

# **Consumer Brand Confusion: A Conceptual Framework**

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## **ABSTRACT**

A definition and theoretical framework for consumer brand confusion are developed. Brand confusion is distinguished from related terms, such as uncertainty, miscomprehension, infringement, and deception. The factors affecting the likelihood of brand confusion are extended beyond stimulus similarity to include individual and situational factors, and propositions regarding the effects of individual and situational factors are developed. The value of a better understanding of consumer brand confusion to managers and policy makers is discussed.

The sampling campaign used to introduce Sunlight brand dishwashing liquid was marred by widespread consumer confusion of Sunlight with Minute Maid lemon juice. Although Sunlight was clearly labeled, it did contain 10% lemon juice, and its package was similar in color and shape to the Minute Maid package (Reiling, 1982). A judge prohibited Toyota from using the name "Lexus," arguing it would dilute the effect of Mead Corporation's "Lexis," the trademarked name of its legal-research data base. Several months later, a three-judge panel in the federal appeals court reversed the decision ("Court says Toyota," 1989; Schlesinger & White, 1989). Hawley and Hazel recently changed the name and logo of its "Darkie" brand toothpaste. The old brand name and logo (depicting

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a Black minstrel) had been strongly criticized as "racially offensive" ("Darkie drops offensive," 1989, p. 6). The new brand, "Darlie", depicts "a silhouette wearing the same silk top hat, tuxedo and bow tie as on the Darkie package" ("Darkie drops offensive," 1989, p. 6). Consumer brand confusion lies at the heart of these three cases. Why did consumers confuse Sunlight with lemon juice and use it in iced tea and baking? Why did the courts find the "Lexus" and "Lexis" trademarks unlikely to cause confusion, even when there was evidence of possible confusion in the court? And how did management at Hawley and Hazel decide that the name and logo changes it adopted would not confuse current and future customers?

Confusion is clearly an important concern for marketers, policy makers, and consumers. Unfortunately, little research has attempted to explain how and why confusion can occur, or even to provide a clear definition of the concept (Foxman, Muehling, & Berger, 1990). The few existing papers focus on trademark strategy or infringement (Cohen, 1986; Levy & Rook, 1981; Miaoulis & D'Amato, 1978). Discussions about the causes of confusion have looked almost exclusively at stimulus similarity. However, even when stimuli are relatively distinct, some people still become confused, and others do not (Foxman, Muehling, & Berger, 1990).

A better understanding of brand confusion may benefit marketers, policy makers, and researchers. For marketers and policy makers, likelihood of confusion is a key element of trademark infringement cases. An integrated theory of the confusion should lead to improved managerial decisions regarding possible infringement litigation and more consistent enforcement of the Lanham Act. A better understanding of how confusion occurs may also clarify deception-related issues, leading to a more objective definition of the "reasonable consumer" standard in current Federal Trade Commission deception policy (cf. Ford & Calfee, 1986, for a summary discussion of the "reasonable consumer" standard). A better understanding of brand confusion will help clarify its relationship to related constructs and thus may ultimately increase synergy among the various research streams examining information-processing errors. The main purpose of this article, therefore, is to deepen understanding of consumer brand confusion. In the process of defining the construct, we clearly distinguish brand confusion from related constructs. We also develop a theoretical framework which identifies individual and situational antecedents affecting the likelihood of brand confusion.

## DEFINING CONSUMER BRAND CONFUSION

According to Diamond (1981, p. 52), brand confusion occurs when an imitator "... so resembles the mark in appearance, sound, or meaning

that a prospective purchaser is likely to be confused or misled.” A major limitation of Diamond’s definition is circular reasoning—using the word *confuse* to define *brand confusion*. Most researchers have not defined the term at all, perhaps assuming that they and their readers share an implicit agreement on its meaning. As a first step toward improving understanding of the construct, the following definition is proposed:

Consumer brand confusion consists of one or more errors in inferential processing that lead a consumer to unknowingly form inaccurate beliefs about the attributes or performance of a less-known brand based on a more familiar brand’s attributes or performance.

Errors can occur during all stages of processing, and the object of an individual’s brand confusion need not be physical—people can be confused about ideas (a politician’s position on the issues), or services (such as beauty makeovers).

Several important points are implicit in this definition: First, brand confusion must involve error(s) of which the consumer is unaware, because if a consumer knows that a belief about the attributes or performance of a brand is incorrect, she or he will reject that belief. Brand confusion is a mistake the consumer doesn’t know about. Second, brand confusion exists as a continuum of error. The most common form of the confusion is thinking that one product or brand is the same as another. However, less obvious types of brand confusion can also occur (Boal, 1983). Brand confusion may involve confusion of source—thinking an imitator brand is made by the maker of an original brand—or confusion of sponsorship—thinking an imitator brand is approved and endorsed by the makers/sponsors of an original brand (Loken, Ross, & Hinkle, 1986). An inaccurate inference with respect to a single product attribute may also result in “mild” brand confusion. For example, a person who has knowledge of and experience with a single, expensive Sony Walkman may mistakenly assume that all personal stereos have Dolby noise reduction.

Finally, implicit in the definition is the possible alteration of a consumer’s choice of brands from what it would have been in the absence of brand confusion. Obviously, this possible result of brand confusion is the key reason the concept is of interest to public policy makers and managers of both imitating and original brand firms.

### **Distinction between Brand Confusion and Related Terms**

The meaning of consumer brand confusion can be further clarified by examining how it differs from related constructs, including uncertainty, miscomprehension, infringement, and deception. Uncertainty occurs when a consumer is conscious of inconsistencies or possible errors in

inferential processing and doubts the accuracy of his/her inferences. Consumer uncertainty is different from brand confusion—first, because the consumer is aware of the potential error; and second, because the consequences of uncertainty are likely to be different from the consequences of brand confusion. Brand confusion is likely to alter a consumer's choice processes from what they would have been otherwise, whereas uncertainty is likely to delay brand choice until the consumer has cleared up whatever she or he is uncertain about.

Like brand confusion, miscomprehension is an inferential processing error. Miscomprehension involves improper message interpretation, such that the message conveyed is not the message received, comprehended, and/or stored in memory (Jacoby & Hoyer, 1982). Like brand confusion, miscomprehension is a mistake of which the consumer is unaware, exists on a continuum of error, and may alter a consumer's choice of brands. Miscomprehension is distinct from brand confusion in that (a) it need not involve comparison of multiple stimuli: The relevant comparison is between the message sent and the message as received and processed, and (b) it refers to communication stimuli rather than stimuli directly associated with brand characteristics.

Infringement is a legal term describing a situation in which the product offering of one manufacturer is found to be too similar to another manufacturer's product offering. The likelihood of consumer brand confusion is a key criterion the courts use in determining whether infringement has occurred (Boal, 1983; E.I. Du Pont, 1951). However, brand confusion is neither a necessary nor sufficient condition for a finding of infringement. For example, if only one percent of the population draws inaccurate inferences based on brand similarities, then this one percent is confused. However, a judge might still rule against infringement on the grounds that the actual likelihood of brand confusion is too low. On the other hand, even if brand confusion is not demonstrated, the court might rule that infringement has occurred if the imitating firm intended to trade upon distinctive aspects of the original product (see Fletcher & Wald, 1986, 1987 for a comprehensive discussion of the criteria used to determine infringement).

Deception, according to the Federal Trade Commission (FTC, 1983), will be found “if there is a misrepresentation, omission or practice that is likely to mislead the consumer acting reasonably in the circumstances, to the consumer's detriment” (at 690). Like miscomprehension, deception need not involve comparison of multiple brands: The relevant comparison is between the characteristics possessed by the product and those claimed by the marketer. In addition, confusion results from a combination of three factors—individual characteristics, situational effects, and/or marketing actions—whereas deception is explicitly defined by the FTC as resulting from marketing actions (or the absence thereof). These definitions imply that, while brand confusion may result from deception, it is not the same thing as deception.

## **Summary**

Brand confusion is an inferential process in which stimuli similarities and other factors lead a consumer to form inaccurate beliefs about the attributes or performance of a less-known brand based on a more familiar brand's attributes or performance. Consumers are not aware of such inferential errors, which occur on a continuum of severity, and these errors are important because they may alter consumers' choice processes from what they otherwise would have been. Finally, brand confusion is related to but not the same as miscomprehension, uncertainty, infringement, and deception. The distinctions among these five terms are summarized in Table 1.

## **STIMULI SIMILARITY AND BRAND CONFUSION**

Past research has focused on stimulus similarity when discussing brand confusion (Loken, Ross, & Hinkle, 1986; Miaoulis & D'Amato, 1978). In general, the more similar the characteristics of two stimuli, the higher the likelihood of confusion. A key part of this relationship involves identifying all those stimuli elements that affect perceived similarity. A comprehensive understanding of stimuli characteristics includes all elements of the marketing mix, because they each may play a role in consumers' efforts to distinguish among brands. Because products and promotional messages are the stimuli most frequently used by consumers to differentiate brands, however, product and promotional factors are likely to play a larger role in consumer brand confusion.

Considered broadly, aspects of the product include its source, function, composition, packaging, physical properties, operational properties, psychological properties, economic factors, and effects of consumption (Werkman, 1974). To the extent that the maker of an imitator brand patterns its product strategy after that of the maker of the original brand in any of these areas, consumer brand confusion may be more likely to occur. For consumer goods, the most common product strategy sources of brand confusion appear to involve source (including name of the product), physical properties, and packaging—probably because these factors are most used in consumer decision making for this class of products. Trademark law is full of cases turning upon imitation on these product aspects, but it should be recognized that other factors (e.g., composition) might play a greater role in causing brand confusion for different types of products (e.g., industrial products).

Promotional strategy components include objectives, choice of message, execution, media choice, and media scheduling. Again, some of these strategy elements can be identified as being more likely to trigger confusion—in this case, message and execution. Similarities in commercial message can potentially cause confusion of source, as Wendy's

**Table 1. Comparison of Terms Related to Errors in Information Processing**

	Consumer Error in Information Processing	Unknowing Error	Inaccurate Comparison of Two Brands	Exists on a Continuum	Can Change Choice without Consumer knowledge
Confusion Miscomprehension	Yes Yes	Yes Yes	Yes Focuses on actual vs received communication stimuli	Yes Yes	Yes Yes
Uncertainty	Possible error	No	Can occur in processing either brand or communication stimuli	Yes	Yes
Infringement	Not necessarily, courts often require no evidence of actual information processing error	Not necessary	Courts compare brands; it is not necessary that consumers do so	No	Not necessarily; can do so if actual confusion has occurred
Deception	Yes, but error is caused by some element of marketing strategy	Yes	Can occur in processing either brand or communication stimuli; key is that error occurs as a result of some element of marketing strategy	Yes	Yes

International, Inc., feared when it forced J.C. Penney and other retailers to remove from their shelves t-shirts emblazoned with the slogan, "Where's the beef?" (Brooks, 1984). Similarities in execution may also increase brand confusion, especially for products that are physically similar and have claimed the same market position. Ads for "point and shoot" cameras, for example, all depict a physically similar product, and must make very similar points about the benefits of purchasing the product. These promotional necessities tend to result in similar format and execution of the messages—and thus are likely to increase brand confusion.

Consumers are usually aware of only a small part of distribution strategy, that is, the number and type of retail outlets (if any) from which a particular product may be obtained. Products that are sold through the same distribution channels, especially through the same retail outlets, are more subject to confusion than those which are not. Pricing strategy also affects brand confusion—products that are priced alike are perceived to be more similar than those in different price ranges (Monroe & Petroshius, 1981).

## THE CONSUMER BRAND CONFUSION FRAMEWORK

While stimulus similarity is perhaps the most important cause of confusion, other variables can also significantly affect confusion. Confusion can occur even when brands are relatively dissimilar; and even when stimuli similarities are held constant, people will differ in their likelihood of becoming confused. The purpose of this section is to identify additional causes of brand confusion. Propositions derived from the following discussion are presented in Table 2.

Consumer behavior is often viewed as being a function of stimulus, individual, and situational factors. These elements can also be used to develop a general framework for understanding the causes of brand confusion. In order to help organize findings and expectations concerning consumer brand confusion, we have developed a theoretical framework presenting the interrelationships among the various determinants of the construct (Figure 1). Before discussing the individual and situational elements, several central components must be highlighted.

Brand confusion is defined as an outcome based on errors in inferential processing. Therefore, the degree of brand confusion is strictly influenced by an individual's inferential processing capability. It is important to include the concept of inferential processing for several reasons. First, it must be recognized that brand confusion represents an individual's inferential error, and therefore is directly affected by inferential processing capability. Second, this model element directs attention to the types and causes of inferential errors that might occur,

**Table 2. Propositions Involving Confusion Antecedents and Relationships among Them**

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- I. All things being equal, greater stimulus similarity between two brands results in a greater incidence of consumer brand confusion.
  - II. An individual's inferential processing capability directly affects his/her likelihood or incidence of brand confusion—the greater an individual's ability to make correct inferences, the lower the likelihood of that individual becoming confused.
  - III. Individual difference factors affect a consumer's inferential processing capability and thus consumers' likelihood of experiencing brand confusion:
    - A. Cognitive style factors affect consumers' inferential processing capacity and likelihood of confusion. Specifically,
      - 1. sharpeners are less likely to become confused than levellers.
      - 2. individuals who have a narrow equivalence range have a lower incidence of brand confusion than individuals with a wide equivalence range.
      - 3. reflective individuals exhibit a lower incidence of brand confusion than impulsive individuals.
      - 4. field-independent individuals experience less brand confusion than field-dependent individuals.
    - B. Individual making choices under conditions of heavy information load (or overload) experience a higher rate of confusion than do individuals making choices which require the evaluation of moderate or small amounts of information.
    - C. Individuals with more experience of a brand have a lower incidence of confusion than individuals with less or no brand experience.
  - IV. Situational factors affect inferential processing capability and thus likelihood of brand confusion. Specifically,
    - A. Situational factors may either facilitate correct inferences and brand identification, or predispose individuals to incorrect inferences and resultant confusion.
    - B. Situational factors moderate the effects of cognitive style elements and information load.
  - V. The extent to which brand stimuli are similar affects all other antecedents of confusion.
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and thus provides insight into the causes and severity of brand confusion.

Stimuli similarity is also central to discussions of brand confusion. Stimuli similarity/dissimilarity is hypothesized to affect all the other components of the model. The greater the degree of similarity between the two stimuli, the less accurate inferential processing will be, *ceteris paribus*. Possible interactions between stimuli similarity and other model elements will be discussed later.

### **Individual Differences**

Brand confusion occurs at the individual level. As such, certain differences between individuals will increase or decrease their overall

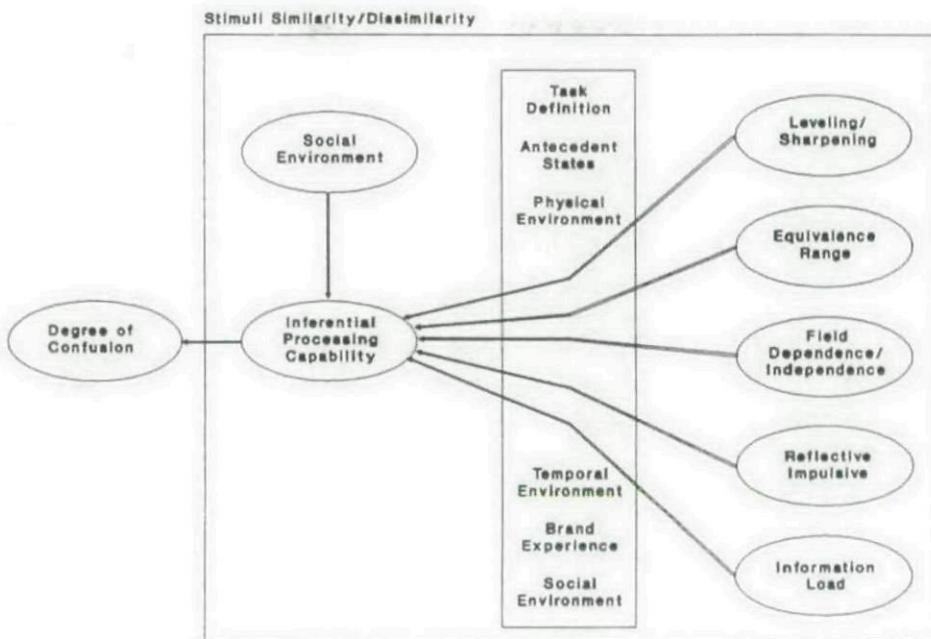


Figure 1. Antecedents of Consumer Confusion.

chances of becoming confused, regardless of the characteristics of the stimulus or any situational factors. Cognitive style, information load/overload, and brand experience are three individual difference factors expected to affect the occurrence of confusion.

Cognitive styles are “individual modes of perceiving, remembering, and thinking, . . . or distinctive ways of apprehending, storing, transforming, and utilizing information” (Kogan, 1971, p. 244). The distinction is made between one’s ability to solve a task and the way in which one goes about solving it. There have been no less than 19 approaches to the study of cognitive style, all reflecting different ways of explaining individual cognitive style differences (Brodzinsky, 1985). Leveling-sharpening, conceptual differentiation or equivalence range, reflection-impulsivity, and field dependence-independence are cognitive style elements that have been supported empirically and are likely to affect inferential processing capabilities. As such, they are partial determinants of the propensity of individuals to experience consumer brand confusion.

People can be classified as either cognitive levelers or cognitive sharpeners (Kelman & Cohler, 1975). Sharpeners emphasize unique distinguishing details, actively look for cues that might eliminate ambiguity, and are receptive to all available information. Levelers, on the other hand, ignore detail, simplify their environment, and try to fit new experiences into familiar molds. Leveling-sharpening is an important determinant of learning (Gardner & Long, 1960). Sharpeners commit

fewer errors than levelers when distinguishing between similar stimuli. As such, leveling/sharpening will have a direct effect on a person's inferential processing capability (see Figure 1). A sharpener will pinpoint stimuli differences more efficiently when presented with an imitator brand (A'), and will store a more detailed image of the original brand (A) in memory than will a leveler. A sharpener will also make more comparisons between the original and the imitator brands than will a leveler. Because shapreners are better at differentiating between similar stimuli, they are expected to experience less brand confusion. For example, if two brands have very similar looks and packaging but different brand names, a leveler is more likely to overlook the difference in brand names (become confused) while a sharpener will be more likely to notice the differences.

Conceptual differentiation refers to individual variance in the size of the "just noticeable difference" (Gardner, Jackson, & Messic, 1960). An individual with high conceptual differentiation (narrow equivalence range) will perceive stimuli as being different unless they are very similar. In a free sorting task, such an individual utilizes many categories. Conversely, an individual with low conceptual differentiation (broad equivalence range) will view stimuli as being the same even if they are only marginally similar. In the same free sorting task, one would expect such an individual to utilize few categories. Conceptual differentiation will also have a direct effect on inferential processing (see Figure 1). The narrower a subject's equivalence range, the more accurate will be the comparison of a stimulus to the knowledge or awareness stored in memory (Gardner, 1953). This comparison accuracy is related to consumer brand confusion in that an individual with a narrow equivalence range should exhibit a lower incidence of brand confusion than an individual with a wide equivalence range, *ceteris paribus*. The narrower a consumer's equivalence range, the greater his/her ability to make accurate judgments about the differences between brands A and A' when presented only with stimulus A'. For example, if two brands are extremely similar except for a one-letter difference in the brand name, a person with a narrow equivalence range is much more likely to notice the difference than a person with a broad equivalence range.

Reflectivity-impulsiveness refers to the tendency to pause and reflect upon alternative answers in problems involving moderate to high response uncertainty (Brodzinsky, 1985). Most research suggests that reflective individuals are superior to impulsive individuals across a wide range of cognitive/academic and personal-affective tasks (Messer, 1976). Reflectivity-impulsiveness will have a direct effect on inferential processing (see Figure 1). Reflective individuals have been found to do better at visual inspection tasks than impulsive individuals (Schwabish & Drury, 1984). Based on these findings, a reflective individual is expected to have a lower incidence of brand confusion than an impulsive

individual. When presented with A', the reflective consumer is more apt to pause, consider the elements of the stimulus, and identify A' as an imitator. The impulsive consumer, however, will tend to forego a careful inspection of the stimulus and will purchase A', thinking it is brand A. In extreme cases, impulsive individuals may even confuse significantly different stimuli. This might help explain why certain baseline levels of miscomprehension (and possibly confusion) have been found (Jacoby & Hoyer, 1982).

Field dependence refers to the extent that background information is incorporated in reactions to a stimulus. Individuals who are able to locate a sought-after component (by ignoring irrelevant background information) are said to be field independent; individuals who respond to the entire visual field and are less capable of organizing stimuli are termed field dependent (Burton & Sinatra, 1984). A number of studies indicate that field-independent individuals perform better than field-dependent individuals on cognitive and perceptual tasks (cf., for example, Marincola & Long, 1985). Field dependence will have a direct effect on inferential processing (see Figure 1). Field-independent consumers are better able than field-dependent consumers to identify and categorize discrete elements of brand stimuli. This structuring makes it easier to distinguish between brands A and A' because elements of A' can be compared with elements of A and discrepancies identified. Because of this structuring ability, a field-independent individual is expected to be less likely to experience brand confusion than a field-dependent individual. For example, a field-independent consumer who is used to finding only one brand of dog food in a frozen food case is less likely to be confused when a second brand is introduced than a field-dependent consumer. The field-dependent person is more likely to depend on the information that the brand is located in the frozen food case, where the field-independent person will rely less on this information to select the brand.

Each of the four cognitive style factors just discussed is independent of the others. For example, one individual might be a sharpener while the other is a leveler, but both may have broad equivalence ranges. Each type of cognitive style also has a unique impact on inferential processing. Leveling-sharpening influences the degree to which details are examined and affects the amount and types of information used. Conceptual differentiation influences the extent to which similarities are perceived. Field dependence-independence affects the ability to separate relevant (i.e., distinguishing) stimuli from other contextual stimuli. Reflectivity-impulsiveness involves the typical time devoted to processing.

Marketing studies of information load have found that increasing information load tends to produce dysfunctional consequences in terms of the consumer's ability to make brand choices (Jacoby, 1977; Jacoby, Speller, & Berning, 1974; Jacoby, Speller, & Kohn, 1974; Malhotra,

1982). There is also considerable evidence from studies in cognitive psychology (cf., Anderson, 1985) that human beings are bounded in their ability to assimilate and process information in a limited time period. When the information presented exceeds certain limits, information overload results in confused, less accurate, and less effective decision making (Jacoby, 1977).

Consumers have been found to deal with information overload by selecting limited information for decision making and placing emphasis on price and brand name information (Jacoby, Szybillo, & Busato-Schach, 1977). This strategy may directly affect inferential processing (see Figure 1) and can be a problem no matter what type of cognitive style a person may use. The effect can occur as follows: When a consumer cannot handle all the brand or attribute comparisons required in a decision situation, she or he may simplify the decision task by decreasing the number of attributes on which brands are compared (Scammon, 1977). There is some evidence that consumers tend to retain and weight more heavily common brand attributes, and drop attributes that are unique or unusual (Slovic & MacPhillamy, 1974). Such a simplifying rule may lead a consumer to inadvertently ignore precisely those elements of information which distinguish the imitator brand from the original brand. For this reason, brand confusion is expected to increase as the number of brands considered increases and/or as the number of attributes per brand considered increases.

Brand experience represents stored brand knowledge and brand importance perceptions. Both an individual's knowledge of the brand and his/her perception of product importance may indirectly affect inferential processing (see Figure 1). An individual's knowledge base about a particular brand increases as more specific details descriptive of the brand are added to memory—and to the extent that individuals are motivated by importance perceptions to obtain and remember such knowledge. This knowledge facilitates information processing (Davidson & Sternberg, 1985). When a consumer is exposed to a brand, the details of the stimulus are processed and compared with the memory-based knowledge. It is posited that brand experience directly interacts with cognitive style (see Figure 1). For example, the size of a person's equivalence range for a particular product class will be a function of his or her cognitive style and brand knowledge. A naive buyer with a narrow equivalence range may view two antiques as being "identical," even if one is a copy. As the individual's experience with antiques increases, his or her ability to employ a narrow equivalence range will improve. Similarly, a person is either a leveler or a sharpener (it is a trait). However, the extent to which a person can implement either approach is limited by the amount of brand and product experience the person may have. Performing a detailed comparison between two products may be difficult if a sharpener must remember details about a brand with which he or she has limited experience.

## Situational Characteristics

Situational characteristics include, "all those factors particular to a time and place of observation which do not follow from a knowledge of personal and stimulus attributes . . ." (Belk, 1974, p. 157). In the case of brand confusion, this definition must be adapted to recognize that "stimulus attributes" include stimuli associated with both the original and imitator brands. Situational variables have been shown to have broad effects on consumer behavior (Kakkar & Lutz, 1981). By and large, the situational environment is not under control of the maker of the brand. There are exceptions to this statement, such as Kraft controlling the contents of most refrigerated display cases in supermarkets, or car manufacturers having partial control of the physical environment in dealerships.

Unfortunately, little is known about how situations affect behavior. It has been suggested that situations affect intervening variables, which in turn affect brand evaluations (Vincent & Zikmund, 1976), but very few studies have examined this question. In spite of the dearth of empirical support, it seems reasonable to assume that situations can affect brand perceptions, and therefore increase or decrease the occurrence of consumer brand confusion. The relationship of situational factors to consumer brand confusion is discussed below, and is organized around Belk's (1975) five-way classification of situation: physical environment, social environment, temporal environment, task definition, and antecedent states.

Physical surroundings include geographical location, sounds, aromas, lighting, weather, visible configurations of merchandise, or other material surrounding the stimuli. The physical environment is hypothesized to moderate the effects of cognitive style and information load (see Figure 1). The exact nature of this effect will depend on the circumstances of the situation. For example, brand confusion can be influenced by merchandise configuration, specifically, the distance between the original and imitator brands. If two brands are extremely similar and are displayed in close proximity, then brand confusion is more likely to occur. The two factors, similarity and proximity, may make the consumer perceive the two brands as being only one facing, and therefore the same brand (Boal, 1983). On the other hand, if the brands are only moderately similar, proximity may help the consumer notice the differences between the brands. Factors such as lighting, display, availability of demonstration models, and other conditions that affect the ability for close inspection will also influence consumer brand confusion. The less opportunity for inspection, the less likely the consumer is to notice differences between two similar brands.

Physical environment is especially important for field-dependent consumers, whose evaluations are more likely to be influenced by surrounding stimuli. A field-dependent person will be affected by

differences in the physical environment because the background environment provides information which is used by this person. The case of Sunlight detergent discussed above provides a good example of the interaction of field dependence and the physical environment (Reiling, 1982). Because the samples were delivered in the mail, consumers had not seen the brand grouped with similar products. Having the product grouped with other dishwashing liquids would have helped field-dependent consumers recognize the product was a detergent, not a food. (Note that the theory also expects field-independent people to have been much less affected by the package similarity).

The social environment includes the presence of others, their apparent role, and interpersonal interactions. It has been known for some time that the presence of others can affect perceptions (Asch, 1956). However, the exact nature of the effect can be quite complex. The social environment can have both a direct and indirect effect on inferential processing (see Figure 1). The presence of others implies a direct effect due to the operation of parallel models of brand confusion for each of the individuals present. That is, more than one individual is making inferences about brand stimuli. Each has his/her own individual and situational reactions. The confusion of reference groups or other sources of information may be communicated to the consumer. On the other hand, others present during evaluation may correct brand confusion, because they have additional brand experience, or simply notice something the purchaser did not see.

The presence of others can moderate the effects of other variables in the model. For example, large groups are notoriously more reflective about the selection of a restaurant than small groups or individuals. In addition, crowding, interruptions, or other forms of interpersonal distraction can hinder the implementation of specific cognitive styles or increase the likelihood of information overload.

Time of day, seasons, and factors such as time constraints comprise the temporal environment. The temporal environment is hypothesized to moderate the effects of cognitive style and information load (see Figure 1). Scammon (1977) has pointed out that information overload only occurs when there are constraints on processing time. For this reason, brand confusion is expected to increase to the extent that situational time constraints exist. Temporal environment also interacts with reflective-impulsive cognitive style, in that time constraints will limit a person's ability to implement a reflective style.

Task definition relates to the reason behind the purchase. Common examples of differences in task definition include purchasing for a gift rather than for personal use, or for leisure use rather than for use at work. Task definition can affect the likelihood of a consumer experiencing brand confusion by increasing or decreasing the perceived importance of a particular purchase. The greater the perceived importance of a purchase, the greater effort the consumer is likely to put into the

purchase evaluation process, and the less likely it is that confusion will occur. Therefore, task definition is viewed as moderating the effects of cognitive style and information load (see Figure 1).

Antecedent states include transitory conditions such as mood, illness, intoxication, or fatigue. All of these can affect perceptions and processing ability. As a result, they may indirectly affect inferential processing (see Figure 1). For example, a reflective sharpener who is ill is likely to be less reflective and less sharp than when she or he is healthy.

### **Interactions among Confusion Antecedents**

Numerous interactions may occur among the elements presented in Figure 1. It would be impossible to outline all the possible interactions in one paper, but we have outlined the more evident relationships. Inferential processing is posited to be directly affected by cognitive style, information load, and the social environment. Brand experience and situational factors indirectly affect the general quality of inferential processing by moderating the effects of the other variables in the model. The degree of stimuli similarity has both a direct and indirect effect on the likelihood of inferential errors. Brand similarity has a direct effect by influencing the probability of an individual detecting differences during inferential processing. If products are identical (perfect counterfeits), then by definition there are no detectable differences. Stimuli similarity will also indirectly affect the importance and possible impact of each component in the model. For example, if products are fairly dissimilar, leveling-sharpening and equivalence range may be less important determinants of brand confusion than antecedent states or temporal environment.

## **CONCLUSIONS AND IMPLICATIONS**

This article has defined consumer brand confusion, distinguished it from related terms, and developed a conceptual model of its antecedents. This groundwork must be followed by systematic empirical research to test and further develop the theory of consumer brand confusion. Research should begin with the development of appropriate measures. Empirical evidence can also help in the design of marketing strategy and establish guidelines for indicating when legal action is desirable or likely.

While there has been some preliminary work, there is no consensus on how to measure brand confusion. This lack of agreement is not surprising, considering the numerous definitions of brand confusion used in the past. Our framework should help direct future attempts to measure brand confusion by providing a clear definition of the construct and by alerting researchers to the necessity of controlling for different

sources of confusion. To illustrate this point, consider a means of assessing brand confusion described by Boal (1983) and used successfully in at least one infringement case. The original and imitator brand were displayed in close proximity in appropriate retail outlets. Consumers entering these stores were given a discount coupon for the original brand. Confusion was measured as the percent of coupon redeemers who attempted to use the coupon to purchase the imitator brand. Our model suggests this procedure is inadequate for several reasons. First, physical environment factors (e.g., poor lighting, "clutter") might artificially increase observed confusion rates over those attributable only to marketer-controlled or individual causes. Second, the measure does not take into account individual differences which might confound the findings. Last, if the product is new or innovative, consumers may have little brand experience and knowledge, resulting in confusion rates higher than those for established products. To provide a more accurate measure of confusion, Boal's procedure would need to control physical environment effects, take into account brand and product knowledge, and measure individual consumer characteristics.

Identifying factors that increase or decrease brand confusion will provide managers of both original and imitator brands with more solid information on which to base marketing strategy. Managers of original brands will be able to incorporate appropriate design elements into their brands, making imitation without actual infringement difficult. Managers using "me-too" strategies will also gain a better understanding of how closely they can imitate existing brands and yet stay within the law. Empirical research on confusion should ultimately make it possible to separate out and weight marketer actions contributing to confusion and specify guidelines for the use of such strategy elements.

In the past, managers have focused on stimuli similarity as the sole basis for claiming brand confusion, with perhaps the greatest number of infringement cases being based on similarity of two brand names (e.g., McDonald's defense of the "Mc" prefix: Amparano, 1987; Evans, 1987; "Judge's McPinion," 1988). There are several problems with this conceptualization. It must be recognized that brand confusion stems from an interaction of many situational, interpersonal, and brand-similarity characteristics, not just similarity of brand names. A reading of opinions in infringement cases suggests that many judges implicitly accept this. The lack of a comprehensive, accepted framework for performing such an evaluation, however, prevents managers from identifying additional bases for claiming infringement. Our conceptual framework implies it might be appropriate to adopt special standards for confusion with respect to particular groups of consumers. For example, the elderly are a major target market for certain complex products such as supplemental retirement health insurance plans. In general, this segment might have limited brand experience, impairing their ability to detect brand differences. In addition, the complicated

nature of the product can easily lead to information overload. These problems are further compounded by age effects. In such a target market, even significantly different brands may be confused with one another. A similar argument might apply for products and services which have children as their primary target market. As for defending against infringement, we need to explore base rates of confusion. We have remarkably little evidence on how much confusion is normal, yet it is this type of information that might suggest whether formal standards for brand confusion might be required beyond those implied by the Lanham Act.

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