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Chapter Three

**THE ATTRIBUTE-MEDIATION AND PRODUCT
MEANING APPROACHES TO THE INFLUENCES
OF HUMAN VALUES ON CONSUMER CHOICES**

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An area of continuing interest to academics and practitioners alike is how consumers' choice of products may be influenced by the human values that they support (i.e., Burgess, 1992; Pitts & Woodside, 1984). The present article reviews some of the major theories of human value influence, and focuses upon two perspectives in particular: the attribute-mediation approach and the product meaning approach. The attribute-mediation approach suggests that human values do not influence product preference directly, and instead values influence the importance of product attributes that in turn guide product evaluation and purchase (e.g., Gutman, 1982; Lindberg, Garling & Montgomery, 1989; Scott & Lamont, 1973). The attribute-mediation approach has been the most widely-accepted and implemented model.

Nevertheless, Allen (1997) and Allen and Ng (1999) recently developed a product meaning approach which they suggested could advance our understanding of the roles of

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human values in consumer choices beyond that provided by the attribute-mediation approach for two reasons. First, the attribute-mediation approach cannot adequately account for the influences of values on consumers' evaluations of a product's intangible attributes such as image, symbolism or aesthetics. To varying degrees, each of the attribute-mediation approaches are based in Fishbein's (1967) and Rosenberg's (1956) expectancy-value theory which assumes that consumers evaluate products attribute-by-attribute, and that the judgement of each product attribute independently contributes to the assessment of the product whole. While such an assumption may hold true for tangible product attributes, it appears not to be the case for intangible attributes in which consumers evaluate products in a Gestalt-like, holistic fashion (c.f., Holbrook & Moore, 1981; Keaveney & Hunt, 1992; McCracken, 1986). Accordingly, the attribute-mediation approach, when properly restricted to tangible attributes to meet expectancy-value theory's independence assumption, cannot fully account for the influences of human values on product preference and this inability increases as symbolic meanings, images and aesthetics become more important to consumers' evaluations of the product, a contention supported in Allen (1997) and reported in the present article.

Besides recognising that the attribute-mediation approach cannot adequately explain the influences of human values on consumers evaluations of intangible product attributes, Allen (1997) and Allen and Ng (1999) suggested that our conceptualisation of value influence can also be improved beyond that offered from the attribute-mediation approach by breaking the general value-attitude-behaviour system into major sub-systems. That is, each of the attribute-mediation approaches focus at both the "general" and "specific" levels of the value-attitude-behaviour hierarchy. At the general level, the attribute-mediation models suggest that human values influence general constructs such as attributes that in turn influence product choice. At the specific level, these models represent how certain human values influence certain product choice through particular attributes. Thus, our conceptions of the influences of human values on consumer choices can be advanced by breaking-up the general value-attitude-behaviour system into major sub-systems. These "major sub-systems" are at a greater level of abstraction than how certain human values influence certain product choice through particular association networks, and yet are more specific than the modelling of general constructs.

For both of the above reasons, Allen (1997) and Allen and Ng (1999) developed a product meaning approach (for a preview, see Figure 1 or Table 1). The product meaning approach supplements the attribute-mediation approach with recent theoretical developments of what products mean to consumers (e.g., Dittmar, 1992; Richins, 1994), how objects are judged (e.g., Fiske & Pavelchak, 1986), and the psychological functions represented by the product meanings (eg., Beggan, 1991; Csikszentimihalyi & Rochberg-Halton, 1981; Johar & Sirgy, 1991; Prentice, 1987; Verkuyten, 1995). From the union, Allen's (1997) and Allen and Ng's (1999) product meaning approach outlines two major sub-systems of the value-attitude-behaviour structure. Firstly, when consumers are evaluating a product's utilitarian meaning and making a piecemeal, attribute-by-attribute judgement, human values may influence the importance of the product's tangible

attributes that in turn influence product preference. Secondly, when consumers are evaluating a product's symbolic meaning and making an affective, holistic judgement, human values may influence product preference directly. In the former route, the product serves an instrumental psychological function, and in the latter route the product serves an expressive function.

Table 1 Allen's (1997) and Allen and Ng's (1999) Product Meaning Approach: The product meaning, type of judgement and psychological function associated with the direct and indirect influences of human values on product preference.

Routes of Human Value Influence on Product Preference		
	INDIRECT	DIRECT
	(via tangible attribute importances)	
<u>Product Meaning</u>	Utilitarian	Symbolic
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
<u>Judgement Type</u>	Piecemeal	Affective
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
<u>Psychological Function</u>	Instrumental	Expressive
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.
Motivation(s)	Need to competently and efficiently control and manipulate the environment.	Needs for self-consistency or social approval.
Product Identification/ Attachment	Weak	Strong

The present article describes the attribute-mediation approach, Allen's (1997) reevaluation and test of the attribute-mediation approach, the development of Allen's (1997) and Allen and Ng's (1999) product meaning approach, and general theories of human values and object preferences.

HUMAN VALUES

In Rokeach's (1973) 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). Beliefs about desired end-states are terminal values (e.g., Freedom, Comfortable Life, Mature Love), and beliefs about desired modes of action are instrumental values (e.g. being Independent, Ambitious or Honest). Rokeach suggested that instrumental values attempt to bring about the end-goals of terminal values, such as "being Independent" may lead to the end-state of "Freedom". Human values are also "prescriptive" inasmuch as values refer to an individual's preferred modes of action and end-states of existence, and human values are "centrally-held" in that values are a focal point around which other, less important beliefs are organised. More recently, Schwartz (1994) defines human 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 and so on) by motivating action or serving as a standard with which individuals and groups can judge themselves and others. In promoting the interest of the individual, human values serve distinct psychological functions such as instrumentality, ego-defence, social-adjustment, self-expression, and knowledge (e.g., Epstein, 1989; Kristiansen, 1990; Rokeach, 1968; Williams, 1979).

According to leading human value theorists (e.g., Feather, 1982; Kahle, 1983; Rokeach, 1968, 1973), two processes are central in the development and application of an individual's human values preferences: abstraction and generalisation. The best known proponents of such processes are Rokeach and Feather who base their propositions in expectancy-value theory of attitudes (e.g., Fishbein, 1967; Rosenberg, 1956). Rokeach and Feather suggest that when an individual has a positive or negative experience with an object he or she forms evaluative beliefs about the part of the object thought to be the cause of the experience. For instance, if a business person felt tired and drained, and needed a boost he or she might drink a Pepsi and then credit the resulting feeling of alertness to Pepsi's caffeine content. Evaluative beliefs comprise a belief component (e.g., Pepsi has caffeine, or caffeine makes one feel alert) and an evaluation (e.g., feeling alert is good.). Rokeach and Feather suggest that the individual then summarises all his or her evaluative beliefs about the object to form a general attitude towards the object. Rokeach's and Feather's suggestion is the same process outlined in expectancy-value theory of attitudes; each belief has an associated evaluation and these belief-evaluation dyads additively combine with other belief-evaluation dyads to form

the attitude. However, Rokeach and Feather take the abstraction process further than that taken in expectancy-value theory of attitudes; Rokeach and Feather suggest that the individual then summarise his or her attitudes towards all objects that they perceive as similar. Thus, continuing the same example, the business person may summarise his or her attitudes towards all products that have made him or her feel alert in the past (e.g., coffee, Coca-Cola and Pepsi). The process of abstraction continues to summarise even broader classes of objects, which makes the abstraction at the level of “instrumental values”, and the abstraction process continues until it reaches the most abstract level of “terminal values”. Thus, the business person might recognise that objects that make him or her stay alert (e.g., coffee, Coca-Cola and Pepsi) allow him or her to work hard and be ambitious (both instrumental values) and that working hard and being ambitious will bring about a sense of accomplishment (a terminal value).

Once the human value preferences are formed, they can then be generalised to new objects that were not the impetus for the abstraction process. Human values influence attitudes and evaluative beliefs towards new objects based on an assumption that the object will bring about or will reinforce the human values in the same way as the original object had. Thus, the business person might form a positive attitude towards Jolt cola on the assumption that, like Pepsi, Jolt will make him or her feel alert and will enable him or her to work harder, be ambitious, and have a general sense of accomplishment. Besides human values preferences being generalised to new attitudes and evaluative beliefs, human values may also be generalised to other human values that are semantically related. For instance, the business person’s preference for value of accomplishment may influence his or her preference for the value of “achievement” because of their similar semantic meanings. Thus, whilst a process of abstraction created a hierarchical network between specific evaluative beliefs and specific human values, once formed, a process of generalisation expands the scope of the network at both the object end and at the human value end. The hierarchical network is also known as the value-attitude-behaviour system and is discussed throughout the current article.

MODELS OF HUMAN VALUES INFLUENCE ON CONSUMER CHOICES

The brief review of general human values processes illustrates that a useful avenue for developing a conceptual model of consumer choices is to address how those decisions are influenced by the human values individuals endorse. Human values, and the attitudes formed from the generalisation of human values, are criteria against which individuals evaluate mental and physical objects. Several researchers have already made propositions about how consumer choices are influenced by human values (e.g., Corfman, Lehmann & Narayanan, 1991; Gutman, 1982; Henry, 1976; Homer & Kahle, 1988; Howard, 1977; Lindberg, Garling & Montgomery, 1989; Pitts & Woodside, 1984; Prentice, 1987; Scott & Lamont, 1973). Most of these propositions can be classified under one of three general approaches: direct influence approaches, general attitude-mediation approach, and attribute-mediation approach.

Direct Influence Approach

Much of the early research of human values and consumer choices investigated the primary relations between product preference and human values (i.e., Henry, 1976). For instance, Henry (1976) examined value differences among owners of different classes of cars, revealing that owners of full size cars prefer what he described as "lineal" relationships with others, whereas the owners of intermediate and subcompact cars tended to prefer more "collateral" relationships.

General Attitude-mediation Approach

Nevertheless, a major limitation of the direct influence approach, as applied in research to-date, is that it lacks an explicit theoretical rationale to why human values would influence consumer choice and does not delineate the cognitive structure through which that influence occurs. In contrast, the general attitude-mediation approach does specify the cognitive structure through which human values mediate to influence product preference, that is, general product attitudes (i.e., Homer & Kahle, 1988; Lessig, 1975). For instance, Homer and Kahle (1988) suggest that human values do not influence product preference directly but instead values influence general attitudes toward products that in turn guide product evaluation. Using structural equation modelling, Homer and Kahle showed that human values predicted attitudes toward natural foods which in turn was associated with natural food purchasing. Human values had no direct affiliation with product purchase.

Attribute-mediation Approach

Nevertheless, although the general attitude-mediation approach is advantageous over the direct influence models inasmuch as an intervening variable is specified, what the general attitude-mediation approach does not delineate is how consumers apply their attitudes in product comparison and evaluation. In contrast to both the direct influence and general attitude-mediation approaches, the attribute-mediation approach specifies both the intervening variables between human values and behaviour and the manner in which these variables are applied by consumers in their judgement of the product. Of the three human value approaches described thus far, the attribute-mediation approach has the clearest rationale and has been the most widely implemented. As such, describing the attribute-mediation approach in depth is worthwhile.

Three variations of the attribute-mediation approach have been proposed: Lindberg, Garling and Montgomery's (1989) Multi-attribute Approach, Gutman's (1982) Means-end Chain, and Scott and Lamont's (1973) Centrality of Beliefs Approach, Theory. Though to different degrees, each of the three variations of the attribute-mediation approach are founded in Fishbein's (1967) and Rosenberg's (1956) expectancy-value theory. Developers of expectancy-value theory suggest that an attitude towards an object

is a joint function of the subjective probability the object will yield positive or negative consequences and the importance of those consequences. The conceptualisation includes the two major components of “evaluation” and “belief”. Evaluations (or importances) are predispositions to respond favourably or unfavourably to objects and are learnt from experience both direct and vicarious in which the objects meet or block meaningful goals. Evaluations can vary in valence and intensity but variation is anchored to the content of beliefs, which refer to the existence of certain characteristics of the attitude object (e.g., “God is omnipotent”) or the object’s relationship to other objects or goals (e.g., “Women are equal to men” or “Talking to women increases your life expectancy”). However, as Fishbein (1967) argues, these beliefs are subjective probabilities as they represent the certainty (or uncertainty) that the object comprises those features or is related to other objects and goals.

According to expectancy-value theory, attitudes are formed through an abstraction process that summarises specific evaluations and beliefs, as represented in the formula below (reprinted, with some modification, from Fishbein, 1967):

$$A_o = \sum_{i=1}^n B_i a_i$$

where A is the attitude towards object o , B_i is the strength of the belief (e.g., subjective probability) that the object is associated with concept i , a_i is the evaluation of concept i and n is the number of beliefs about the object. Therefore, each belief has an associated evaluation and together these belief-evaluation dyads additively combine with other belief-evaluation dyads to form the attitude. Consumer researchers applying expectancy-value theory suggest that individuals determine their overall preferences for products from their beliefs about what attributes the product contains and the importance of those attributes (i.e., Bagozzi, 1988). Consumers are suggested to use the formula to calculate an overall utility or preference for each brand and then select the one with the maximum utility. The application of expectancy-value theory to consumer choices is loosely termed the “multi-attribute model” (c.f. Kotler, 1991).

Regarding the roles of human values in expectancy-value theory and the multi-attribute model, Fishbein (1967) and Rosenberg (1956) presume that a consumer’s human values, ideology and other general beliefs are either too far removed and abstract to influence the assessment of specific objects, or that the influence is so minor that human values are not worthy of attention from researchers. Nevertheless, some human value theorists dispute those assumptions and argue that whilst attribute importances and attribute beliefs combine to determine overall product preference (as suggested in expectancy-value theory), attribute importances are influenced by human values based on the attributes’ abilities to reinforce longer-term goals and meet standards that are more general. These approaches to the influences of human values on consumer choices founded in expectancy-value theory are termed, in this article, “attribute-mediation

approaches” of which three variations have been proposed: Lindberg, Garling and Montgomery’s (1989) Multi-attribute Approach, Gutman’s (1982) Means-end Chain Theory, and Scott and Lamont’s (1973) Centrality of Beliefs Approach.

Lindberg, Garling and Montgomery’s (1989) Multi-attribute Approach

Of the three variations of the attribute-mediation approach, Lindberg, Garling and Montgomery’s (1989) Multi-attribute Approach is the most direct integration of expectancy-value theory into the role of human values. Lindberg, Garling and Montgomery’s main hypothesis was that consumers derive their overall preferences for products from their beliefs about what human values the product’s attributes reinforce and the importance of those human values, as represented in the formula:

$$E_{Alt} = \frac{\sum_j \sum_k P_{ATTRijk} E_{vk}}{\sum_k E_{vk}}$$

where E_{Alt} represents the overall preference for product i , P_{ATTR} is the extent to that attribute j will lead to the attainment of human value k , and E_v is the importance of human value k . Thus, for example, a consumer’s preference for Brand A sports car could be a multiplication of the degree to which he or she believes that the car’s attribute of High Speed Engine will lead to the attainment of the human value of Social Power with the importance he or she gives to Social Power, and that product is added to the multiplication of the degree to which he or she believes that the car’s attribute of Compact Size will lead to the attainment of the human value of Social Power with the importance he or she gives to Social Power, and so on through all permutations of human values and attributes.

Besides the main hypothesis, Lindberg, Garling and Montgomery tested two alternatives; the first was that human values did underlie attribute importances but not linearly nor additively and therefore no relationship to attributes could be inferred or modelled. Thus, that alternative ignored the role of attributes and planned that human values influence product preference at a holistic level such as brand, class or category. The second alternative Lindberg, Garling and Montgomery tested was that human values did not underlie attribute importance or overall product preference; product preference is simply a function of attribute importances. In a test of the three formulations, Lindberg, Garling and Montgomery found that all three significantly predicted consumer preferences for different classes of houses. Contrary to the main hypothesis, however, Lindberg, Garling and Montgomery found that product preference was mainly a function of the beliefs that the product *whole*, not the product attributes, would reinforce human values and the importance of those human values (the implication of this finding to the attribute-mediation approach is discussed in an upcoming section).

Gutman's (1982, 1990) Means-end Chain Theory

Though not as heavily founded in expectancy-value theory and the multi-attribute model as Lindberg, Garling and Montgomery's (1989) Multi-attribute Approach, Gutman's (1982, 1990) Means-end Chain Theory does suggest that human values influence the importance of product attributes that in turn guide product evaluation and purchase. Gutman suggests that consumers associate product attributes with consequences that reinforce human values. Consequences are the outcomes of interactions with product attributes and can occur immediately, after a period, may be experienced directly or vicariously, and may be physiological (e.g., satiation of hunger, etc.), psychological (e.g., self-esteem, etc.) or social-psychological (status, social identity, etc.). Through experience with product attributes, consumers develop knowledge of products comprising the product's attributes, consequences, and ultimately, the human values the consequences help attain. Thus, Gutman (1982) accepts Rokeach's (1968, 1973) and Feather's (1975) claims that human values are formed through the abstraction of positive and negative experiences with specific objects, and that the process of abstraction results in a hierarchical network between human values and evaluative beliefs about the object.

Means-end chains may be uncovered through a "Laddering" interview in which an interviewer asks the participants what attributes they use to discriminate among brands and why those attributes are important. When a participant tells why an attribute is important, the interviewer would then ask him or her to elaborate, and upon the response the interviewer would ask the participant to elaborate again. The interview continues until the participant reaches the most basic and abstract level, which Gutman (1982) suggests is usually a terminal value.

Scott and Lamont's (1973) Centrality of Beliefs Approach

Scott and Lamont's (1973) Centrality of Beliefs Approach is founded in Rokeach's (1968, 1973) claim that human values are abstract and centrally-held values influence and organise lower-level elements. Scott and Lamont suggest that two types of lower-level evaluative beliefs of interest to consumer researchers are consumption values and attribute evaluations (e.g., attribute importances). Consumption values are generalised preferences in the realm of economic transactions and consumption choices, that is, they are characteristics of products consumers favour across a wide range of goods and services. For example, some people may want products that are practical whereas others may want ones with greater aesthetic qualities; some consumers may demand that retailers provide prompt service whereas others may be more concerned about the retailer's location. Attribute importances differ from consumption values because attribute importances centre on a *specific* product; a consumer might insist that Brand A sports car have a high-speed engine, anti-lock brakes, chrome detailing, and so on. Scott and Lamont (1973) suggest that as consumption values are more abstract and centrally-held than attribute importances, but less so than human values, the theoretical flow of influence is from human values to consumption values to attribute importances.

Though Scott and Lamont never tested the flow of influence, they did find that the three levels of abstraction are correlated. For example, Scott and Lamont found that a preference for an automobile attribute of Style was correlated with the consumption value of An Exciting Product, which was correlated with the human values of A Comfortable Life, An Exciting Life and A Pleasurable Life.

Allen's (1997) Test of the Attribute-mediation Approach

Lindberg, Garling and Montgomery's (1989) Multi-attribute Approach, Gutman's (1982) Means-end Chain Theory and Scott and Lamont's (1973) Centrality of Beliefs Approach have been widely implemented (i.e., Vinson, Scott & Lamont, 1977; Walker & Olson, 1991), and these models' foundation in expectancy-value theory provides a sound theoretical basis for their claim that human values influence consumer choices via an evaluation of the products attributes.

Nevertheless, Allen (1997) and Allen and Ng (1999) suggested that we can advance our understanding of value influence beyond the attribute-mediation approach in two ways. The first is to break the general value-attitude-behaviour system into major sub-systems. At a general level, the attribute-mediation models suggest that human values influence general constructs such as attributes that in turn influence product choice, and at a specific level, these models represent how certain human values influence certain product choice through particular association networks. Thus, one way to advance current conceptions of the influence of human values on consumer choices is to model at mid-levels or major subsystems of the value-attitude-behaviour hierarchy.

A second way to advance our understanding role of values in consumer's decision processes is to recognise a limitation of the attribute-mediation approach. Although the limitation affects each of the attribute-mediation approaches, the restriction is most applicable to those approaches heavily founded in expectancy-value theory and the multi-attribute model, that is, Lindberg, Garling & Montgomery (1989), Scott and Lamont (1973) and to a lesser degree, Gutman (1982). This limitation is described in some depth in the next several pages, but the essence is that the attribute-mediation approach can adequately model the influences of human values on consumers evaluation of tangible product attributes, but not intangible attributes such as product image, symbolism, or aesthetics. Accordingly, Allen (1997) hypothesised that the attribute-mediation approach, when properly restricted to tangible attributes, cannot fully account for the influences of human values on product preference and this inability increases as intangible attributes become more important to consumers' evaluations of a product. The results of Allen's (1997) test of this hypothesis is reported below and indicates that an improved approach to the influences of human values is needed (a task undertaken by Allen's (1997) and Allen and Ng's (1999) product meaning approach and the focus of the latter half of the present article).

To make a test of the attribute-mediation approach, Allen (1997) suggested that Lindberg, Garling and Montgomery's (1989) Multi-attribute Approach, Gutman's (1982)

Means-end Chain Theory and Scott and Lamont's (1973) Centrality of Beliefs Approach should be integrated to create a single, basic formulation of the attribute-mediation approach. The basic attribute-mediation approach should retain the essential rationale, but should eliminate those aspects for which the three variations of the attribute-mediation approach are inconsistent. The similarities and differences among the three approaches are in two areas: their cognitive structure and the roles of beliefs. In the course of reviewing the two areas, a basic formulation of the attribute-mediation approach is proposed.

As Lindberg, Garling and Montgomery's (1989) Multi-attribute Approach, Gutman's (1982) Means-end Chain Theory and Scott and Lamont's (1973) Centrality of Beliefs Approach are each founded in expectancy-value theory and the multi-attribute model, each outlines a cognitive structure in what the influence of human values on product preference is mediated by product attributes:

Lindberg, Garling and Montgomery (1989): human value \rightarrow attribute importance \rightarrow product preference

Gutman (1982): human value \rightarrow consequence \rightarrow attribute importance \rightarrow product preference

Scott and Lamont (1973): human value \rightarrow consumption value \rightarrow attribute importance \rightarrow product preference

Although the attribute importance construct is explicit in Scott and Lamont's model, the construct is implicit in Gutman's suggestion that through a process of generalisation human values assign importance to consequences that in turn assign importance to product attributes. Thus, when human values are being generalised, attributes would have *a priori* importances. Similarly, Lindberg, Garling and Montgomery suggest that attributes are evaluated on their ability to reinforce important human values and thus must have an *a priori* importance. Finally, although Scott and Lamont do not explicitly state that attribute importances influence product choice, they do suggest that the attribute importance construct in their model is the same as that employed in the multi-attribute model, and so Scott and Lamont's indirectly suggest that attribute importances influence product preference.

Considering that the attribute-mediation approaches share some overlap in the structures they propose, their principal differences are whether they specify a component that mediates the influence of human values on attribute importances, and if they do specify such a component, the form that the component takes. Gutman suggests consequences mediate the linkage, Scott and Lamont argue for consumption values, and Lindberg, Garling and Montgomery do not specify any intervening construct. Considering the inconsistency, adopting Lindberg, Garling and Montgomery's position is prudent. Specifying an intervening construct would commit the research to either Gutman's or Scott and Lamont's propositions, whilst not specifying an intervening variable would, at least theoretically, allow for the validity of any one or all of the

approaches to manifest. The exclusion of the intervening variables only presents a problem if Allen's (1997) test of the attribute-mediation approach resulted in a weak or non-existent association between human values and attribute importance, as it would have been ambiguous whether the result was due to human values mediating through some variable not measured (e.g., consumption values or consequences), or to human values having no place in the development of attribute importances. Nevertheless, human values and attribute importances were expected to have sufficient common variation as both are abstract criteria, are semantically similar, and are formed through similar abstraction and generalisation processes.

Aside from the presence and form of the intervening variable between human values and attribute importances, Lindberg, Garling and Montgomery, Gutman, and Scott and Lamont generally outline similar cognitive structures through which human values operate to influence product preference. Furthermore, the approaches also offer a similar rationale for why super-ordinate levels in their models influence and organise lower ones, namely, the belief-importance combination. In Lindberg, Garling and Montgomery's Multi-attribute Approach the belief-importance rationale is employed in their main hypothesis that product preference depends on the beliefs that the products' attributes will lead to the reinforcement of human values and the importance of those human values. Similarly, in Gutman's Means-end Chain Theory consumers are suggested to associate product attributes with consequences that reinforce human values. Thus, consumer knowledge comprises which attributes lead to which consequences and which consequences lead to the realisation of human values, and therefore each component in the means-end chain is mediated by beliefs.

In Scott and Lamont's Centrality of Beliefs Approach, the belief-importance rationale appears to be used to explain the attribute importance → product preference relation, given that Scott and Lamont claim that the "attribute importance" construct is the one employed in expectancy-value theory and the multi-attribute model (in which product preference is suggested to result from the combining of attribute importances and attribute beliefs). However, Scott and Lamont do not use the belief-importance rationale for the other relations in their model, and instead simply state that human value importances influence consumption value importances which in turn influence attribute importances. Nevertheless, as the reduction of the attribute-mediation approaches to their basic form is of interest, adopting Scott and Lamont's exclusion of the belief component is sensible. To incorporate a belief component in the current model would require the acceptance of a particular attribute-mediation approach either by forcing the inclusion of a specific construct such as Gutman's consequences (e.g., the belief that attributes engender consequences that are important to human values) or from the manner in which beliefs link human values and attribute importances (such as Lindberg, Garling and Montgomery's claim that attribute importances are formed from the beliefs that they reinforce important human values). Testing the core or most basic attribute-mediation approach is therefore not possible if the belief component is included. Moreover, the exclusion of the belief component should not substantially affect the test of the attribute-

mediation approach because past research has excluded the belief component with satisfactory predictions of overall attitudes (i.e., Anderson & Fishbein, 1965; Lindberg, Garling and Montgomery second alternative formulation).

To summarise, Allen's (1997) review and integration of Lindberg, Garling and Montgomery's (1989) Multi-attribute Approach, Gutman's (1982) Means-end Chain Theory, and Scott and Lamont's (1973) Centrality of Beliefs Approach, observed how each of the theorists outlined similar cognitive structures through which human values operate to influence product preference and offered similar rationale for how super-ordinate levels in their models influenced lower ones, namely, a belief-importance combination. Nevertheless, essential differences among the attribute-mediation approaches were the roles of beliefs and the intervening variable between human values and attribute importances, and due to these differences the most basic attribute-mediation approach is:

human values → attribute importances → product preference

One final, yet potentially significant, modification to the basic attribute-mediation approach is required. Although in some respects the attribute-mediation approaches' foundation in expectancy-value theory and the multi-attribute model engender some confidence in the approach, the foundation in expectancy-value theory is also a reason for scepticism. Critics have asserted that expectancy-value theory is restricted in the degree and kind of product preference for which it can explain (c.f., Holbrook & Moore, 1981; Keaveney & Hunt, 1992; McCracken, 1986), and therefore the attribute-mediation approach may be similarly limited, particularly those approaches most heavily based in expectancy-value theory, that is, Lindberg, Garling and Montgomery (1989), Scott and Lamont's (1973) and to a lesser degree Gutman (1982). The expectancy-value theory criticism is reviewed, followed by the criticism's implications for the attribute-mediation approach.

The main criticism of expectancy-value theory and the multi-attribute model is that it cannot explain that portion of product preference consumers derive from an evaluation of the product's intangible attributes. Intangible attributes such as image, symbolism and aesthetics, are subjectively imbued onto the product by consumers, whereas tangible attributes "arise" from the product via the five senses (e.g., Hirschman, 1980). Naturally, intangible attributes can play a vital role in the evaluations of a wide range of goods; from clothing, to soft drinks, to furniture, and so on. Holbrook and Moore (1981), Keaveney and Hunt (1992), and in a less direct way, McCracken (1986), suggest that expectancy-value theory is inappropriate for intangible attributes because the theory assumes consumers evaluate products attribute-by-attribute, when with intangible attributes, consumers probably evaluate products in a Gestalt-like, holistic fashion (see Keaveney and Hunt (1992) for a cogent discussion of the attribute-by-attribute versus Gestalt-like judgement of images/symbolism, see Holbrook and Moore (1981) for a discussion of expectancy-value theory and aesthetic judgements, and see McCracken

(1986), Chapter Four, for a linguistic analogy). Expectancy-value theory is more appropriate for tangible attributes because consumers probably do evaluate tangible attributes one at a time. For example, the tangible attributes of a vacuum cleaner are the power of the motor, durability of construction, and proximity to the carpet, and although the precise combination rule may vary, the separate evaluations of these attributes contribute to the assessment of the product's ability to clean. For intangible attributes, however, the product is likely to be evaluated in a Gestalt-like, holistic judgement because intangible attributes are tied to a specific configuration of tangible attributes, resulting in the instantaneous evaluation of the product. Thus, paradoxically, whilst tangible attributes must exist, they do not separately contribute to product preference formed from intangible attributes.

To make the distinction between the two types of attributes and their judgements clearer, consider Fiske and Pavelchak's (1986) discrimination between a "piecemeal affective response" and a "category-based affective response". A piecemeal affective response is the expectancy-value type of judgement that proceeds attribute-by-attribute to evaluate a stimulus in a logical, systematic and comprehensive fashion, with the overall attitude towards the stimulus the result of the algebraic combination of the affect associated with each attribute. However, a category-based affective response is a Gestalt-like, holistic judgement in which the stimulus is compared with an exemplar and in the case that the two match, the affect associated with the exemplar category schema is automatically transferred to the stimulus. Thus, the stimulus must have a particular configuration of attributes for its exemplar or prototype to be recognised and classified, but the affect of the attributes does not contribute to the overall evaluation.

Therefore, the essence of the criticism of expectancy-value theory is three-fold:

1. Expectancy-value theory and the multi-attribute model should generally be restricted to tangible attributes because intangible attributes will usually not meet the assumption in expectancy-value theory that attributes are evaluated independently.
2. Intangible attributes are "located" on a particular configuration of tangible attributes, which is termed the "product-whole level" such as the product's brand, class or category.
3. Although intangible attributes are found on the agglomeration of tangible attributes, intangible attributes are still more than the sum of tangible ones. Consequently, that portion of product preference which consumers derive from an evaluation of the intangible attributes of the product cannot be determined from measuring consumer preferences for tangible attributes of the product. Consumer preferences for intangible attributes must also be measured (but not through expectancy-value theory or the multi-attribute model given point #1).

The implication of the criticism of expectancy-value theory for the attribute-mediation approach is that the role of tangible attributes in mediating the influence of

human values on product preference can be modelled through the attribute-mediation approach, but intangible attributes cannot and therefore should be excluded. Nonetheless, although Gutman (1982), Scott and Lamont (1973) and Lindberg, Garling and Montgomery (1989) should have excluded intangible attributes from their models and investigations, such a failure may not damage the validity of their approach. Human values may always mediate through tangible attributes, perhaps because intangible attributes are carried on the agglomeration of tangible ones. Contrary to that possibility, however, Allen (1997) accepted Keaveney and Hunt's (1992), Holbrook and Moore's (1981) and McCracken's (1986) reasoning that although intangible attributes are found on the agglomeration of tangible attributes, intangible attributes are still more than the sum of tangible ones. Therefore, the distinction between tangible and intangible attributes should be of consequence to the influence of human values, with human values mediating through both kinds of attributes to influence product preference.

One reason for cautious acceptance of the expectancy-value theory criticism as it applied to the attribute-mediation approach, besides the reasonableness that tangible and intangible attributes function in different ways, is that one of the attribute-mediation approaches provides evidence for it. The readers would recall that Lindberg, Garling and Montgomery (1989) tested three alternative relationships among human values, attribute importances and product preference, and the formulation that yielded the strongest prediction of housing preferences was that human values underlies product preference but did not combine additively with attribute importances to form that preference. Importantly, Lindberg, Garling and Montgomery (1989) included both tangible and intangible attributes in their analysis (e.g., Size of House is tangible and intrinsic whereas Reputation of Neighbourhood is intangible/symbolic) and therefore violated the assumption in expectancy-value theory that each attribute is evaluated independently. Their finding that human values influence product preference at the product whole-level more than the attribute-level is supportive of the claim, though not definitively, that intangible attributes are found on the product whole and are more than the sum of tangible attributes.

Thus, the final, basic form of the attribute-mediation approach is;

human values → tangible attribute importances → product preference

The aim of Allen (1997) was to test if the attribute-mediation approach, properly limited to tangible attributes to meet expectancy-value theory's independence assumption, could fully explain the influences of human values on consumer product preferences. Realistically, any single approach cannot fully account for all variation, but because the proponents of the attribute-mediation approach do not specify any other route of human value influence other than through their expectancy-value constructs, the issue of whether their approach can fully account for value influence is important. Given Keaveney and Hunt's (1992), Holbrook and Moore's (1981) and McCracken's (1986) expectancy-value criticism, Allen (1997) hypothesised that the attribute-mediation

approach, properly limited to tangible attributes, could not fully explain the influences of human values on product preference, and this inability would be greater for those products in which consumers attach larger importance to the product's symbolism/image and aesthetics. Allen (1997) selected three products to test the hypothesis; automobiles, overseas holiday destinations and types of meat. Among the three products, cars are the highest risk decisions and so should lead to careful, piecemeal evaluations of tangible product features first, and intangible attributes second. Holidaying is a hedonic product that is characterised by emotional desires, the imaginative construction of reality, and consumers imbuing the product or service with subjective meaning and intangible attributes that supplement the tangible attributes (c.f., Hirschman, 1980). Finally, due to operant conditioning during early socialisation, meat products should be judged affectively, spontaneously, and holistically. Accordingly, it was expected that the attribute-mediation approach, properly restricted to tangible attitudes, would have the most success accounting for the influence of human values on consumer preferences for different classes of automobiles, a moderate success with preferences for different overseas holiday destinations, and the least success with preferences for different types of meat.

Three-hundred and forty members of the general population were surveyed about their human values (Rokeach Value Survey), and the tangible attributes that were important to their evaluation of automobiles (i.e., Dependable, Compact, High Speed Engine, etc), overseas holiday destinations (i.e., Great Beaches, Few Tourists, Educational, etc), and red and white meat (i.e., Inexpensive, High In Protein, Flavoursome, etc). Participants were also surveyed regarding their ownership and purchase of the products, that is, of the total number of cars that participants have owned in the last 10 years, that proportion which was Smaller Family Cars, Larger Family Cars, and Luxury Cars, of the total number of overseas holidays participants have taken in the past five years, the proportion of which was to Major Cities (i.e., Melbourne, Sydney etc), Prestigious and Structured Destinations (i.e., Club Med, Gold Coast), and Safe and Tropical Destinations (i.e., Rarotonga, Cairns, Great Barrier Reef Islands, etc), and of the total number of food servings in the past three days, the proportion of which was white meat and red meat.

Two separate regression analyses were then performed for each of the eight product classes (see Table 2). In the first regression analysis, human values alone were regressed onto product preference. The second regression analysis was made up of two blocks or stages: Block 1 regressed tangible attribute importances onto product preference, and then Block 2 regressed human values onto the remainder of product preference variance. Beginning with the left portion of the table, the two-block regressions, the far left column reports the Multiple Rs from regressing tangible attribute importances onto product preference (Block 1). The second column from the left reports the Multiple Rs from regressing human values onto the remaining product preference variance not already accounted by tangible attribute importances (Block 2). The "Change in R" column reports the extent human values predicted product preference beyond tangible

attribute importances, and so represents the influence of human values that *does not* flow through tangible attribute importances. The Multiple Rs from regressing human values alone onto product preference is reported in the “Human Values Only” column. Finally, the far right column marked “HVs via Tangible Attribute Importances” represents the influence of human values on product preference via tangible attribute importances and is calculated, though rather crudely, as the total influence of human values (the Human Value Only regression column) minus the “Change in R” from the two-block regression. In interest of caution, however, the Multiple Rs from the human values only regressions are not necessarily precise indicators of human value influence in that, for example, the two cases that human values alone could not significantly predict product preference (Larger Family Cars and White Meat), incongruously, human values could significantly predict those product preferences once tangible attribute importances were removed (see the “Change in R” column). As the Human Values Only regression and Multiple Rs must be used to calculate the strength of the indirect route of value influence, some degree of imprecision must be acknowledged and tolerated.

As Table 2 shows, of the six product classes that human values alone could significantly predict product preference (e.g., Smaller Family Cars, Luxury Cars, Major Cities destinations, Prestige and Structured destinations, Safe and Tropical destinations, and Red Meat), only for Smaller Family Cars did *all* of the influence occur via tangible attribute importances. For the remaining five products, tangible attribute importances could not fully account for the influence of human values on product purchase/ownership (which is shown by the significant Change in Rs). Moreover, as expected, the attribute-mediation approach had the most success accounting for the influence of human values on ownership of automobiles, a moderate success with overseas holidaying, and the least success with meat consumption. Even within some product categories, support is found for the contention that the human value influence that the attribute-mediation approach cannot account for is due to the increasing importance of the product's symbolism/image and aesthetics. For instance, automobile ownership was expected to be the most appropriate to attribute-mediation approach because the high risk and cost of automobiles should lead to careful and deliberate evaluations of tangible features first, and images second. The results confirm the expectation but also show that it varies among the automobile classes; the attribute-mediation approach was most successful accounting for the influences of human values on those product class preferences in which image/aesthetics is probably less important (e.g., Smaller Family Cars), whereas the attribute-mediation approach was the least successful accounting for the influences of human values on those product class preferences in which image/symbolism is probably most important (e.g., Luxury Cars). Likewise, some anthropologists and sociologists have argued that red meat has more potent symbolism than white meat (e.g., Adams, 1990; Fiddes, 1989; Twigg, 1983), and the attribute-mediation approach was more successful for white meat than red meat.

Table 2. Summary of Multiple Rs from two-block and Human Values Only regression onto product purchase/ownership (reprinted from Allen, 1997).

PRODUCT CLASS	TWO-BLOCK REGRESSION		Change In R	Human Values Only Regression	HV's via Tangible Attribute Importances ^t
	Block 1 Tangible Attribute Importance	Block 2 Human Values			
<u>Automobile Ownership</u>					
Smaller Family Cars	.47 ****	.47 ****	.00	.16 *	.16
Larger Family Cars	.40 ****	.42 ****	.02 *	.11	.09
Luxury Cars	.18 **	.27 ***	.09 *	.21 **	.12
<u>Overseas Holidaying</u>					
Major Cities	.22 **	.35 ****	.13 **	.28 ****	.15
Prestige and Structure	.27 ***	.34 ****	.07 **	.28 ***	.21
Safe and Tropical	.19 *	.25 **	.06 *	.16 *	.10
<u>Meat Consumption</u>					
Red Meat	.12 *	.28 ****	.16 ***	.26 ****	.10
White Meat	.15 *	.19 *	.04 *	.09	.05

Notes:

* p<.05

** p<.01

*** p<.001

**** p<.0001

^t= test of significance unavailable.

Block 1 = tangible attribute importances onto product preference.

Block 2 = human values onto remaining product preference not already accounted by tangible attribute importances.

Change in R = indicates direct influence of human values.

HV's via Tangible Attribute Importances = indicates indirect influence of human values and is calculated, rather crudely, by subtracting Change in R from Human Values Only regression.

Thus, Allen's (1997) results are supportive of the hypothesis that the attribute-mediation approach, properly restricted to tangible attributes, cannot fully account for the influence of human values on consumer choices, and that the inability of tangible attributes to mediate the influence of human values on product preference increases as intangible attributes become more important to consumer's evaluation of the product. Importantly, whilst tangible attribute importances could not fully account for the influences of human values on product preference, the route of human value influence outlined in the attribute-mediation approach is, nevertheless, the predominant mode. A

comparison of the strength of the direct route of value influence (the “Change in R” column in Table 2) with the strength of the indirect route (far right column) shows that for seven of the eight product classes the indirect route is greater than or equal to the direct. The exception is red meat and even in that instance the indirect route is of reasonable influence.

ALLEN'S (1997) AND ALLEN AND NG'S (1999) PRODUCT MEANING APPROACH

The results of Allen's (1997) study suggest that a more comprehensive conceptual model of the roles of human values in consumer choices should be developed that 1) builds upon the success of the attribute-mediation approach, given that the influence of human values via tangible attribute importances was the predominant mode, and 2) can also account for the influences of human values on consumers' evaluations of intangible product attributes such as symbolic meanings and aesthetics. Moreover, a more extensive approach would move away from a homogeneous perspective of the value-attitude-behaviour system. That is, that each of the attribute-mediation approaches, as well as the general attitude-mediation approaches described previously (e.g., Homer & Kahle, 1988; Lessig, 1975), describe how general constructs, such as human values, attitudes, attribute importances, and product preference, are organised as a singular value-attitude-behaviour system, and so a more complex model would attempt to delineate the major sub-systems of the general value-attitude-behaviour system.

Thus, for both reasons, the limitation of the attribute-mediation approach in explaining that portion of product preference formed from an evaluation of a product's intangible attributes, and developing a value influence model that breaks the value-attitude-behaviour system in major sub-systems, Allen (1997) and Allen and Ng (1999) suggested our understanding of the influences of human values on consumer choices should be advanced beyond that provided by the attribute-mediation approach. Allen (1997) and Allen and Ng (1999) suggested that a fruitful avenue to pursue in developing such a conceptual model is the meanings products hold for consumers. A product meaning perspective could embody central features of the attribute-mediation approach (e.g., tangible attributes and a piecemeal, attribute-by-attribute type of judgement) and the features of the direct route of human value influence (e.g., intangible attributes and a holistic, category-based judgement). Moreover, a product meaning approach could more closely define the composition of both tangible and intangible attributes, judgement type, the psychological function being served, and the routes through which human values operate to influence the evaluations of product meanings.

Figure 1. Allen's (1997) and Allen and Ng's (1999) Product Meaning Approach: The correspondence between the levels of prescriptive and evaluative beliefs and the levels of product meaning

The next section outlines Allen's (1997) and Allen and Ng's (1999) product meaning approach; reviewing the nature of meaning, the categories of product meanings and the meanings "location" on the product, the type of judgement by which meanings are assessed, how consumers apply their human values to evaluate different product meanings, and finally, the psychological functions underlying the routes of value application. These sections review a diverse range of theoretical and empirical research, and therefore readers are advised to preview the final conceptual model (see Figure 1 for a schematic representation and Table 1 for a more detailed tabular form). Briefly, the contention in the product meaning approach is that the route of value influence outlined in the attribute-mediation approach (e.g., via tangible attribute importances) is restricted to when consumers attend to the utilitarian meanings of products, make a piecemeal, attribute-by-attribute type of judgement, and the product serves an instrumental

psychological function. In contrast, when consumers attend to the symbolic meanings of products, make an affective, category-based type of judgement, and the product serves an expressive psychological function, human values bypass tangible attribute importances and influence product preference directly.

The Nature of Meaning

Meaning is the relation among mind, object and word (Odgen & Richards, 1923) and although numerous theoretical perspectives have been offered to explain the relation, the present article focuses upon three general theories of meaning and one theory specific to the meanings of products. These are: Osgood's (1952) behaviourist approach, Saussure's (1974) semiotic perspective, Szalay and Deese' (1978) notion of psychological meaning, and Richins' (1994) models of product meanings. Following a brief overview of each perspective, the roles of human values in influencing consumer evaluations of product meanings are considered.

One of the early enquires into the nature of meaning was Osgood's (1952) behaviourist approach. Osgood and his colleagues (e.g., Osgood, 1952; Osgood, Suci & Tannenbaum, 1957) suggest that individuals come to understand the meaning of words and other signs by making mediating representational responses. The mediating response is a facsimile of the individual's actual behaviour towards the object represented by the word or sign. As Osgood (1952) states,

“a pattern of stimulation which is not the object is a sign of the object if it evokes in an organism a mediating reaction, this (a) being some functional part of the total behaviour elicited by the object and (b) producing distinctive self-stimulation that mediates response which would not occur without the previous associations of non-object and object patterns of stimulation” (p. 204).

Mediating responses, and meanings, emerge from direct experiences that link the sign and object, and also from associations with other words. Thus, although the response towards the object is transferred to the sign, the sign itself may elicit responses independently of the object.

A second major perspective of meaning is Saussure's (1974) semiotic approach, which is the “the science of signs” and the study of any medium as a sign system. Signs are words, images and objects that comprise a “signifier” -- the material form of the sign -- and the “signified” -- the concept it represents. Signs are organised into meaningful systems according to certain conventions or “codes” which are sets of practices familiar to users of the medium. Pierce (1931-1935) delineates three categories of signs: “iconic” signs resemble the signified, “indexical” signs are connected in some way to the signified, and “symbolic” signs do not resemble the signified and instead are arbitrary and purely conventional. The extent to which the signified determines the signifier is referred as the “motivation” or “constraint”, and therefore, iconic signs are highly motivated whereas symbolic signs are not. Semioticians distinguish between two levels

of meaning; denotative meaning is the manifest or overt level whereas connotative meaning is the latent level. The connotative meanings include affectivity, subjective interpretation, human values and ideology, and “derive not from the sign itself, but from the way the society uses and values both the signifier and the signified” (Fiske & Hartley, 1978, p. 41).

Szalay and Deese (1978) also outline general features of meaning, but of interest to the present article is their notion of “psychological meaning”. Psychological meaning is the individual’s subjective perception and affective reaction towards an object, including linguistic and non-linguistic elements such as images. The individual’s representations of nature, themselves and the world are organised as “subjective representational systems” in which each concept (e.g., Democracy) has a number of components (e.g., The Right to Vote, Free Speech, etc.). Each of these components varies along three dimensions: dominance, affinity and affectivity. Dominance is the centrality or importance of the component to the concept, affinity is the similarity between two component meanings, and affectivity is the positive or negative evaluation of the component.

Finally, concerning the nature of the meanings of products per se, Richins (1994), following Saussure's (1974) semiotic approach, suggests products and other material possessions are signs interpreted by viewers using a code that assigns meaning. Contrary to some traditional economic theories that assume a product’s value is contained in its ability to be exchanged (for an overview see, for example, Ng, 1984), Richins argues that meaning gives products value. Richins makes the claim in part from the observation that often the importance consumers assign to some possessions (e.g., pets, family heirlooms, photographs, etc.) is disproportionate with the possessions’ exchange value, and further that a substantial function not captured by “economic value” is the role of products as signifiers of social relationships and personal preferences. Richins suggests that product meanings can be “public” in that they are assigned to the product by the society as a whole through institutions, communication systems and interpersonal structures, or they can be “private”. Private meanings are the sums of an individual’s subjective meanings and include both internalised public meanings and meanings that result from idiosyncratic experience.

Although each theory has a different emphasis, from Osgood’s behaviourism, to Saussure's (1974) semiotic approach, to Szalay and Deese’s psychological meanings, and to Richins' (1994) semiotic approach to the nature of product meanings, their conceptions of meaning are similar in three ways; 1) that some meanings are suffused with affectivity, 2) that some meanings are subjective, and 3) that meaning can be either linguistic or non-linguistic. The former two features are consistent with the assertion that an individual’s human values would influence his or her evaluations of product meanings. Like product meanings, human values are subjective and affectively charged, but unlike product meanings, human values are positioned at the top of the abstraction and generalisation hierarchy, which means they are centrally-held (e.g., what Szalay and Deese term “dominant”). At lower positions in the hierarchy are beliefs and affectivity resulting from direct and indirect experiences with specific objects such as products. So,

human values are super-ordinate to product meanings and should direct attention to product meanings based on the dominance and similarity of each. Human values and product meanings that are dominant in the system and are subjectively perceived as similar in content should result in the affect for the human value being transferred to the evaluation of the product meaning. For example, an individual's preference for the human value Prestige would not only direct their attention to products that have meanings similar to prestige, such as a Mercedes-Benz, but would also contribute to his or her positive or negative evaluation of the automobile.

As psychological meaning may be linguistic or non-linguistic, the evaluation of product meanings and application of human value criteria could vary in both memory representation (e.g., verbal or imaginal) and judgement type (e.g., piecemeal, attribute-by-attribute or holistic, category-based). Moreover, to assume human values are applied in the same manner to all product meanings would be overly simplistic. As Allen (1997) has shown, such a one-dimensional view of human values is unfeasible. Instead, the way in which human values influence the evaluations of product meanings probably varies with the type of meaning, and therefore the different categories of product meanings are outlined before the roles of human values are considered.

Types of Product Meanings and Their Psychological Functions

Richins (1994) proposes four major categories of product meanings: utilitarian, enjoyment, representation of interpersonal ties, and identity and self-expression. In contrast, several other researchers propose a simple utilitarian-symbolic distinction which is borne out empirically (Abelson, 1986; Abelson & Prentice, 1989; Dittmar, 1992; Hirschman, 1980; Kilbourne, 1991). Abelson and Prentice (1987) for example, used multi-dimensional scaling to reduce lists of respondents' favourite possessions to a single dimension in which instrumental products (e.g., tools, automobiles, etc.) were opposed by those that symbolically express personal and social identities (e.g., family heirlooms, photos, etc.). As the utilitarian-symbolic dimension is a major distinction among product meanings, the two routes of value influence found in Allen (1997), that is, the route proposed in the attribute-mediation approach and the alternative, direct route, could represent the influences of human values when consumers evaluate utilitarian and symbolic product meanings. However, to formulate rationale for why that may be so, the natures of utilitarian and symbolic meanings are elaborated.

Utilitarian Meaning

Utilitarian meaning represents the overt function the product serves in allowing the users to control their environment (Dittmar, 1992; Richins, 1994). The meaning is derived from the product in-use and is intrinsically linked to convenience, efficiency and exchange in the traditional economic sense. Examples of utilitarian meaning might be that a vacuum cleaner is for cleaning the carpet, a car is for getting from point A to point B, or a cellular telephone is for talking to a business associate. Hirschman (1980)

suggests that as utilitarian meaning centres on the product and the product's physical performance, the meaning tends to be objective; "arising" from the object through the five senses. Similarly, Sheth, Newman and Gross (1991) argue that utilitarian meaning is "located" in objective and tangible attributes because tangible attributes reveal the quality of the product's physical performance, degree of functionality and ability to control the environment. For example, the utilitarian meaning of a vacuum cleaner would be found in such tangible attributes as the power of the motor, durability of construction, and proximity to the carpet, all of which impact the product's ability to clean.

Beggan (1991), Csikszentimihalyi and Rochberg-Halton (1981) and Furby (1978) suggest that a fundamental *psychological* function products serve is to give the user a feeling of "instrumentality", that is, that he or she can control and manipulate the environment competently and effectively. Furby's (1978) suggestion that products serve an instrumental psychological function is grounded in the central role some theorists, such as Adler (1929) and Seligman (1975), give to the need for control. Adler argued that feelings of competency and mastery are basic human needs, and Seligman suggested that objects that become internalised as the self are those that "exhibit near-perfect correlation between motor command and the visual kinaesthetic feedback; while those objects that do not become the world" (pp. 141-142). Although some researchers such as Dittmar (1992) and Richins (1994) suggest that utilitarian meaning refers to the product's ability to control the environment, the researchers did not explicitly state that the utilitarian meanings of products indicate how the products serve an instrumental psychological function. The connection, however, is obvious; both an instrumental psychological function and utilitarian meaning centre on product in-use, physical performance, the control of the environment, and tangible attributes. Concerning that final feature, clearly only the product's tangible attributes can exhibit a correlation between motor command and visual kinaesthetic feedback.

Symbolic Meaning

Beyond the objective meaning of tangible attributes are levels of intangible attributes with subjective meanings (Friedman, 1986; Hirschman, 1980). Some of those subjective meanings are the result of idiosyncratic experiences and others are assigned to the product by society via institutions, communication systems and interpersonal structures. The culturally shared and intangible attributes comprise the product's image or symbolism (Dittmar, 1992; Levy, 1959). Symbolic meaning is closely tied to the culturally constituted world, and though one could argue that even utilitarian meaning is culturally constituted, Verkuyten (1995) suggests that symbols are characterised by representation being central. As Kilbourne (1991) states, "the term symbolic possession is not intended to imply that there is not symbolism in functional possession. Rather it is intended here to refer to possession in which the symbolic takes precedence over the functional" (p. 450).

McCracken (1986) observes that if symbols are cultural constitutions then schemes for describing the culturally constituted world should elucidate the nature and content of

symbolic meaning. McCracken suggests that culturally constituted meanings consist of two elements: cultural principles and cultural categories. Cultural principles are the ideals and human values that determine how cultural phenomena are organised, evaluated and ranked. Culture categories are the conceptual grids that divide the phenomenological world into smaller parcels; from categories of time, to species of animals, and to social categories such as gender, status and so on. Sensibly, as symbols refer to the culturally constituted world they can comprise cultural principles or categories. An American flag, for example, may symbolise “Freedom” (a principle) or a cellular telephone may symbolise “yuppies” (a cultural category). However, the dichotomy is misleading as all symbols represent social categories and principles simultaneously. The American flag not only represents the cultural principle “Freedom” but also the social category “Americans”.

An additional feature of symbolic meaning is its “location” on a particular configuration of tangible attributes; what was termed the product-whole level such as brand, class or category. The readers might recall that with intangible attributes such as symbolic meaning or aesthetics the product is likely to be evaluated in a holistic, category-based judgement because intangible attributes are tied to a specific configuration of tangible attributes, resulting in the instantaneous evaluation of the product (c.f., Holbrook & Moore, 1981; Keaveney & Hunt, 1992; McCracken, 1986). McCracken (1986), for example, argues that the symbolic meaning of clothing is judged holistically because the meaning of some clothing outfits (i.e., punk rockers, business-persons, etc.) lose their interpretability (to mean “punk rocker” or “business-person”) if any part of the outfit is changed. Interpretation is limited to the form the product was in when meaning was initially transferred to it via advertising or the fashion system, and so, 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.

Symbols serve two primary psychological functions: development and organisation of knowledge, and the expression of self-concepts and identities. Some theories have been put forth of how symbolic meaning serves these two psychological functions (e.g., Belk, Bahn & Mayer, 1982; Cooley, 1902; Dittmar, 1992; Johar & Sirgy, 1991; Levy, 1959; McCracken, 1986; Mead, 1934; Solomon, 1983; Verkuyten, 1995; Wicklund & Gollwitzer, 1982). However, three of the above theories are dealt with presently: Mead (1934) and Cooley’s (1902) symbolic-interactionism theory, Verkuyten’s (1995) social representation approach, and Johar and Sirgy’s (1991) self-congruity theory.

Of the various theories of the functions of symbolic meaning George Herbert Mead’s (1934) and Charles Cooley’s (1902) symbolic-interactionism theory is perhaps the best known. In symbolic-interactionism theory, identity is suggested to develop from self-reflexivity, or taking the perspective of the other, which can only occur through a socially shared meaning system and the ability for role taking in which self, others and objects are designated and represented symbolically. Through the symbolic representation of groups, social roles and objects, individuals can acquire knowledge of

social reality that allows them to interpret the behaviour of others, both specific individuals and aggregates such as reference groups, families and so on. Moreover, the knowledge of the social world allows individuals to imagine how other people perceive them and through the imagination, or self-reflexivity, the self-concept develops. In symbolic-interactionism theory, then, an individual's self-definition is wholly social.

Verkuyten (1995) maintains that symbols are social representations. Social representations are culturally shared systems of meaning that have a strong central core, and provide a common point of reference for knowledge, thought and action. Verkuyten suggests that symbols refer to abstract, complex, and non-perceivable entities (e.g., human values, norms, ideals, etc.), and that symbols allow individuals to participate with the non-perceivable entities by experiencing them in a condensed, vivid, and materialised form. For example, the American flag -- the symbolic form -- allows individuals to experience the symbolic content -- Freedom. Applying Moscovici's (1984) and Billig's (1988) work with social representations to symbolic meaning, Verkuyten suggests three processes are necessarily for psychological participation with symbols. Firstly, as unclassified and unnamed things are strange, alien, and threatening, an "anchoring" process cognitively integrates the represented object into pre-existing systems of thought, and fosters ready-made opinions. Secondly, an "objectification" process turns unfamiliar, abstract concepts into concrete, familiar experiences. Verkuyten comments that "values, needs, norms and ideals are concretised so that the perceivable object (the symbolic form) embodies these abstract notions (symbolic content) and gets a symbolic meaning" (p. 270). Although Moscovici (1984) suggests anchoring and objectification are the principal processes of social representation, Billig (1988) argues that for every psychological process a counter-process must exist and that the counter-process to objectification is "transcendation" which transforms the material object into an abstraction. Verkuyten accepts Billig's argument and suggests that with symbols transcendation occurs when individuals abstract the symbolic meaning of the concrete object into broader meanings. The abstraction is essentially psychological investment, which requires a unity between the symbolic form and content and that the objects are used self-evidently and regularly.

Finally, in Johar and Sirgy's (1991) self-congruity theory, four needs and motivations are outlined that result in consumers preferring products with images consistent with their self-images. Johar and Sirgy suggest that consumers who need self-consistency should prefer products that have an image/symbolism consistent with their actual self-image. However, if a need for self-esteem is more important to some consumers than self-consistency, these consumers should prefer products that have an image closer to their ideal self-image. When consumers prefer a congruence between their actual social self-image (how they believe others perceive them) and the product's image, the preference is due to a need for social consistency, and finally, when consumers prefer a congruency between their ideal social self-image (how they want others to perceive them) and the product's image, the preference is from a need for social approval.

The crucial aspect of Mead (1934) and Cooley's (1902) symbolic-interactionism theory, Verkuyten's (1995) social representation approach, and Johar and Sirgy's (1991) self-congruity theory is that the psychological functions of symbolic meaning are 1) to foster a knowledge of the social world, and 2) to maintain, express and enhance the individual's self-concepts, social identities and human values. Verkuyten attributes the latter function to transcendation, Mead and Cooley to taking the perspective of the other, and Johar and Sirgy to needs for consistency, esteem or approval. Each theorist essentially suggests that psychological investment with a product occurs through its symbolic content.

Meanings, Judgements and Psychological Functions of the Direct and Indirect Routes of Value Influence

Having reviewed the two major categories of product meanings and the psychological functions they serve, the roles that human values play in influencing consumer evaluations of utilitarian and symbolic meanings can now be considered. Before doing so, however, the theories and approaches to value influence as well as models of consumer choice reviewed in the previous sections should be regarded more critically in light of a suggestion that any model of consumer decision processes should be as complete as possible. Such models should specify what *criteria* consumers are using to evaluate products and where the criteria originate (e.g., attitudes, tangible attribute importances, human values, and so on), the *judgement type* that applies the criteria (e.g., a piecemeal, expectancy-value type of judgement or a holistic, category-based judgement), the *meaning* that the product holds for consumers (e.g., utilitarian or symbolic), and the *psychological function* the product serves.

Accordingly, Allen's (1997) and Allen and Ng's (1999) product meaning approach specifies and integrates criteria, judgement type, product meaning, and psychological function (see Figure 1 for a schematic representation and Table 1 for a more detailed tabular form). As reviewed, utilitarian meaning is the overt function the product serves in allowing the user to control his or her environment, is derived from the product in-use, and is intrinsically linked to convenience, efficiency and exchange in the traditional economic sense. Moreover, utilitarian meaning is located in tangible attributes for tangible attributes disclose the quality of the product's physical performance, degree of functionality and ability to control the environment. Consequently, as a product's utilitarian meaning is located in its tangible attributes, a consumer's preference for the utilitarian meaning would be determined, in part, by his or her preferences for the product's tangible attributes, and vice versa. In either case, a consumer's attention to a product's utilitarian meaning should be associated with his or her human values mediating through tangible attribute importances to influence product preference.

From such reasoning, the attribute-mediation approach, properly limited to tangible attributes to meet the assumption in expectancy-value theory that consumers evaluate each attribute independently, can probably only explain the influence that human values

have on product preference when consumers are attending to the product's utilitarian meanings. Neither the attribute-mediation approaches to value influence (e.g., Gutman, 1982; Lindberg, Garling & Montgomery, 1989; Scott & Lamont, 1973) nor traditional expectancy-value theory (Fishbein, 1967; Rosenberg; 1956) considered that their models may only be applicable when individuals are attending to utilitarian meanings. However, regarding the expectancy-value type of judgement, Holbrook and Moore (1981) suggested that when a product's benefits are primarily 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" (p.16). Moreover, Chaudhuri and Buck (1995) found that advertisements that employ a product information strategy and focus on the product's utilitarian meaning are judged "analytically" (i.e., a judgement type that shares some similarity to the expectancy-value type of judgement).

Thus, not only are tangible attribute importances (and the indirect influence of human values) applied by consumers to evaluate a product's utilitarian meaning, that appraisal proceeds in the type of judgement outlined in expectancy-value theory and the multi-attribute. As mentioned, Fiske and Pavelchak (1986) term the expectancy-value type of judgement a "piecemeal judgement", which proceeds attribute-by-attribute to evaluate a product in a logical, systematic and comprehensive fashion, with overall product liking a result of the algebraic combination of the affect associated with each attribute. As to memory representation, a piecemeal judgement 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. One reason for the expectation that a verbal memory representation is a feature of a piecemeal judgement is that Miller (1987) synthesised various individual differences in cognitive styles (e.g., predispositions) and suggested, *inter alia*, that a verbal memory representation was a feature of a superordinate style that he termed "analytic" but that bears strong similarity to a piecemeal judgement. Related to the issue of a verbal memory representation and the piecemeal judgement of utilitarian meaning, Hirschman (1986) found that individuals perceived all-verbal advertisements as more utilitarian/rational (i.e., logical, informative, factual, etc.).

Finally, given that a fundamental *psychological* function products serve is to give the user a feeling that he or she can control and manipulate the environment competently and effectively (Beggan, 1991; Csikszentimihalyi & Rochberg-Halton, 1981; Furby, 1978), and that utilitarian meaning refers to the product's ability to control the environment, the attention to utilitarian meaning and expression of human values indirectly via tangible attribute importances onto product preference probably serves an instrumental psychological function.

It is also proposed that the alternative, direct route of value influence found in Allen (1997) probably corresponds to the evaluation of a product's symbolic meaning, a holistic, category-based judgement and the product serving an expressive psychological function. However, to develop such an argument, the content of symbolic meaning needs some elaboration. As reviewed, symbols are subjective, complex sets of abstract beliefs

associated with an object and which refer to the culturally constituted world of principles and categories. Importantly, as cultural principles are human values and other beliefs that evaluate and rank phenomena, when a product symbolises a cultural principle it has strong human value content. Social category symbolism occurs when a product is conspicuously owned or consumed by a specific group, resulting in the product symbolising both the group *and* its culturally constituted characteristics (Douglas & Isherwood, 1978; McCracken, 1986). These characteristics are critical to conceptualising value influence because a group becomes subjectively real to its members only when it differs from other groups along some cultural principle or value (see also Tajfel's Social Identity Theory, e.g., Tajfel (1981)). Consequently, when a product symbolises a social category it simultaneously symbolises the human values and principles that define the category, and therefore, whether the symbolism refers to cultural principles or to social categories, in either case, the symbolism would generally refer to human values.

Accordingly, the human value content of symbolic meaning should be *directly* evaluated by the human values consumers endorse. For example, a consumer's preference for the human value of "Freedom" would allow him or her to evaluate the symbol of the Bald Eagle, and by extension the Bald Eagle itself. In a similar way, if yuppies are defined as high achievers then a consumer's preference for the human value of "Achievement" would allow him or her to evaluate yuppies, and by extension products that symbolise yuppies such as a cellular telephone. Researchers of other types of symbolism also suggest that individuals evaluate symbols based on their human value content (e.g., Cobb & Elder, 1972; Firth, 1973; Gusfield & Michalowicz, 1984; Sears, Huddy & Schaffer, 1986). Political psychologists Sears, Huddy and Schaffer (1986), for example, suggest that symbols are organised in a schema-like structure in which specific policy symbols, such as forced bussing, are subsumed under broader values relating to social categories, such as race, which in turn are contained under even more general human values, such as Equality. Thus, although the manifest content of the symbolic meaning may be a specific policy issue, individuals evaluate the symbol based on its broader human value content.

Owing to the human value content in symbolic meaning, when consumers attend to a product's symbolic meaning their human value preferences should have a direct influence on their product preference. Moreover, as symbolic meaning tends to be "located" on the product whole with a particular configuration of tangible attributes (e.g., Keaveney & Hunt, 1992; McCracken, 1986), the application of human value criteria would be in a Gestalt-like/holistic, category-based judgement. As described previously, in a category-based affective response the stimulus is compared with an exemplar and with a match, the affect associated with the exemplar category schema (a cognitive structure that represents organised abstract knowledge about a given concept) is automatically transferred to the stimulus (Fiske & Pavelchak, 1986). Thus, the stimulus must have a particular configuration of attributes for its exemplar (good specific examples of the category) or prototype (an abstract composite) to be recognised and

classified, but the affect of the attributes does not independently contribute to the overall evaluation.

Although McCracken (1986) and Keaveney and Hunt (1992) suggest that individuals make a category-based, holistic judgement to evaluate symbolic meaning, more likely, the evaluation of symbolic meaning and application of human value criteria is an "affective judgement". Like a category-based judgement, an affective judgement is holistic, but unlike a category-based judgement, an affective judgement is subjective and difficult for individuals to verbalise (Mittal, 1988; Zajonc, 1980). Zajonc suggests affective reactions involve the interaction of the stimulus with some internal state or condition of the individual, and so compared with cognitive judgements, affective judgements more directly and subjectively relate the self to the object. The subjectivity and inexplicability of an affective judgement, in particular, suggest that human values evaluate symbolic meaning through an affective judgement, not simply category-based response. Human values -- both those held by the individual and those represented in product symbolism -- implicate the self (i.e., are subjective) and can be conceptually unclear and difficult to verbalise (e.g., Kilby, 1993). Moreover, although McCracken and Keaveney and Hunt suggested that a category-based judgement evaluates symbolic meaning, the hypothesis was never tested. In contrast, the association between an affective judgement and symbolic meaning has been shown, with Mittal (1988, 1994) finding that the expressive aspects of products, such as their sensory experiences, mood states attainment and symbolism, are judged affectively. Similarly, Chaudhuri and Buck (1995) found that advertisements that use a mood arousal strategy, which involve symbols, are also affectively judged.

Thus, due to the empirical support for the affective judgement of symbolic meaning and the subjectively and inexplicably of both human values and symbolism, the direct influence of human values on the evaluation of symbolic meaning probably comprises an affective judgement; not simply a category-based response. As to other features of an affective judgement, Zajonc (1980, 1984) suggests affective judgements can be made more quickly and with greater confidence than cognitive judgements, and are of greater intensity; on the order of emotional states and sensory experiences. Cohen (1990) terms an affective judgement an "affective trace" and notes that "evaluative cognitions are 'cold' things; outcomes of object/person assessment processes (e.g., Ajzen & Fishbein, 1980), remembrances of things learnt. Affective traces, on the other hand, are often the residue of highly involving and emotional states. When the term 'affective trace' is restricted to cognitive elements that serve as tags for experienced states of affect, their instantiation implies more than mere retrieval of information" (p. 157). Moreover, unlike the uncertainty of whether a verbal memory representation is a feature of a piecemeal judgement, the relation between a visual memory representation and an affective judgement is strong both empirically and conceptually. In MacInnis and Price's (1987) seminal work, visual/imaginal memory representation is defined as a process by which sensory information such as ideas, feelings and objects, are represented in working memory. Importantly, two central features of an affective judgement (holism and

subjectivity) are also features of imagery (c.f., Gordon, 1972; MacInnis & Price, 1987). Several studies have shown that subjective, self-referring imagery increases affectivity, besides behaviour intention and recall (e.g., Anderson, 1983; Bone & Ellen, 1992; Goossens, 1994; Gregory, Cialdini, & Carpenter, 1982).

Finally, readers may recall that besides fostering knowledge of the social world, the psychological function of symbolic meaning is to maintain, express and enhance the individual's self-concepts, social identities and human values (e.g., Belk, Bahn & Mayer, 1982; Cooley, 1902; Dittmar, 1992; Johar & Sirgy, 1991; Mead, 1934; Solomon, 1983; Verkuyten, 1995; Wicklund & Gollwitzer, 1982). Hence, it is proposed that the attention to symbolic meaning and expression of human values directly onto product preference serves an expressive psychological function.

ALLEN'S (1997) AND ALLEN AND NG'S (1999) TEST OF THE MEANING AND JUDGEMENT COMPONENTS OF THE PRODUCT MEANING APPROACH

In summary, Allen's (1997) and Allen and Ng's (1999) product meaning approach suggests that human values generally have an indirect influence (via tangible attribute importances) on product preference when consumers evaluate a product's utilitarian meaning, make a piecemeal judgement, and the product serves an instrumental function, whereas human values generally have a direct influence on product preference when consumers evaluate the product's symbolic meaning, make an affective judgement, and the product serves an expressive function. Naturally, readers should bear in mind that the conceptual model aims to be broad enough to apply to most contexts, and therefore oversimplifies the complex relations among different types of people and products (an issue raised again in the discussion section).

Allen (1997) and Allen and Ng (1999) examined the meaning and judgement aspects of the product meaning approach, leaving the functional characteristic to future research. To test the meaning and judgement aspects of the product meaning approach, Allen (1997) and Allen and Ng (1999) first developed scales designed to measure each consumer's meaning and judgement preferences (see Table 3). The scales were tested on 106 members of the general public who used the scales to indicate what kind of meaning they preferred to attend to, and what kind of judgement they preferred to make, when evaluating automobiles and sunglasses. Analyses showed that the factorial structures of the scales closely matched their conceptual structures, and that the scales were sensitive to the utilitarian and symbolic natures of the products. Moreover, analyses (reported in Allen, 1997) also showed that a preference for making a piecemeal judgement was strongly associated with a preference for attending to utilitarian meaning, that a preference for making an affective judgement was strongly associated with a preference for attending to symbolic meaning, and that utilitarian meaning and a piecemeal judgement were preferred to symbolic meaning and an affective judgement.

Table 3 Allen's (1997) and Allen and Ng's (1999) meaning and judgement preference scales.

	Origin	Meaning or Judgement Type	Sub-type
I THINK IT IS IMPORTANT TO SELECT THE MOST PRACTICAL PRODUCT.	New	Utilitarian	Practicality
When deciding on whether or not to buy a product I think about how useful it will be.	New	Utilitarian	Usefulness
Before you make your final selection of a product, you would: Seek a lot of information about each product.	IPM	Piecemeal	Reasoning
I believe in being logical and rational when deciding on a product.	New	Piecemeal	Reasoning
Before you make your final selection of a product, you would: Consider the pros and cons for each product.	IPM	Piecemeal	Reasoning
I believe in selecting a product based on a careful examination of all its features.	New	Piecemeal	Reasoning and Affect Latency
I believe in making a responsible and well-considered decision.	New	Piecemeal	Reasoning and Affect Latency
I believe in exercising self-control and not being impulsive when deciding on a product.	New	Piecemeal	Affect Latency and Intensity
To what extent would you want your chosen product to be: Most compatible with the image you have of yourself.	EXP/Modified	Symbolic	Self-consistency
I prefer a product that reflects who I am.	New	Symbolic	Self-consistency
The image a product portrays is an important part of my decision whether or not to buy it.	New	Symbolic	Self-consistency/ Social-approval
To what extent would you want your chosen product to be: In fashion or in vogue.	EXP	Symbolic	Social-approval

To what extent would you want your chosen product to be: Known to be expensive.	EXP	Symbolic	Social-approval
To what extent would you want your chosen product to be: A product that you can proudly display.	EXP	Symbolic	Social-approval
Usually my selection of a product is based on a gut feeling.	New	Affective	Reasoning
To what extent would you want your chosen product to be: Something that puts you in a good mood when you use it.	EXP	Affective	Affect Intensity
To what extent would you want your chosen product to be: Something that feels pleasant to your senses (i.e., sight, feel, etc.).	EXP	Affective	Affect Intensity and Memory Representation
The instant I see a product I know if I like it.	New	Affective	Affect Latency and Reasoning
Before you make your final selection of a product, you would: Think a lot about yourself as a user of the product (i.e., how you would look, feel, etc.).	ACM	Affective	Memory Representation

Notes:

Items rated on a scale of 1-7, 'Strongly Disagree' to 'Strongly Agree'.

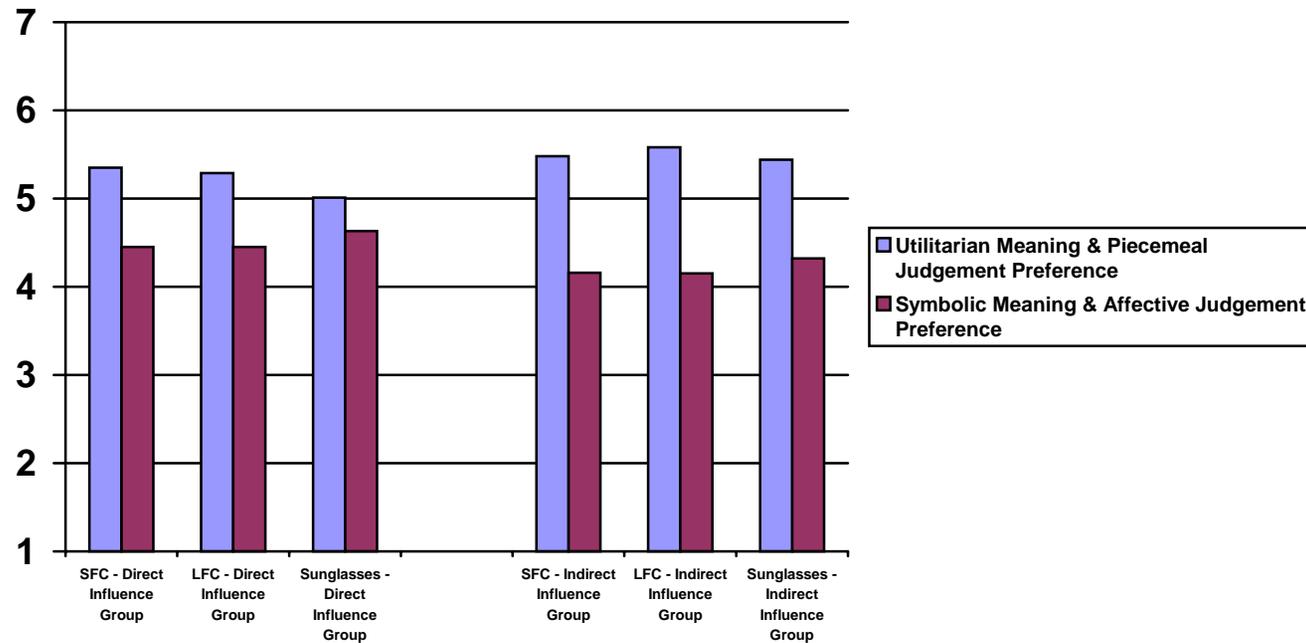
IPM = Information Processing Mode (Mittal, 1988).

ACM = Affective Choice Mode (Mittal, 1988).

EXP = Product Expressiveness (Mittal, 1988).

Given that most respondents preferred utilitarian meaning and a piecemeal judgement to symbolic meaning and an affective judgement, Allen (1997) and Allen and Ng (1999) hypothesised that a consumer's preference for utilitarian meaning and for a piecemeal judgement to symbolic meaning and an affective judgement should be greater when his or her human values have an indirect influence on product preference (e.g., via the importance of the product's tangible attributes) than when his or her human values have a direct influence. Two hundred and fifty-six members of the general public were surveyed about their meaning and judgement preferences, human values, the tangible attributes that were important to their evaluations of automobiles and sunglasses, and the extent they had purchased those products. Using a Residual Regression procedure, described in depth in Allen and Ng (1999), participants were separated into groups according to the route of value influence (direct, or indirect via tangible attribute importances) that most accurately predicted their product ownerships, and then these groups meaning and judgement preferences were compared (see Figure 2). As expected, those respondents whose product purchases were more accurately predicted by the

Figure 2 Means of meaning and judgement preferences for groups formed according to the route of value influence that more accurately predicted their Smaller Family Car (SFC), Larger Family Car (LFC), and sunglasses ownerships (reproduced, with modification, from Allen, 1997, and Allen & Ng, 1999).



Note: Scale of 1-7, with higher score representing greater preference.

indirect influence of human values (e.g., via the importance of the product's tangible attributes) than by the direct influence, preferred utilitarian meaning and a piecemeal judgement to symbolic meaning and an affective judgement to a greater extent than those whose product purchases were more accurately predicted by their direct influence of human values than their indirect influence. The support for the product meaning approach hypothesis was found for each of the product purchases tested, that is, for Smaller Family Cars, Larger Family Cars and sunglasses.

ISSUES FOR FURTHER RESEARCH AND DEVELOPMENT OF THE PRODUCT MEANING APPROACH

Thus, Allen's (1997) and Allen and Ng' (1999) results supported the meaning and judgement elements of the product meaning approach to the influences of human values on consumer choices. Notwithstanding that support, before any firm confidence can be held in the approach further research needs to address several major methodological limitations of Allen's and Allen and Ng's study. Some examples are that 1) future research should associate meaning and judgement preferences more definitely with the value influence routes by manipulating the kinds of product meanings to which consumers attend and the kind of judgement they make, and then gauge the impact on the value influence routes, and 2) more crucially, future research should establish a causal role for human values, if an appropriate method can be devised.

Future research addressing the methodological limitations of Allen's (1997) and Allen and Ng's (1999) test of the meaning and judgement elements of the product meaning approach should also refine and qualify the conceptual framework. Given that one aim of Allen (1997) and Allen and Ng (1999) was to develop a conceptual model that was broad enough to apply to most contexts, the consequence of that aim is that the model is ambiguous and overly simplistic, particularly in four areas; 1) the model's operational definitions, 2) the role of the product type, 3) the psychological functions and motivations underlying the routes, and 4) the nature of value acquisition.

Tightening of Operational Definitions

Concerning the operational definitions in the product meaning approach, the rationale that formed the basis of much of the approach was the model elements' similarity and conceptual overlap; rationale that is most apparent in Figure 1. 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, subjective and affective. However, now that

the merit of the general approach has been empirically supported, differences among the elements and differences between the levels of elements should be more tightly defined.

For instance, the distinction between utilitarian and symbolic meaning can be tenuous, not so much when contemplating extreme cases (e.g., family heirlooms versus hand tools), but when considering the many products with both utilitarian and symbolic meanings (e.g., automobiles, overseas holidays, etc.). Further conceptual research should address the issue more completely than addressed in the present article, but a useful starting point is Kilbourne's (1991) discrimination that "the term symbolic possession is not intended to imply that there is not symbolism in functional possession. Rather it is intended here to refer to possession in which the symbolic takes precedence over the functional" (p. 450). One analysis in Allen (1997) (not reported in the present article) seems to provide a good illustration of Kilbourne's (1991) distinction. Allen (1997) reasoned that as utilitarian meaning represents the degree to which a product can effectively control and manipulate the environment, those individuals who prefer instrumental human values to terminal values should have a predisposition to attend to the utilitarian meanings of products (and apply their human values indirectly via tangible attribute importances) because instrumental values represent the importance of actions. In contrast, those individuals who attend to the symbolic meanings of products (and directly apply their human values) should prefer terminal to instrumental values because symbolic meanings better express the self-concept to which terminal values are more closely tied (c.f. Rokeach, 1973).

Accordingly, Allen (1997) suggested, and found, that individuals who preferred instrumental to terminal values preferred utilitarian to symbolic meaning and tended to apply all their values (both instrumental and terminal) indirectly via tangible attribute importances, whereas those who preferred terminal values to instrumental values preferred symbolic to utilitarian meaning and tended to apply all their values directly onto product preferences. The pattern was found for automobiles ownership and overseas holidaying but contrary to expectations did not emerge for meat consumption. One interpretation offered for the meat consumption result was that the control and manipulation of the environment that utilitarian meaning usually represents, and to which individuals endorsing instrumental values would usually attend, is not in red meat's utilitarian meaning, but in its symbolic. Red meat symbolises control and manipulation of the environment because the initial procurement of red meat (e.g., the killing of animals) requires control and manipulation in the truest senses of the words (e.g. Adams, 1990; Fiddes, 1989; Twigg, 1983). However, consumers' acquisition of red meat from grocery stores and restaurants does not require the control and manipulation of the environment in any substantial way, nor does red meat enable consumers to control and manipulate their environments, yet those meanings remain with red meat (see, Adams, 1990; Allen, Wilson, Ng & Dunne, in press; Fiddes, 1989). The central issue is that the reference to control and manipulation in red meat's symbolic meaning, rather than its utilitarian meaning, suggests that red meat is more about thinking about action and control than it actually enables action and control. Thus, at the point that

“thinking about doing” is more important to consumers than “actually doing” the difference between utilitarian meaning and symbolic meaning is most visible. Moreover, though red meat may have symbolic meanings that refer to action and control, the essential “state-ness” of symbolic meaning remains. A unique characteristic of symbolic meaning, in contrast to utilitarian meaning, is that symbolic meaning is not tied to product use or performance (e.g, McCracken, 1986). States of existence such as possessing, reflecting or displaying are enough to reap expressive benefits. Thus, consumers can purchase red meat for its action and control symbolic meanings, but the benefits they obtain, aside from the physiological ones, arise from possessing, reflecting and displaying.

Appraising the Role of the Product

Besides clarifying the model’s elements and operational definitions, conceptual development of the product meaning approach should attempt to qualify the kinds of products for which the approach is most suited. Perhaps the most critical limitation of the conceptual model and its investigation in Allen (1997) and Allen and Ng (1999) is that the characteristics of the product that affect the direct and indirect influences of human values were not adequately taken into account. For instance, Allen (1997) examined the influences of human values on product preferences for a range of products, but the tangible and intangible characteristics of those products were only assumed. Allen and Ng (1999) did measure consumer preferences for the utilitarian and symbolic meanings of automobiles and sunglasses, but having only two products is insufficient for drawing any firm conclusions. Clearly, more symbolic products exist than sunglasses and more utilitarian products exist than automobiles, and therefore to expect that human values never influence preferences for some products through a particular route is unrealistic. Consequently, an appropriate direction for further research is to define the parameters of the products that affect whether human values tend to influence product preference directly or indirectly.

Assessment of the Psychological Functions

Given that Allen's (1997) and Allen and Ng's (1999) study only examined the meaning and judgement elements of the product meaning approach, a third area for further research and development is an assessment of the psychological functions. Readers may recall that it was suggested that given that a fundamental *psychological* function products serve is to give the user a feeling that he or she can control and manipulate the environment competently and effectively (Beggan, 1991; Csikszentmihalyi & Rochberg-Halton, 1981; Furby, 1978), and that utilitarian meaning refers to the product’s ability to control the environment, the attention to utilitarian meaning and expression of human values indirectly via tangible attribute importances probably serves an instrumental psychological function. In contrast, the psychological

function of symbolic meaning, besides fostering knowledge of the social world, is to maintain, express and enhance the individual's self-concepts, social identities and human values (e.g., Belk, Bahn & Mayer, 1982; Cooley, 1902; Dittmar, 1992; Johar & Sirgy, 1991; Mead, 1934; Solomon, 1983; Verkuyten, 1995; Wicklund & Gollwitzer, 1982), and so the attention to symbolic meaning and expression of human values directly onto product preference likely serves an expressive psychological function.

Future research should more closely examine if the indirect influence of human values serves an instrumental function and the direct influence an expressive function. Conceptually, one way to approach such an aim is to build upon Attitude Function Theory (e.g., Katz, 1960; Herek, 1987; Smith, Bruner & White, 1956). According to Attitude Function Theory, attitudes may serve any number and combination of psychological functions. Herek (1987), for example, outlines two major categories of attitude functions: evaluative and expressive. Attitudes that serve an evaluative psychological function derive their valence from the intrinsic properties of the attitude object. In contrast, attitudes that serve an expressive function derive their valence not so much from the attitude object but from the increase of self-esteem when expressing the attitude. In this case, the object is used as a symbol or vehicle for self-expression. Consumer researchers applying the functional approach to attitudes often investigate how the psychological function that an individual's attitude serves affects his or her ability to be persuaded by advertisements that focus on the product's tangible attributes and utility versus advertisements that focus on the product's intangible, symbolic attributes (e.g., Shavitt, 1990; Snyder & DeBono, 1985; Spivey, Munson & Locander, 1983). More recently, other researchers have investigated how human values influence the psychological functions of attitudes (e.g., Maio & Olsen, 1994; Mellema & Bassili, 1995; Prentice, 1987).

Nevertheless, an important limitation of most studies of attitude function and human value influence (e.g., Maio & Olsen, 1994; Mellema & Bassili, 1995) is their assumptions that only attitudes, and not human values, serve psychological functions. Their assumptions are made in contrast to suggestions by Rokeach (1973) and others (e.g., Epstein, 1989; Kristiansen, 1990; Williams, 1979) that human values serve knowledge, social adjustment, value-expression, instrumentality, and ego-defence psychological functions that are similar to the functions underlying attitudes. Thus, it is likely that the psychological function of an individual's attitude is matched by the psychological function of his or her human values, and consequently, each psychological function spans the breadth of the value-attitude-behaviour system. Only Prentice (1987) has considered that psychological functions may span the breadth of the value-attitude-behaviour system, though her study produced mixed results.

Accordingly, future research should build upon Prentice's (1987) investigation by assessing the breadth of the psychological functions, and if the direct and indirect influences of human values on product preference outlined in the product meaning approach serve expressive and instrumental functions, respectively.

The Product Meaning Approach and Value Acquisition

A final topic for theoretical development is one that was a core emphasis of the product meaning approach, that is, that the value-attitude-behaviour system is not monolithic seems to have at a minimum, two major subsystems, one connecting human values, tangible attribute importance attitudes, and behaviour, and the other directly connecting human values and behaviour. This emphasis that the value-attitude-behaviour system is not monolithic concerns how human value preferences are applied in behavioural decisions, but that emphasis may hold for how human values are acquired. That is, not only may human values be applied through the two routes outlined in the product meaning approach, human values may also be acquired through those two routes. The question is for future researchers to tackle but in the interest of jump-starting that research, one difference between the two routes of value acquisition, if that is what they are, may be the indirect acquisition of human values from the abstraction of positive and negative outcomes of specific experiences with products (e.g., the expectancy-value approach) versus the direct acquisition of human values from reference groups or the values idealised meanings. In the indirect mode, the ability of human values to define long-term goals may account for their acquisition from specific experiences with objects, and application in a careful and deliberate piecemeal judgement that seeks to maximise the rewards and minimise the punishments of interacting with objects (e.g., an instrumental function). In the alternative, direct mode, the ability of human values to define and mark groups and refer to general ideals may account for their direct, already abstracted, acquisition from groups with which the individual identifies, and their application in a spontaneous and affective judgement onto objects that symbolise those groups or ideals.

As an example of each route of value acquisition and application, consider a cellular telephone and the human value of Accomplishment. Some consumers may associate the value of Accomplishment with a cellular telephone because they have used a cellular telephone in the past and found that it increased work performance and efficiency. Other consumers, however, may associate the value of Accomplishment with a cellular phone because a group with which they identify (e.g., Yuppies) are distinct from other groups by 1) their support of the value of Accomplishment and 2) their use of cellular phones. Thus, when the Accomplishment value is activated in the evaluation of a new, but similar, product to cellular phones, the former group will attend to the product's utilitarian meaning to assess whether the product will increase work performance and efficiency and the group will apply the Accomplishment value carefully and in a piecemeal judgement to ensure that the product they purchase has the greatest possibility of providing accomplishing rewards. The latter group, however, will attend to the new product's symbolic meaning to assess whether 1) the symbolic meaning refers to the value of Accomplishment, and/or 2) whether the product also marks and defines Yuppies. If the product meets one or both of the criteria, the group will apply the value of Accomplishment holistically, spontaneously and affectively, and will feel a sense of identification/attachment with the product. Therefore, a fruitful area for theoretical

development could be the adapting of the product meaning approach to value influence to a product meaning approach to value acquisition. If both routes of value influence were also routes of value acquisition, then the conceptual model developed in Allen (1997) and Allen and Ng (1999) to explain the influences of human values on consumer choices might be a more general framework of the application and acquisition of human values.

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