Conventional product differentiation strategies prescribe distinguishing a product or brand from competitors' on the basis of an attribute that is relevant, meaningful, and valuable to consumers. However, brands also successfully differentiate on an attribute that appears to create a meaningful product difference but on closer examination is irrelevant to creating that benefit—"meaningless" differentiation. The authors examine how meaningless differentiation can produce a meaningfully differentiated brand. They argue that buyers may infer that a distinguishing but irrelevant attribute is in fact relevant and valuable under certain conditions, creating a meaningfully differentiated brand. They outline the consumer inference process and develop a set of hypotheses about when it will produce meaningful brands from meaningless differentiation. Experimental tests in three product categories support their analysis. They explore the implications of the results for product differentiation strategies, consumer preference formation, and the nature of competition.

Meaningful Brands From Meaningless Differentiation: The Dependence on Irrelevant Attributes

Product differentiation is a classic marketing strategy, well illustrated by General Motor's legendary success in differentiating itself from Ford by introducing colors. Much has been written about product differentiation strategies (e.g., Aaker 1991; Kotler 1991; Porter 1985). The prevailing view is that successful product differentiation requires distinguishing a product or brand from competitors on an attribute that is meaningful, relevant, and valuable. For example, Porter describes differentiation as developing a unique position on an attribute that is "widely valued by buyers" (Porter 1985, p. 14).

However, many brands also successfully differentiate on an attribute that appears valuable but, on closer examination, is irrelevant to creating the implied benefit. For example, Procter & Gamble differentiates instant Folger's coffee by its "flaked coffee crystals" created through a "unique, patented process," implying (but not stating) in its advertising that flaked coffee crystals improve the taste of coffee. In fact, the shape of the coffee particle is relevant for ground coffee (greater surface area exposed during brewing extracts more flavor), but it is irrelevant for instant coffee: The crystal simply dissolves, so its surface area does not affect flavor. Similarly, Alberto Culver differentiates its Alberto Natural Silk Shampoo by including silk in the shampoo, and advertising it with the slogan "We put silk in a bottle" to suggest a user's hair will be silky. However, a company spokesman conceded that silk "doesn't really do anything for hair" (Adweek 1986). Consumers apparently value these differentiating attributes even though they are, in one sense, irrelevant.

We explore how differentiation on an irrelevant attribute—"meaningless" differentiation—can create a valued difference between brands and, in the process, a meaningfully differentiated brand. We argue that adding an irrelevant attribute to one brand changes the structure of the decision consumers face, especially if the differentiating attribute is difficult to evaluate, such as silk in shampoo. As a result, consumers may infer the attribute's value and, in some cases, conclude that it is valuable.1 We explore mechanisms

---

1In contrast, previous studies have considered consumer inference in which alternatives were missing attribute values or entire attributes (e.g., Meyer 1981; Slovic and MacPhillamy 1974).
anisms producing positive valuation of the irrelevant attribute depending on whether the true value of the differentiating attribute is known to buyers and on the price of the differentiated brand. We derive a set of hypotheses regarding conditions under which meaningless differentiation could be successful and test the hypotheses in two experiments using three different product categories.

Our results show that meaningless differentiation is valued by consumers in a surprising number of situations. For example, meaningless differentiation is valued even if the differentiated brand is priced above all others and, more surprisingly, in some cases increasing price actually can increase preference for the differentiated brand. Furthermore, the competitive advantage created by adding an irrelevant attribute can be sustained even if consumers acknowledge that the differentiating attribute is irrelevant. Considering these circumstances enables us to identify conditions under which meaningless differentiation might be successful. We explore the implications of our results for competitive differentiation strategies.

Our results have important implications for understanding consumer preferences. Recent research on consumer choice demonstrates that the context of choice as defined by the composition of the choice set affects consumer preferences (e.g., Glazer, Kahn, and Moore 1991; Huber, Payne, and Puto 1982; Simonson and Tversky 1992; Tversky and Sattath 1979). These studies show that including an asymmetrically dominated, or "irrelevant," alternative in the choice set can affect preferences for the remaining alternatives as can normatively irrelevant information about conditions of choice. We examine the impact that an irrelevant attribute can have on consumer choices. It can elevate an unimportant or even irrelevant attribute to one of great importance, affecting relative brand evaluations by creating a choice situation in which buyers infer it is valuable. This suggests that the attribute structure, in addition to the choice context, may affect preferences. We explore the implications of this for a richer understanding of consumer preferences.

Our results suggest a rather different approach to marketing strategy. The traditional view holds that competitive advantage results from catering to consumer preferences better than competitors. Consistent with studies of consumer preference formation (e.g., Carpenter and Nakamoto 1989; Hoch and Ha 1986), our present analysis suggests that marketing strategy can affect the formation of preferences and thereby gain competitive advantage. Although we do not address whether this advantage is sustainable in the long run, we do show that competitive advantage is possible through differentiation that, rather than meeting customer needs better than competitors, provides no meaningful value to the consumer, though it might appear otherwise. We discuss the ethical and policy implications of our analysis for using meaningless differentiation to create a long-run sustainable advantage.

VALUING AN IRRELEVANT ATTRIBUTE

Attribute Irrelevance

We focus on consumer brand evaluation in a market for multiattribute products in which brands differ on a common set of attributes (e.g., down jackets competing on the basis of fill density, type of fabric covering) and one brand differentiates itself on the basis of a unique, distinguishing, but irrelevant attribute. There are many types of irrelevant attributes. In this analysis, we limit our attention to a common type of irrelevant attribute as suggested by Folger's and Alberto Natural Silk: an attribute that implies greater benefit, sometimes on a key function, but in reality does not provide the implied benefit.

Of course, even if an attribute is irrelevant in this sense, all consumers might not be aware of its irrelevance. Some consumers may not care or be able to judge the attribute's true value. For example, testing Folger's claim that crystals improve the taste of instant coffee to determine the value of "flaked crystals" would be difficult if not impossible for a typical consumer. However, some consumers, managers at P&G or its competitors, and others may be aware of its irrelevance; other consumers may become aware of its irrelevance through independent sources such as Consumer Reports. We limit our attention to cases in which the typical consumer cannot learn the attribute's irrelevance through use but may discover it independently.

To summarize, therefore, we limit our attention to a situation in which brands compete on a set of attributes and one brand is differentiated by an attribute that appears to create a valuable product difference but, in fact, does not. However, the typical consumer cannot learn its true irrelevance through product use but may learn it independently. We refer to these differentiating attributes as "irrelevant." By limiting our attention to the differentiation of a single brand, we do not consider possible reactions by competitors and the ability of meaningless differentiation to create a sustainable long-run advantage. We leave that as a topic for further research.

Valuation Without Revelation of Irrelevance

Consider first the case in which consumers have no information about the differentiating attribute's true value. One might picture a buyer in a supermarket choosing among brands of instant coffee. Of these, Folger's is differentiated by "flaked crystals," but the buyer does not know the true value of this attribute, cannot learn it through use, and has no independent information about its value. This creates a difficult decision for consumers—whether to value the irrelevant attribute. From the viewpoint of a "rational" information processor, the attribute cannot be evaluated, carries no information as a result, and therefore should be ignored.

However, several lines of research suggest that consumers in fact will not ignore the irrelevant attribute. First, the consumer may view the problem as one of hypothesis testing. The benefit associated with the irrelevant attribute is often suggested by advertising, as in the case of Folger's, and studies indicate that an advertising claim can be treated as a hypothesis to be tested by product use or other information (Ha and Hoch 1989; Hoch and Ha 1986; cf. Deighton 1984). Hoch and Ha found that, even if the experience is objectively uninformative, consumers have a tendency to view the experience as confirming the advertising claim. Thus, if buyers use trials to confirm the value of the irrelevant attribute, they may view a positive outcome as confir-
The uniqueness, novelty, and salience of the differentiated brand also can simplify a consumer's decision. Fiske and Taylor (1984) argue that decision makers tend to be cognitive misers, taking shortcuts when possible. Numerous studies of decision making have suggested that consumers adopt simplifying strategies when faced with complex problems (e.g., Payne 1976) and may not even be aware they are doing so (e.g., Einhorn 1980; Langer 1978). An irrelevant attribute can simplify choice by offering a simple, single-attribute decision rule.

In sum, a brand differentiated on the basis of a unique but irrelevant attribute can have advantages in evaluation. Communications theory suggests consumers will infer that the attribute has value. The uniqueness of the attribute is likely to make it loom large in brand evaluation. From a competitive standpoint, the differentiated brand will fare well in interbrand comparisons. Moreover, product experience is unlikely to attenuate these effects because trial will be uninformative. These arguments suggest our first hypothesis:

\[ H_1: \text{In the absence of information revealing the irrelevance of the differentiating attribute, a brand differentiated by the irrelevant attribute will be judged more favorably than the same brand without the irrelevant attribute.} \]

Aaker (1991) suggests a similar inference process in the case of relevant product attributes and product quality. If consumers lack the ability to judge products, he argues, they often rely on "seemingly trivial but observable" attributes to judge overall product quality. Larger stereo speakers indicate better sound, and detergents producing more suds are thought to clean better. In these cases, buyers make an overall inference about quality from a relevant product attribute that may or may not be unique. \( H_2 \) suggests that a similar inference process may be occurring if the attribute is unique but irrelevant.

**Valuation with Revelation of Irrelevance**

In the absence of information about the attribute's true value, consumers are forced to infer it, and these inferences are likely to lead to a favorable evaluation. But what if it is revealed to buyers that the attribute adds nothing, that it is irrelevant? Normative theory would argue that the irrelevant attribute will be discounted completely and thus will have no impact on preference for the brand offering it. Consumers will realize that the attribute contributes no benefits and attach no value to it.

However, another intriguing possibility exists. We have argued so far that consumers value the differentiated brand in part because the irrelevant attribute makes the brand distinctive. To be sure, the revelation of the unique attribute's irrelevance is negative. But the irrelevant attribute still makes the differentiated brand unique and distinctive relative to others in the choice set. Thus, as in the case without the revelation, the differentiated brand still may be favored in interbrand comparisons, more salient, and even dominant, leading to greater preference for it. Furthermore, in a difficult choice environment such as the one considered here, the differentiated brand continues to simplify choice. Thus, consumers implicitly (perhaps unintentionally) may attach value to the irrelevant attribute, even knowing that the
attribute has no value. For example, buyers may persist in favoring Folger's Instant even after it is revealed to them that flaked crystals have no impact on taste.

Such a phenomenon is consistent with a variety of cognitive biases in judgment. For example, Gilovich (1981) found that irrelevant information affected sportswriters' predictions about the future success of graduating college football players. Including the irrelevant datum that the college senior was from the same hometown as a famous professional football player increased expert evaluation of that senior. Gilovich argues that subjects made positive associations between the irrelevant information and the graduating senior that, once formed, were difficult to ignore despite their obvious irrelevance. The inability to ignore the irrelevant attribute is also consistent with studies of hindsight bias in which actual outcomes bias even recollections of prior forecasts (Fischhoff 1975). In both the Gilovich study and the mechanism we propose, the consumer is not fooled into disbelieving the information that the attribute is irrelevant. The attribute is recognized as irrelevant but, even so, it cannot be ignored in decision making.

A more extreme view is suggested by Fiske and Taylor (1984) on the perseverance effect. Consider the following scenario: A politician is accused of breaking a law; an investigation is initiated, an indictment returned, and a trial held. The verdict is not guilty, clearing the politician of all wrongdoing in a completely fair and open hearing. Nonetheless, a perception of guilt may linger, and with it there may be a negative association despite the evidence (cf. Nisbett and Ross 1984). Here the irrelevance of the accusation is actually disbelieved—after all, if the charges were baseless why was an investigation initiated, an indictment sought and received, and a trial conducted? In this case, the true information is ignored and an incorrect inference persists.

Therefore, a basis for positive valuation exists whether or not the revealed information is believed. If it is not believed, a preference for the irrelevant attribute of course can persist. However, we take a more conservative position. The attribute's true value, once revealed, is unlikely to be completely ignored. In that case, a basis for positive valuation of the irrelevant attribute remains because of the uniqueness and distinctiveness of the differentiated brand. This suggests that buyers will value the irrelevant attribute and the brand offering it even if the true irrelevance of the differentiating attribute is acknowledged:

H2: If the irrelevance of the differentiating attribute is revealed, consumers will recognize that the attribute has no value. However, a brand differentiated by it nevertheless will be preferred to the same brand without the irrelevant attribute.

Summary

We have argued that the addition of an irrelevant attribute to one brand changes the structure of the consumer's decision and thus can lead the consumer to value it. The irrelevant attribute makes the differentiated brand unique and distinctive. The attribute conveys pragmatic information, so that its existence suggests it is valuable. Moreover, relying on it simplifies choice. These factors may be difficult to eliminate, even if the irrelevance of the unique attribute is revealed and acknowledged by buyers. Thus, a unique, distinguishing, but irrelevant attribute can become relevant to a buyer's decision, creating a meaningfully differentiated brand.

**EXPERIMENT 1**

Our first experiment is an initial test of our first two hypotheses. In this experiment, subjects are presented with an array of brands, one of which is differentiated by an irrelevant attribute. We predict that buyers will value the brand with the irrelevant attribute more than the same brand without it, even if its true irrelevance is acknowledged.

**Method**

A set of eight hypothetical down jackets was constructed by factorially crossing three attributes—temperature rating, type of shell cover, and the type of stitching. All attributes had two levels, shown in Table 1, creating eight brands. To these brands a fourth attribute was added, manipulating the presence or absence of an irrelevant attribute. In one set, we added a common attribute, "regular down filling," to all brands. In another set, seven of the eight brands were described as having "regular down filling" and to the eighth (the "target" brand) we added a fictional, irrelevant attribute created for the experiment—"alpine class down fill." We also manipulated the attribute information revealed to subjects. In the subjective condition, subjects were provided with no explanation about the meaning of attributes. In the revealed condition, subjects were provided with a paragraph describing all the attributes and their functions. For example, subjects were told that a higher fill rating indicated greater warmth, and down fill was described as goose down or a mix of goose and duck down. Alpine class fill was described as goose down, but subjects were also told that though the age of a bird matters, the type of bird it comes from "does not make a difference." A manipulation check, reported subsequently, indicates that, given this manipulation, subjects indeed acknowledged that alpine class fill was irrelevant. The two manipulations, presence or absence of the irrelevant attribute and presence or absence of attribute information, were crossed, forming a $2 \times 2$ between-subjects factorial design. Ninety-nine masters' degree students were compensated for participating in the study.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Levels*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fill rating</td>
<td>500, 550</td>
</tr>
<tr>
<td>Cover material</td>
<td>Cotton, synthetic</td>
</tr>
<tr>
<td>Stitching</td>
<td>Regular, extra tight</td>
</tr>
<tr>
<td>Down fill</td>
<td>Regular, Alpine class fill**</td>
</tr>
</tbody>
</table>

*Attribute of target brand italicized. **Irrelevant attribute.
Irrelevant Attributes

Procedure

Subjects first were told that they would be rating hypothetical products. The product class was described and, in the revealed condition, attribute descriptions were provided. In the subjective condition, only physical descriptions of the attributes were provided. Next, the eight brands of jackets were described and the subject was asked to rate the brands. The ratings were done by having the subject first indicate his or her least preferred brand at the left end of a line segment and the most preferred at the right end. The subject then placed a labeled mark for each of the six remaining brands along the line to indicate relative preference. The rating for each brand then was the distance in centimeters of its mark from the least preferred brand (ranging from 0 to 10). After rating all eight brands, subjects completed manipulation check and control measures. Subjects responded to several questions regarding experience with down jackets and the importance of various attributes (including the irrelevant attribute if it was present), as well as open-ended questions about attributes.

Results

We first analyzed the individual attribute ratings for the subjects who were exposed to the brand differentiated with alpine class fill. Each subject rated the importance of alpine class fill versus regular down fill on a scale of 1 to 5, with 5 being "Alpine class fill is much better than regular down fill," 3 being "Regular down and alpine class fill are about the same," and 1 being "Regular down fill is much better than alpine class fill." If the revelation of the equality of alpine class fill and regular down fills was effective, one would expect a mean rating no different from 3. The mean rating for the group with revelation was 2.4, statistically indistinguishable from 3 (t < 1). For those exposed to the same brand without the information revelation, the average rating was 4.3, significantly larger than three (t = 1.94, p < .05). Thus, individuals in the revealed condition acknowledged the equivalence of alpine class and regular down fill.

We next analyzed ratings for the differentiated brand across the four conditions using ANOVA with two factors (the addition of the irrelevant attribute and the revelation of attribute meanings) and their interaction. Results show that only the addition of the irrelevant attribute is significant (F_{3,93} = 16.6, p < .01). To test our two hypotheses, we compared means across the experimental and control groups in the revealed and subjective condition, respectively.

To test H1, we compared the mean rating of the differentiated brand in the subjective condition for those exposed to the target brand including alpine class fill with the mean rating for those exposed to the same brand with regular down fill. We predict that the mean rating will be higher among those exposed to the differentiated brand than its undifferentiated form. Analysis shows that the average rating for the target brand with regular down fill in the subjective condition was 3.1; among those exposed to the same brand that included alpine class fill, the average brand rating climbed to 9.1. That difference is significant (t_{93} = 6.27, p < .01), demonstrating that buyers positively value the differentiated brand if the true value of the irrelevant attribute is not revealed to them. These results, summarized in Figure 1, support H1.

H2 predicts the target brand differentiated with alpine class fill will be more favorably valued than the same undifferentiated brand even if buyers acknowledge that alpine class fill is no different from other down fills. To test this we compared the mean rating for the target brand in the revealed condition (with attribute descriptions) when it was differentiated with alpine class fill with the mean rating for the otherwise similar but undifferentiated brand. Our results show that the mean rating for the undifferentiated target brand is 4.3. Ratings for the same brand differentiated by alpine class fill averaged 8.4, significantly higher (t_{93} = 4.31, p < .01). Thus, even if subjects acknowledge that the differentiating attribute is irrelevant, they rate the differentiated brand more positively than the same brand without it.2 The results, shown in Figure 1, support H2.

Interestingly, mean ratings for the target brand did not differ significantly between control groups or between experimental groups. Regardless of the information revealed, subjects consistently rated the brand differentiated with the irrelevant attribute higher. Though we predicted a positive impact of adding the irrelevant attribute, we did not anticipate such a large impact with information revelation. Evidently, revealing the differentiating attribute's true irrelevance does little to affect overall brand evaluation, despite recognition by subjects of the differentiating attribute's true irrelevance. In addition, any anticipated difference in rating of the target brand induced by the different descriptions in the two

2Further analysis of individual responses shows that individuals in the revealed condition who rated alpine class fill the same or worse than regular fill also rated the differentiated brand highly (7.6), which is significantly higher than the 4.3 rating for the undifferentiated brand (t = 3.52, p < .01).
Discussion

These results demonstrate that an irrelevant attribute can be valued and this effect persists even if consumers acknowledge the attribute is irrelevant. It was surprising, however, that the effect was virtually unaffected by revelation. It appears that the differentiating attribute remains distinctive and unique, making discounting it difficult. Inferences regarding the semantic meaning of the irrelevant attribute appeared limited in the open-ended responses, whether or not the attribute's true value was revealed. Subjects preferred the differentiated brand regardless of the information revealed to them, suggesting that the primary impact of the irrelevant attribute was to increase the competitive salience of its brand. Inferences were limited, perhaps because subjects had only attribute information available to them.

In actual markets, of course, consumers have much more information, making richer inferences possible. One important factor in making such inferences is price. Higher prices, for example, can be interpreted as indicating higher value (e.g., Gerster 1985; Peterson 1971; Rao 1971; Rao and Monroe 1989). It is plausible, therefore, that buyer inferences regarding the value of a differentiated brand may be affected by its price. Considering prices also would enable us to examine more fully the inference process by adding an irrelevant attribute and examining consumer reaction at different prices.

**VALUING AN IRRELEVANT ATTRIBUTE: THE ROLE OF PRICE**

To examine the inference process more fully, we consider the impact of price on consumer valuation of the differentiated brand if buyers must infer the value of the irrelevant attribute and, subsequently, if it is revealed to them.

**Inferential Valuation with Price but Without Revelation of Irrelevance**

Our first study shows that when price information is not provided, buyers value a distinguishing but irrelevant attribute. However, how much a differentiated brand will be valued may depend on its price. Consider three cases: The differentiated brand is priced at the low end of all brands (we term this a low price), the high end of all brands (a high price), and above all others (a premium price).

If the differentiated brand is priced below most others, one inference is that, even though it is differentiated and attention getting, the differentiating attribute must be worth little, if anything at all, because its price is low. In other words, the pragmatic component of the information conveyed by the irrelevant attribute is offset by the pragmatic component of the information conveyed by a low price. ("If the attribute is so valuable, why aren't they charging more for it?"") Thus, meaningless differentiation should affect brand evaluation little. However, if the differentiated brand is priced toward the top end of all alternatives, one inference is that its unique attribute must be valuable. The high price reinforces the pragmatic component of the information conveyed by the irrelevant attribute.

If it is priced at a premium, the price becomes another distinctive attribute, drawing further attention to the brand. In the absence of other data, the premium price suggests unusual value. Furthermore, with the differentiating attribute, the brand possess two unique attributes, making discounting the irrelevant attribute even more difficult. This suggests that buyer valuation should increase with price compared with the case in which no attribute is added to the brand.

**H3:** Differentiating a brand by adding an irrelevant attribute will increase valuation of the brand at a high price and even more so at a premium price, if the true irrelevance of the differentiating attribute is not revealed.

**Inferential Valuation with Price and Revelation of Irrelevance**

What if brands differ on price and the true irrelevance of the differentiating attribute is revealed? How will this affect buyer valuation of the irrelevant attribute? Consider again low, high, and premium prices. At a low price, the information reinforces the implied low value, suggesting that differentiating will produce no gain in preference. At a high price, the basis for positive valuation remains: The differentiated brand is distinctive and unique, and using the irrelevant attribute can simplify choice. Moreover, a high price indicates high value. Thus, for low and high prices, we expect valuation of the differentiated brand to increase with price, as in the previous case.

A premium price, however, should produce a different consumer response. The premium price suggests exceptional value, but the revelation of the attribute's irrelevance is negative information. Any elaborative processing by the consumer produces a mixed message, which should prevent a causal inference of exceptional value. Furthermore, the information revealed to buyers makes the lack of semantic content salient in the attribute's claim. The claim now can be seen as empty. This should discourage the use of the differentiating attribute's distinctiveness (the pragmatic component of the information it conveys) and, without competitive distinctiveness, the differentiated brand should have no advantage. Thus, at a premium price with the irrelevant attribute's true value revealed, meaningless differentiation should produce no gain in preference.

This discussion is summarized in the following hypothesis:

**H4:** Differentiating a brand by adding an irrelevant attribute will increase valuation of the brand at a high price but not at a low or premium price, if the irrelevance of the differentiating attribute is revealed to consumers.

**Summary**

Prices provide an additional source of information useful to buyers in judging the value of an irrelevant attribute. Without information on the attribute's value, a brand distinguished by an irrelevant attribute can be distinguished further by a high price. It adds to its perceived value and reinforces positive associations with it, suggesting that it will be valued. In contrast, a low price indicates little additional
Irrelevant Attributes

value. A premium price can lead to no additional preference from differentiating because of the mixed message it produces. It is important to note that at all three prices, the differentiated brand remains unique. It is the only brand with the irrelevant attribute. Thus, uniqueness alone does not produce the anticipated impact from differentiating. Rather, it is the combination of uniqueness and the inference made from the price of the differentiated brand.

EXPERIMENT 2

In this study, we test $H_3$ and $H_4$ by adding price to the product profiles, one of which may include an irrelevant attribute. In addition, we expand the number of product categories to three to begin to consider the generality of our results.

Method

In a manner similar to that used in experiment 1, we created a set of brands using three binary attributes plus price (fixed at one of two levels) as a fourth attribute. In this case, we used three product categories—down jackets, pasta, and compact disc players. For each category, 8 of the 16 possible attribute combinations were chosen so that all pairs of attributes were orthogonal (that is, a one-half fraction of the factorial crossings of the four attributes). As in experiment 1, these attributes are all relevant for the categories under consideration, in that they correspond to attributes and levels found in real products and they contribute to the overall product value. Attributes and levels for all products are shown in Table 2.

In each category, a fifth attribute was added to manipulate the presence or absence of the irrelevant attribute. In one set of brands, a fictional, irrelevant attribute was added to a (target) brand: One brand of down jackets was described as having "alpine class fill," one pasta brand as being "authentic Milanese style," and one compact disc player as having a unique "studio-designed signal processing system." The irrelevant attribute was added to one of two possible brands to prevent confounding the effects of the attribute with a brand-specific effect. Attributes of the target brands are shown in Table 3. To the remaining brands we added a common attribute (e.g., regular down fill; see Table 2). In a second set of brands, all received the common attribute (e.g., regular down fill).

In this experiment we manipulated two factors. First, with regard to the irrelevant attribute there were two conditions. The attribute could be absent (we term this the undifferentiated condition or the control group), which was the case for one-third of the subjects. The irrelevant attribute was present in two cases for which products were presented in sequence. For the first product class presented, the target brand with the irrelevant attribute but without additional information about its true value (we term this the subjective condition); for the second product class, the irrelevant attribute was included with the revelation of its irrelevance (this formed the revealed condition). This sequential presentation was used to accentuate the impact of revealing the unique attribute’s true value. These three cases—control, subjective, and revealed—formed the attribute condition of experiment 2.

<table>
<thead>
<tr>
<th>Table 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PRODUCTS AND ATTRIBUTES USED IN EXPERIMENT 2</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product Class</th>
<th>Attribute</th>
<th>Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compact disc players</td>
<td>Track location time</td>
<td>.5 or 2 seconds</td>
</tr>
<tr>
<td></td>
<td>Remote control access</td>
<td>No, yes</td>
</tr>
<tr>
<td></td>
<td>Random access programming</td>
<td>6 or 12 selections</td>
</tr>
<tr>
<td></td>
<td>Price</td>
<td>$195, $295, $395</td>
</tr>
<tr>
<td></td>
<td>Signal processing system</td>
<td>Regular, studio-designed*</td>
</tr>
<tr>
<td>Pasta</td>
<td>Storage form</td>
<td>Dried, frozen</td>
</tr>
<tr>
<td></td>
<td>Salt content</td>
<td>Salted, unsalted</td>
</tr>
<tr>
<td></td>
<td>Richness</td>
<td>Regular, extra rich</td>
</tr>
<tr>
<td></td>
<td>Price</td>
<td>$1.89, $2.79, $3.69</td>
</tr>
<tr>
<td></td>
<td>Style</td>
<td>Regular, authentic Milanese*</td>
</tr>
<tr>
<td>Down jackets</td>
<td>Fill rating</td>
<td>500, 550</td>
</tr>
<tr>
<td></td>
<td>Cover material</td>
<td>Synthetic, cotton</td>
</tr>
<tr>
<td></td>
<td>Stitching</td>
<td>Regular, extra tight</td>
</tr>
<tr>
<td></td>
<td>Price</td>
<td>$100, $140, $180</td>
</tr>
<tr>
<td></td>
<td>Down fill</td>
<td>Regular, alpine class*</td>
</tr>
</tbody>
</table>

*Irrelevant attribute.

<table>
<thead>
<tr>
<th>Table 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TARGET BRANDS’ ATTRIBUTES USED IN EXPERIMENT 2</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product Class</th>
<th>Attribute</th>
<th>Brand 1</th>
<th>Brand 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compact disc players</td>
<td>Track location time</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Remote control access</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Random access programming</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Price</td>
<td>All</td>
<td>All</td>
</tr>
<tr>
<td></td>
<td>Studio-designed signal</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>processing system*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pasta</td>
<td>Storage form</td>
<td>Dried</td>
<td>Frozen</td>
</tr>
<tr>
<td></td>
<td>Salt content</td>
<td>Unsalted</td>
<td>Unsalted</td>
</tr>
<tr>
<td></td>
<td>Richness</td>
<td>Regular</td>
<td>Regular</td>
</tr>
<tr>
<td></td>
<td>Price</td>
<td>All</td>
<td>All</td>
</tr>
<tr>
<td></td>
<td>Authentic Milanese style*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Down jackets</td>
<td>Fill rating</td>
<td>550</td>
<td>500</td>
</tr>
<tr>
<td></td>
<td>Cover material</td>
<td>Synthetic</td>
<td>Synthetic</td>
</tr>
<tr>
<td></td>
<td>Stitching</td>
<td>Regular</td>
<td>Regular</td>
</tr>
<tr>
<td></td>
<td>Price</td>
<td>All</td>
<td>All</td>
</tr>
<tr>
<td></td>
<td>Alpine class fill*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Irrelevant attribute.

1In seconds
2In number of selections.
3Prices are given in Table 2.

The second factor in this experiment was the price of the target brand. The target brand was priced at one of three levels. Two of three prices corresponded with the prices associated with the seven other products in the respective product class. These are termed low (the same price as the lower price in the set) or high (the same as the higher price in the set). In addition, the target brand could be priced at a premium (higher than any other brand in the set). For subjects exposed to the irrelevant attribute, the price levels of the two categories were different and were balanced across subjects. The three price levels were crossed with the two attribute conditions—absent (the control group) and present (the subjective and revealed conditions)—to form a $3 \times 2$ between-subjects factorial design. One hundred twenty-eight
undergraduate subjects participated in the study for class credit.

Procedure

As in experiment 1, subjects were told that they would be rating hypothetical products and were shown an example of the rating procedure. Then, a product class was described; the subject rated the eight brands using the same scale as in experiment 1 (with measures shown in millimeters). If the subject was in the condition in which an irrelevant attribute was present, a second product class was described, including the revelation of the irrelevance of the differentiating attribute.3 The second class was omitted for subjects in the control group. Finally, subjects completed manipulation check and control measures.

Analysis

As a manipulation check, an open-ended question asking the respondent what the unique attribute "meant" in product evaluation was asked. A judge, naive to the study, coded subject responses. As expected, the number of subjects who stated explicitly that they did not know what the added attribute meant was greater when no revelation was provided than when they were told it was irrelevant. Conversely, more subjects stated that the added attribute was irrelevant when they were told so (χ² = 6.38, p < .05). As a second check, we analyzed preferences in the control group with respect to price. As expected, preference for the target brand falls as price increases, as shown in Figure 2.

Given our hypotheses, the main results of the experiment focus on the differences between the control group in which the target brand is undifferentiated and the condition in which it is differentiated, either with or without the revelation of the differentiating attribute's value. To test for these differences, we analyzed preference ratings for the target brand from the subjective and revealed cases separately to test H₃ and H₄. This procedure enabled us to treat each portion of the design as a completely between-subjects experiment.

Subjective Evaluation

To test H₃, we analyze preference ratings for the brand differentiated by the irrelevant attribute, including data from the subjective and control conditions. We ran an ANOVA on brand preference ratings with attribute conditions (presence or absence of the irrelevant attribute) and price condition (low, high, premium) as factors; we included product class and the particular brand to which the irrelevant attribute was attached as covariates. The interaction of attribute condition and price was significant (F₂,₁₁₅ = 4.73, p < .01).

Our interest focuses on specific aspects of the interaction pattern. Consistent with H₃, the evaluation of the target brand is enhanced by the addition of an irrelevant attribute when its irrelevance is not revealed and price is high or premium (t₁₁₅ = 2.93, p < .01 and t₁₁₅ = 3.89, p < .01, respectively). When the price is low, preference rating does not rise with the addition of the irrelevant attribute (t₁₁₅ = .37, p > .25). The difference in preferences associated with adding the irrelevant attribute for the case in which no information is revealed to subjects is shown in Figure 3. Consistent with the ANOVA results, it shows that at a low price, adding a unique attribute does not increase valuation; in fact, it decreases slightly, though this difference is not reliable. At a high price, adding the unique attribute increases valuation by over 33 points and at a premium price, valuation increases by 44 points. Thus, the analysis strongly supports H₃.

Evaluation with Revelation

To test H₄, we analyzed data from the revealed condition in which the target brand is differentiated and the true value of the differentiating attribute is revealed to subjects, and the control condition in which the target brand is undiffer-

---

3This procedure confounds order of presentation and revelation. However, this ordering would tend to highlight (by contrast) the revelation and thus would be expected to reduce or to eliminate the impact of the irrelevant attribute on preference at all price levels.
entiated. An ANOVA with attribute condition (presence or absence of the irrelevant attribute) and price (low, high, premium) as factors, and including product class and brand as covariates, shows that the main effects for both factors are significant ($F_{2,117} = 11.39, p < .01$ for attribute condition and for price $F_{2,117} = 16.27, p < .01$); the interaction between the two factors is not ($F < 1$). Our interest is in the pattern of preference across price conditions.

$H_4$ predicts that when the irrelevance of the differentiating attribute is revealed, valuation will be positive only at a high price. In other words, revealing the differentiating attribute's true irrelevance eliminates the impact of adding the irrelevant attribute at a low or premium price because of the inferences induced.

To test these predictions, we computed the difference in mean rating between the attribute present and control groups at the three price levels. At a high price, the increase in valuation from differentiation is positive, increasing preference 33 points ($t_{117} = 3.05, p < .01$). At both low and premium prices, valuation of the target brand appears to increase, but these increases are not significant ($p > .10$ in both cases). Thus, consistent with $H_4$, if the differentiating attribute's irrelevance is revealed, adding it increases valuation only at a high price. The results appear in Figure 4.

**Summary**

Our results show that an irrelevant attribute can be positively valued but that there are limits as to when and how much, depending on price. At a low price, irrelevant attributes are not valued, regardless of whether consumers acknowledge their true irrelevance. At a high price, regardless of the revelation of the irrelevance of the differentiating attribute, adding a distinguishing, unique, but irrelevant attribute leads to greater brand valuation. The pragmatic component of the information conveyed by the brand is positive. This is a surprisingly strong result, suggesting that a high price adds to a brand's distinctiveness, which makes discounting its distinguishing attribute difficult.

At a premium price, if the irrelevance of the unique attribute is not revealed, the irrelevant attribute is positively valued. Thus, contrary to an undifferentiated brand, higher prices lead to more positive valuation. This is a startling finding. It suggests that differentiating from competitors by adding an irrelevant attribute and pricing above competitors can create a competitive advantage if consumer information is limited. Buyers may infer benefits associated with the irrelevant attribute, the premium price indicates exceptional value, and the unique differentiating attribute simplifies choice. If the true irrelevance of the differentiating attribute is revealed to buyers, the differentiated brand is not significantly helped.

**DISCUSSION**

A brand with a distinguishing but irrelevant attribute creates potential uncertainty about whether to value or ignore it. Our analysis suggests that an irrelevant attribute is valued positively in a surprising number of cases. If no other information is available, brand valuation is extremely difficult, and buyers can simplify their task by inferring that the irrelevant but distinguishing attribute is valuable. Its distinctiveness and uniqueness suggest positive value; it may attract greater attention or be given greater weight in evaluation. Revealing the irrelevant attribute's true value may not completely eliminate these effects. Positive brand associations can persist, choosing the differentiating brand still simplifies choice, and the unique aspect of the differentiating attribute still can lead to greater weight being placed on it in decision making.

We have shown that adding a distinguishing if irrelevant attribute and increasing the price, perhaps dramatically, can create a meaningfully differentiated brand if the true irrelevance of the differentiating attribute is not known to buyers. In that case, consumers may infer that the unique attribute is indeed valuable, especially given a premium price. Surprisingly, that same inference appears even if the distinguishing attribute is acknowledged to have no value, to be irrelevant. The simple existence of the attribute can lead to positive valuation for it even though consumers acknowledge it is irrelevant. However, this strategy is not without limits. When coupled with a price that draws attention to the brand and its attributes, revelation of irrelevance has the anticipated effect of leading to discounting of the attribute's value.

**Product Differentiation Strategies**

Our findings suggest an important link between meaningless differentiation and brand equity. Aaker (1991) describes brand equity as consisting of brand assets and liabilities that can be grouped in five categories: brand loyalty, name awareness, perceived quality, brand associations, and other proprietary brand assets. Brand loyalty consists of the ability to attract and retain customers; awareness is buyers' familiarity and liking of the brand; perceived quality varies with price and positioning; brand associations depend on the ability to recall the brand, its position, and positive attitudes or feelings toward the brand; and other proprietary assets are those that are unique to the brand.
Meaningless differentiation may influence these sources of brand equity. Distinctiveness may increase awareness and familiarity. Perceived quality may be higher, especially if the differentiated brand prices above others. Brand associations may be positive if the irrelevant attribute is attractive and suggestive. The differentiating attribute’s uniqueness can be a proprietary asset, creating a competitive advantage. Thus, Folger’s strategy may be effective by catching buyer attention in a crowded market, being perceived as a high-quality brand, having a network of positive associations, creating an exceptionally high weight on its unique attribute, and doing so with an attribute others cannot duplicate by virtue of its patent protection.

This suggests that meaningless differentiation can operate to build valuable brands, despite the lack of a meaningful product difference. Rather than explicitly presenting buyers with positive, valuable differences, a brand differentiated with an irrelevant attribute creates a context in which positive associations, awareness, high value for unique attributes, and perceived quality and other benefits are logical outcomes of consumer inference, building brand equity in the process. An important direction for further research is to examine this inference process and its implications for building valuable brands more explicitly.

**Consumer Preference and Choice**

Our results are somewhat disquieting for the model of rational choice. Central to this view is the notion that preferences are fixed, exogenous, and revealed by choice. In this context, more information improves decision making—better informed consumers make better judgments. Irrelevant information in such a framework is immaterial and should not affect decisions. We show that irrelevant information does indeed have an impact. A brand attribute may not have objective value. Rather, preferences for it may be constructed in response to the context in which valuation is made (Tversky, Sattath, and Slovic 1988). This suggests that, contrary to the model of rational choice, preferences are endogenous, that is, constructed rather than revealed, and more information can bias decisions systematically.

Our demonstration that preferences can be influenced substantially by the attribute structure, prices, and available information raises another important question: Will these preferences be reinforced or eliminated through trial and use? Or, more generally, will these preferences persist? One possibility is suggested by the preference updating mechanism described by Carpenter and Nakamoto (1989). With trial, initial preferences are either confirmed or not. If trial is satisfactory, consumers may attribute the positive outcome to the brand’s attribute structure and levels, including an irrelevant attribute. Buyers may develop a naive theory of the value of the attribute, confirmed through trial, repeated use, and advertising (Hoch and Ha 1986). Thus, one plausible outcome is that use will reinforce rather than erode preferences for an irrelevant attribute. This is consistent with Hutchinson and Alba (1991), who demonstrate that learning is inhibited when an irrelevant attribute is salient. The continued success of Folger’s and others would not appear to be inconsistent with this.

**The Nature of Competition**

Our research, combined with other work demonstrating that the information available to decision makers—the context—affects preference and choice, suggests that richer theories of competitive advantage may be constructed by formally integrating the “behavioral” view of consumer decision making into concepts of marketing strategy. Developments in institutional economics (Williamson 1975) and organizational theory (Miles and Snow 1978) have been influential in the realization that firms do not always behave as predicted by classical, rational models and they have had a significant impact on developments in the area of strategy formulation. However, theories of marketing strategy have been built with a more limited role for consumer decision making than is perhaps desirable or appropriate.

A useful starting point for an integration could be to examine the role of information in consumer decision making and its implications for competition and strategy. The marketing concept rests on the traditional assumptions about the role of information in choice. In turn, competitive marketing strategy is a race to meet consumer needs best at the lowest price. However, if judgments about brand value depend on the information available to the consumer—that is, preferences are context dependent—competition can take on an entirely different character.

Rather than being a race to meet customer needs at the lowest price, competition may become a battle over the structure of consumer preferences. Firms may attempt to elevate the importance of one attribute over another or add distinctive but irrelevant attributes to shift competition. This argues, fundamentally, that the marketing concept may be too limiting in some markets. The implications for an expanded view of the marketing concept are significant. A fundamental component of being “customer driven” may involve devoting resources not just to satisfying customers better than competitors but to creating value for customers by shaping the context of consumer preferences and thus competition.

There is, however, a disquieting aspect to our findings. Our research suggests that it is possible to garner the advantages of product differentiation with attributes that might appear to provide functional benefits to the consumer but, in fact, do not. The attribute only serves to make the brand unique. Although there are clearly limits to such a strategy (as experiment 2 shows), the possibility raises ethical and policy issues as well as strategic ones. From a policy standpoint, the issues are similar to those raised by deceptive advertising (e.g., Gaeth and Heath 1987). The differentiating attributes may provide an economic benefit to the brand through higher profits (from higher prices, greater sales, or both) with little or no investment in product improvement. However, meaningless differentiation differs from deceptive advertising in an important way: The advertising claim reflecting meaningless differentiation need not be false or deceptive in that no explicit claim regarding its value is made. Rather, it is a bias toward causal inference on the part of the consumer that results in the increased preference for the differentiated brand. For example, Perdue chickens are differentiated by their yellow skin, which derives from their feed (which includes marigold petals). The color has no impact on the flavor or texture of chickens. Perdue
makes no explicit claims in that regard. However, a consumer could infer that Perdue chickens’ yellow color leads to better-tasting, more tender chicken, which may create a competitive advantage.

On the other hand, competitive advantage created through meaningless differentiation may not be sustainable because of competitive reaction. Our analysis considers cases in which the differentiating attribute is unique—that is, not copied by competitors. If competitors do react, is the competitive advantage sustainable? We have not formally addressed that question, but observation suggests that competitive reaction can limit both the distinctiveness and uniqueness of a brand’s irrelevant attribute. If, for example, all competitors react by introducing their own unique irrelevant attribute, no one brand will be distinctive, and the impact of meaningless differentiation could be reduced. The optimal reaction is not clear, and we leave that for further research. However, we can suggest that the dynamics of competition may make sustaining an advantage based on an irrelevant attribute difficult if the uniqueness and distinctiveness of the attribute are reduced.

CONCLUSION

We examine how a brand can achieve competitive advantage through differentiating not on an important, meaningful or valuable attribute but through the addition of a distinguishing, unique, but irrelevant attribute. Contrary to the traditional view of product differentiation, meaningless differentiation can be positively valued by buyers. An advantage created through meaningless differentiation may not be sustainable in the long run if competitors react and reduce its uniqueness or distinctiveness. However, if the differentiated brand remains distinctive and unique, it can create a context in which buyers infer that the additional if irrelevant attribute is valuable. Its distinctiveness suggests its relevance, prompting positive associations, even causal inferences about its impact on product performance. Its uniqueness can simplify decision making, convey novel information that receives greater weight, or affect the comparison process in such a way as to disadvantage brands lacking this attribute. These factors operate even if buyers acknowledge that the differentiating attribute is irrelevant, though we have not considered whether these factors continue to operate in the long run. We propose a set of hypotheses about when consumers will value this additional attribute, and tests in two experiments support our explanation. Thus, we suggest that differentiation based on a unique, distinguishing, but irrelevant attribute, through the consumer inference process, can create a relevant and valuable perceived difference, leading to a meaningfully differentiated brand.

REFERENCES


and__ (1990), “Competitive Strategies for Late Entry into a Market with a Dominant Brand,” Management Science, 36, 1268–78.


Slovic, Paul and D. J. McPhailley (1974), "Dimensional Commen-
surability and Cue Utilization in Comparative Judgment," Orga-
nizational Behavior and Human Performance, 11, 172–94.


Wyer, Robert S. (1970), "Information Redundancy, Inconsis-
tency, and Novelty and Their Role in Impression Formation," Journal of Experimental Social Psychology, 6, 111–27.