternatives, so when hedonic and utilitarian items are presented together, the presence of the utilitarian item highlights the discretionary nature of the hedonic option through the contrast effect. This makes it more difficult to justify the purchase of the hedonic item, in turn making the hedonic item less attractive and less preferable (Okada 2005).

In a similar vein, we assume that mixed hedonic products are likely to be evaluated more favorably when presented together with pure hedonic products, more so than when they are presented alone. In such a case, the mixed hedonic product appears more utilitarian and less guilty than the pure hedonic product, making it comparatively easier to justify consumption. Thus, we arrive at our fourth hypothesis:

H4: A mixed hedonic product will be rated more highly than a pure hedonic product when the two are presented jointly; when presented separately, a pure hedonic product will be rated more highly than a mixed hedonic product.

2.5 The Influence of Individual Factor on Hedonic Base Product Choice: The Moderating Role of Self-Control

Hedonic value is more subjective and personal than its utilitarian counterpart (Babin et al. 1994; Holbrook and Hirschman 1982), and consumers' subjective reactions to products are more important in hedonic consumption (Addis and Holbrook 2001). Also, the affect-rich nature of hedonic consumption means that it is intrinsically motivated and its value is established more by internal standards, whereas utilitarian consumption is extrinsically motivated and its value depends on external standards (Botti and McGill 2011). Hence, we assume that the decision and judgment processes of hedonic products are likely to be affected by individual factors.

Having taken this into consideration, we now consider the effect of self-control on the choice of a hedonic base product. Self-control means the exertion of control over the self by the self, and self-control behaviors are designed to maximize the long-term best interests of the

individual (Barkley 1997; Muraven and Baumeister 2000). People need self-control to inhibit immediate desires and to delay gratification (Hayes 1989; Muraven and Baumeister 2000). In many cases, hedonic consumption is more related with immediate desire, and self-control is thus needed to override or inhibit the immediate urges involved in hedonic consumption.

People may process information differently according to their traits, circumstances and goals. There may also be differences in the level of cue accessibility related to their goals. Cue accessibility refers to the ease or speed with which cues come to mind: highly accessible cues come to mind more quickly and are more likely to be utilized in making judgments than less accessible cues (Herr, Kardes and Kim 1991; Park, Mothersbaugh and Feick 1994). Previous research has demonstrated that consumers who are high in self-control have more accessible cognitions associated with the achievement of long-term goals compared to those who are low in self-control, thus displaying a greater focus on the achievement of food-related impulse control (Giner-Sorolla 2001; Wilcox et al, 2009).

Similarly, people differ in their cue sensitivity (i.e., their ability to sense) and respond to cues appropriately (Bernieri 2001). People are likely to be more sensitive to cues related to their goals. For instance, Pickett et al. (2004) showed that individuals who are concerned with social connectedness, in other words, individuals high in the need to belong, are more sensitive to social

cues. Also, Youn and Faber (2000) showed that high impulse buyers are more sensitive to shopping-related cues such as advertisements, visual elements and promotional gifts than low impulse buyers.

Based on the preceding discussion, we predict that those with high self-control will display greater accessibility and sensitivity to cues associated with their long-term health-related goals, and they will thus be more likely to choose a mixed hedonic product than those with low self-control. Stated formally:

- H5: Compared to those with low self-control, individuals with high self-control are more likely to choose mixed hedonic products than pure hedonic products.

An outline of our conceptual model and hypotheses is presented in <Figure 2>.

III. Method and Results

3.1 Method

Our study was undertaken to provide evidence on how adding different attributes influences consumers' perceptions about and behaviors toward mixed attribute products, as well as what conditions may moderate the evaluation and choice of these products.

〈Figure 2〉 The Conceptual Model and Hypotheses of the Study

Participants and Procedure

One hundred and sixty office workers and college students (27% male, 73% female; median age 23) completed an online experiment. Following Saldanha (2009), the food category was used as it represents a domain that contains several mixed products. The pure utilitarian product was orange juice, and the mixed utilitarian product was carbonated orange juice (orange juice containing carbonic acid). The pure hedonic product was chocolate, and the mixed hedonic product was polyphenol enriched chocolate. Utilitarian and hedonic items such as chocolate and orange juice were selected following Mort and Rose (2006) and O'Curry and Strahilevitz (2001).

The experiment was conducted using a within-subject design. In one session, participants were asked to rate a product on utilitarian, pleasure and guilt scales. Utilitarian, pleasure and guilt scale items were adopted from previous research (Batra and Ahtola 1990; Mano and Oliver 1993; Saldanha 2009). The scales included measures of utilitarian, pleasure and guilt perceptions for each product (e.g., this product "is healthy," "is utilitarian," "is tasty," "is pleasant to eat," "eating this product weighs heavily on my mind," "eating this product makes me feel guilty"). Also, participants were asked to rate purchase intention ("I would like to buy this product") and to indicate WTP ("How much money I would be willing to pay to buy this

product"). All scales except WTP were measured by seven-point Likert scale (1 = strongly disagree, 7 = strongly agree). In another session, participants were asked to choose one of the two alternatives. The order of product ratings (the ratings of pure utilitarian, pure hedonic, mixed utilitarian and mixed hedonic) and choice sessions (choice between pure utilitarian vs. mixed utilitarian and choice between pure hedonic vs. mixed hedonic) were randomized across subjects and because the study was conducted online, participants were not able to return to previous questions.

Finally, participants responded to questions related to self-control using a four-item, seven-point scale adapted from Wilcox et al. (2009) to measure food-related self-control ("I display a lot of self-control when it comes to eating," "I have a lot of experience controlling my eating behavior," "I tend to engage in indulgent eating more than I should," "I often wish I were able to avoid indulgent eating more often" - note that the last two items were reversed scored). Participants also answered demographic questions. <Appendix 1> summarizes the description of variables and reliability.

3.2 Results

3.2.1 Utilitarian, Pleasure and Guilt

Utilitarian, pleasure and guilt indices of the pure utilitarian product, mixed utilitarian prod-

uct, pure hedonic product and mixed hedonic product were constructed using the means of items representing each factor. The means are summarized in <Table 1> and <Figure 3>.

The mixed utilitarian product (that is, the utilitarian product with a hedonic attribute) was perceived to be less utilitarian, less pleasurable and more guilty than the pure utilitarian product. Also, the mixed hedonic product (the hedonic product with a utilitarian attribute) was perceived to be more utilitarian, less pleasurable and less guilty than the pure hedonic product. These results were consistent with H1 and H2, except that the mixed utilitarian product was perceived as less pleasurable than the pure utilitarian product. This was the opposite direction of the prediction: adding a hedonic attribute made the product less rather than more pleasurable. This may be due to the nature of the attribute (carbonation) or the fit between the product (orange juice) and the attribute. In future research, it may be worthwhile to investigate whether this result represents a general trend, or whether it relates to the particular nature of carbonation.

3.2.2 Willingness To Pay.

H3a predicts that WTP for a mixed hedonic product will be higher than WTP for a pure hedonic product. Participants' WTP for the mixed hedonic product ranged from 500 to 5,000 won and their WTP for the pure hedonic

〈Table 1〉 Product Ratings for Utilitarian, Pleasure and Guilt

Product	Utilitarian	Pleasure	Guilt
Pure utilitarian (Orange juice)	4.87 ^a	5.29 ^c	2.30 ^e
Mixed utilitarian (Carbonated orange juice)	2.74 ^a	4.07 ^c	3.95 ^e
Pure hedonic (Chocolate)	3.79 ^b	5.64 ^d	3.49 ^f
Mixed hedonic (Polyphenol enriched chocolate)	4.68 ^b	4.29 ^d	3.12 ^f

(All pairs with the same superscript letter are significantly different at $p < .01$)

〈Figure 3〉 Product Ratings for Utilitarian, Pleasure and Guilt

product ranged from 300 to 2,200 won. The results confirm H3a, WTP for the mixed hedonic product was higher than for the pure hedonic product (1,009 won vs. 698 won, $t = 8.38$, $p < .01$), which implies that people value utilitarian additions to a notable extent.

On the other hand, H3b predicts that WTP will not increase for a mixed utilitarian product. Participants' WTP for the mixed utilitarian product ranged from 100 to 1,500 won and their WTP for the pure utilitarian product ranged from 400 to 1,500 won. The results support H3b—and surprisingly, a WTP decrease occurred when a mixed utilitarian product was

compared with a pure utilitarian product. WTP was lower for the mixed utilitarian product than for the pure utilitarian product (611 won vs. 654 won, $t = 3.21$, $p < .01$). These results are shown in 〈Figure 4〉.

3.2.3 Separate evaluation vs. Joint evaluation

H4 states that a mixed hedonic product will be rated more highly when presented jointly with a pure hedonic product, but that when presented separately, a pure hedonic product will be rated more highly. To demonstrate this,

〈Figure 4〉 WTP for Pure utilitarian, Mixed utilitarian, Pure hedonic and Mixed hedonic product

degree of purchase intention rated in a separate evaluation situation was used as an index of separate evaluation preference measure and a choice share between the two alternatives was used as an index of joint evaluation preference measure. We compared these two measures to figure out the influence of evaluation context on hedonic base products. This approach is similar to the one used in the previous studies such as Nowlis and Simonson (1997) and Okada (2005).

As expected, purchase intention for the pure hedonic product (chocolate) was significantly higher than for the mixed hedonic product (polyphenol enriched chocolate) (4.88 vs. 4.34, $t = 4.83$, $p < .01$). However, when participants had to choose one option between the two, the choice share of mixed hedonic items was significantly higher than that of pure hedonic products (61% vs. 39%, $\chi^2(1) = 8.10$, $p < .01$) as predicted in H4. Thus H4 was supported. These results are summarized in 〈Figure 5〉.

3.2.4 Effect of Self-Control.

Logistic regression was used to test H5. The dependent variable was mixed hedonic choice, i.e. polyphenol enriched chocolate, coded as one if a participant chose it and zero if he chose the pure hedonic product. To explore the effect of self-control, we compared whether there were significant differences in choosing mixed

〈Figure 5〉 Purchase Intention in SE and Percentage of Choice in JE

* Significant difference in SE rating ($t = 4.83$, $p < .01$).

** Significant difference in JE percentage (61% vs. 39%, $\chi^2(1) = 8.10$, $p < .01$).

hedonic products with high and low levels of self-control. Since self-control is a continuous variable, we followed the procedures described by Wilcox et al. (2009), performing a spotlight analysis at plus and minus one standard deviation from the mean of self-control. Consistent with our prediction, results revealed that individuals with higher levels of self-control were marginally more likely to choose mixed hedonic item than those with lower levels of self-control ($\beta = 1.10$, $\chi^2(1) = 2.75$, $p < .1$). The planned contrast showed that the choice share of mixed hedonic items was also marginally significantly higher for high self-control individuals than for low self-control individuals (78% vs. 55%, $\chi^2(1) = 2.75$, $p < .1$, see <Figure 6>)

<Figure 6> Percentage of Mixed hedonic choice
(low self-control vs. high self-control)

IV. General Discussion

4.1 Summary of Findings

This study has examined a category of products that have both utilitarian and hedonic attributes, including mixed utilitarian and mixed hedonic products. While many previous studies have regarded the utilitarian and hedonic spaces as mutually exclusive, explicitly or implicitly, this research demonstrates that viewing utilitarian and hedonic space as independent and multi-dimensional may have several benefits. Specifically, it can better represent mixed attributes products.

In our study, consumers perceived a mixed utilitarian product to be less utilitarian, less pleasurable and more guilty than a pure utilitarian product. On the other hand, a mixed hedonic product was perceived to be more utilitarian, less pleasurable and less guilty than a pure hedonic product.

Additionally, WTP was higher for a mixed hedonic product than for a pure hedonic product. This may be because consumers believe that adding utilitarian attributes to a hedonic product leads to considerable improvements in the utility of the product. It may also be the case that additional utilitarian attributes serve as a means to justify the purchase of hedonic products. Or it may be both of these. However, for a mixed utilitarian product being compared

with a pure utilitarian product, an increase in WTP did not occur. This implies that adding hedonic attributes to a utilitarian product did not cause consumers to value the product more highly, and actually led to a decrease in WTP. This is in contrast with the opposite scenario, where adding utilitarian attributes to a hedonic product boosted WTP.

Furthermore, a mixed hedonic product was rated more highly when presented jointly with a pure hedonic product than when presented in isolation. The mixed hedonic product was chosen more than a pure hedonic product in joint evaluation, despite the purchase intention for the mixed hedonic product being lower than for the pure hedonic product in separate evaluation.

Finally, high self-control participants chose mixed hedonic products more frequently than low self-control participants.

4.2 Contributions

The contributions of our research are as follows. Theoretically, our study has examined mixed products and the effects of adding new attributes from a comprehensive perspective. This is a topic which has not been sufficiently investigated in the academic literature, despite the growth of these kinds of products in the market. Using a conceptual model that treats utilitarian and hedonic dimensions as independent, our research provides a basis for understanding con-

sumers' perceptions about and reactions to mixed products. We extend the existing research on utilitarian and hedonic consumption and add to the sparse literature on the consumption of products that have both utilitarian and hedonic purposes.

The findings on the effect of the evaluation context on a hedonic base product are consistent with the results of previous studies, in which utilitarian products were preferred over hedonic products in joint evaluation (e.g., Okada 2005). Moreover, the present study extends prior literature by focusing on attributes at the sub-product level, and showing that adding utilitarian attributes has a similar effect of making products more preferable in joint evaluation.

Our research findings provide important implications for marketing practices, as well. Launching products that have both utilitarian and hedonic attributes is growing more popular in the marketplace. The current study provides marketers with a useful guide for understanding consumers' perceptions of these types of products, and helps to predict how adding different attributes influences these products. For example, our study demonstrated that WTP for a mixed hedonic product was higher than WTP for a pure hedonic product, but that WTP was lower for a mixed utilitarian product than for a pure utilitarian product. These results can provide marketers of mixed products with a good guideline for pricing.

Moreover, this study has examined the con-

ditions that may moderate the evaluation and choice of hedonic base products. For instance, a mixed hedonic product was evaluated more favorably than a pure hedonic product when it was presented with a pure hedonic product, more so than when it was separately evaluated. This finding will serve as a good reference for marketers of mixed hedonic products, since it suggests that comparative advertising with a pure hedonic product will be beneficial for a mixed hedonic product. Also, displaying mixed hedonic products near pure hedonic products may enhance the effectiveness of in-store marketing of mixed hedonic products.

Finally, we have shown that self-control also influences the choice of the mixed hedonic product: those with high self-control chose the mixed hedonic product more than those with low self-control. This finding suggests that mixed hedonic products will attract more high self-control consumers than low self-control consumers in the market, and thus aids in targeting these types of products.

4.3 Limitations and Directions for Future Research

The present study examines how consumers perceive and react to mixed products which have been endowed with additional utilitarian and hedonic aspects. However, the study has several limitations and thus provides useful directions for future research. First, we tested

only one product category for each utilitarian and hedonic base product—orange juice and chocolate— and only one attribute was added to each product: carbonation for orange juice, and polyphenol for chocolate. These products were chosen because they have been used to represent utilitarian and hedonic attributes in previous studies. For instance, see Mort and Rose (2006) and O'Curry and Strahilevitz (2001). However, it is possible that orange juice and chocolate are not sufficiently representative of all utilitarian and hedonic products. We assume that this may not be a serious threat in the current context, since this study focuses fundamentally on the comparison between pure and mixed counterparts (e.g., pure utilitarian vs. mixed utilitarian and pure hedonic vs. mixed hedonic,) not between utilitarian and hedonic counterparts: we are more interested in how adding attributes influences product perception. Further investigations of other product categories and attributes would increase the robustness of the current findings.

Second, in the present study, we compared pure and mixed counterparts only. However, comparing different pairs such as pure utilitarian vs. mixed hedonic, pure hedonic, vs. mixed utilitarian or mixed utilitarian vs. mixed hedonic would provide the basis for further interesting research. For example, we found that our mixed utilitarian product had a lower utilitarian score than a pure hedonic or mixed hedonic product, though we did not emphasize

this finding, since the focus of the study lies in the comparison of pure and mixed products within one basic category. We suspect that this lowered utilitarian score may result from the belief in a trade-off between utilitarian and hedonic attributes, and that the large decrease in the utilitarian value of the mixed utilitarian product may reflect the tendency for perception to exaggerate reality. Further study would be needed to investigate what brings about this result.

Third, our mixed utilitarian product had lower pleasure than our pure utilitarian product, which was contrary to our expectations. This may be due to the nature of the attribute (carbonation) or the fit between product (orange juice) and the attribute. It would be fruitful to examine the cause of this and to investigate which other variables may influence the utilitarian and hedonic evaluation of mixed products.

Fourth, our research was conducted using a within-subject design. In the literature of preference reversals by evaluation context, within-subject studies have observed a stronger effect than a between-subject design in some cases (e.g., Frederick and Fischhoff 1998) and have observed a weaker effect than a between-subject design in other cases (e.g., Huber, Payne and Puto 1982). Though we randomized the order of product ratings and choice sessions to minimize confounding effects, further research using a between-subject design would be beneficial to strengthen robustness of the present

study.

Fifth, consumers may feel uncomfortable about mixed products having higher levels of both utilitarian and hedonic aspects when they believe that utilitarian and hedonic aspects are conflicting. Hence, it would be a fruitful avenue for future research to examine the role of emotions in the perception and evaluation of mixed products (e.g., Bok and Min 2013).

Finally, it is necessary to investigate how an attribute-added product influences the pure utilitarian or pure hedonic product. For example, the launch of a polyphenol-enriched coffee may change the perceptions of a preexisting coffee product already on the market. Future research in this area may also provide meaningful insights to the brand extension literature.

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References

- Addis, Michela and Morris B. Holbrook (2001), "On the Conceptual Link between Mass Customisation and Experiential Consumption: An Explosion of Subjectivity," *Journal of Consumer Behaviour*, 1 (1), 50-66.
- Alba, Joseph W. and Elanor F. Williams (2013), "Pleasure Principles: A Review of Research on Hedonic Consumption," *Journal of Con-*

- sumer Psychology, 23 (1), 2-18.
- Augustin, M. (2001), "Functional Foods: An Adventure in Food Formulation," *Food Australia*, 53, 428-32.
- Babin, B. J., William R. Darden, and Mitch Griffin (1994), "Work and/or Fun: Measuring Hedonic and Utilitarian Shopping Value," *Journal of Consumer Research*, 20 (March), 644-56.
- Barkley, R. A. (1997), *ADHD and the Nature of Self-Control*, NY : Guilford Press.
- Batra, Rajeev and Olli T. Ahtola (1990), "Measuring the Hedonic and Utilitarian Sources of Consumer Attitudes," *Marketing Letters*, 2 (April), 159-70.
- Bazerman, Max H., Ann E. Tenbrunsel, and Kimberly Wade-Benzoni (1998), "Negotiating with Yourself and Losing: Making Decisions With Competing Internal Preferences," *The Academy of Management Review*, 23 (April), 225-41.
- Belk, Russell W., Güliz Ger, and Sren Askegaard (2003), "The Fire of Desire: A Multisited Inquiry into Consumer Passion," *Journal of Consumer Research*, 30 (December), 326-51.
- Berlyne, Daniel E. (1957), "Uncertainty and Conflict: A Point of Contact between Information Theory and Behavior-Theory Concepts," *The Psychological Review*, 64 (November), 329-39.
- Bernieri, F. J. (2001), Toward a Taxonomy of Interpersonal Sensitivity, In J. Hall and F. J. Bernieri (Eds.), *Interpersonal Sensitivity: Theory and Measurement*, Mahwah, NJ : Lawrence Erlbaum.
- Bok, Sang Yong and Dongwon Min (2013), "The Effect of Emotional Certainty on Attitudes in Advertising," *Asia Marketing Journal*, 14 (4), 57-75.
- Botti, Simona and Ann L. McGill (2011), "The Locus of Choice: Personal Causality and Satisfaction with Hedonic and Utilitarian Decisions," *Journal of Consumer Research*, 37 (April), 1065-78.
- Cacioppo, John T. and Gary G. Berntson (1994), "Relationship between Attitudes and Evaluative Space: A Critical Review, with Emphasis on the Separability of Positive and Negative Substrates," *Psychological Bulletin*, 115 (May), 401-23.
- Celsi, Richard L., Randall L. Rose, and Thomas W. Leigh (1993), "An Exploration of High-Risk Leisure Consumption through Skydiving," *Journal of Consumer Research*, 20 (June), 1-23.
- Chandon, Pierre, Brian Wansink, and Gilles Laurent (2000), "A Benefit Congruency Framework of Sales Promotion Effectiveness," *Journal of Marketing*, 64 (October), 65-81.
- Chernev, Alexander (2004), "Goal-Attribute Compatibility in Consumer Choice," *Journal of Consumer Psychology*, 14 (1 & 2), 141-50.
- Cox, D. N., A. Koster, and C. G. Russell (2004), "Predicting Intentions to Consume Functional Foods and Supplements to Offset Memory Loss Using an Adaptation of Protection

- Motivation Theory," *Appetite*, 33, 55-64.
- Deval, Helene, Susan P. Mantel, Frank P. Kardes, and Steven S. Posavac (2013), "How Naïve Theories Drive Opposing Inferences from the Same Information," *Journal of Consumer Research* (forthcoming).
- Dhar, Ravi and Itamar Simonson (1999), "Making Complementary Choices in Consumption Episodes: Highlighting versus Balancing," *Journal of Marketing Research*, 36 (February), 29-44.
- Dhar, Ravi and Klaus Wertenbroch (2000), "Consumer Choice between Hedonic and Utilitarian Goods," *Journal of Marketing Research*, 37 (February), 60-71.
- Frederick, S. and B. Fischhoff (1998), "Scope (In)sensitivity in Elicited Valuations," *Risk Decisions and Policy*, 3, 109-23.
- Furnham, Adrian (1988), *Lay Theories: Everyday Understanding of Problems in the Social Sciences*: Elmsford, NY, US: Pergamon Press.
- Gill, Tripat (2008), "Convergent Products: What Functionalities Add More Value to the Base?" *Journal of Marketing*, 72 (March), 46-62.
- Giner-Sorolla, Roger (2001), "Guilty Pleasures and Grim Necessities: Affective Attitudes in Dilemmas of Self-Control," *Journal of Personality and Social Psychology*, 80 (February), 206-21.
- Hayes, S. C. (1989), *Rule-Governed Behavior: Cognition, Contingencies, and Instructional Control*, NY : Plenum.
- Herr, Paul M, Frank R. Kardes, and John Kim (1991), "Effects of Word-of-Mouth and Product-Attribute Information on Persuasion: an Accessibility-Diagnosticity Perspective," *Journal of Consumer Research*, 17 (March), 454-62.
- Hirschman, Elizabeth C. and Morris B. Holbrook (1982), "Hedonic Consumption: Emerging Concepts, Methods, and Propositions," *Journal of Marketing*, 46 (Summer), 92-101.
- Holbrook, Morris B. and Elizabeth C. Hirschman (1982), "The Experiential Aspects of Consumption: Consumer Fantasies, Feelings, and Fun," *Journal of Consumer Research*, 9 (September) 132-40.
- Hsee, C. K., G. Loewenstein, S. Blount, and M. H. Bazerman (1999), "Preference Reversals between Joint and Separate Evaluations of Options: A Review and Theoretical Analysis," *Psychological Bulletin*, 125, 576-91.
- Huber, Joel, John W. Payne, and Christopher Puto (1982), "Adding Asymmetrically Dominated Alternatives: Violations of Regularity and the Similarity Hypothesis," *Journal of Consumer Research*, 9 (June), 90-98.
- Hunter, Patrick G., E. Glenn Schellenberg, and Ulrich Schimmack (2007), "Mixed Affective Responses to Music with Conflicting Cues," *Cognition and Emotion*, 22 (December), 327-52.
- Khan, Uzma and Ravi Dhar (2007), "Where There Is a Way, Is There a Will? The

- Effect of Future Choices on Self-Control," *Journal of Experimental Psychology: General*, 136 (May), 277-88.
- Khan, Uzma and Ravi Dhar (2010), "Price-Framing Effects on the Purchase of Hedonic and Utilitarian Bundles," *Journal of Marketing Research*, 47 (6), 1090-99.
- Kivetz, Ran and Itamar Simonson (2002a), "Earning the Right to Indulge: Effort as a Determinant of Customer Preferences Toward Frequency Program Rewards," *Journal of Marketing Research*, 39 (May), 155 - 70.
- Kivetz, Ran and Itamar Simonson (2002b), "Self-Control for the Righteous: Toward a Theory of Precommitment to Indulgence," *Journal of Consumer Research*, 29 (September), 199-217.
- Kivetz, Ran and Yuhuang Zheng (2006), "Determinants of Justification and Self-Control," *Journal of Experimental Psychology: General*, 133 (November), 572-87.
- Larsen, Jeff T., A. Peter McGraw, and John T. Cacioppo (2001), "Can People Feel Happy and Sad at the Same Time?" *Journal of Personality and Social Psychology*, 81 (October), 684-96.
- Leclerc, France, Bernd H. Schmitt, and Laurette Dubé (1994), "Foreign Branding and Its Effects on Product Perceptions and Attitudes," *Journal of Marketing Research*, 31 (May), 263-70.
- Mano, Haim and Richard L. Oliver (1993), "Assessing the Dimensionality and Structure of the Consumption Experience: Evaluation, Feeling, and Satisfaction," *Journal of Consumer Research*, 20 (December), 451-66.
- McGee, John (1998), "Commentary on 'Corporate Strategies and Environmental Regulations: An Organizing Framework' by A.M. Rugman and A. Verbeke," *Strategic Management Journal*, 19 (4), 377-87.
- Mort, Gillian S. and Trista Rose (2006), "The Effect of Product Type on Value Linkages in the Means-End Chain: Implications for Theory and Method," *Journal of Consumer Behaviour*, 3 (3), 221-34.
- Muraven, Mark and Roy F. Baumeister (2000), "Self-Regulation and Depletion of Limited Resources: Does Self-Control Resemble a Muscle?" *Psychological Bulletin*, 126 (2), 247-59.
- Nowlis Stephen M. and Itamar Simonson (1997), "Attribute-Task Compatibility as a Determinant of Consumer Preference Reversals," *Journal of Marketing Research*, 34 (May), 205-18.
- O'Curry, Suzanne and Michal Strahilevitz (2001), "Probability and Mode of Acquisition Effects on Choices between Hedonic and Utilitarian Options," *Marketing Letters*, 12 (February), 37-49.
- Okada, Erica Mina (2005), "Justification Effects on Consumer Choice of Hedonic and Utilitarian Goods," *Journal of Marketing Research*, 42 (February), 43-53.

- Park, C. W., David L. Mothersbaugh, and Lawrence Feick (1994), "Consumer Knowledge Assessment," *Journal of Consumer Research*, 21 (June), 71-82.
- Pickett, C. L., Wendi L. Gardner, and Megan Knowles (2004), "Getting a Cue: The Need to Belong and Enhanced Sensitivity to Social Cues," *Personality and Social Psychology Bulletin*, 30 (9), 1095-1107.
- Prelec, Drazen and George Loewenstein (1998), "The Red and the Black: Mental Accounting of Savings and Debt," *Marketing Science*, 17 (1), 4-28.
- Read, Daniel, George Loewenstein, and Shobana Kalyanaraman (1999), "Mixing Virtue and Vice: Combining the Immediacy Effect and the Diversification Heuristic," *Journal of Behavioral Decision Making*, 12 (December), 257-73.
- Russell, James A. (1980), "A Circumplex Model of Affect," *Journal of Personality and Social Psychology*, 39 (December), 1161-78.
- Saldanha, Neela (2009), "Mixed Indulgence: Consumer Perceptions, Evaluations and Choice", working paper.
- Sen, Senkar and C.B. Bhattacharya (2001), "Does Doing Good Always Lead to Doing Better? Consumer Reactions to Corporate Social Responsibility," *Journal of Marketing Research*, 38 (May), 225-43.
- Shiv, Baba and Alexander Fedorikhin (1999), "Heart and Mind in Conflict: The Interplay of Affect and Cognition in Consumer Decision Making," *Journal of Consumer Research*, 26 (December), 278-92.
- Shiv, Baba and Stephen M. Nowlis (2004), "The Effect of Distractions While Tasting a Food Sample: The Interplay of Informational and Affective Components in Subsequent Choice," *Journal of Consumer Research*, 31 (December), 599 - 608.
- Strahilevitz, Michal A. and John G. Myers (1998), "Donations to Charity as Purchase Incentives: How Well They Work May Depend on What You Are Trying to Sell," *Journal of Consumer Research*, 24 (March), 434-46.
- Suh, Jung-Chae and Youjae Yi (2012), "Do Consumption Goals Matter? The Effects of Online Loyalty Programs in the Satisfaction-Loyalty Relation," *Psychology & Marketing*, 29 (August), 549-557.
- The New Yorker (2011), "Snacks for a Fat Planet," http://www.newyorker.com/reporting/2011/05/16/110516fa_fact_seabrook.
- Verbeke, Wim (2006), "Functional Foods: Consumer Willingness to Compromise on Taste for Health?" *Food Quality and Preference*, 17, 126-31.
- Voss, Kevin E., Eric R. Spangenberg, and Bianca Grohmann (2003), "Measuring the Hedonic and Utilitarian Dimensions of Consumer Attitude," *Journal of Marketing Research*, 40 (August), 310-20.
- Wakefield, Kirk L. and J. Jeffrey Inman (2003),

- "Situational Price Sensitivity: The Role of Consumption Occasion, Social Context and Income," *Journal of Retailing*, 79, 199-212.
- Werthenbroch, Klaus (1998), "Consumption Self-Control by Rationing Purchase Quantities of Virtue and Vice," *Marketing Science*, 17 (4), 317-37.
- Wilcox, Keith, Beth Vallen, Lauren Block, and Gavan J. Fitzsimons (2009), "Vicarious Goal Fulfillment: When the Mere Presence of a Healthy Option Leads to an Ironically Indulgent Decision," *Journal of Consumer Research*, 36 (3), 380-93.
- Xu, Jing and Norbert Schwarz (2009), "Do We Really Need a Reason to Indulge?" *Journal of Marketing Research*, 46, 25-36.
- Yi, Youjae and B. Kyu Kim (2004), "Better Choice for More Knowledge? Effects of Prior Knowledge on Preference Reversal," *Korean Management Review*, 33 (February), 51-71.
- Youn, Seounmi and Ronald J. Faber (2000), "Impulse Buying: Its Relation to Personality Traits and Cues," *Advances in Consumer Research*, 27, 179-85.

〈Appendix 1〉 Description of the Variables

Variable	Item	Reliability
Utilitarian	This product is healthy. This product is utilitarian.	0.767
Pleasure	This product is tasty. This product is pleasant to eat.	0.738
Guilt	Eating this product weighs heavily on my mind. Eating this product makes me feel guilty.	0.822
Self-control	I display a lot of self-control when it comes to eating. I have a lot of experience controlling my eating behavior. I tend to engage in indulgent eating more than I should (R). I often wish I were able to avoid indulgent eating more often (R).	0.739

* Items marked (R) were reverse scored