Psychological Meaning of Products: Identification and Marketing Applications

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PERCEPTION AND CONSUMER BEHAVIOR

Tracing the development of research in consumer behavior over the last three decades, three general cycles become apparent. The motivation-based period exemplified by Dichter's seminal work in the 1950s gave way to the information processing era that, with modest growth in the late 1960s, literally boomed in its popularity toward the end of the late 1970s (e.g., Bettman, 1979). The 1980s have brought about an interest in what has been labeled the experiential perspective. From this viewpoint, consumption is seen as a subjective state of consciousness with a variety of symbolic meanings, hedonic responses, and esthetic criteria (Holbrook & Hirschman, 1982).

Symbolic consumption (Hirschman, 1981) and esthetic consumption (Holbrook, 1981) can be thought of as powerful manifestations of the experiential perspective on consumer behavior. The basic underlying notion of symbolic consumption is that, given the fact that products serve as symbols, they may also be evaluated, purchased, and consumed based upon their symbolic content (Zaltman & Wallendorf, 1979). In terms of esthetic consumption, the central notion is that consumers may attend to, perceive, and appreciate a product for itself, without

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regard to the utilitarian functions or benefits it may provide the consumer (Holbrook, 1981).

If one views this development of consumer research as a continuum ranging from information processing to esthetic consumption, the one issue that permeates each of the cycles is the consumer's perception of the product. Although this may seem an obvious observation, it points toward perception research studies as the logical next step in deriving and explaining the psychological meaning of products.

In addition, the entire scope of marketing activities can be shown to be affected by the role that perception has on consumer behavior. This is best argued by Markin (1974, p. 222) when he states that

> Consumer problems are perceived problems. The search for information is largely a perceptual process involving sophisticated cognitive activities. Explored alternatives involve perceptual activities as do the actual choice decision and relative postpurchase activities. All the marketing information disseminated through marketing firms and agencies reaches the consumer through his complex sensory stimulation. Sensory stimulation, as we have learned, carries information in the form of messages, and consumer perception is that activity whereby such information is extracted from the environment, interpreted, and organized on the basis of known perceptual principles and utilized in the interest of consumer goals or motives.

Given the above, and by switching the focus from consumer behavior paradigms to the development of perception research, the issue of how and why we ascribe meaning to stimuli we perceive (e.g., a product, a person, a situation) can be seen to be a necessary component of any perceptual experience.

PERCEPTUAL MEANING

The role of meaning within the perceptual process has been progressively recognized and highlighted. One of the earliest conceptualizations of perception can be found in Locke's (1690) proposed paradigm for the study of epistemology, the philosophy and science of knowledge. As McConville (1978) explains it, Locke's seminal idea was that knowledge entered the mind only by first passing through the person's senses. Once inside the mind, it was argued, these "sensations" were organized, compared, and compounded into "complex ideas" according to certain "operations of the mind." Therefore, Locke saw knowledge building as a two-stage process involving primary sensory experiences and secondary cognitive elaborations.

Locke's influence can be seen in the work of Wilhelm Wundt, considered the main architect of the school of perceptual research and theory known as Structuralism. Wundt (1896) postulated that a perceptual experience is composed of unitary sensations, which themselves are associated with the activity of individual sensory neurons. These sensations constituted the raw material from which complex ideas and images were developed. Nevertheless, perception clearly involves more than the sensory events that produce elementary raw sensations. Thus, Wundt postulated a second stage of perception where "meaning building" from these raw sensations took place. His theory proposed that the elementary sensations were synthesized to form complex aggregates or structures (thus the name Structuralism). Perceptual meaning was therefore defined as a derived phenomenon, elicited from a multiple-stage process, based on unmeaningful sensory data that require secondary sequential elaboration so that they can be meaningfully interpreted.

Contemporary perceptual psychology can be (for the most part) labeled Neostructuralism for, even though most researchers recognize the shortcomings of the old two-stage theory, few have challenged its underlying assumptions (McConville, 1978). An example of this would be the work of Forgus (1966). Forgus presents an information processing model of perception with four basic stages: input, sensory transduction, intervening brain activity, and output. Clearly, this conceptualization is basically a more sophisticated version of the structuralist two-stage model. Within Forgus' model, perceptual meaning appears at the end of the last stage (output) as a sort of "finishing touch" of the perceptual process.

However, there are exceptions in current perception research to the Neostructuralist approach and its two-stage process of perceptual experience and perceptual meaning. One such exception is the work of Gibson (1966), who attempts to overcome this separation of sensory experience and meaning. His approach holds that perceptual meaning is not deduced or inferred through nonperceptual secondary operations, but that perceptual meaning is directly caused by the external world of molar stimulus patterns (as opposed to the traditional conceptualization of a molecular type of sensory events).

Perhaps the most salient role of meaning within the perception process can be found in a new alternative to traditional psychological theory. This new paradigm is called Existential–Phenomenological psychology (Valle & King, 1978). Thorough explanations of existential–phenomenological psychology can be found elsewhere (e.g., Valle & King, 1978; Zaltman & Wallendorf, 1979). For the purposes of reference, one can describe it as the psychological discipline that seeks to explicate the essence, structure, or form of both human experience and human behavior as revealed through essentially descriptive techniques (Valle & King, 1978).

One of the major issues of this paradigm is that individuals are not viewed as objects in nature. There is what is called a total, indissoluble unit or interrelationship between the individual and his environment in which the individual and environment are said to *coconstitute* one another. This notion of coconstitutionality is directly related to our interest in perceptual meaning. According to the existential–phenomenological psychological viewpoint, "it is via the world that the very *meaning* of the person's existence emerges both for himself and for others.

The converse is equally true" (Valle & King, 1978, p. 8, emphasis added). Thus, phenomenology takes meaning as the starting point or "sine qua non" of the perceptual experience.

MEANING AND ITS CATEGORIZATIONS

Borrowing from Peter and Olson (1983) we can find a starting point for explaining meaning in the works of Einstein (1936/1956, p. 60), where he argued that

> Out of the multitude of our sense experiences, we take mentally and arbitrarily, certain repeatedly occurring complexes of sense impressions . . . and we attribute to them a meaning—the meaning of the bodily object. Considered logically this concept is not identical to the totality of sense impressions referred to, but it is an arbitrary creation of the human (or animal) mind . . . We attribute to this concept of the bodily object a significance, which is to a high degree independent of the sense impression which originally gives rise to it. This is what we mean when we attribute to the bodily object "a real existence."

Researchers in different fields—for example, Szalay and Deese (1978) in sociology and Hirschman (1981) in consumer behavior—advocate classifying meaning into three types: lexical meaning, philosophical meaning, and psychological meaning. Lexical meaning addresses the relation between words and referents, in which the general base for its determination is convention, or in other words, a collective, generally accepted code of labeling (Bloomfield, 1933). Philosophical meaning focuses on the concept-referent relationship, in such a way that meaning becomes synonymous with rational knowledge (Katz, 1972). Psychological meaning (PM) is said to characterize those "things" that are most salient in the way an individual reacts to a given perceptual stimulus, as well as describing the direction and affectivity of these "things" or components (Szalay & Deese, 1978).

Our interests lie with psychological meaning, specifically with the psychological meaning of products. The obvious reason is that clearly, the nature of buying behavior is not fully conventional or rational. If it were, concepts such as market segmentation and impulse-buying would not exist.

Given the nature of these conceptualizations and the established knowledge of the complexity of determinants of buyer behavior, the psychological meaning of products appears as the appropriate interpretation of meaning to be researched in a marketing context. Furthermore, the fact that the conceptualizations of contemporary consumer paradigms (e.g., experiential, esthetic, symbolic) are suffused with elements such as symbolic content, symbolic meaning, feelings of fun and elation, and hedonic responses suggests that the nature of this process of how consumers derive and ascribe meaning to product stimuli that are being perceived ought to be investigated. If the perceptual process of product stimuli permeates these paradigms and the role of meaning was shown to be a core component of such process, it appears logically consistent to extend our line of reasoning one step further and investigate the PM of product stimuli.

PSYCHOLOGICAL MEANING

This work adapts Szalay and Deese's (1978, p. 2) definition of psychological meaning as "a person's subjective perception and affective reactions" to stimuli, arguing that, as such, "PM characterizes those things that are most salient in an individual's reaction while describing the degree and direction of its affectivity." As a comparison, lexical meaning describes the dyadic relationships between words and referents, whereas philosophical meaning describes the abstract characteristics of the referent and its relation to other referents.

This description of PM is not incompatible with Einstein's explanation; it is in fact quite complementary. The subjective perception and affective reaction that Szalay and Deese refer to is, indeed, that arbitrary creation of the human mind that Einstein describes. Einstein's assertion as to the degree of possible independence of PM with the sense impression that originally gave rise to it is not incompatible with the notion of a subjective perception being influenced, changed, and/or distorted by affectivity.

The major underlying problem in identifying and describing the composition or structure of PM is that its study has been chiefly empirical, and, according to Szalay and Deese (1978), what little theory there is arises from what they call a kind of neobehaviorism exemplified by the work of Osgood (1952).

Osgood's basic conceptualization of PM was "that process or state in the behavior of a sign using organism which is assumed to be necessary consequence of reception of sign-stimuli and a necessary antecedent for the production of sign responses" (Osgood, Succi & Tannenbaum, 1957). Osgood's work presents the notion of a cognitive state (PM) in the role of a representational and mediating process. This idea of PM as a response mediation event provides the basis of Osgood's (1952) semantic differential scales and is said to be derived from the work of Hull (1930). A major contribution that Osgood's work provides in explaining PM is his idea of meaning being a bundle of components.

The conceptualization of PM as a "bundle of components" allows us to visualize these components as the basic structural elements of the construct. These components of PM may represent a person's understanding and evaluation of the concept/stimulus; his direct and/or his vicarious experiences, images, feelings, and associated behavioral responses that have been accumulated over time. As an illustration, the PM of the stimulus "car" may consist of components such as "cost," "style," "performance," "fun," and "prestige." Furthermore, in the same way that "car,"—a generic product category—can be used as a stimulus from where components of PM can be derived, so could a marketer use a given make of car or a specific brand of whatever product consumers are interested in. Should they want to go one step further and analyze the PM of specific attributes of their brand(s), the procedure and managerial implications explained below also apply.

The question then becomes, how can this line of reasoning, and specifically this PM construct, be applied within a marketing perspective? The following sections present a general framework for the conceptualization of the PM of product stimuli, a suggested measurement technique to identify the construct, and three areas of managerial applications in which the use of PM is proposed to be of value.

DEVELOPMENT OF PM OF PRODUCTS

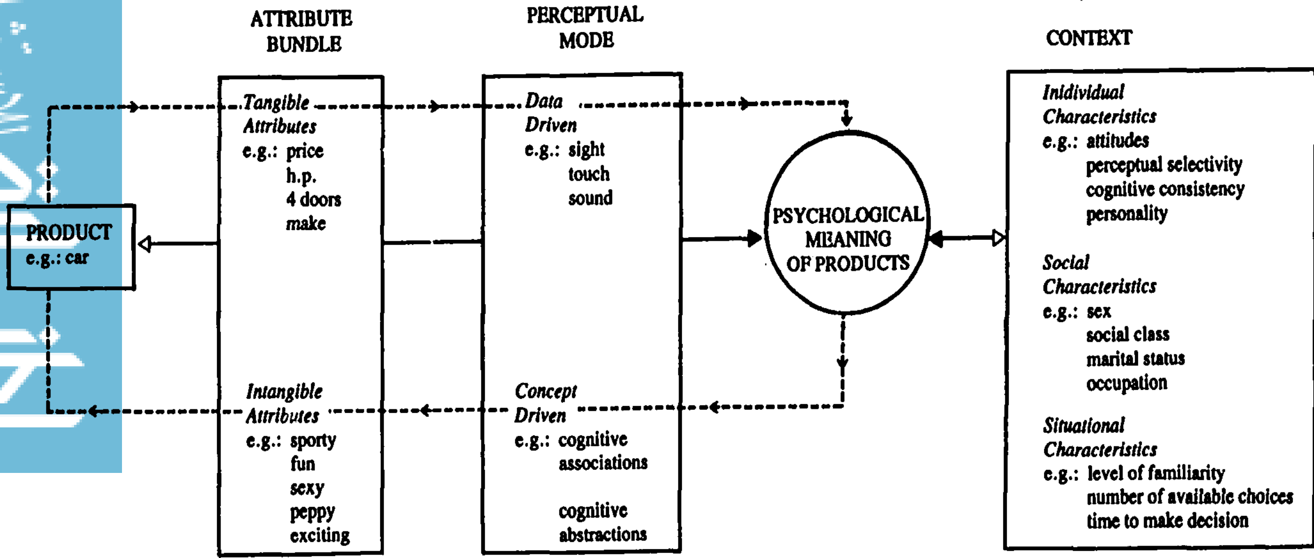
The development of the PM of products, can be conceptualized as a function of (1) the product's attribute bundle, (2) the consumer's dominant perceptual mode, and (3) the context in which the perceptual process takes place. This framework, as documented by Friedmann and Jugenheimer (1985) and Friedmann and Lessig (in press), is illustrated in Figure 1.

The PM of products is a result of the tangible attributes gathered by the consumer's five senses in a data-driven perceptual mode and the intangible attributes ascribed onto the product that are the result of cognitive associations and abstractions in a concept-driven perceptual mode. At the same time the context within which the perceptual process is taking place affects the consumer's psychological meaning of a given product stimulus, through the interaction of the individual, social, and situational characteristics of the consumer.

The components of PM have three important characteristics: salience, commonality, and degree of tangibility. Salience refers to the relative importance that each of the components of PM may have with respect to the rest. In our automobile example, that would address how strong the "fun" component is, for example, with respect to "cost," "style," "performance," and "prestige." Commonality refers to the degree to which the particular components of PM are shared by a given group. In our example, this would address the relative proportion of individuals, in whichever market segment we may be focusing upon, that share the belief that "fun" is indeed a component of the PM of "car." Degree of tangibility refers to the degree of congruence between the components of PM and the objective verifiable attributes of the product stimulus being considered.

The notion of a product being a bundle of attributes (tangible and intangible) is in accordance with traditional marketing thought. As depicted in Figure 1, the objective, verifiable attributes of the product are labeled tangible attributes. Intangible attributes may not be objectively verified because, being the result of cognitive abstractions and associations, they are subjective in nature. For example, the component "fun" is clearly a highly intangible one. It is nevertheless an in-

FIGURE 1
Derivation of Psychological Meaning of Products



tegral component in our illustration, which in a manner compatible with the way we explained PM to come about (Figure 1), encompasses both tangible (i.e., cost, performance, and style) and intangible (i.e., fun and prestige) components.

MEASUREMENT OF PM

For managerial reasons, the interest in PM usually relates to a particular market segment. Therefore, the need is to identify the shared meaning of a particular product, brand, or attribute.

One-word associations elicited within a 70-second time limit is the appropriate instrument to measure PM (Friedmann & Jugenheimer, 1985; Szalay & Deese, 1978). Respondents are asked to provide whatever (e.g., issues, features, or ideas) comes to mind when they think about a cue stimulus such as car, make of car, or attribute of a car.

These associations should be continuous, free, and stimulus bound. Continuous means that respondents provide as many one-word associations as desired within the allowed time. Free means that subjects are asked to provide whatever idea, issue, or features comes to mind. Some of the earlier uses of associations in consumer research have required supportive, positive (something liked), or counter-argument types of associations. In this PM procedure these constraints are not required. Stimulus-bound associations are such that respondents are "forced" to consider the original stimulus provided before every new association they provide. This can be simply done by making the stimulus cue as obtrusive as possible as shown in Figure 2. This is done to prevent chain-format associations, in which the previous association the individual provides becomes the dominating stimulus cue for the next one word. For instance, if the original stimulus cue is brand Volkswagen, and the second association provided happens to be "mother," then "mother" may trigger or elicit "father," which could elicit "death," which clearly has very little to do with the purpose at hand. Although this chain-format is the preferred style for the use of associations in other research (e.g., a possible tracing of cognitive schemas) it appears inappropriate for the purpose of tapping into the PM of a product/brand stimulus.

Once the associations for a given sample are rank-ordered in terms of frequency (number of times the same word was provided by a given sample group), two procedures take place. First, idiosyncratic associations (those provided by just one individual in the sample) are eliminated, for we are interested in the shared meaning a given stimulus has for a particular group of respondents. Second, the data are reduced through semantic clustering. For instance, given our car example, associations such as "cost," "price," "money," "expensive," "maintenance," and "payments" could all be semantically factored by at least two expert judges into a "cost" cluster. These clusters rep nt the components of PM we have been referring to. The reliability of the sema .tic clustering in an associative data set can be assessed with a variety of measures, for example Cohen's kappa, to reduce researcher bias and effect.

The merits of associations in capturing the essence of perceptual thoughts has been thoroughly documented in psychology (Cramer, 1968; Creelman, 1966; Deese, 1965). The use of more traditional methods of measuring perceptual processes such as Likert scales, semantic differentials, perceptual mapping, and conjoint analysis all require the researcher to provide a priori the attributes or criteria upon which the product is to be evaluated as shown in Table 1. Certainly, it can be argued that those criteria or dimensions can be derived through widely accepted techniques, such as focus group interviews or by factor-analyzing initial data sets, and thus are indeed valid dimensions. However, this PM procedure is less cumbersome in that the original set of associations directly provides the components desired. This PM methodology is also thought to show less experimenter bias than traditional tools for measuring perception variables because at no point in time is a respondent provided with the evaluative dimensions of a product, which basically are what we set out to find out in the first place.

Lastly, because one word associations are not encumbered by the constraints of organized language (e.g., self-censoring, rationalization, and selectivity), they have been proposed (Szalay & Deese, 1978) as extremely strong and uncluttered representations of thoughts. As such, the PM procedure represents a closer ap-

FIGURE 2
Data Collection Survey Form Using Stimulus-bound Associations

Please write down as many one-word descriptions of whatever comes to your mind (e.g. ideas, features, issues) when you think about a *car*. It is important you do *not* write the same word more than once.

car____________________ car____________________

car____________________ car____________________

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car____________________ car____________________ proximation to the "real" components of meaning that a consumer derives when perceiving a product than do other more traditional and commonly used measurement tools.

MANAGERIAL APPLICATIONS

Although several scholarly research questions can be derived from the framework of PM shown in Figure 1 (Friedmann & Lessig, in press), the purpose of this paper is to highlight the managerial areas of application that may be derived from considering the PM of products. The concept of PM was theoretically derived (from consumer behavior research, to perception research, to research in meaning), and a general measurement technique was presented. The question then becomes, how can marketers use this notion of PM? What areas of application is this concept appropriate for, so that its utilization becomes a managerial tool of value?

Three general areas are offered as examples of the domain of managerial applications to which PM can contribute: brand/product management, international marketing, and advertising.

BRAND/PRODUCT MANAGEMENT

The central issue of this area of application is the futher insight a manager can gain into the market(s) through an understanding of the nature of the meaning consumers derive from, and ascribe to, the product. A mere awareness of how the meaning process comes about is not enough.

What is indeed of value is the qualitative content that the manager can obtain through the outcome of consumers giving meaning to a product stimulus. The measurement procedure suggested above accomplishes this task, for the nature and qualitative content of the product's PM are directly identifiable through the components of PM discussed above. Illustrating this through our original example

TABLE 1
Issues Present In Traditional Methodological Tools

Method	Issue
Likert Scales	Attributes and categories need to be defined
Semantic Differentials	Categories and scale anchors need to be provided
Perceptual Mapping	
Discriminant Analysis	Attribute rating scales need to be provided
Multidimensional Scaling	Similarity/dissimilarity scales need to be provided
Factor Analysis Maps	Attributes and scales need to be defined
Correspondence Analysis	Attributes need to be defined
Conjoint Analysis	Dimensions need to be selected

of the PM of "car," the brand manager obtains five major components (i.e., cost, style, performance, fun, and prestige) that provide five different qualitative perceptual characteristics associated with the product. Any or all of these components may be incorporated into the marketing mix management in a variety of combinations. Examples with respect to market segmentation, product positioning, and product differentiation may serve to more specifically explain the contributions of PM to product/brand management.

SEGMENTATION

Through the derivation of the components of PM that a product stimulus elicits for a particular group for which the marketer may have an a priori interest, a segmentation strategy can be directly determined based on the relative salience of those components. The component's salience within the overall structure of PM across groups allows one to identify the nature, as well as to directly label significantly different market segments. For the "car" example, one could derive market segments based on such components of PM as "style," "cost," or "performance," so that the first market segment could be explained to be those individuals mainly concerned and interested in elements related to a car's style; the cost segment would be those consumers who would be mainly interested in issues such as price, cost of repairs, fuel consumptions, and so forth.

The market segments obtained through this PM procedure comply with the fundamental notion behind market segmentation in that each market segment is homogeneous from within and heterogeneous from without. That is, all consumers in the first segment of our example exhibit "style" as the most salient component of PM, all consumers in the second segment exhibit "cost" as the main component of PM, and so forth. The PM of a product/brand may be measured for and from as many different groups as the marketer may be interested in. For each of these groups the components of PM and their relative salience become readily observable, thus allowing for the conceptualization of segments just explained.

PRODUCT POSITIONING

Closely related to the issue of segmentation, the components of PM can be used for product or brand positioning. If we continue with our car example, the PM derived for our make, as well as the competing makes, allows for the identification of those commonly shared, salient components. These same components then are logical elements around which the marketer can anchor a positioning strategy for the product. If the intent were to further strengthen the positioning of the car, the components with the highest salience could serve as the positioning anchors. If the intent were to reposition the product being investigated, the marketer manager could know (1) which elements of the product's PM should not be stressed and (2) that by examining the PM of the makes one may wish to compete against, the competing make's most salient component(s) of PM can be selected for a head-on positioning, avoided for a differentiated positioning, or used as a secondary positioning element should that be the strategic option desired.

PRODUCT DIFFERENTIATION

As a logical corollary of product positioning, the components of PM can allow the marketer to empirically determine issues, product attributes, or ideas associated with the product or brand along which a differentiation strategy would be feasible. This reasoning follows from the fact that the components identified are shared by members of a market segment. Using the procedure proposed above, whichever component(s) of PM the marketer chooses to focus on for a differentiation strategy can be found in the consumer's evaluation criteria of the product or brand.

The brand/product manager can research the PM associated with the brand as well as major competitors, so if, for example, two other competitors are being addressed, the PM methodology provides the practitioner with three sets of rank-ordered components. Comparing and contrasting similarities in the structural components of PM associated with all three brands/products allows for a differentiation strategy based on ideas, features, and issues the manager will know are relevant to the target group of consumers.

In these three illustrations of product/brand management applications of PM, the reader should note a major benefit of the proposed method suggested for tapping into the PM associated with a brand or product. Not only is the qualitative nature of the components of value as shown in the segmentation illustration, but the issue of relative component salience (through the rank ordering of the component's frequency, which is really nothing more than the aggregate frequency of all the individual associations clustered into a component) also allows for positioning and differentiation uses. It is important to emphasize that both issues (components and salience) are obtained directly from the original data set of one-word associations with what is perceived as a minimum of a priori researcher intervention or bias.

INTERNATIONAL MARKETING

A second general area of contributions of PM can be found in strategic planning processes common to international marketing. The discussion of the pros and cons of whether international marketers ought to standardize or adapt such elements as their product strategy, their advertising, or their pricing schemes has been prevalent for at least the last 15 years.

It is argued that cross-national research on the PM of the product stimulus in question could prove these discussions a moot point. If the nature, salience, and degree of commonality of the components of PM derived in two different markets proves to be significantly different, all other arguments are unnecessary. In the same vein, significant similarities in the structural composition of PM given cross-cultural data can add great weight to the argument of strategy standardization.

For example, if one considers the multinational introduction of new products with respect to only two of the several variables under the marketers' control (product and promotion), several strategic combinations can be developed. One may introduce the same product with the same promotion, the same product with an adapted promotion, an adapted product with the same promotion, a hybrid combination of both variables, or in the extreme case, an entirely new product with an entirely new promotion. In reality, the situation becomes even more complex when one realizes that managerial decision making is confounded by other crucial variables such as pricing, distribution, and manufacturing decisions. It is suggested that the use of PM may help eliminate several of the above combinations, thus reducing the complexity of decision making through the prescriptive strategic action that may be derived from the components of PM obtained in cross-national studies.

ADVERTISING STRATEGY

Owing to the crucial role of advertising in positioning and differentiation strategies, it is believed that, whether we perceive it as a support function or a strategic element of its own, the utilization of PM in advertising might prove to be a valuable construct. Given the proposed ease with which PM is said to identify all different types of components of PM as compared with other measurement devices, one may strongly speculate that the use of PM in a test of a campaign's creative angle (as illustrated) could prove to be a valuable input in managerial decision making.

Current research shows that PM can be utilized within a copytesting format (Friedmann & Jugenheimer, 1985). Certainly, a major goal of copytesting techniques is to observe the congruence between the intended goal of a promotional effort and the effect a given advertising stimulus has for a particular target audience. It is argued that the nature of the components of PM allows one to observe the degree or absence of such congruence. For example, because PM may be measured using both verbal and visual stimuli, the level of appropriateness of a print advertisement could be measured in terms of the illustration (e.g., picture of product, setting where product is shown, people shown consuming the product) and the text that goes with it (e.g., heading and copy). This suggests that, although descriptive in nature, prescriptive action (e.g., changing the slogan to better match the PM of the product's picture, changing the setting, changing the product's illustration) can be derived through the components of PM obtained. Furthermore, the entire finished ad (both text and picture) can then be compared with whichever promotional strategy or goal it was designed to serve. Here, the qualitative nature of the components of PM can be contrasted directly with the strategic goals. Even though this type of judgement would be a qualitative one, interjudge agreement and reliability measures can be obtained to account for researcher bias or arbitrarily determined results.

SUMMARY

The purpose of this paper is to argue that the PM of products or brands deserves attention. As such, PM was shown to permeate the perceptual process that is present in consumer behavior paradigms. The nature of PM, its derivation, and a measurement technique were also discussed to better illustrate the practical managerial areas of the application of this concept. Arguments were provided to show how the concept of PM may be used in brand/product, international, and advertising management.

Although the methodology for measuring PM was shown as a complete procedure given the interest at hand, pertinent for consumer behavior research, and said to have advantages in its ease of application over more traditional measurement tools, it is suggested that practitioners may also regard it as a complementary technique to the latter. The components arrived at through the PM method, could be used as the criteria in such techniques as perceptual mapping, likert scales, or conjoint analysis, should they be applicable.

Although some empirical research in the area of PM is being conducted, it is hoped that both academicians and practitioners will more aggressively continue to further explore the psychological meaning of products, its role, effects, and area of applications in consumer marketing.

REFERENCES

Bettman, J. (1979). *An information processing theory of consumer choice*. Reading, MA: Addison-Wesley.

Bloomfield, L. (1933). *Language*. New York, NY: H. Holt and Co.

Cramer, P. (1968). *Word Associations*. New York, NY: Academic Press.

Creelman, M. B. (1966). *The Experimental Investigation of Meaning: A Review of the Literature*. New York, NY: Springer.

Deese, J. (1965). *The Structure of Associations in Language and Thought*. Baltimore, MD: Johns Hopkins Press.

Dember, N. W. (1960). *The Psychology of Perception*. New York, NY: HRW Inc.

Dichter, E. (1964). *Handbook of Consumer Motivation*. New York, NY: McGraw-Hill.

Einstein, A. (1936). Physics and reality. *Journal of Franklin Institute*. Reprinted in Einstein, A. (1956). *Out of my later years*. New York, NY: Citadel.

Forgus, R. (1966). *Perception*. New York, NY: McGraw-Hill.

Friedmann, R., and Jugenheiner, D. (1985). Copytesting through psychological meaning. In Nancy Stephens (Ed.), *Proceedings of the 1985 Conference of the American Academy of Advertising*.

Friedmann, R., and Lessig, V. P. (in press). A framework of psychological meaning of products. In *Advances in consumer research: Vol. XIII*. Chicago, IL: Association for Consumer Research.
Gibson, N. J. (1966). *The Senses Considered as Perceptual Systems*. Boston, MA: Houghton, Mifflin.
Hirschman, E. (1979). Attributes of attributes and layers of meaning. In J. Olson (Ed.), *Advances in consumer research* (pp. 7–12). Chicago, IL: Association for Consumer Research.
Hirschman, E. (1981). Comprehending symbolic consumption. In E. Hirschman and M. Holbrook (Eds.), *Symbolic consumer behavior*. New York, NY.
Holbrook, M. (1981). Introduction: The esthetic imperative in consumer reserach. In E. Hirschman and M. Holbrook (Eds.), *Symbolic consumer behavior*. New York, NY.
Holbrook, M., and Hirschman, E. (1982). The experimental aspects of consumption: Consumer fantasies, feelings and fun. *Journal of Consumer Research, 9*, 132–140.
Hull, C. L. (1930). Knowledge and purpose as habit mechanisms. *Psychological Review, 37*.
Katz, J. J. (1972). *Semantic theory*. New York, NY: Harper and Row.
Locke, J. (1690). *An essay concerning human understanding*. Menston: Scolar Press, 1970.
Markin, R. (1974). *Consumer behavior: A cognitive orientation*. New York, NY: Macmillan.
McConville, M. (1978). The phenomenological approach to perception. In R. Valle and M. King (Eds.), *Existential-phenomenological alternatives for psychology*. New York, NY: Oxford University Press.
Olson, J. (1983). Meaning in consumer research. Presentation at the 1983 AMA Doctoral Consortium, Ann Arbor, Michigan.
Osgood, C. E. (1952). The nature and measurement of meaning. *Psychology Bulletin, 49*, 197–237.
Osgood, C. E., Succi, G. and Tannenbaum, P. (1957). *The Measurement of Meaning*. Urbana, IL: University of Illinois Press.
Peter, J. P., and Olson, J. (1983). Is science marketing? *Journal of Marketing, 47*.
Szalay, L., and Deese, J. (1978). *Subjective meaning and culture: An assessment through word associations*. Hillsdale, NJ: L.E.A. Associates.
Valle, R., and King, M. (1978). *Existential-phenomenological alternatives for psychology*. New York: Oxford University Press.
Wundt, W. (1896). *Lectures on human and animal psychology*. Translated from the second German edition by J. E. Creighton and E. B. Titchever. London, UK: S. Sonnenschein, 1901.
Zaltman, G., and Wallendorf, M. (1979). *Consumer behavior: Basic findings and management implications*. New York, NY: John Wiley & Sons.

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