

# A dual-process model of the influence of human values on consumer choice

Michael W. Allen<sup>1</sup>

## Abstract

A dual-process model for how consumer values influence product choice is proposed. Recent theoretical developments regarding what products mean to consumers, how they are judged, and what motives they satisfy suggest two processes. First, when consumers evaluate a product's utilitarian meaning, use a piecemeal judgment, and the product satisfies an instrumental motivation, the human values they endorse determine which tangible attributes are important; they compare the product's actual tangible attributes to their preferred tangible attributes, and choose the product that comes closest. In contrast, when consumers evaluate a product's symbolic meaning, use an affective judgment, and the product satisfies an expressive motivation, their values may influence product choice directly. In particular, individuals compare the cultural values symbolized by the product to the human values they endorse, choosing the product with the most congruency. Current and future directions of the dual-process model are discussed.

**Key-words:** consumer choice; humans values; dual process model.

<sup>1</sup> Doutor, University of Sydney, Australia. Discipline of Marketing, School of Business, Economics and Business Building (m.allen@econ.usyd.edu.au).

## Um processo dualístico da influência dos valores humanos na escolha do consumidor

### Resumo

Um processo dualístico sobre como os valores dos consumidores influenciam a sua escolha por produtos é proposto. Desenvolvimentos teóricos recentes sobre o que os produtos significam para os consumidores, como eles são julgados e o quais motivos eles satisfazem sugerem a existência de dois processos. Primeiro, quando consumidores avaliam o significado utilitário do produto, usam um julgamento passo-a-passo e o produto satisfaz uma motivação instrumental, os valores humanos endossados por esses consumidores determinam quais atributos tangíveis são importantes; eles comparam os atributos tangíveis do produto com aqueles atributos tangíveis preferidos por eles e escolhem o produto que mais se aproxima. Em contraste, quando os consumidores avaliam o significado simbólico do produto, usam um julgamento afetivo e o produto satisfaz uma motivação expressiva, seus valores influenciam a escolha do produto diretamente. Em particular, os indivíduos comparam os valores culturais simbolizados pelo produto aos valores humanos endossados por eles, escolhendo o produto que tem maior congruência. Direções atuais e futuras do modelo de processo dualístico são discutidas.

**Palavras-chave:** escolha do consumidor; valores humanos; modelo de processo dualístico.

## 1. Introduction

How do consumers choose one brand over another? One line of thought is that they compare the attributes of competing brands that are important to them (Bagozzi, 1988). For instance, a consumer who considers anti-lock brakes an important attribute in a car may compare the competing car models and choose the one with the best anti-lock brake system. However, this explanation raises another question: How do individuals decide what product attributes are important to them? It might stem from one's prior experience with the attribute. For example, a person who avoided a costly accident by driving a car with anti-lock brakes may then consider anti-lock brakes an important car attribute in future brand decisions.

However, due to product innovation and the increasing number of brands in the marketplace, consumers often buy products with attributes they have not yet experienced. How can someone assign importance to attributes they have not previously experienced? A likely explanation is that importance stems from deeply held beliefs and human values. In Rokeach's (1979) seminal work, *Understanding Human Values*, he defines a human value as an "enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence" (p. 5). For instance, some individuals may value freedom, accomplishment, excitement, or beauty. Human values, the most abstract social cognition (Kahle, 1983), foster adaptation to the psychological and social environments. Schwartz (1994) defined values as "desirable trans-situational goals, varying in importance, that serve as guiding principles in the life of a person or other social entity" (p. 21). Human values promote the interests of individuals and social entities (e.g., institutions, groups) by motivating action or serving as a standard by which individuals and groups judge themselves and others.

## The traditional model of how human values influence consumer choice

The question of how human values influence product choice is important theoretically, and has stimulated a great deal of research (Burgess, 1992; Pitts & Woodside, 1984). The traditional view suggests that values do not sway product choice directly, but instead influence the importance of tangible attributes, which then guide product choice (Gutman, 1982; Lindberg, Garling, & Montgomery, 1989; Scott & Lamont, 1973). See Figure 1.

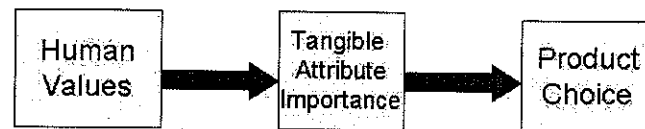


Figure 1. The traditional model of how human values influence product choice.

For instance, overall product preferences may stem from the values that the product's attributes reinforce, and how important a consumer considers those values (Lindberg, Garling, & Montgomery, 1989). Under this scenario, an individual's preference for any given product could be thought of as the sum total of product attributes, their perceived importance, the degree to which each satisfies a specific value, and the importance of that value. This concept can be formulated as follows: Attribute 1 (anti-lock brakes) x Belief that this will fulfill value 1 (family security) x How high that value is held + Attribute 2 (number of doors) x Belief that this will fulfill value 1 x How high that value is held, and so forth through all possible combinations of attributes and values.

Like other versions of the traditional model (e.g., Gutman, 1982; Scott & Lamont, 1973), this view is based on expectancy-value theory (Fishbein, 1967; Rosenberg, 1956). Consumers are assumed to calculate the utility or preference for each brand using a mathematical formula, then chose the brand with the highest score. At the heart of this theory is the assumption that consumers assess products at the level of the individual attribute, each of

which independently contributes to the overall assessment. However, while this may be the case for tangible product attributes, it does not seem to apply to intangible attributes, such as symbolism and aesthetics (Holbrook & Moore, 1981; Keaveney & Hunt, 1992; McCracken, 1986). Accordingly, because the traditional model of how human values influence product choice is based on expectancy-value theory, it must be restricted to tangible product attributes (see Allen, 2000).

Proponents of the traditional model (e.g., Gutman, 1982; Lindberg, Garling & Montgomery, 1989; Scott & Lamont, 1973) contend that values influence product choice by first dictating the (tangible) attributes that are important to the individual, which in turn guide product evaluation and selection. That is, human values mediate via (tangible) attribute importance. However, most tests of the traditional model have been qualitative, in-depth laddering interviews (e.g., Reynolds & Gutman, 1986) or quantitative tests that assumed that values only mediate via (tangible) attribute importance (e.g., Lindberg, Garling & Montgomery, 1989).

Thus, to quantitatively assess whether human values always mediate via (tangible) attribute importance, Allen (2000) surveyed a population from New Zealand for their values; tangible attribute importance for assessing automobiles (e.g., dependable, compact), international vacation destinations (e.g., great beaches, few tourists), and red and white meat (e.g., inexpensive, high in protein); and their purchasing/ownership of these goods and services. Eight product classes were derived, and two separate regression analyses were performed on each class. In the first regression, values were the predictor variables and product purchase was the dependent variable. The second analysis also had product purchase as the dependent variable but the predictors were entered in two blocks: the first block was tangible attribute importance and the second was human values. This procedure enables one to determine if human values exclusively mediate via tangible attribute importance.

The regressions revealed that, consistent with the traditional model, human values significantly predicted product choice via tangible attribute importance. However, values also had a significant direct influence on product choice, which is

inconsistent with the model. For instance, values significantly influenced ownership of a luxury car via the tangible attribute importance of cars ( $R = .12$ ), but also had a significant direct affect on luxury car ownership ( $R = .09$ ). An elaboration of this finding can be seen in Allen (2001), which employed a similar regression procedure and found values directly predicted individuals' liking of the Toyota Corolla ( $R = .05$ ) and also predicted car liking via tangible attribute importance ( $R = .19$ ). People who rejected hedonism wanted a safe and reliable car and hence liked the Toyota Corolla. The value of self-direction was directly linked to Toyota Corolla preference; the more a person valued self-direction the less they liked the car.

As a side note, perhaps a lingering concern to most readers is the low predictive power of human values on product purchase reported above (Multiple Rs between .05 and .19). Some might argue that the weak (but significant) influence of human values on product purchases warrants a reconsideration of their merit in studying. However, a more tempered position is defensible given that attempting to predict actual product purchase and ownership made the analysis the most stringent test of the traditional model. A stronger role of human values may emerge when using product preference measures that are not as severely affected by external factors (e.g., family considerations, financial limitations, and so on) such as persuasiveness to varying advertising strategies or alternatively simple product attitude. Moreover, a well-known axiom of Fishbein and Ajzen (1974) is that general attitudes predict general behavior and specific attitudes predict specific behavior. To obtain a strong prediction, a preference measure should be specific in four ways: it should include the object of reference, the action the individual wants to do with the object, the time he or she wants to do it, and the context. Human values have none of those features. Consequently, attempting to trace the effects of general human values on specific consumer behaviors will be plagued by low predictive power, and thus the primary contribution of the study is to show a particular pattern of relationships more so than any absolute strength.

## A new model of how values influence consumer choice

Empirically, the traditional view is limited, because it maintains that human values only have an indirect influence on product choice, whereas Allen (2000) found that values had both an indirect and direct influence. Further, the traditional model assumes that consumers only make rational, attribute-specific judgments on the utility of products. While this is often true, consumers also make emotional, intuitive, and holistic judgments (Fiske & Pavelchak, 1986; Holbrook & Moore, 1981; Keaveney & Hunt, 1992; McCracken, 1986; Mittal, 1988; Zajonc, 1980). These "gut-level" assessments ought to be accounted for in any model of consumer decision-making processes.

Accordingly, a new model of value influence is warranted to explain why values may have both an indirect and direct influence on product choice. Given that the function of human values is to serve as a benchmark against which objects or ideas can be judged (Schwartz, 1994), the existence of two routes of value influence suggests that there are essentially two ways that consumers evaluate and choose products. Indeed, theoretical developments have revealed that there are two main categories in which product meaning is interpreted: utilitarian and symbolic (Dittmar, 1992; Richins, 1994). Further, there are two methods for judging objects: piecemeal and affective (Fiske & Pavelchak, 1986; Zajonc, 1980). Finally, there are two psychological functions or motivations that objects serve: instrumental and expressive (Herek, 1986; Prentice, 1987).

Thus, it is likely that a consumer's values will indirectly influence product choice when this person is examining a particular product meaning, judging the product using a certain method, and the product fulfills a particular motivation. In contrast, a consumer's values will directly influence product choice when this person is evaluating a different product meaning, judging the product in a different way, and the product satisfies a different motivation. Thus, reviewing the theoretical developments regarding product meaning, judgment, and motivation should enable the development of a new model of how human values influence product choice.

## Product meaning

Product meaning is the relationship among mind, object, and word (Ogden & Richards, 1923). Various ideas, ranging from behaviorist to semiotic theories, have been offered to explain the relationship (Osgood, Suci, & Tannenbaum, 1957; Saussure, 1974). For instance, a semiotic approach by Saussure (1974) re-presented signs as a combination of objects, images, and words that together comprised a "signifier" (the sign itself) and the "signified" (what it represents). In all of these approaches, product meaning can be subjective, suffused with affectivity, and either linguistic or non-linguistic. Following this logic, material possessions, including products, may in fact be signs that consumers interpret to give them meaning (Richins, 1994). Further, Richins (1994) outlines four major categories of product meaning: utilitarian, enjoyment, representation of interpersonal ties, and identity and self-expression. In contrast, several other researchers (Abelson, 1986; Abelson & Prentice, 1989; Dittmar, 1992; Hirschman, 1980; Kilbourne, 1991) have proposed a simple utilitarian-symbolic distinction based on empirical evidence. Abelson and Prentice (1987), for example, used multi-dimensional scaling to reduce respondents' lists of favorite possessions to a single dimension in which instrumental products (e.g., tools, automobiles) were opposed by those that symbolically express personal and social identity (e.g., family heirlooms, photos).

Utilitarian meaning stems from the underlying, essential function of a product (Dittmar, 1992; Richins, 1994), and how well it satisfies convenience, efficiency and economic exchange. It is based on one's experience with a good, and therefore tends to be an objective interpretation of the product's performance (Hirschman, 1980). For example, the utilitarian meaning of a lawnmower may be that it is used to cut grass; a motorcycle is for traveling between locations; and a calculator is for finding solutions to mathematical problems. That is, utilitarian meaning is inherent to a product, and is reflected by its tangible attributes, which reveal the product's quality, functionality, and utility as a means for controlling one's environment (Sheth, Newman, & Gross, 1991). For example, the tangible attributes from which

utilitarian meaning is derived from a lawnmower would include anything that affects how well it cuts grass, such as the horsepower of its motor and the durability of its construction.

Given that utilitarian meaning stems from a product's tangible attributes, it is likely that human values indirectly influence product choice when one is evaluating utility. That is, consumers may compare the product's actual tangible attributes to their preferred tangible attributes, which stem from human values. For instance, if having an exciting life is an important value to an individual, the person may want a fast car. Therefore, he or she compares the engines of the competing car models, and chooses the one with the most powerful engine. It follows that the traditional model of value influence (Gutman, 1982; Lindberg, Garling, & Montgomery, 1989; Scott & Lamont, 1973) only applies when consumers evaluate the utilitarian meaning of a product.

In contrast to utilitarian meaning, symbolic meaning, or image, include culturally shared and intangible attributes (Dittmar, 1992; Levy, 1959). Firth (1973) suggested that symbols are subjective, complex sets of abstract beliefs associated with an object or action and represented extrinsically to the physical object itself. Likewise, Gusfield and Michalowicz (1984) and Turner (1969) argued that symbols are characterized by being outside of the means-goal relationship, and emphasized that consumers may even be unaware of their use of symbols. A group of individuals have a tendency to make similar and consistent inferences about who may use a particular product (Belk, 1978), and list similar words and phrases when asked to think about a product (Szalay & Deese, 1978). This suggests that symbolic meaning is indeed culturally shared. However, some research has shown that symbolic meaning has a low consensus (Elliott, 1994; Hirschman, 1986), suggesting that although a consensus is required to create symbolic meaning, the meaning can be subsequently redefined by subgroups, making it diffuse. Elliott (1994), for example, found that particular clothes had a low consensus among the population as a whole, but high agreement among youth, whom he suggested "actively engage in symbolic work to challenge the assumptions of powerful ideologies and controlling institutions" (p. 14).

Symbols are products of cultures, and thus comprise cultural principles (norms, values) or social categories (McCracken, 1986). For example, an American flag may symbolize freedom (a principle) or conservative Americans (a social category). Csikszentmihalyi and Rochberg-Halton (1981) suggested that a common symbolic theme in automobiles and appliances in the 1950s and 1960s was the idea of mastering nature. Social category symbolism is produced when a product is conspicuously owned by a specific group, resulting in the product symbolizing both the group and its culturally constituted characteristics (Douglas & Isherwood, 1979; McCracken, 1988). Further, when advertisements repeatedly link a particular brand (say, Pepsi Max) and a cultural object (say, snowboarders) that already has shared symbolic meaning, consumers are classically conditioned to ascribe the cultural object's symbolic meaning to the product itself (McCracken, 1986).

Because symbolic meaning is based on cultural principles, including cultural values, it is likely that individuals evaluate symbolic meaning by comparing cultural values to their own personal values. For example, one might assess a symbol of a bald eagle, and by extension the eagle itself, by comparing the culturally propagated symbolic meaning (freedom) to his or her own value of freedom. If a person rejects freedom, he or she will then form a negative attitude toward the bald eagle. Similarly, if conservative Americans are culturally defined as high achievers, a consumer might evaluate a conservative American, and thus any products that symbolize conservative Americans, by considering his or her own value of achievement. Indeed, Cobb and Elder (1972), Firth (1973), Gusfield and Michalowicz (1984), and Sears, Huddy, and Schaffer (1986), studying various types of symbolism, have come to the same conclusion. Sears, Huddy, and Schaffer (1986) take this a step further, arguing that symbolic meaning may be interpreted in a stepwise fashion, according to different levels of values. For example, one's interpretation of the symbolic meaning of the white hood worn by members of the infamous Ku Klux Klan may initially be mediated by broader values relating to social category, such as race, and then reevaluated according to even more general values, such as equality. In this way, even

though the hood itself may be intended to represent an ideal held by KKK members, individuals assess and ascribe their own meaning to the hood, based on personal, and broad, human values.

It is likely that the cognitive process by which individuals evaluate the symbolic meaning of political and social objects is the same as that for evaluating a product's symbolic meaning. That is, human values may directly influence a consumer's preference for a product as its symbolic meaning/image is evaluated. If the product symbolizes a cultural value that the consumer personally supports, the congruency leads him or her to select the product, whereas incongruency results in product rejection.

### Judgment type

The type of product meaning (utilitarian or symbolic) that consumers consider likely affects whether their values have a direct or indirect influence on product choice, and may also shape how they judge the product and even the motivation the product satisfies.

As previously mentioned, utilitarian meaning stems from separate tangible attributes, and reflects one's desire to choose the product with the highest utility. Hence, when consumers evaluate utilitarian meaning, they would likely judge the product using what Fiske and Pavelchak (1986) termed "piecemeal judgment," or assessing a product in an attribute-by-attribute, logical, systematic, and comprehensive fashion. Each attribute is evaluated anew each time it is encountered, independently from all others, and its evaluation is additive to all other evaluations to form an overall preference or attitude. Piecemeal judgment requires effort, and does not rely on prior experience to make inferences about missing attributes. When the advantages of a product are mostly utilitarian in nature, "an intelligent decision maker might well focus on adding up the relative pros and cons so as to determine the bundle that offers the highest summative value," according to Holbrook and Moore (1981, p. 16). Moreover, advertisements that attempt to promote a good or service by

emphasizing product features, that is focus utilitarian meaning, tend to be judged analytically versus affectively (Chaudhuri & Buck, 1995).

All of these features of piecemeal judgment can be considered "reasoning style." However, this type of judgment can be delimited on other dimensions, such as memory representation and the latency and intensity of affect. Due to the carefulness and thoroughness of a piecemeal judgment, affect is probably delayed and of low intensity (on the order of evaluation). Evaluations lead to judgments of goodness (or badness) and likes (or dislikes), and are not as intense as emotional states and sensory experiences. In addition, a piecemeal judgment may comprise a verbal memory representation, which MacInnis and Price (1987) define as the combining of words and numbers in working memory to represent and solve problems. Supporting the idea that verbal memory representation may be a feature of a piecemeal judgment, Miller (1987) synthesized various individual differences in cognitive styles (predispositions) and suggested, *inter alia*, that a verbal memory representation was a feature of a superordinate style that he termed "analytic" but that was essentially piecemeal. Moreover, Holbrook and Moore (1981) suggested that a preference for verbal memory representation increases one's attention to isolated, atomistic features, and therefore should be associated with the independent (*i.e.*, piecemeal) evaluation of attributes.

On the other hand, symbolic meaning stems from intangible attributes, such as brand reputation, and reflects the product as a whole (versus its separate attributes). Therefore, intangible attributes tend to be assessed holistically and more quickly (Holbrook & Moore, 1981; Keaveney & Hunt, 1992; McCracken, 1986). McCracken (1988), for example, argued that the symbolic meaning of clothing is judged holistically, because the meaning of some outfits (*e.g.*, those of punk rockers, or businesspeople) gets lost if any part of the outfit is changed. That is, interpretation is limited to the form of the product when its meaning was initially defined via advertising or other means. Thus, unlike the linguistic models of meaning (and the expectancy-value model), the elements that comprise symbolic meaning are not interchangeable, and the creation of new meaning is limited. More accurately,

symbolic meaning is likely judged affectively. Indeed, Mittal (1988, 1994) found that the expressive aspects of products, such as their ability to provide a sensory experience (*e.g.*, a TV), attain certain mood states (*e.g.*, wine), or convey symbolic meaning, are judged affectively. Similarly, Chaudhuri and Buck (1995) found that advertisements that aim to arouse certain moods, and mainly involving symbols, are also affectively judged.

An affective judgment is category-based, but has strong emotional overtones (Mittal, 1988; Zajonc, 1980). That is, it involves a holistic judgment, as described above, based on the intangible attributes of the product as a whole, yet simultaneously involves some interaction with one's internal state of mind or condition (Zajonc, 1980). The object is compared to a mental prototype, and if the two match, the affect associated with the category prototype is ascribed to the object in question (Fiske & Pavelchak, 1986). Therefore, while the object cannot be judged and classified into a particular prototypic category without having a specific pattern or group of attributes, the affect of each distinct attribute does not play a role in the overall assessment. For these reasons, affective judgments tend to be more intense, and more quickly and confidently made than piecemeal judgments (Zajonc, 1980, 1984). Finally, an affective judgment may involve visual memory representation, which is the process by which sensory information, such as ideas, feelings, and objects, are represented in the working memory (MacInnis & Price, 1987).

In summary, consumers likely evaluate a product's utilitarian meaning via piecemeal judgment and symbolic meaning via affective judgment.

## Motivation

Any object may serve a variety of psychological functions or motivations (Herek, 1987; Katz, 1960; Smith, Bruner, & White, 1956). Katz (1960) outlined four such functions: instrumental (maximize reward and minimize cost of an object in the environment), knowledge (organize and give meaning to the chaotic world), ego-defense (protect oneself from acknowledging the most basic and difficult truths), and value-expressive (build self-esteem and identity by positively expressing self-concept and

human values).

In contrast, Herek (1986, 1987) included only two major categories of object function: evaluative and expressive. According to Herek, objects serving an evaluative psychological function derive their valence from the intrinsic properties of the object, because interacting with the object results in tangible and quantifiable rewards and punishments. These attitudes allow individuals to organize and structure their world in a purely self-interested way, with objects becoming the means for obtaining particular ends. Herek's evaluative function is similar to Katz's (1960) instrumental and knowledge functions. Herek's second broad category of psychological function is expressive in that the benefit is not so much derived from the object itself, but from expressing one's attitude about the object. The object is used as a symbol or vehicle for self-expression.

Given that Herek (1986, 1987) was able to categorize object motivation into a simple instrumental versus expressive dichotomy, it is likely that utilitarian and symbolic meanings serve instrumental and expressive motivations. Consumers who examine the utilitarian meaning of a product are likely seeking a product that can fulfill an instrumental motivation. Indeed, products may give consumers a sense of being in control of their lives and environment (Beggan, 1991; Csikszentmihalyi & Rochberg-Halton, 1981; Furby, 1978). The idea that an object or good may provide an instrumental psychological function may be rooted in the basic human desire for some level of control (Adler, 1929; Seligman, 1975). Beggan (1991) found that control deprivation of participants who generally felt in control of their environment (i.e., high internal locus of control) resulted in the increased importance of possessions that generally provide control. Participants with an external locus of control, under the same conditions, did not alter the importance of possessions.

Although it has been suggested that utilitarian meaning refers to the product's ability to control the environment (Dittmar, 1992; Richins, 1994), it has not been explicitly stated that when an individual considers the utilitarian meaning of a product, he or she is looking for a product that satisfies an instrumental motivation. The connection, however, is obvious: both an instrumental

psychological function and utilitarian meaning center on the use of a product, physical performance, control of the environment, and tangible attributes.

Consumers who are considering a product's symbolic meaning are looking to satisfy one of two motivations: to foster a knowledge of the social world, or to maintain, express, and enhance one's self-concept, social identity, and values (Belk, Bahn, & Mayer, 1982; Cooley, 1902; Dittmar, 1992; Johar & Sirgy, 1991; Levy, 1959; McCracken, 1986; Mead, 1934; Solomon, 1983; Verkuyten, 1995; Wicklund & Gollwitzer, 1982). For instance, Verkuyten (1995) argued that symbols, by virtue of representing human ideals and norms, allow one to experience abstract, complex, and immaterial concepts in a materialized form. For example, the American flag may allow one to experience its symbolic content, freedom. Wicklund and Gollwitzer's (1982) symbolic self-completion theory suggested that consumers use the symbolic meanings of products to compensate for low self-esteem caused by a lack of experience, expertise, or competence. They found that tennis players at the start of their careers were the most likely to adopt possessions that symbolized the profession, and thus concluded that products transform feelings of inadequacy into feelings of being complete by making one's actual self-image closer to his or her ideal self-image.

Solomon (1983), who is an advocate of Mead (1934) and Cooley's (1902) symbolic-interactionism theory, made a similar proposition, suggesting that a lack of experience in playing a particular role causes consumers to rely on products that are stereotypical of the role. He offered the example of how the newly rich are the most likely to purchase extravagant and ostentatious products, whereas those who come from "old money" do not feel the need to show off their possessions. Solomon suggested that, through self-reflexivity, products that are symbolic of a new role allow consumers to create and enhance their self-defined role.



## A new dual-process model of how human values influence consumer choice

Figure 2 and Table 1 summarize the proposed dual-process model of how human values influence product choice. This new approach outlines two major avenues through which values influence product attitude and selection. First, when consumers evaluate a product's utilitarian meaning, and make a piecemeal judgment, values may influence the importance of the product's tangible attributes, which may in turn influence product choice. Second, when consumers evaluate a product's symbolic meaning, and make an affective/holistic judgment, values may influence product choice directly. In the former route, the product serves an instrumental motivation, and in the latter route, it serves an expressive motivation. In this way, each motivation accompanies a distinct cognitive sub-structure. Human values probably influence product selection through more than these two routes. In addition, these two avenues may not always correspond precisely to the specified meanings and judgments, nor will utilitarian meaning always be found in tangible attributes and symbolic meaning in a configuration of tangible attributes. The proposed model is an approximate representation of what may generally occur.

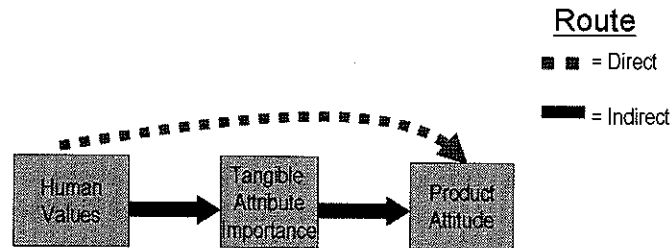


Figure 2. A pictorial representation of the proposed dual-process model.

Table 1. A tabular representation of the proposed dual-process model.

	Routes of Human Value Influence on Product Preference	
	Indirect (via tangible attribute importance)	Direct
<b>Product Meaning</b>	<b>Utilitarian</b>	<b>Symbolic</b>
Content	Overt function and utility	Social categories and cultural principles (e.g., ideals, values, traits)
Location	Separate Tangible Attributes	Product Whole
Focus	Objective: Product-focused	Subjective: Self-focused
Breadth	Specific/Narrow	Abstract/Broad
Conceptual Clarity	Clear	Vague
<b>Judgment Type</b>	<b>Piecemeal</b>	<b>Affective</b>
Reasoning	Logical, comprehensive, and systematic attribute-by-attribute analysis	Holistic, intuitive and approximate goodness of fit to exemplar
Memory Representation	Uncertain: Perhaps verbal	Visual: Multi-sensory imagery
Affect Latency	Delayed	Immediate
Affect Intensity	Low: Evaluative	High: Emotional states
<b>Motivation</b>	<b>Instrumental</b>	<b>Expressive</b>
Source of Benefit	The product's intrinsic qualities, means to an end, and ability to control the environment.	The use of the product as a vehicle for self-expression.
Value Relevance	Low	High
Product Identification	Weak	Strong

Figure 3 provides a conceptual summary of the model. Beginning with the left half of the figure, levels of prescriptive and evaluative beliefs, human values are centrally held prescriptive beliefs about ultimate end-goals, but they are abstract and lack a specific object of reference, suggesting a lack of conceptual clarity, and connoting little more than a feeling. At a lower level of abstraction and centrality are evaluative beliefs, such as the importance assigned to tangible attributes. Because values represent ultimate goals, and help organize specific evaluative beliefs, importance is assigned to tangible attributes based on their ability to satisfy values. Tangible attribute importance, such as evaluations of goodness or badness, are objective (object-focused), specific, and conceptually clear. In summary, a specific and context-dependent level of evaluative beliefs (tangible attribute importance) is

subsumed under a broader and more centrally held level of prescriptive beliefs (human values), and these two levels vary along dimensions of abstract-specific, subjective-objective, and ends-means.

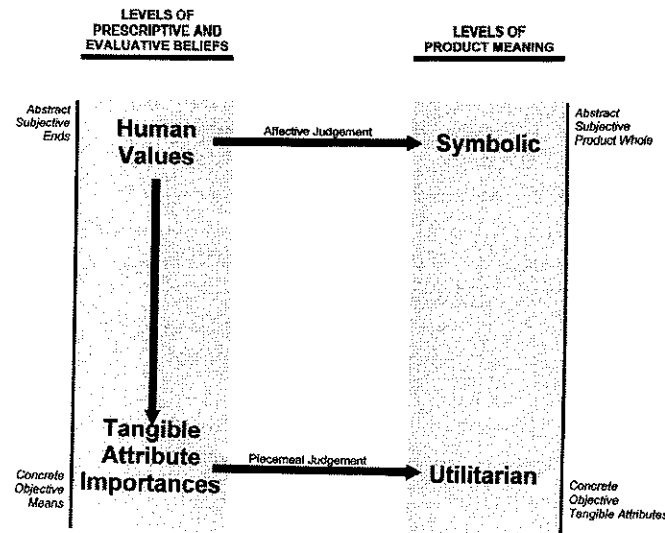


Figure 3. A conceptual representation of the proposed dual-process model.

In the right half of Figure 3, levels of product meaning, utilitarian meaning is the manifest function the product serves in allowing the user to control the environment and live a more efficient life. In the strictest operationalization, utilitarian meaning will generally be found in tangible, functional attributes, as these reveal the quality (e.g., physical performance) of the product. Because such attributes are concrete, their meaning is objective and specific, stemming from the object itself and observable via the five senses. Supplementing this objective meaning are levels of intangible attributes with subjective meaning; those that are culturally shared include the product's image or symbolism. Symbols are subjective, complex sets of abstract beliefs associated with a product that represent cultural entities. This representation

is generally at the whole-product level, such as brand, class, or category. In summary, a product contains a level of utilitarian meaning (in independent tangible attributes) and a more abstract level of symbolic meaning (in the product as a whole with dependent tangible attributes), and these two levels vary along dimensions of abstract-specific and subjective-objective.

Because tangible attribute importance is objective, specific, and means-oriented, it evaluates utilitarian meaning that is also objective, specific, and which reflects independent, tangible attributes. Furthermore, as tangible attribute importance serves human values, values are indirectly implicated in the evaluation of utilitarian meaning. Together, these assertions suggest that product judgment is on a piecemeal basis, which progresses attribute-by-attribute to evaluate a product in a logical, systematic, and comprehensive fashion. Conversely, because human values are abstract, subjective, and represent ultimate end-goals, they directly evaluate product symbolism that is also abstract, subjective, and consistent with human values. Because human values are subjective, and symbolic meaning stems from a product as a whole, product judgment may be affective because it meets two primary criteria: the implication of the self (subjectivity), and holism.

Early studies sought to test the validity of the dual-process model (Allen, 2000, 2002; Allen & Ng, 1999; Allen, Ng, & Wilson, 2002) and develop techniques market researchers could use to create advertising or other promotional materials (Allen, 2001). Allen and Ng (1999) developed a survey in which participants indicated how important product meaning and judgment were to their evaluation of products. Examples of items included, for symbolic meaning, "The image a product portrays is an important part of my decision whether or not to buy it"; utilitarian meaning, "When deciding on whether or not to buy a product I think about how useful it will be"; piecemeal judgment, "I believe in selecting a product based on a careful examination of all its features"; and affective judgment, "Usually my selection of a product is based on a gut feeling." The second part of the survey measured human values, the tangible attribute importance of cars and sunglasses, and one's ownership of cars and sunglasses. Then, using a residual regression procedure, participants were divided into two

groups; those whose direct route of value influence more strongly predicted their product preference, and those whose indirect route (via tangible attribute importance) more strongly predicted their product preference. The results showed that consumers with a stronger direct route preferred symbolic meaning and affective judgment, whereas consumers with stronger indirect routes preferred utilitarian meaning and piecemeal judgment. Allen, Ng, and Wilson (2002) revealed that an instrumental motivation and an expressive motivation were associated with the indirect and direct route, respectively. Allen (2002) showed that consumers consider the cultural value content of symbolic meaning, and compare it to their own values, and Allen and Ng (2003) showed that product attachment or identification is a feature of the direct route of value influence, as described in Table 1.

Further, researchers studying diverse topics have made use of all or parts of the dual-process model of value influence in studies evaluating food choice and what motivates dietary change (Bas, Karabudak, & Kizitan, 2005; Berman, 2004; Dreezens, Martijn, Tenbult, Kok, & de Vries, 2005; Hoek, Luning, Stafleu, & de Graaf, 2004; Hoogland, de Boer, & Boesema, 2005; Lea & Worsley, 2003; Lea & Worsley, 2005; Sobal, 2005; Wilson, Weatherall, & Butler, 2004; Worsley, 2003; Worsley & Lea, 2003), how motivation affects behavior intention (Bloemer, Odekerken-Schroder, & Kest, 2002), how values affect business ethics and marketing practice (Gonzalez & Martinez, 2004; Robertshaw & Marr, 2005; Steenhaut & van Kenhove, 2006), the nature of product meaning (Helfenstein, 2005), political party choice (Wilson, 2004), the model's implications for sociology (Hitlin & Piliavin, 2004), occupational safety (de Boer & van Drummen, 2003), evaluating attribute importance and the means-end chain (Manyiwa & Crawford, 2002; van Ittersum, Pennings, Wansink, & van Trijp, 2004), how values and culture intersect (Kim, Forsythe, Gu, & Moon, 2002; Overby, Woodruff & Gardial, 2005; Overby, Gardial, & Woodruff, 2004), the motivations of athletes (Trail & Chelladuria, 2002), and how individuals make judgments about risk and the implications for social policy (Kahan, Slovic, Bramam, & Gastil, 2006). Literature about the model has also become required reading for some postgraduate programs, including in

psychology (e.g., University of Exeter, UK; University of Brasilia, Brazil) and business and marketing (e.g., Europa-Institut, Germany).

### Future directions for conceptual and theoretical development

Important work remains for conceptual and theoretical development of the dual-process model of value influence. Experimental studies are needed because the tests to date have been correlational-survey designs. For instance, Allen and Ng (1999) simply had members of the public complete a survey of human values, tangible attribute importances, product preferences, and meaning and judgment preferences. Then regression was used to assess the direct and indirect associations between human values and product preference, comparing these to individuals' meaning and judgment preference. One problem of surveys and other correlational designs, Feldman and Lynch (1988) argue, is that an association found between attitudes and behavior could be due to participants completing the behavior measure simply to appear consistent with their responses to the attitude measure. However, such a bias is most likely to occur when the behavior is measured on a metric scale, and so respondents listing a make and model of an automobile they do not own, the behavior measures used in Allen and Ng (1999), seem implausible. Moreover, participants responding to the human value and tangible attribute importance measures simply to appear consistent with their product ownerships also seems unlikely, for to explain the pattern of results shown in Allen and Ng (1999) it would have to be concluded that half the participants rated both tangible attribute importances and human values to appear consistent with their product ownerships whereas the other half rated only human values to appear consistent with their product ownerships. Additionally, the former group would, coincidentally, have rated utilitarian meaning and piecemeal judgment more highly and the latter group symbolic meaning and affective judgment more highly. Each of these improbabilities implies, though not definitively, that the association found among

human values, tangible attribute importances, product preference and meaning and judgment preferences is not an artifact of the survey method but is instead indicative of consumers' cognitive structures.

In any case, there is no causal evidence supporting the dual-process model of value influence. There are two areas where experimental evidence is most needed. First, do human values really influence product choice? Theoretically, human values influence attitudes that in turn influence behavior (Rokeach, 1973). However, the studies carried out thus far on the dual-process model as well as studies of the traditional models of value influence on product choice (Gutman, 1982; Lindberg, Garling & Montgomery, 1989; Scott & Lamont, 1973) were simply correlational, survey designs. To show that human values cause product preference human values must be experimentally manipulated. The requirement, however, is the crux of the problem; few experimental methods can manipulate an individual's human value preferences, presumably because human values are centrally-held and deeply incorporated into the self-concept. The most well-established method for experimentally manipulating human values in a lab setting is Rokeach's (1973) value self-confrontation procedure that informs participants that two of their important values are logically inconsistent and are different from those of an important reference group. Rokeach argues that the information creates a state of self-dissatisfaction, and that consequently participants will alter one of their values to make it consistent with the other human value and to the human values of the reference group. Moreover, participants alter specific attitudes and behaviors to bring them in line with the new human value importance. Thus, future research of the dual-process model could use Rokeach's (1973) value self-confrontation procedure to causally determine if human values influence product choice.

The second area in which experimental evidence is required concerns the meaning, judgment, and motivation components of the dual-process model of value influence. There is no causal evidence that the meaning of a product a consumer attends to, the motivation the product serves, and the judgment

they use to evaluate the product affects whether the consumer's values have a direct or indirect influence on product choice. Conceivably, only one or two elements cause human values to operate through two routes and the other elements vary as a function of those elements. For instance, the product meanings to which consumers attend may affect how the product is judged, the psychological function the product serves and the route through which human values operate. Similarly, the conceptual model is founded in an assumption that the levels of the elements always occur together, that is, that utilitarian meaning is always located in tangible attributes evaluated with a piecemeal judgment and that serve an instrumental psychological function, whereas symbolic meaning is located in a particular configuration of tangible attributes evaluated in an affective judgment and that serve an expressive function. The assumption is obviously overly general. For example, whilst symbolic meaning may tend to be found on the product-whole and a particular configuration of tangible attributes, occasionally symbolic meaning may be found in independent, tangible attributes. For items of jewelry, for example, the attribute of "14-karat gold" may have the same symbolic meaning no matter the jewelry's other features. The prospect, therefore, reveals another oversimplification upon which the conceptual model was founded; Holbrook and Moore's (1981), Keaveney and Hunt's (1992) and McCracken's (1988) claim that intangible attributes such as symbolic meaning and aesthetics violate the assumption in expectancy-value theory that consumers evaluate each attribute one at a time. Generally, when consumers evaluate a product's intangible attributes the product's tangible attributes are consequently evaluated in a Gestalt-like, holistic judgment, but in instances when symbolic meaning is found in independent, tangible attributes, expectancy-value theory may adequately explain how consumers decide which products to purchase.

Due to these possible exceptions in how meaning, judgment and tangible and intangible attributes are related, further research should determine which elements and levels of elements are essential to the bifurcation of value influence. One way to be satisfied that product meaning and method of judgment affect how human values influence product preference is to experimentally isolate and manipulate the kind of product meaning to which

consumers attend and the kind of judgment they make, and then gauge how that manipulation affects the strengths of the value influence routes. For instance, a piecemeal judgment takes time whereas an affective judgment is swift (Zajonc, 1980), and so giving participants only a brief amount of time to choose a product should result in them using the direct route, and a long amount of time the indirect route. Similarly, some experimental studies have isolated and manipulated the kind of product meaning to which consumers attend and examined how that manipulation affected the relationship between attribute importances and product preference or affected the relationship between attitudes and product preference (e.g., Shavitt, 1990; Shavitt, Lowrey & Han, 1992; Snyder & DeBono, 1985; Spivey, Munson & Locander, 1983). Thus, participants could be shown either a utilitarian or symbolic ad for a product; those shown the utilitarian ad should use the indirect route and the symbolic ad should use the direct route.

The outcome of the experimentation and reduction of elements would be a more parsimonious conceptual model, but equally important, tighter operational definitions and distinctions among the elements and levels of elements would also be advanced. Concerning these latter points, the rationale that formed the basis of much of the dual-process model was the elements' similarity and conceptual overlap; rationale that is most apparent in Figure 3. The figure illustrates how human values influence product preference via tangible attribute importances when consumers attend to utilitarian meaning because tangible attribute importances and utilitarian meaning are conceptually similar; both are concrete, objective and means-oriented. Similarly, human values influence product preference directly when consumers attend to symbolic meaning because symbolic meaning and human values are similar; both are abstract and subjective. However, now that the merit of the general approach has been empirically supported by the studies carried out thus far, differences among the elements and differences between the levels of elements should be more tightly defined.

For instance, two elements most in need of further differentiation in their operational definitions are psychological

function and product meaning. This paper reviewed the wide range of research and theories concerning product meaning and attempted to draw a firm line with psychological function by emphasizing that psychological function is a sub-feature of product meaning and that other sub-features were content, location on the product, breath, and so on. Nevertheless, the attempt at demarcation was unsatisfactory, and one result was that the measures of product meaning preference implicitly measure psychological function preference. For instance, the symbolic meaning scale items of "To what extent would you want your chosen product to be: Most compatible with the image you have of yourself" and "I prefer a product that reflects who I am" not only measure the attention to symbolic meaning but also clearly measure an expressive psychological function. Thus, conceptual improvement of the model could be achieved by defining and measuring psychological function preference separately from product meaning preference, perhaps by measuring the needs and motivations underlying the functions (e.g., social approval, self-consistency, control of environment) instead of the consequences of those needs (e.g., consumers' preferences for products that are consistent with the images they have of themselves or that they wish others to have of them).

Another direction for further development is to better define how different brands and product categories affect the dual-process model. One way such conceptual development could be achieved is Shavitt's (1990) product classification procedure in which participants are instructed to write advertisements for a specific product. Shavitt categorizes the advertisements according to which psychological function they represent, but that procedure could be adapted easily to product meanings and possibly judgments. Thus, with the parameters of each product clearly defined, the direct and indirect influences of human values on product preference could be neatly tied to the specific product characteristics associated with an increase in the strength of one route compared with the other, with the increase in the strengths of both routes, or with the decrease in the strengths of both routes. Obviously, that hindmost outcome would have the most serious implications for a conceptual model that is not adequately

context-specific, and would signal the need to investigate whether human values influence product preference through routes other than those outlined by the dual-process model, or do not influence product preference at all for some types of products.

Another area for conceptual development of the dual-process model to value influence is whether individuals can apply their human values through both routes simultaneously. In the investigation of the conceptual model thus far, an assumption was made that the two routes of value influence are mutually exclusive when, more likely, individuals use both routes simultaneously. Katz' (1960) attitude function theory, for instance, suggests that an individual's attitude can serve any number and combination of functions, and the same might be true for the value influence routes and their psychological functions. However, the residual method employed in Allen and Ng (1999) to measure the direct and indirect influences of human values on product preference separated individuals into two groups according to whether their direct route or indirect route more accurately predicted their product preferences. The division did not consider those individuals whose direct and indirect routes were relatively equal, and consequently placed those particular individuals into separate groups based on minor differences. Separating some individuals based on minor differences probably does not affect the major conclusions regarding the sample as a whole, but it does obscure three possible reasons why some individuals have minor differences in the strengths of their direct and indirect routes of value influence: these individuals may use both routes equally, these individuals may use neither route, or alternatively, these individuals may use some third route not previously considered. Therefore, future empirical research should investigate each individual's use of the value influence routes in a way that does not force mutual exclusivity and that considers those individuals who appear to use both routes equally.

The extent individuals actually apply their human values through both routes equally is difficult to assess from the studies conducted thus far. For example, Allen and Ng (1999) found a negative correlation between a preference for utilitarian meaning and a piecemeal judgment and a preference for symbolic

meaning and an affective judgment. One explanation offered for the negative correlation between the two types of judgments was Mittal's (1988) and Zajonc's (1980) claim that although piecemeal judgments (e.g., what Mittal terms "Information Processing Mode" or what Zajonc terms a "cognitive judgment") and affective judgments are separate processes, the judgments are likely to be negatively related because an affective judgment can be made more readily than an IPM/cognitive judgment, making the latter unnecessary when an affective judgment is strong. Though Zajonc's (1980) claim that an affective judgment precedes a cognitive judgment has also been made by other researchers and approaches (e.g., Mittal, 1988; Smith & Nelson, 1984), the claim has not been without criticism (e.g., Lazarus, 1982) and therefore an interesting avenue for further research is how and why meaning, judgment and the routes of value influence are, or are not, negatively related.

Other fruitful directions, recently pursued, has been assessing whether the two routes of value influence are also avenues of value change (Allen & Maxwell, 2003), investigating if the model can elucidate consumer food choices (Allen & Baines, 2002; Allen & Ng, 2003; Allen & Torres, 2006; Allen, Wilson, Ng, & Dunne, 2000), and exploring the extent to which the model captures cross-cultural differences in consumer choice (Torres & Allen, in press). For instance, given that previous research has found that people in individualist cultures tend to be more attitude-driven, emphasize tasks, and rational-oriented, whereas persons in collectivist cultures tend to be more norm-driven and oriented towards relationships (Hofstede, 1983; Singelis, Triandis, Bhawuk, & Gelfand, 1995), Torres and Allen (in press) hypothesized and found that the indirect route was more common in Australia and the direct route more common in Brazil. Other future research could investigate if the dual-process model holds for non-consumer objects (e.g., political parties, social categories). If so, this would imply that the model represents general modes by which individuals evaluate both physical objects and abstract concepts.

## References

- ABELSON, R. P.  
Beliefs are like possessions. *Journal for the Theory of Social Behavior*, v. 16, n. 3, p. 223-250, 1986.
- ABELSON, R.P.; PRENTICE, D.A.  
Beliefs as possessions: A functional perspective. In: PRATKAIS, A.R; BRECKLER, S.J.; GREENWALD, A.G. (Eds.), *Attitude structure and function*. Hillsdale, NJ: Erlbaum, 1989. pp. 361-381.
- ADLER, A. *The practice and theory of individual psychology*. Translated by P. Radin. London: Routledge & Kegan Paul, 1929.
- ALLEN, M.W.; MAXWELL, K.  
Can product advertisements change consumers' values? FARRELL, A.; LEE, N.; LINGS, I. (Eds). *Proceedings of the Academy of Marketing Annual Conference*, Birmingham UK, July 8-10. UK: Niche Publications, 2003.
- ALLEN, M.W.  
The attribute-mediation and product meaning approaches to the influences of human values on consumer choices. In: COLUMBUS, F. (Ed.), *Advances in Psychology Research*. v. 1. Huntington, NY: Nova Science Publishers, 2000. pp. 31-76.
- ALLEN, M.W.  
A practical method for uncovering the direct and indirect relationships between human values and consumer purchases. *Journal of Consumer Marketing*, v.18, n.2, p. 102-120, 2001.
- ALLEN, M.W.  
Human values and product symbolism: Do consumers form product preference by comparing the human values symbolised by a product to the human values that they endorse? *Journal of Applied Social Psychology*, v.32, n.12, p. 2475-2501, 2002.
- ALLEN, M.W.; BAINES, S.  
Manipulating the symbolic meaning of meat to encourage greater acceptance of fruits and vegetables and less proclivity for red and white meat. *Appetite: Research on Eating and Drinking*, v. 38, n. 2, p.118-130, 2002.
- ALLEN, M.W.; NG, S.H.  
The direct and indirect influences of human values on product ownership. *Journal of Economic Psychology*, v. 20, n. 1, p. 5-39, 1999.
- ALLEN, M.W.; NG, S.H.  
Human values, utilitarian benefits and identification: The case of meat. *European Journal of Social Psychology*, v. 33, n. 1, p. 37-56, 2003.
- ALLEN, M.W.; TORRES, C.V.  
Food symbolism and consumer choice in Brazil. Proceedings of The First ACR-Latin American Conference, Monterrey, Mexico, January 5-8. Full paper to appear in *Latin American Advances in Consumer Research*, 2006.
- ALLEN, M.W.; NG, S.H.; WILSON, M.  
The functional approach to instrumental and terminal values and the value-attitude-behavior system. *European Journal of Marketing*, v. 36, n. 1/2, p. 111-135, 2002.
- ALLEN, M.W., WILSON, M.; NG, S.H.; DUNNE, M.  
Values and beliefs of vegetarians and omnivores. *Journal of Social Psychology*, v. 140, n. 4, p. 405-422, 2000.
- BAGOZZI, R.P.  
The rebirth of attitude research in marketing. *Journal of Market Research Society*, v.30, n. 2, p. 163-195, 1988.
- BEGGAN, J.K.  
Using what you own to get what you need: The role of possessions in satisfying control motivation. *Journal of Social Behavior and Personality*, v. 6, n. 6, p. 129-146, 1991.
- BELK, R.W.  
Assessing the effects of visible consumption on impression formation. *Advances in Consumer Research*, v. 5, p. 39-47, 1978.
- BELK, R.W.; BAHN, K.D.; MAYER, R.N.  
Developmental recognition of consumption symbolism. *Journal of Consumer Research*, v. 9, p. 4-17, 1982.
- BERMAN, M.A.  
*Thinking beyond health to motivate dietary change: Piloting a vegan healthy eating program from obesity management*. (Doctoral thesis). Yale University School of Medicine, 2004.
- BLOEMER, J.; ODEKERKEN-SCHRODER, G.; KEST, L.  
The Impact of need for social affiliation and consumer relationship proneness on behavioural intentions - An empirical study in a hairdresser context. *Research Memoranda 075*, Maastricht: Maastricht Research School of Economics of Technology and Organization (METEOR), 2002.
- BURGESS, S.M.  
Personal values and consumer research: An historical perspective. *Research in Marketing*, v. 11, p. 35-79, 1992.
- CHAUDHURI, A.; BUCK, R.  
Affect, reason, and persuasion: Advertising strategies that predict affective and analytic-cognitive responses. *Human Communication Research*, v. 21, n. 3, p. 422-441, 1995.
- COBB, R.W.; ELDER, C.D.  
Individual orientations in the study of political symbolism. *Social Science Quarterly*, v. 53, p. 79-90, 1972.
- COOLEY, C.  
*Human nature and the social order*. New York: Charles Scribner's Sons, 1902.
- CSIKSZENTMIHALYI, M.; ROCHBERG-HALTON, E.  
*The meaning of things: Domestic symbols and the self*. New York: Cambridge University Press, 1981.
- DE BOER, L.; VAN DRUNEN, M.  
Occupational safety from a behavioural perspective. *Report number E-03/12*. Institute for Environmental Studies, Vrije Universiteit, The Netherlands, 2003.

DITTMAR, H.

*The social psychology of material possessions: To have is to be.* New York: St. Martin's, 1992.

DOUGLAS, M.; ISHERWOOD, B.

*The world of goods: Towards an anthropology of consumption.* London: Allen Lane, 1979.

DREEZENS, E.; MARTIJN, C.; TENBULT, P.; KOK, G.; DE VRIES, N.K. Food and values: An examination of values underlying attitudes toward genetically modified and organically grown food products. *Appetite* v. 44, n. 1, p. 115-122, 2005.

ELLIOTT, R.

Exploring the symbolic meaning of brands. *British Journal of Management*, v. 5, S13-S19, 1994.

FELDMAN, J.M.; LYNCH, J.G. Self-generated validity and other effects of measurement on belief, attitude, intention, and behavior. *Journal of Applied Psychology*, v. 73, n.3, p. 421-435, 1988.

FIRTH, R.

*Symbols: Public and private.* London: Allen & Unwin, 1973.

FISHBEIN, M. A behavior theory approach to the relations between beliefs about an object and the attitude toward the object. In: FISHBEIN, M. (Ed.), *Readings in attitude theory and measurement.* New York: John Wiley & Sons, 1967. pp. 389-400.

FISHBEIN, M.; AJZEN, I.

Attitudes toward objects as predictors of single and multiple behavioral criteria. *Psychological Review*, v. 81, p. 59-71, 1974.

FISKE, S.T.; PAVELCHAK, M.A.

Category-based versus piece-meal-based affective responses: Developments in schema-triggered affect. In: SORRENTINO, R.M.; HIGGINS, E.T. (Eds.), *Handbook of motivation and cognition.* New York: Guilford Press, 1986. pp. 167-203.

FURBY, L.

Possession in humans: An exploratory study of its meaning and motivation. *Social Behavior and Personality*, v. 6, n. 1, p. 49-65, 1978.

GONZALEZ, M.D.; MARTINEZ, C.

Fostering corporate social responsibility through public initiative: From the EU to the Spanish case. *Journal Of Business Ethics*, v. 55, n. 3, p. 275-293, 2004.

GUSFIELD, J.R.; MICHALOWICZ, J.

Secular symbolism: Studies of ritual, ceremony, and the symbolic order in modern life. *Annual Review of Sociology*, v. 10, p. 417-435, 1984.

GUTMAN, J.

A means-end chain model based on consumer categorization processes. *Journal of Marketing*, v. 46, p. 60-72, 1982.

HELFFENSTEIN, S.

Product meaning, affective use evaluation, and transfer: A preliminary study. *Human Technology*, v. 1, n. 1, p. 76-100, 2005.

HEREK, G.M.

The instrumentality of attitudes: Towards a neo-functional theory. *Journal of Social Issues*, v. 42, n. 2, p. 99-114, 1986.

HEREK, G.M.

Can functions be measured? A new perspective on the functional approach to attitudes. *Social Psychology Quarterly*, v. 50, n. 4, p. 285-303, 1987.

HIRSCHMAN, E.C.

Attributes of attributes and layers of meaning. *Advances in Consumer Research*, v. 7, p. 7-12, 1980.

HIRSCHMAN, E.C.

The effect of verbal and pictorial advertising stimuli on aesthetic, utilitarian, and familiarity perceptions. *Journal of Advertising*, v. 15, p. 27-34, 1986.

HITLIN, S.; PILIAVIN, J.A.

Values: Reviving a dormant concept. *Annual Review Of Sociology*, v. 30, p. 359-393, 2004.

HOEK, A.C.; LUNING, P.A.;

STAFLEU, A.; DE GRAAF, C. Food-related lifestyle and health attitudes of Dutch vegetarians, non-vegetarian consumers of meat substitutes, and meat consumers. *Appetite* v. 42, n.3, p. 265-272, 2004.

HOFSTEDE, G.

The cultural relativity of organizational practices and theories. *International Business Studies*, v. 14, p. 75-89, 1983.

HOLBROOK, M.B.; MOORE, W.L.

Cue configularity in esthetic responses. In: HIRSCHMAN, E.C.; HOLBROOK, M.B. (Eds.), *Symbolic consumer behavior.* Ann Arbor, MI: Association for Consumer Research, 1981. pp. 16-25.

HOOGLAND, C.T.; DE BOER, J.; BOERSEMA, J.J.

Transparency of the meat chain in the light of food culture and history. *Appetite*, v.45, n.1, p. 15-23, 2005.

JOHAR, J.S.; SIRGY, M.J.

Value-expressive versus utilitarian advertising appeals: When and why to use which appeal. *Journal of Advertising*, v. 20, p. 23-33, 1991.

KAHAN, D.M.; SLOVIC, P.;

BRAMAN, D.; GASTIL, J. Laws of fear: Beyond the precautionary principle. *Harvard Law Review*, v. 119, n.4, p. 1071-1109, 2006.

KAHLE, L.R.

*Social values and social change: Adaptation to life in America.* New York: Praeger, 1983.

KATZ, D.

The functional approach to the study of attitudes. *Public Opinion Quarterly*, v. 24, p. 163-204, 1960.

KEAVENEY, S.M.; HUNT, K.A.

Conceptualization and operationalization of retail store image: A case of rival middle-level theories. *Journal of the Academy of Marketing Science*, v. 20, p. 165-175, 1992.



KILBOURNE, W.E.

The impact of the symbolic dimensions of possession on individual potential: A phenomenological perspective. *Journal of Social Behavior and Personality*, v. 6, n. 6, p. 445-456, 1991.

KIM, J.; FORSYTHE, S.; GU, Q.; MOON, S.J.

Cross-cultural consumer values, needs and purchase behavior. *Journal of Consumer Marketing*, v. 19, p. 481-502, 2002.

LAZARUS, R.S.

Thoughts on the relations between emotions and cognition. *American Psychologist*, v. 37, p. 1019-1024, 1982.

LEA, E.; WORSLEY, A.

The factors associated with the belief that vegetarian diets provide health benefits. *Asia Pacific Journal Of Clinical Nutrition*, v. 12, n.3, p. 296-303, 2003.

LEA, E.; WORSLEY, T.

Australians' organic food beliefs, demographics, and values. *British Food Journal*, v. 107, n. 10/11, p. 855-869, 2005.

LEVY, S.

Symbols for sale. *Harvard Business Review*, v. 37, p. 117-119, 1959.

LINDBERG, E.; GARLING, T.; MONTGOMERY, H.

Belief-value structures as determinants of consumer behavior: A study of housing preferences and choices. *Journal of Consumer Policy*, v. 12, p. 119-137, 1989.

MACINNIS, D.J.; PRICE, L.L.

The role of imagery in information processing: Review and extensions. *Journal of Consumer Research*, v. 13, p. 473-491, 1987.

MANYIWA, S.; CRAWFORD, I.

Determining linkages between consumer choices in a social context and consumer's values: A means-end approach. *Journal of Consumer Behavior*, v. 2, p. 54-70, 2002.

McCRACKEN, G.D.

Culture and consumption: A theoretical account of the structure and movement of the cultural meaning of consumer goods. *Journal of Consumer Research*, v. 13, p. 71-84, 1986.

McCRACKEN, G.D.

*Culture and consumption*: New approaches to the symbolic character of consumer goods and activities. Bloomington, IN: Indiana University, 1988.

MEAD, G.H.

*Mind, self, and society*. Chicago: University of Chicago Press, 1934.

MILLER, A.

*Cognitive styles: An integrated model*. Educational Psychology, v. 7, n.4, p. 251-268, 1987.

MITTAL, B.

The role of affective choice mode in the consumer purchase of expressive products. *Journal of Economic Psychology*, v. 9, p. 499-524, 1988.

MITTAL, B.

A study of the concept of affective choice mode for consumer decisions. *Advances in Consumer Research*, v. 21, p. 256-263, 1994.

ODGEN, C.K.; RICHARDS, I.A.

*The meaning of meaning*: A study upon thought and the science of symbolism. New York: Harcourt Brace Jovanovich, 1923.

OSGOOD, C.E.; SUCI, G.J.; TANNENBAUM, P.H.

*The measurement of meaning*. Urbana: University of Illinois Press, 1957.

OVERBY, J.W.; GARDIAL, S.F.; WOODRUFF, R.B.

French versus American consumers' attachment of value to a product in a common consumption context: A cross-national comparison. *Journal Of The Academy Of Marketing Science*, v. 32, n.4, p. 437-460, 2004.

OVERBY, J.W.; WOODRUFF, R.B.; GARDIAL, S.F.

The influence of culture upon consumers' desired value perceptions: A research agenda. *Marketing Theory*, v. 5, p. 139-163, 2005.

PITTS, R.E.; WOODSIDE, A.G.

*Personal values and consumer psychology*. Lexington: Lexington Press, 1984.

PRENTICE, D.A.

Psychological correspondence of possessions, attitudes, and values. *Journal of Personality and Social Psychology*, v. 53, n. 6, p. 993-1003, 1987.

REYNOLDS, T.J.; GUTMAN, J.

Laddering theory, method, analysis and interpretation. *Journal of Advertising Research*, v. 28, p. 19-26, 1988.

RICHINS, M.L.

Valuing things: The public and private meanings of possessions. *Journal of Consumer Research*, v. 21, n.3, p. 504-521, 1994.

ROBERTSHAW, G.S.; MARR, N.E.

Are abstainers different from voluntary contributors of personal information? Implications for direct marketing practice. *Journal of Direct, Data and Digital Marketing Practice*, v. 7, p.18-35, 2005.

ROKEACH, M. *The nature of human values*. New York: Free Press, 1973.

ROKEACH, M. *Understanding human values*: Individual and societal. New York: Free Press, 1979.

ROSENBERG, M.J.

Cognitive structure and attitudinal affect. *Journal of Abnormal and Social Psychology*, v.53, p.367-372, 1956.

SAUSSURE, F.

*Course in general linguistics*. London: Fontana, 1974.

SCHWARTZ, S.H.

Are there universal aspects in the structure and contents of human values? *Journal of Social Issues*, v. 50, n.4, p.19-46, 1994.

SCOTT, J.E.; LAMONT, L.M.  
Relating consumer values to  
consumer behavior: A model  
and method for investiga-  
tion. In: GREER, T.W. (Ed.)  
*Increasing Marketing Pro-  
ductivity*. Chicago: American  
Marketing Association, 1973.  
pp. 283-288.

SEARS, D.O.; HUDDY, L.;  
SCHAFFER, J.G.  
A schematic variant of symbolic  
politics theory, as applied to  
racial and gender equality. In:  
LAU, R.; SEARS, D.O. (Eds.),  
*Political cognition*. Hillsdale,  
NJ: Laurence Erlbaum, 1986.  
pp. 159-202.

SELIGMAN, M.E.P.  
*Helplessness*. San Francisco:  
Freeman, 1975.

SHAVITT, S. The role of  
attitude objects in attitude  
functions. *Journal of Experi-  
mental Social Psychology*, v. 26,  
p.124-148, 1990.

SHAVITT, S.; LOWREY, T.M.;  
HAN, S.P.  
Attitude functions in advertis-  
ing: The interactive role of  
products and self-monitoring.  
*Journal of Consumer Psychol-  
ogy*, v. 1, n.4, p.337-364, 1992.

SHETH, J.N.; NEWMAN,  
B.I.; GROSS, B.L.  
Why we buy what we buy: A  
theory of consumption values.  
*Journal of Business Research*,  
v. 22, p.159-170, 1991.

SINGELIS, T. M.; TRIANDIS,  
H. C.; BHAWUK, D. P. S.; GEL-  
FAND, M. J.  
Horizontal and vertical dimen-  
sions of individualism and  
collectivism: A theoretical and  
measurement refinement. *Cross-  
Cultural Research*, v. 29, p.240-  
275, 1995.

SMITH, J.D.; NELSON, D.G.  
Overall similarity in adults' clas-  
sification: The child in all of us.  
*Journal of Experimental Psychol-  
ogy: General*, v. 113, p.137-159,  
1984.

SMITH, M.B.; BRUNER, J.S.;  
WHITE, R.W.  
*Opinions and personality*. New  
York: Wiley, 1956.

SNYDER, M.; DeBONO, K.G.  
Appeals to image and claims  
about quality: Understanding  
the psychology of advertising.  
*Journal of Personality and Social  
Psychology*, v. 30, p.526-537,  
1985.

SOBAL, J.  
Men, meat, and marriage: Mod-  
els of masculinity. *Food & Food-  
ways*, v. 13, p.135-158, 2005.

SOLOMON, M.R.  
The role of products as social  
stimuli: A symbolic interactionism  
perspective. *Journal of Consumer  
Research*, v. 10, p. 319-329,  
1983.

SPIVEY, W.A.; MUNSON, J.M.;  
LOCANDER, W.B.  
Improving the effectiveness of  
persuasive communications:  
Matching message with func-  
tional profile. *Journal of Business  
Research*, v. 11, p.257-269, 1983.

STEENHAUT, S.; VAN KEN-  
HOVE, P.  
An empirical investigation of the  
relationships among a consum-  
er's personal values, ethical ideo-  
logy and ethical beliefs. *Journal  
Of Business Ethics*, v. 64, n.2,  
p.137-155, 2006.

SZALAY, L.B.; DEESE, J.  
*Subjective meaning and culture*:  
An assessment through word  
associations. Hillsdale, NJ: Erl-  
baum, 1978.

TORRES, C. V.; ALLEN, M. W.  
Human Values and consumer  
choice in Australia and Brazil.  
*Estudos de Psicologia* (Studies of  
Psychology). (in press).

TRAIL, G.; CHELLADURAI,  
P. Perceptions of intercollegiate  
athletic goals and processes: The  
influence of personal values.  
*Journal Of Sport Management*, v.  
16, n.4, p.289-310, 2002.

VAN ITTERSUM, K.; PEN-  
NINGS, J.M.E.; WANSINK, B.;  
VAN TRIJP, H.C.M.  
Improving attribute-importance  
measurement: A reference-point  
approach. *Advances In Consum-  
er Research*, v. 31, p.84-85, 2004.

VERKUYTEN, M.  
Symbols and social representa-  
tions. *Journal for the Theory  
of Social Behavior*, v. 25, n.3,  
p.263-284, 1995.

WICKLUND, R.A.; GOLLWIT-  
ZER, P.M.  
*Symbolic self-completion*. Hills-  
dale, NJ: Erlbaum, 1982.

WILSON, M.S.  
Values and political ideology:  
Rokeach's two-value model in  
a proportional representation  
environment. *New Zealand  
Journal Of Psychology*, v. 33,  
n.3, p.155-162, 2004.

WILSON, M.S.; WEATHER-  
ALL, A.; BUTLER, C.  
A rhetorical approach to discus-  
sions about health and veg-  
etarianism. *Journal Of Health  
Psychology*, v. 9, n.4, p.567-581,  
2004.

WORSLEY, A.  
The behavioural and demo-  
graphic contexts of white bread  
consumption. *British Food Jour-  
nal*, v. 105, p.695-699, 2003.

WORSLEY, A.; LEA, E.  
Consumers' personal values and  
sources of nutrition information.  
*Ecology Of Food And Nutrition*,  
v. 42, n.2, p.129-151, 2003.

ZAJONC, R.B.  
Feeling and thinking: Preferenc-  
es need no inferences. *American  
Psychologist*, v. 35, n.2, p.151-  
175, 1980.

ZAJONC, R.B.  
On the primacy of affect. *Ameri-  
can Psychologist*, v. 39, n.2,  
p.117-123, 1984.

Recebido: 03/11/06  
Revisado: 18/11/06  
Aceito: 01/12/06