

A GOAL BASED VIEW OF PRODUCT EVALUATION

by

Na Xiao

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Abstract

Understanding how consumers evaluate products is of great interest to market researchers. Different approaches focus on how consumers compare, combine or process attributes (Bettman, Luce and Payne 1998, 2008; Chen and Chaiken 1999; Cohen, Fishbein and Ahtola 1972). While attribute evaluation is clearly central to these approaches, what makes particular product attributes influential to consumers' overall evaluation of the product is not entirely clear. One of the central goals of the current work is to examine why certain product attributes are appealing or unappealing, and to explore the implications of this for product evaluation research, including work on choice and persuasion, and more focused investigations on the role of trivial attributes.

I structure this framework around two broad issues: First, I suggest that product evaluation is based on an attribute's ability to fulfill a particular goal. Furthermore, I examine the specific processes by which activated goals influence the role of product features on the evaluation of the product itself. Specifically, I suggest that goals are more likely to influence the impact of product attributes on product evaluation when goals are activated and perceived to fit with the product.

Second, I focus on three product related features within the consumption environment that are likely to activate certain goals, especially extra-consumption goals (i.e. goals that are not directly relevant to the function of the product, but that may nevertheless exert an important influence on product evaluation). Those aspects include the context in which the product is evaluated (e.g. choosing between multiple products versus evaluating an individual product), product category associations (e.g. fair trade and coffee), and even

specific features of the product being evaluated (e.g. shampoo with “eco-friendly” ingredients). These aspects can activate goals that influence the role of the product’s specific features on overall evaluation.

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Chapter 1

Introduction

1.1 Research Question and Objective of Thesis

Understanding how consumers evaluate products and make decisions is a central goal of marketing research. Product evaluation concerns product acquisition, usage or disposal, which are important to consumers, to marketers and to policy makers. As a result, the study of product evaluation has been a focal interest in consumer behavior research (e.g., Anderson 1974; Chernev 2004; Cohen, Fishbein and Ahtola 1972; Day, Shyi and Wang 2006; Fishbein and Ajzen 1975; Garbarino and Johnson 2001; Huffman and Houston 1993; Lichtenthal and Goodwin 2006; Macinnis and Folkes 2010; Markman and Brendl 2000). Closely related to product evaluation, making decision is also central in marketing research as it helps consumers to maximize their satisfaction with their selections (Bettman, Luce and Payne 1998, 2008; Carpenter et al. 1994; Chernev 2007; Kahneman and Tversky 2000; Lichtenstein and Slovic 2006; Meyvis and Janiszewski 2002).

There are a number of broad approaches to understanding product evaluation. Research on choice generally emphasizes the role of *comparison* of attributes across options within a consideration set in order to make a decision (e.g., Bettman, Luce and Payne 1998, 2008; Kahneman and Tversky 2000; Lichtenstein and Slovic 2006). Other research has focused on how consumers *combine* attribute evaluations to form an overall impression of a product (e.g., Cohen, Fishbein and Ahtola 1972; Day, Shyi and Wang 2006). Scholars have also investigated how consumers *process* product-related information, e.g., research on attitudes utilizing the heuristic/systematic model (HSM)

and the elaboration likelihood model (ELM) (e.g., Chen and Chaiken 1999, Petty and Wegener 1999, Wegener and Carlston 2005).

While attributes are important to all of these approaches, we have a limited understanding of the processes by which particular features of a product come to be important in terms of overall product evaluation. Thus, a central goal of the current work is to examine why certain product attributes are appealing or unappealing, and to explore the implications of this for product evaluation research, including work on choice and persuasion.

The starting point for this dissertation is the notion that the evaluation of product features depends on the particular goals that consumers possess, e.g., cinema features (e.g., theater plays, theater facilities) can become more or less important according to how it helps to fulfill a cultural enrichment versus a relaxation goal (e.g., Garbarino and Johnson 2001). I extend this notion by developing a framework that explains the processes by which goals influence product evaluation, as well as what product related factors can activate goals within particular consumption contexts. I structure this framework around two broad questions: First, what is the process by which consumers assess the extent to which particular product attributes fulfill underlying goals? Second, what factors within the consumption environment are likely to activate attribute-relevant goals, in addition to obvious consumption goals, and why? Note that my framework is set in the context in which consumers deliberately consider attributes in product evaluation. When consumers take a heuristic and simple way to evaluate a product, attributes may

not even be considered and therefore it is difficult to test how goals influence the role of attributes in product evaluation.

To begin, I examine the specific processes by which activated goals influence the role of product features on the evaluation of the product itself. I argue that product features first need to be considered *relevant* to a particular goal and are then assessed in terms of their *ability* to fulfill that goal. I further argue that the extent to which a particular goal will affect the relationship between a product's attributes and its overall evaluation depends on two factors: 1) its activation (i.e. whether it is activated and the extent to which consumers are aware of it); and 2) the extent to which it is considered to fit with the product (i.e. whether it is a goal that consumers believe can and should be satisfied by the product). In addition to these two factors, goal importance is likely to moderate the relationship between a product's attributes and its overall evaluation, which is consistent with the idea in Sheth and Talarzyk (1972).

Next, I attempt to identify factors within the consumption environment that are likely to activate goals that have implications for product evaluation. First, I examine the role of the context in which the product is evaluated – specifically, whether it involves choosing between multiple products versus evaluating a single product. Research on choice has highlighted a number of specific choice-facilitating goals (e.g., Bettman, 2008) without comparing these goals' impact on product evaluation in choice contexts versus non-choice contexts. To address this, I argue that product attributes that help fulfill such choice goals will impact product evaluation differently compared to contexts where choice is not relevant. I also hypothesize that product category associations will influence

goal activation. The basic idea is that certain goals can become associated with particular products (e.g. the promotion of fair-trade and coffee, the commitment to environmental protection and hybrid automobiles, fair labour practices and sportswear, etc.). For such products, the associated goal will likely exert an important influence on product evaluation via the assessment of relevant product attributes. In other words, when product categories activate the associated goals, attributes that help to fulfill such goals become more important in product evaluation. Finally, I examine product-specific features (e.g. shampoo with “eco-friendly” ingredients), which, I suggest, have the ability to activate previously inert goals (i.e. goals that would not otherwise influence evaluation), and in turn, influence the role of the product’s specific features on overall evaluation.

This approach implies that, similar to the effect of the goals that drive the search and consummation of a product in the first place, goals that are activated during evaluation can also exert an important influence on product evaluation. However, we need to be aware that not in every condition goals can be activated by these three factors (i.e., choice setting, product category, product attributes). To investigate the boundary condition, it is proposed that goal importance moderates the goal activation process. When a goal is more important, it is more likely that consumers possess the goal already in mind. Therefore when the goal triggers (i.e., choice setting, product category, product attributes) are present, it is more likely that the associated goal can be activated.

1.2 Intended Contributions

The proposed framework makes contributions in that it provides an integrated framework of how goals influence the role of attributes in product evaluation. First, the framework investigates the extent to which product evaluation is based on a relevant attribute's ability to fulfill a goal. Specifically, the positive relationship between attribute ability and product evaluation strengthens when goal activation increases or when goal is perceived to fit with the product. The implication is that an attribute's importance becomes a dynamic, changing process across contexts. When consumer's goal changes, an attribute's importance changes according to the extent to which it helps to fulfill the goal.

Next, as a goal can influence the role of attributes in product evaluation, I focus on product related features within the consumption environment that are likely to activate certain goals. Those features include the evaluation context (choice settings versus individual product evaluation settings), product categories and specific product features. This changes our current way of thinking about the relationship between goals and these goal-related factors. I.e., currently we know that goals drive people to buy products, choose from options/different product categories and evaluate attributes to fulfill the goal (Bettman et al. 2008; Lewin 1935; Garbarino and Johnson 2001). However, it is proposed that the relationship between goals and product related factors can operate in both directions. On the one hand, activated goals can influence how consumers make a choice (Bettman et al. 2008), which products to choose to satisfy the goal (Lewin 1935) and which attribute is important in deciding satisfaction (Garbarino and Johnson 2001). On

the other hand, it is proposed that choice settings, product categories and product attributes themselves can activate goals. In my paper, I propose these three product related factors that activate goals within the consumption contexts.

In summary, the overarching objective of this thesis is to develop a framework for understanding the antecedents and consequences of goal activation in product evaluation. The core contribution is that the framework helps explain how different types of attributes come to take on importance in terms of the overall product evaluation – something that is often overlooked in existing approaches to understanding product evaluation. This framework and its associated ideas provide a range of implications for existing work. It sheds light on why preferences –especially in the context of choice– appear malleable (Simonson 2007). From a goal-based perspective, different contexts may activate different goals, which in turn affect the influence of particular features on overall product evaluation. Thus, product evaluation should vary depending on the extent to which different goals are activated. Finally, this work integrates ideas across a variety of perspectives that are ultimately concerned with the question of how consumers evaluate products (e.g. choice research, information processing, etc.).

1.3 The Structure of the Thesis

The structure of the thesis is as follows. In Chapter 2, I review relevant literature, which helps to introduce the research question and the goal of the thesis, i.e., to examine why particular attributes become important in overall product evaluation. In addition, I

give a review of what we have known about the relationship between goals and attributes, and how goals are activated and what are addressed in the thesis. In Chapter 3, I structure the conceptual framework around two questions. First, how goals influence the role of attributes in product evaluation? Second, what factors within the consumption context are likely to activate relevant goals? Chapter 4 summarizes the research methodology, five studies and each study's result. Chapter 5 includes a discussion of the results of my thesis, a summary of its contribution and implications, an explanation of research limitations, and future research opportunities.

Chapter 2

Literature Review

2.1 Product Evaluation and Attribute Evaluation

How consumers evaluate products is one of the fundamental questions of consumer behavior research. There are many approaches to understanding product evaluation. One central theme among those approaches is that product evaluation is a function of product attributes. In this section, I will give an overview of two broad approaches. The first approach is combinatorial product evaluation, which focuses on how consumers *combine* (e.g., weight, add, process) attributes. The second approach comes from research that is focused on the way consumers decide between different products – namely, research on product choice. This work examines product evaluation in contexts where there are several alternatives in the setting. Consequently, much of this work emphasizes the way in which consumers *compare* attributes across options. Of course, not all choice models involve attribute-level comparison – certain models propose a comparison across brands only after the individual brand has been evaluated in isolation (e.g. weighted-adding, compensatory strategy, Bettman et al. 2008). Distinctions between different choice models are not the focus of this paper. Instead, I am interested in the different ways in which product attributes have been used to influence overall product evaluation, e.g., different approaches (combinatorial approach versus choice approach) focus on combining versus comparing attributes in product evaluation.

2.1.1 Combinatorial Product Evaluation.

One of the approaches to study product evaluation is to take the combinatorial way to study how consumers combine attributes in product evaluation. In this approach, researchers assume that product evaluation is some function of combining attributes. In other words, researchers have focused on how consumers *combine* attribute evaluations to form an overall impression of a product (e.g., Cohen, Fishbein and Ahtola 1972; Day, Shyi and Wang 2006; Lichtenthal and Goodwin 2006). For example, in multiple-attribute attitude models (e.g., Cohen, Fishbein and Ahtola 1972; Sheth and Talarzyk 1972), individuals are assumed to assign a weight to each attribute and give a subjective evaluation of each attribute. This can be described in the following functional form:

$$A_o = \sum B_i * a_i \quad (i \text{ from } 1 \text{ to } N) \quad (\text{Cohen, Fishbein and Ahtola 1972})$$

Where A_o = the attitude toward an object, B_i = the strength of belief i about the attitude object o , that is, the probability or improbability that o is related to some other object x_i (e.g., the probability that Brand X is carbonated), a_i = the evaluative aspect of B_i , that is, the evaluation of x_i - its goodness or badness (e.g., the evaluation of carbonation), N = the number of beliefs. The strength of belief about the attitude object (i.e., B_i) is often operationalized by giving a weight or an importance to each attribute of a product in consumer behavior area (e.g., Sheth and Talarzyk 1972). In other words, in the product evaluation process, consumers combine the weight (i.e., importance) and evaluation (i.e., goodness or badness) of each attribute together to get the overall

evaluation of the product. In this case, the weight of each attribute in these models is typically calculated post-hoc and researchers did not ask where the weights come from. This is true for other forms and terminology of multiple-attribute attitude models. For example, Rosenberg (1956, attitude measurement model) assumes that an individual has a relatively stable attitude or affect towards an object as the individual has a stable beliefs about the object. The attitude measurement model is measured on “importance” and “perceived instrumentality” of each value item in card-sorting tasks. However, this paper does not examine how the importance of each item is determined. This is also true in Fishbein (1967, attitude measurement model), which proposed that attitudes are a function of beliefs of attributes of a product without asking where the beliefs come from. In Sheth and Talarzyk (1972, attitude measurement model), the authors propose that perceived instrumentality (i.e., evaluation of attributes or objects in the language of Cohen et al. 1972) contributes more toward determining attitude than does value importance (i.e., attributes’ importance in the language of Cohen et al. 1972) and tested this in the consumption contexts (e.g., orange juice, mouthwash etc). However, we still do not understand what determines value importance (could be attributes’ importance in product evaluation).

Fishbein and Ajzen (1975), Ajzen and Fishbein (1980, theory of reasoned behavior, theory of planned behavior) proposed a similar approach to understanding overt behaviours. Their model took the following form:

$$BI=(A_B)_{w1}+(SN)_{w2}$$

Where BI is intent (subjective probability) of performing the behavior, AB is attitude toward (goodness or badness of) performing the behavior (e.g., purchasing brand y of product type Y), SN is subjective norm concerning the behavior, which depicts whether most people who are important to the respondent think he/she should (or should not) manifest the stated behavior. And w1 and w2 are empirically determined weights (Fishbein and Ajzen 1975). This model assumes behavioural intentions are a function of attitudes and subjective norms, and that each of these (i.e., attitudes and subjective norms) is calculated by weighing various beliefs and summing them. In a word, in the theory of reasoned action (Ajzen and Fishbein 1980; Fishbein and Ajzen 1975), it is proposed that people calculate an overall assessment of a behavioral option by considering their salient beliefs of the attributes of the option, the evaluations of those beliefs, and the normative constraints associated with the option. People form an intention to perform the behavior with the most positive overall value. Again, they did not answer why consumers have a certain belief and evaluation of each attribute.

Similarly, N. H. Anderson (1971) proposes an information integration theory to explain the attitude change, which he applied the theory to children's reasoning about uncertain events, interpersonal attraction, group attractiveness, moral judgment etc (see Anderson 1982 for a review). The theoretical model used in most of the work can be written as a weighted sum:

$$R=C+\sum w_i s_i \quad (i \text{ from } 1 \text{ to } N)$$

Where R is the overt response, the summation in the equation is over all relevant informational stimuli. The contribution of Stimulus i is just its weight w_i times its value s_i.

The constant, C , allows for an arbitrary zero in the response scale and will not be explicitly considered here. The first term in the sum, $w_0 s_0$, represents the initial opinion, prior to receiving the informational stimuli.

Along the similar line with other multiple-attribute attitude models, the weights are important components in these models (Anderson 1971; Fishbein and Ajzen 1975). However, the researchers still did not point out what factors determine the weights.

These multiple-attribute attitude models have had a profound impact on attitude research in that researchers have extended the theories of how consumers evaluate products based on combining attributes and applied them to different marketing research and contexts. For example, Shimp (1981) found that brand choice is a function of attitude toward the ad and attitude toward the brand. The attitude toward brand approach has solid grounding in the theory of reasoned behavior (Ajzen and Fishbein 1980; Fishbein and Ajzen 1975) in that product attributes are evaluated and weighted according to consumers' beliefs about the attributes and the products.

Again, these models share a commonality, that is, researchers assume that the individuals combine a bundle of important attributes. However, researchers use the importance of attributes in a post-hoc way and why some attributes become important to consumers (i.e., why consumers give a certain weight to an attribute) is typically not the focus of such work.

In the previous paragraphs, I mainly discussed how researchers examine the way in which individuals are thinking carefully and combining a set of attributes or beliefs about a product or an issue. Different from this camp of researchers, other research has focused more on distinctions in the nature of individuals' information processing, and how that affects the evaluation process. This information processing approach is vague about the specific mechanisms of how individuals form attitudes within each broad level of processing. E.g., individuals can take either the central or peripheral route to process information, however, in either route, the mechanism of how consumers use attributes or other information (e.g., environmental cues) to form attitudes is not the main concern of studies in this stream. Instead, this stream of researchers focuses on how consumers take different routes (e.g., central or peripheral) to elaborate on information, messages and attributes in product evaluation. And different routes of information processing are a function of individuals' motives and ability to process information. Researchers in this area (i.e., elaboration and information processing of attributes) assume that product evaluation is some function of *processing* the individual attributes (Chen and Chaiken 1999, Petty and Wegener 1999; Wegener and Carlston 2005). There are several dual process models that describe how consumers process information, e.g., the elaboration likelihood model (ELM, Petty and Cacioppo 1986), the heuristic/systematic model (HSM, Chaiken 1980) and other dual-process models (e.g., Fiske and Neuberg 1990). The elaboration likelihood model (ELM) proposes that people are motivated and have different capability in engaging in more or less elaborative processing of message (e.g., attributes, Peterman 1997). The heuristic/systematic model (HSM) shows that consumers

may take two routes to process information. They either elaborate information in a systematic, careful, detailed and analytical way, or they will process information in a heuristic way, i.e., the use of learned rules that imply a judgment without requiring any detailed processing and this is associated with low motivation or less careful thoughts.

Though these theories (e.g., ELM, HSM) provide us understanding of how consumers elaborate information to different extent or in what conditions consumers will process information systematically versus heuristically (John 1999; Meyers-Levy and Maheswaran 2004; Moore and Lutz 2000; Petty and Cacioppo, 1983; Pham 1996; Priester et al. 2004; Priester and Petty 2003; Schwarz 2004; Zhang and Sood 2002), these researchers did not address why some information are important to process in product evaluation. In this information processing approach, attitudes are formed by some ways of combination of the arguments and the argument strength is crucial in affecting attitudes, which is consistent with the expectancy-value models mentioned previously (e.g., Cohen, Fishbein and Ahtola 1972; Day, Shyi and Wang 2006; Lichtenthal and Goodwin 2006). However, argument strength, which corresponds to the weight of a belief in the expectancy-value models, is typically an independent variable. In other words, the information processing research rarely look at what makes an argument strong or weak. For example, in systematic processing (e.g., Chaiken 1980), it is often assumed that consumers are thinking about and integrating information at the attribute level, but the specific way in which this is done is not articulated within this information processing approach. In other words, which arguments (e.g., arguments can be attributes) become stronger and which ones are weaker in systematic processing is unclear. More specifically,

For example, in Chen, Shechter and Chaiken (1996), the researchers study how impression motive versus accuracy motive drives people to either take heuristic processing (e.g., to get along with my partner) versus systematic processing (to maximize accuracy). And they study how the process affects attitude when participants are given strong versus weak arguments (in this case, an essay with either five strong arguments or five weak arguments). However, the researchers give strong or weak arguments to participants and assume consumers combine the arguments (which correspond to the weight of a belief in the expectancy-value models) without asking why these arguments are strong or weak. Similarly, researchers use an attribute matrix as the persuasion message and assume that these attributes in the matrix are important ones in product evaluation (Peterman 1997). Specifically, the attributes are spokes, frame, saddle, tires, weights and pedals for bicycles. And the researcher examines how concrete and abstract goals influence the elaboration of the strong persuasive messages (i.e., attributes matrix). Again, researchers assume that certain attributes are important arguments without examining what determines the importance of the arguments and why one argument is more important than another (can be attributes, Peterman 1997).

2.1.2 Choice Approach in Product Evaluation

There are researchers who study product evaluation in the context of choice settings. In a choice setting, there are usually several options in the setting. Comparatively in the individual evaluation settings, consumers evaluate product in isolation without other options, e.g., in advertising. The distinction between the choice setting and the individual setting is important in the current context as different settings will activate different goals.

Consequently, attributes' importance and product evaluation will change across choice settings and individual settings. I will elaborate this in my conceptual framework.

To evaluate products in the choice settings, there are generally two approaches. The first approach is that researchers focus on the way in which consumers *compare* attributes to select an option from a choice setting (e.g., Bettman et al., 2008; Bettman, Luce and Payne, 1998; Kahneman and Tversky 2000; Chernev 2004). The second approach is similar to the combinatorial approach in the previous section. In other words, consumers may *combine* attributes for each option and choose the option that maximizes the utility in the choice settings (e.g., weight adding strategy, Bettman et al. 2008). This combinatorial approach to make a choice is similar to what I have discussed in the previous section and is not the focus in this section.

In the choice approach, attribute importance has been addressed to a certain degree although researchers study it in a different term. For example, “an input is diagnostic for a judgment or decision to the degree that consumers believe that the decision implied by that input alone would accomplish their decision goals (e.g., maximize utility, choose a justifiable alternative, and so on).” (Lynch, Marmorstein, and Weigold 1988 p171). In this case, diagnosticity is a similar term to attribute importance and research shows that an attribute is diagnostic when it can accomplish a decision goal. However, diagnosticity research mainly focus on what information from memory can be retrieved and used in choice rather than how specific goals influence the role of attributes in product evaluation.

There is research in the choice approach that uses attribute importance in a post-hoc way. Research on choice highlights many different strategies (e.g., Bettman et al., 2008).

A commonality across these strategies is that attributes are central to evaluation, but the origin of the attribute weight is rarely studied. Some strategies are similar to the combinatorial approach discussed in the previous section. For example, in the weighted adding strategy (Bettman et al., 2008), consumers are assumed to assign a weight and a subjective value to each attribute, then combine the weight and value of attributes together for each option. And we still do not know how consumers assign weights to each attribute. Such a strategy is an indirect comparison across options, based on consumers' evaluation of each attribute. There are other strategies that involve consumers' direct comparison of attributes across options to make a decision. For example, another decision strategy is lexicographic strategy (Bettman et al., 2008). The consumer selects the option with the best value on the most important attribute. If there are ties, the consumer considers the option with the best value on the second most important attribute. This strategy uses a direct way to compare attributes across options. The extent to which they compare the trade-offs among options and what choice strategies they use depends on their choice goals. Four categories of choice goals are often used in the choice literature, including maximizing the accuracy of a decision, minimizing the cognitive efforts needed to reach a decision, minimizing the negative emotion experienced while making the decision and maximizing the ease with which a decision can be justified (Bettman et al., 2008). When consumers try to maximizing the accuracy of a decision, they will spend lots of effort in systematically and carefully comparing the trade-offs of attributes across options. In contrast, when they try to minimizing the cognitive efforts during the decision, they are more likely to use a heuristic and effort saving way instead of comparing

attributes carefully in decision making. In other words, the strategies of how consumers comparing attributes across options is a function of the choice goals in the choice setting. However, the way goals are integrated into the choice literature is primarily as a determinant of the type of strategy used, rather than as a determinant of attribute weighting within a particular choice strategy. Although we know that goals and attributes have a close relationship in product evaluation from such choice literature, the question of why some attributes become important in the comparisons across options is seldom asked in the choice literature.

In other words, why particular attributes become important in decision making is under researched. For example, researchers give a set of attributes (e.g., reliability, price, safety, horsepower) and different levels of these attributes (e.g., worst, poor, average, good) and see how consumers compare the trade-offs among attributes (Bettman et al., 1998). However, consumers assume that these attributes (e.g., reliability, price, safety, horsepower) are important without indicating why.

Along similar lines, Chernev (2007) examines consumer reactions to two common positioning strategies: a specialized-positioning strategy in which an option is described by a single feature, and an all-in-one strategy in which an option is described by a combination of features. In the experiments, the author use toothpaste and other product categories, e.g., options A and B were described by a single attribute (e.g., prevents cavities), and option C was described by a combination of features describing options A and B (e.g., prevents cavities and whitens teeth). In this case, prevents cavities and

whitens teeth is assumed to be important in choosing toothpaste. However, how particular attributes are important to compare and evaluate in choice is still unclear.

In choice settings, a stream of researchers studies how trivial attributes become important. My interpretation is that the effect of some trivial attributes on product evaluation or choice can be explained by arguing that the attribute has implications for goals that consumers are trying to fulfill. Even if the attribute is objectively meaningless, as long as the consumer believes that it is relevant to an important goal, it should have an impact. In literature, the way of defining the concept of a “trivial attribute” is that it is an attribute that is judged either by “experts” (Carpenter et al. 1994) or by consumers (Meyvis and Janiszewski 2002) to be of low relevance to product performance. For example, “alpine class down fill” is a hypothetical down fill, which does not affect down jacket’s performance judged by experts (Carpenter et al. 1994). Existing work on trivial attributes has shown that they can positively affect product evaluation when they serve to distinguish the product from other comparable options (Carpenter et al., 1994) and when they help justify a particular choice (Brown and Carpenter, 2000; Schlosser and Shavitt, 2002). In a similar vein, attributes that are trivial because the meaning of the attribute is ambiguous or unknown have been shown to positively impact product evaluation, primarily due to conditions, such as a positive brand reputation (Broniarczyk and Gershoff, 2003), that cause consumers to draw positive inferences about the meaning of the attribute (Carpenter et al., 1994). Other work has shown that under certain conditions trivial attributes will lower overall product evaluation by reducing perceptions of the ability of the product to perform its core functions (Meyvis and Janiszewski, 2002).

Again, my understanding is that some trivial attributes become important in product evaluation (i.e., increase or decrease evaluation) and choice when they help or hinder to fulfill goals such as differentiating different options because of their “uniqueness” or “novelty” (e.g., Carpenter et al. 1994), helping to justify a choice (e.g., Brown and Carpenter, 2000; Schlosser and Shavitt, 2002), or diluting the perceived performance or quality of products (e.g., Meyvis and Janiszewski, 2002).

2.1.3 Discussion.

In product evaluation, there is intensive research that examines how consumers evaluate products and make choices. Among them, there are many approaches that are attribute-driven, i.e., they assume that product evaluation is a function of product attributes. We know attributes/beliefs/arguments are important determinants of a wide variety of product evaluations and choices. Although attribute important is studied to some degree using a different term (e.g., Lynch et al. 1988), what makes individual components (e.g., attributes, arguments) more or less important to the overall evaluation is under researched.

In the *combinatorial* product evaluation approach, researchers assume that product evaluation is a function of *combining the attributes* (e.g., Cohen, Fishbein and Ahtola 1972; Day, Shyi and Wang 2006). For example, in multiple-attribute attitude models (e.g., Cohen, Fishbein and Ahtola 1972; Sheth and Talarzyk 1972), individuals are assumed to assign a weight to each attribute and give a subjective evaluation of each attribute. Then consumers combine attributes’ weight and evaluation together to have the

overall product evaluation. However, researchers in this area argue that the weights can come from empirical experience, which does not disclose the underlying mechanism and the process of how the weights are determined (Fishbein and Ajzen 1975) and they seldom propose why consumers give a certain weight to an attribute. There are other researchers who did not take the mathematical form and they mainly focus on how consumers *process* messages such as product attributes, such as ELM and HSM models (Chen and Chaiken 1999, Petty and Wegener 1999; Wegener and Carlston 2005). Researchers in this area mainly concentrate on the route which consumers take to process the attributes. However, we seldom know why certain attributes (or arguments in the terminology of such research) become important to process in a certain route.

In the choice approach to product evaluation, some researchers assume that product evaluation and decision making is a function of *comparing attributes* across options in the choice setting (e.g., Bettman et al., 2008; Bettman, Luce and Payne, 1998; Kahneman and Tversky 2000; Chernev 2004). And we know different choice goals drive people to compare attributes to different extent. However, the question of why some attributes are important to compare in the decision making is rarely answered except that it is addressed to some degree in the diagnosticity literature (e.g., Lynch et al. 1988). In the choice approach, there are also other researchers who study how consumers combine attributes for each option and choose the option that maximizes the utility in the choice settings (Ajzen and Fishbein 1980; Lichtenthal and Goodwin 2006). Again, researchers in this camp argue that the weights can come from empirical experience, which does not really disclose how the weights are determined (Fishbein and Ajzen 1975). In the choice

approach, there are researchers that propose different theories about how trivial attributes become important in product evaluation. My understanding is that some trivial attributes become important in choices as it makes comparisons across alternatives easier either because they help to justify a choice (e.g., Brown and Carpenter, 2000; Schlosser and Shavitt, 2002), or because consumers draw inferences that go beyond the information provided (either about the attribute itself or in terms of implications for other attributes of the product, e.g., Carpenter et al., 1994).

Regardless of whether the research focuses on combining attributes (e.g., Cohen, Fishbein and Ahtola 1972; Day, Shyi and Wang 2006), processing attributes (Chen and Chaiken 1999, Petty and Wegener 1999; Wegener and Carlston 2005) or comparing attributes (e.g., Bettman et al., 2008; Bettman, Luce and Payne, 1998; Kahneman and Tversky 2000; Chernev 2004), one commonality across these approaches is that the importance of each attribute is typically given or used in a post-hoc way and researchers usually assume the importance comes from experience. In other words, we have little understanding of why particular attributes become important in the overall product evaluation and decision making. For example, we know that consumers will give a certain weight to an attribute without knowing where the certain weight comes from. As attributes' importance is one of the building blocks of product evaluation, it is important to address that what factors influence and determine attributes' importance in the overall product evaluation.

My thesis aims to address this question of why particular attributes become important in the overall product evaluation. My research shows that from a goal perspective,

consumers' product evaluation and decision making process based on the attributes is a dynamic process that is changing across contexts. Consumers' evaluation and behavior are complex and hard to predict as the factors in the consumption contexts can activate goals, which in turn interact with the product attributes in affecting consumers' product evaluation.

When addressing this question, it is important to understand whether an attribute's importance in overall product evaluation is influenced by other attributes. In literature, there is a debate of whether the relationships among attributes are independent or interdependent. In combinatorial approach, it is implicitly assumed that attributes are independent to one another in affecting product evaluation (e.g., Chernev 2007; Cohen, Fishbein and Ahtola 1972; Sheth and Talarzyk 1972). Otherwise, attributes can not be combined and integrated in the proposed mathematical ways if they are correlated with one another (e.g., Cohen, Fishbein and Ahtola 1972; Sheth and Talarzyk 1972). In the choice approach, many researchers implicitly assume that attributes are interdependent of one another (Bettman et al. 1998,2008; Luce, Bettman and Payne 2001). For example, some attributes are complementary to fulfill the goal of maximizing product value (or utility) whereas other attributes are helpful to achieve the goal of minimizing resources such as cognitive efforts or prices. And there can be trade-offs between attributes that maximize value and those that minimize resources.

In my thesis, the assumption of the relationship among attributes is that attributes are independent of one another in terms of influencing overall product evaluation. For example, the ability to clean hair is not likely to change consumers' perception of organic

ingredients' ability to fulfill the environmental friendly goal. The focus of my research is how attributes are evaluated based on the goals consumers have and I study this in the contexts in which the focal relationship between a goal and an attribute will be not influenced by other attributes.

2.2 Product Evaluation and Goals

The central point in this section is that product evaluation is closely related to the goals that consumers have (e.g., Bettman et al., 2008; Huffman 1996; Huffman and Houston 1993; Markman and Brendl 2000; Sheth and Talarzyk 1972). A variety of diverse research is consistent with this idea. In this section, I will elaborate this point in diverse research such as an object evaluation (e.g., evaluating a shampoo, gambling without choosing from several alternatives), choice (e.g., choosing a brand of shampoo from several alternatives), information processing (e.g., how individuals select, encode, organize, and retrieve brands or features of a product).

2.2.1 How Goals Influence an Object Evaluation and Choice

There are various ways of defining goals. For example, goals are defined as abstract benefits or values sought by the consumer that can be fulfilled through the features (abstract or concrete) of a product class (Huffman and Houston 1993). Goals are “representational structures that guide the system in its pursuit of an end state or a reference state.” (Markman and Brendl 2000 p2). Goals are also defined as subjectively

desirable states of affairs that the individual intends to attain through action (Kruglanski 1996). In the thesis, I define goals as desired end states that drive consumers to fulfill them through consumption.

How consumers evaluate products is one of the fundamental questions of consumer behavior research. Product evaluation involves judging the “goodness” or “usefulness” of a product. Judging the “goodness” or “usefulness” implicitly includes a goal, as a product cannot be useful unless it fulfills a goal (Markman and Brendl 2000). And the value of an object depends on the compatibility of that object to the active goal (Markman and Brendl 2000). Similarly, attitude of an object is a function of an individual perceived instrumentality of the object toward attaining or blocking the goal or value (Sheth and Talarzyk 1972), which also implies that product evaluation is closely related to goals. As products consist of many attributes, the instrumentality of a product to a goal actually refers to how well the product’s attributes help to attain certain goals. For example, processors of laptops help to increase speed and performance; light weights of laptops are relevant when the goal is to buy a portable laptop. Put it in another way, each attribute is designed to fulfill certain goals. And people focus on goal relevant attributes because they want to evaluate the degree to which the product satisfies an activate goal (Huffman 1996; Huffman and Houston 1993; Markman and Brendl 2000; Shen 1997).

The evaluation of an object depends on the degree to which it can fulfill consumers’ active goals (e.g., Markman and Brendl 2000; Sheth and Talarzyk 1972). Lewin (1935) suggests that an individual object is evaluated as positive or negative (i.e., it has a valence) to the extent that it supports or hinders active goals. In a similar vein, when consumers’

goals are promotion focused (e.g., to attain pleasure as opposed to avoiding pain), hedonic products (e.g., sports car, designers clothes) are chosen over utilitarian ones (e.g., microwaves, telephones). However, the utilitarian products are placed more weights than hedonic ones when consumers are prevention focused (i.e., minimizing negative outcomes) (Chernev 2004). Moreover, an object is deemed more valuable when the individual has an important goal that the object can facilitate, as opposed to when the goal is unimportant (Markman, Brendl and Kim 2009), e.g., the more strong the need to eat, the more valuable food will become; this has been tested in lottery, smoking and gambling contexts (e.g., Markman and Brendl, 2000). Similarly, Garbarino and Johnson (2001) find that consumers are more satisfied with a theatre performance when it fulfills the specific goals they hold (e.g. cultural enrichment versus relaxation). Accordingly, from a goal-based view, product evaluation becomes the process in which consumers judge the extent to which a product is able to fulfill certain goals.

The role of goals in product evaluation has implicitly or explicitly appeared in other consumer behaviour research, though goals have rarely been the object of study. For example, in choice settings, researchers have explicitly identified four types of goals, including: maximizing decision accuracy; minimizing cognitive effort needed to reach a decision; minimizing negative emotion experienced while making the decision; and maximizing the ease with which a decision can be justified (e.g., Bettman et al., 2008). Bettman et al.'s (2008) goal taxonomy encompasses goals that are specifically related to the act of choosing, which do not necessarily relate to the functional benefits of products. For example, minimizing negative emotion goals (which is a choice goal) may not drive

people to choose the best quality product. These goals that have been examined in the choice literature are a rather narrow subset of the goals that are relevant to product evaluation. In addition to the choice goals, there are goals that are relevant to the core functions of products, e.g., to buy a fast computer. Further, there are also goals that do not necessarily relate to the core function of the product or the act of choosing. For example, impressing others or seeking fairness in exchange may be important objectives when choosing a product.

2.2.2 How Goals Influence Information Processing

Product evaluation is crucially related to the goals that consumers possess. This is also evidenced in information processing literature in that goals direct individuals to acquire, select, encode, retrieve and organize goal relevant information in product evaluation.

First, goals can influence how consumers organize information in memory (e.g., Huffman and Houston 1993; Huffman 1996; Peterman 1997; Ratneshwar, Mick and Reitingner 1990). Goals drive consumers to pay attention to, acquire information and organize information around goals that consumers have. Specifically, in the information acquisition and learning, a consumer's goal directs his/her information acquisition toward goal-relevant feature information (Huffman and Houston 1993; Ratneshwar, Mick and Reitingner 1990). For example, individuals who want to acquire a guitar that is comfortable are expected to mainly acquire information about features related to comfort and individuals who desire to get a guitar that is versatile will mainly acquire information about features related to versatility (Huffman and Houston 1993). In the memory

organization and knowledge learning, consumers will remember more goal-relevant brand and attribute information than goal-irrelevant information (Huffman and Houston 1993; Ratneshwar, Mick and Reiting 1990). In this process, individuals know not only the features and the brands, but also how they may help or hinder individuals in achieving a particular goal. Again, this supports my central argument that product evaluation (in this case, information processing) is largely affected by the goals consumers have. In the guitar's example, individuals who want to acquire a guitar that is comfortable will remember comfort related features and know how the features will help to fulfill the goal. In addition, brand information will be organized according to its relevant goals when they were learned. In the choice making literature, consumers' prior knowledge of what product features are relevant to achieve a particular goal helps them to identify appropriate options/brands (Huffman and Houston 1993). For example, the attribute of automobile engine size may be connected with the goal of buying an economical car (Huffman and Houston 1993).

The notion that product evaluation is crucially related to the goals that consumers possess is further bolstered by other researchers though the focus of such research is on particular goals such as concrete versus abstract goals. For example, Peterman (1997) studies what levels of information (attribute-based versus brand-based) consumers process driven by concrete versus abstract goals (e.g., to have special handlebar configuration of a bike versus to display a high social status goal). Specifically, it talks about how concrete versus abstract goals influence information acquisition, encoding and product evaluation. At the acquisition stage, goals guide information exposure, guiding

consumers to engage in attribute-based or brand-based elaboration (Peterman 1997). Specifically, concrete goals indicate the fulfillment of a desired outcome at the attribute/feature level. Such concrete goals drive people to pay more attention to certain features that can fulfill the goal. In contrast, abstract goals may imply a need to estimate abstract-level consequences by comparing brands information (e.g., which brand fulfills a social status goal). During the encoding stage, goals influence the level at which information is encoded, e.g., the information can be encoded at the attribute level or at the brand level or at the more abstract product category level. Because of a concrete goal's emphasis on an individual feature, elaboration of product mainly focuses on thoughts about attribute values (e.g., five speeds of a bicycle). However, for an abstract goal, what is encoded is maybe the conceptual implications and synthesizing the meanings of attribute values (e.g., riding performance implication from the number of speeds, Peterman 1997). Finally, goals have a bigger impact on product evaluation when the nature of goals (concrete versus abstract) matches the product evaluation levels (attribute-level evaluation versus brand-level evaluation). Specifically, information encoded under a concrete goal is more likely to be used in an attribute-level judgment than a conceptual-level evaluation of the product. Conversely, information encoded under an abstract goal is more likely to be used in an overall conceptual-level evaluation than an attribute-level judgment of the product (Peterman 1997).

The above research (e.g., Huffman and Houston 1993; Peterman 1997; Ratneshwar, Mick and Reitingger 1990) demonstrates that goals motivate consumers to pay attention to and encode goal relevant information during the purchase process. This argument is also

true in the context in which one goal is replaced by another. Specifically, researchers examine how the change of active goals influences the way in which information is acquired (e.g., Huffman 1996). The finding is that with a new goal, there is a need to evaluate the additional information. The reason is that previously irrelevant information may now become relevant and previously accessed information may need to be reassessed in light of the new goal perspective. Again, this demonstrates the central argument in this section, i.e., information processing is closely related to the active goal that consumers have at the evaluation moment.

2.2.3 The Taxonomy of Goals

Although there is an extensive body of literature on consumer goals, research has focused on only those goals with implications for the topic of central concern. For example, research on choice has examined choice goals (e.g., minimizing cognitive efforts); individual product evaluation focuses on consumption goals (e.g., to seek for better quality of a product); and research on information processing has examined goals that affect how consumers process information (e.g., abstract or concrete goals, Peterman 1997; accuracy versus defense goals, Agrawal and Maheswaran 2005). As my thesis is centered on overall product evaluation, I allow for the possibility that consumers may possess a wide range of goals to which the product and its features may be relevant. This includes consumption goals and extra-consumption goals. Consumption goals are desired end states that are associated with the functional quality or performance of products (e.g., to buy a fast speed bicycle, to purchase a good taste coffee). Extra-consumption goals are

not related to the functional quality of products. Extra-consumption goals include those labeled in terms of criterion and process goals in van Osselaer et al. (2005). Criterion goals are all kinds of desired outcomes (not process) that are not relevant to functional performance (van Osselaer et al. 2005). Examples include justifying one's choice to others, managing impressions, building positive self-identity, uniqueness seeking, increasing anticipated satisfaction, or gathering information (see van Osselaer et al. 2005 for a review) etc. Process goals focus more on the desired benefits during the choice process, rather than on the choice outcome (van Osselaer et al. 2005). Examples include avoiding negative emotions due to painful tradeoffs during the process, making the choice quickly or with the least possible efforts (Bettman et al., 1998), to enjoy the decision process, or to make sure the choice process enhances the coherence of the information weighted in the decision (see van Osselaer et al. 2005 for a review) etc.

This thesis explores a new approach to studying consumer goals. It proposes a framework that explores how consumers evaluate products based on the ability of attributes to fulfill goals. The framework can be applied to any type of goal. Also, the thesis identifies factors in consumption environments that activate different types of goals. The implication of the thesis is to show that attributes' importance is dynamic when the activated goals are changing across contexts. For example, an attribute that is not important for a consumption goal (i.e., a quality goal) may become important when it helps to fulfill an extra-consumption goal (e.g., when the attribute helps simply a choice). Also, another contribution is that there are product related factors within the consumption

contexts that can activate different types of goals. I will elaborate this in the next chapter when I develop the conceptual framework.

2.2.4 Discussion

Researchers have done intensive research on how goals influence product evaluation, choice and information processing. Product evaluation involves judging the “goodness” or “usefulness” of a product. This implicitly includes a goal, as a product cannot be useful unless it fulfills a goal (Markman and Brendl 2000). Consumers evaluate the value of an object based on how the object helps to fulfill the goal consumers have (Chernev 2004; Garbarino and Johnson 2001; Lewin 1935; Markman and Brendl, 2000; Markman, Brendl and Kim 2009). Driven by maximizing accuracy or saving efforts goals, consumers can have different types of choice goals. These choice goals motivate consumers to take different decision strategies to compare the trade-off across attributes (Bettman et al., 2008). With regard to the impact of goals on information processing, goals have been shown to influence information acquisition, information encoding, choice making and the original goal (e.g., to maximize the performance of a car) can be transferred to satisfy a second goal (e.g., to maximize the safety of a car) (e.g., Huffman and Houston 1993; Huffman 1996; Peterman 1997; Ratneshwar, Mick and Reitingger 1990).

Though we have understanding of the relationship between goals and product evaluation, there is little research that directly addresses how goals influence the

importance of the attributes in the overall product evaluation. Some researchers do investigate the relationship between goals and attributes importance to a certain degree. However, they are more interested in particular goals such as promotion versus prevention goals (e.g., Chernev 2004) whereas my framework gives a comprehensive framework of how goals in general (i.e., no matter what the specific goal is) influence attributes' importance and this framework can be applied to a broad array of goals. Or diagnosticity research mainly focus on what information from memory can be retrieved and used in choice (e.g., Lynch et al. 1988) rather than how specific goals influence the role of attributes in product evaluation. In a word, how goals affect attributes' important in overall product evaluation and how goals and attributes interact in product evaluation is still an intriguing question to researchers. Different from the existing literature, the contribution of my conceptual framework is to show that attributes' importance and consumers' evaluation and choice are dynamic across contexts as different goals are activated in different contexts.

2.3 Goal Activation

2.3.1 How Are Goals Activated?

Given that goals are important factors that affect product evaluation, choice and information processing, it is important to understand what goal activation is and what activates goals in product evaluation.

Goal activation usually refers to the accessibility of a goal, i.e., the extent to which a goal is accessible in working memory. "Accessibility means that a representation (e.g.,

goal) stored in long-term memory can be retrieved and placed in short-term (or working memory)” (Moskowitz and Gesundheit 2009 p205). If a goal occupies a consumer’s thinking, it is defined as a salient goal (e.g., Alba and Chattopadhyay 1986; Brandtstädter and Rothermund 1994). That is, goal salience refers to the degree to which a goal is prominent or occupies a consumer’s current thoughts. Goal salience and goal activation are similar constructs in this thesis and both are measured along a continuum (zero salience to strong salience). In my thesis, I mainly use the term of goal activation and *define it as the extent to which a goal occupies a consumer’s thoughts.*

Note that goal activation differs from goal relevance (or motivational relevance, Smith et al. 1993). An activated goal means that the goal occupies an individual’s thinking (e.g., Alba and Chattopadhyay 1986). Goal relevance is “an evaluation of the extent to which the encounter touches on personal goals or concerns (i.e., the encounter’s importance)” (Smith et al. 1993, p918). In other words, goal relevance refers to the encounter (e.g., a friend, or a situation)’s importance for an individual’s goals or concerns. Goal relevance is usually used as an appraisal component that is associated with different emotions in appraisal theories (e.g., Lazarus 1991; Uphill and Jones 2007). The basic idea in the appraisal theory is that the appraisal of the situation (including goal relevance and other components) can elicit the associated emotions (e.g., happy, angry, Lazarus 1991). Goal activation also differs from goal importance. Goal importance means the priority of the goal (which is a desired end state) (Fishbach, Friedman, Kruglanski 2003). Important goals can be activated or suppressed in the consumption contexts. For example, safety is an important goal in general, however, safety may or may not be activated when

you buy a product (a car versus a coffee maker). In contrast, unimportant goals are not likely to be activated even when there are goal triggers in the contexts. Say a consumer who treats the fair trade goal as unimportant may not think about the fair trade goal even when he/she sees a fair trade mark on the coffee cup.

The goal activation literature shows that consumption goals can be activated in two ways. First, marketing research usually assumes that consumers' needs elicit goals (e.g., Armstrong et al. 2006; Griffith and Graham 2004). Needs are states of felt deprivation (Armstrong et al. 2006) whereas goals are defined benefits that consumers want to fulfill (Huffman 1996). Consumers can have different levels of needs –physiological needs (e.g., food, shelter), safety needs (personal security, financial security, health and well-being, safety against accidents/illness and their adverse impacts), love and belonging (friendship, intimacy, family), esteem (self-esteem, confidence, respect of/by others), self-actualization (i.e., morality, creativity, transcends self and provides meaning) (Maslow 1943). Goals are activated either through decreases in one's current state or in increases in one's desired end state (factors that widen the discrepancy). This implies that consumers often possess a set of goals prior to searching and procuring a particular product. For example, individuals possess a number of universal needs and goals such as seeking food, shelter, security, relationships and self-fulfillment. And individuals are naturally motivated to meet these goals *after* they have the goals in mind (see Griffith and Graham 2004 for a review). The argument that goals are antecedents to consumption behaviors is evidenced in marketing literature as well, e.g., consumers identify with certain brands and belong to brand communities to fulfill the goal of belonging and

affiliation (Muniz and O'Guinn 2001; Mittal 2006). In summary, core human needs become the conscious and unconscious motivation that leads to goal-directed action (Gollwitzer and Bargh 1996). When the goals are activated, they drive people to select the appropriate product category, choose from several options and may compare, combine or process product attributes' information in product evaluation and choice making (e.g., Bettman et al 2008; Chernev 2004; Garbarino and Johnson 2001). In other words, goals motivate people to go to the marketplace to satisfy the activated goals.

Second, consumption contextual cues may activate goals when there are cognitive associations between the cues and desired benefits (i.e., goals). Activated goals consequently influence product evaluation, though the contextual cues may not directly relate to product evaluation. For example, thrift versus prestige goals can be unconsciously activated by incidental exposure to images of thrift versus prestige (Chartrand et al. 2008). A scrambled-task can prime impression management goals and unconsciously drive people to fulfill such goals (Chartrand and Bargh 1996). This effect is replicated across different types of goals (Aarts and Dijksterhuis 2000; Bargh et al. 2001; Fishbach, Friedman, and Kruglanski 2003; Fitzsimons and Bargh 2003; Shah 2003; Shah and Kruglanski 2003). Even the manipulation of background pictures and colors of web pages (which prime safety or price or comfort goals) can affect consumers' product choice (Mandel and Johnson 2002). Exposure to perceptually or conceptually related contextual cues can increase product accessibility and makes the product easier to process (Berger and Fitzsimons 2008). For example, cats and dogs are conceptually related concepts (Smith, Shoben, and Rips 1974). Therefore, a dog image can activate the

related construct of cats' category (e.g., pumas, lions, Berger and Fitzsimons 2008). Based on it, the brand of Puma is more accessible when you see a dog image (Berger and Fitzsimons 2008). In turn, this increased accessibility influences product evaluation and choice (Berger and Fitzsimons 2008). Seeing the mouth-watering dessert can activate the taste-related temptation goal, which may conflict with the consumers' current goal of restricting food intake and being healthy (Geyskens et al. 2008). Also, an individual's goal can be unconsciously activated by the presence of other people or another person's behavior (Aarts, Gollwitzer and Hassin 2004). Priming of words such as "succeed", "strive", "win" etc can unconsciously activate goals that relate to performance. And exposure to names of significant others that are strongly associated with these goals can activate such goals too (e.g., Fitzsimons and Bargh 2003; Shah 2003). The point is that though the contextual cues in most cases are not directly related to the products that consumers are evaluating, such contextual cues can activate goals that can then influence product evaluation and choice.

2.3.2 Discussion

Goal activation can occur in two broad ways. The most intuitive way occurs when needs activate goals, i.e., goals are activated either through decreases in one's current state or in increases in one's desired end state (factors that widen the discrepancy) (e.g., Armstrong et al. 2006; Griffith and Graham 2004). In this case, people (usually consciously) pursue the activated goal, go to the marketplace to select the appropriate products and make choices to satisfy the activated goals. The assumption that consumer

behaviors are goal-directed, i.e., goal activation is an antecedent to consumer behaviors have been explicitly or implicitly expressed in consumer behavior and goal literature (e.g., Armstrong et al. 2006; Bagozzi and Dholakia 1999; Bettman et al. 1998; Chartrand et al. 2008; Fishbach and Dhar 2005; Griffith and Graham 2004; Higgins 2002; Moskowitz and Gesundheit 2009; Shiv and Huber 2000; Soman and Cheema 2004).

Goals can also be activated by external contextual cues (e.g., Aarts and Dijksterhuis 2000; Bargh et al. 2001; Chartrand et al. 2008; Chartrand and Bargh 1996; Fishbach, Friedman, and Kruglanski 2003; Fitzsimons and Bargh 2003; Mandel and Johnson 2002; Shah 2003; Shah and Kruglanski 2003). Researchers in this area mainly focus on contributing to the priming mechanism, theory and the implications for product evaluation and choice. The underlying mechanism across these findings is that goals are cognitive knowledge structures in memory. If a certain goal is often pursued in a certain situation in which there are some contextual cues (external to products), the goal and the contextual cues become linked in memory. The presence of the contextual cues can automatically activate the goal through a mechanism that is similar to stimulus-response conditioning (Chartrand et al. 2008). In a word, external contextual cues can activate goals when goals are latent (which means it exists in consumers' cognition and can be activated, e.g., Strahan, Spencer, Zanna 2002) and there is a cognitive association between goals and the cues (e.g., Chartrand et al. 2008).

While existing literature mainly focuses on how goals influence product evaluation and choice after a goal is activated by needs or contextual cues, I propose that product related factors such as choice setting, product categories and product attributes can

activate goals as well. In other words, it is proposed that the relationship between goals and product related factors can operate in both directions. On the one hand, activated goals can influence how consumers make a choice (Bettman et al. 2008), which products to choose to satisfy the goal (Lewin 1935) and which attribute is important in product evaluation (Garbarino and Johnson 2001). On the other hand, it is proposed that choice settings, product categories and product attributes themselves can activate goals, which, in turn, affect product evaluation. In my paper, I will propose these three product related factors that activate goals within the contexts. I will elaborate these in the conceptual framework chapter.

Chapter 3

Conceptual Framework

3.1 What We Know from the Literature, What We Do Not Know and the Research Question

In product evaluation, there are lots of studies that examine how consumers evaluate products and make choices. Among them, there are many approaches that are attribute-driven, i.e., they assume that product evaluation is a function of product attributes. As shown in the literature review, different approaches study product evaluation in different contexts and they focus on different aspects.

Regardless of whether the research focuses on *combining* attributes (e.g., Cohen, Fishbein and Ahtola 1972; Day, Shyi and Wang 2006), *processing* attributes (Chen and Chaiken 1999, Petty and Wegener 1999; Wegener and Carlston 2005) or *comparing* attributes (e.g., Bettman et al., 2008; Bettman, Luce and Payne, 1998; Kahneman and Tversky 2000; Lichtenstein and Slovic 2006), one commonality across these approaches is that the importance of the attributes is typically calculated post-hoc and researchers assume that attribute importance comes from experience, i.e., the mechanisms by which attribute importance is determined are seldom investigated. Namely, why particular attributes become important in product evaluation and decision making is under researched. For example, we know that consumers will give a certain weight to an attribute without knowing where the certain weight comes from (e.g., Cohen, Fishbein and Ahtola 1972; Day, Shyi and Wang 2006). As the importance of attributes is one of

the building blocks of product evaluation, it is important to address what factors influence and determine the importance of attributes in the overall product evaluation.

Another commonality is the existing literature implicitly assumes that the importance of attributes is relatively stable, e.g., researchers assume taste and price are usually important in buying an orange juice across contexts (Sheth and Talarzyk 1972). Though preference, choice and decision strategies can be constructed and vary across contexts (Bettman et al. 2008), the previously mentioned major attribute-driven approaches seldom examine whether the importance of attributes change across contexts, how the attributes' importance is influenced by specific factors within contexts, and how product evaluation is influenced by the volatility of attribute importance across contexts.

To address these questions, my thesis examines why particular attributes become important in overall product evaluation from a goal perspective. Product evaluation involves judging the “goodness” or “usefulness” of a product. This implicitly includes a goal, as a product cannot be useful unless it fulfills a goal (Markman and Brendl 2000).

It is known that product evaluation can be investigated from a goal perspective. Consumers evaluate the value of an object based on how the object helps to fulfill goals consumers have (Chernev 2004; Garbarino and Johnson 2001; Lewin 1935; Markman and Brendl 2000; Markman, Brendl and Kim 2009). With regard to the impact of goals on choice, consumers can have different types of choice goals. These goals motivate consumers to take different decision strategies to compare the trade-off across attributes (Bettman et al., 2008; Park and Smith 1989). With regard to the impact of goals on information processing, goals have been shown to influence information acquisition,

information encoding, choice making and transfer to satisfy a second goal (e.g., Huffman and Houston 1993; Huffman 1996; Peterman 1997; Ratneshwar, Mick and Reitingger 1990).

Though we have understanding of the relationship between goals and product evaluation, how goals influence the importance of the attributes in overall product evaluation is under researched. Some researchers do investigate the relationship between goals and attributes' importance to a certain degree. However, they are more interested in particular goals such as promotion versus prevention goals (e.g., Chernev 2004) whereas my framework gives a comprehensive framework of how goals in general influence attributes' importance and this framework can be applied to a broad array of goals. Researchers also focus on the impact of goals on satisfaction, or on the value of objects such as lotteries, gambling and cigarettes (e.g., Garbarino and Johnson 2001; Markman et al. 2009, 2000) rather than how goals affect attribute importance. Or diagnosticity research (e.g., Lynch et al. 1988) mainly focus on what information from memory can be retrieved and used in choice rather than how specific goals influence the role of attributes in product evaluation. In other words, how goals affect attribute important in overall product evaluation and how goals and attributes interact in product evaluation is still an intriguing question to researchers.

My thesis aims to address the question of why particular attributes become important in overall product evaluation. An unimportant attribute can be more important in another context. The reason is that when consumers' active goal is changing, attributes' importance changes as well according to the extent to which it can fulfill the activated

goal. For example, in study 3, it is shown that the “ability to play Mp3 files” of digital photo frames is not important in the individual evaluation setting but can become important in a choice setting.

To answer this research question, I structure my framework around two research questions. First, how do goals interact with attributes in overall product evaluation? In other words, how do goals influence the role of product attributes in product evaluation? Second, what factors can activate goals within a particular consumption context?

Note that my framework is set in the context in which consumers deliberately consider attributes the product possesses. And attribute evaluation and product evaluation usually involves effortful processing instead of heuristic processing. In other words, my framework limits to the situations in which people give a careful, analyzing and effortful consideration of attributes in product evaluation. When individuals carefully analyze and think about how attributes are important or unimportant according to their goals, it is easier to measure the underlying process and test the proposed framework than when consumers take a heuristic and simple way to evaluate attributes and products. For example, when consumers rely on experts’ advices (e.g., “I will buy the brand which experts recommend”) to evaluate products, they may not consider specific product attributes at all in product evaluation. Therefore, it is difficult to test how goals influence the role of attributes in product evaluation.

3.2 The Influence of Goals on Product Attributes and their Role in Product Evaluation

While evaluation of product attributes is central to different approaches in product evaluation, what makes particular attributes influential to consumers' overall product evaluation is not entirely researched and will be addressed in the current work. The foundation on which I build an answer to this question is that product attributes that are tailored to specific goals (e.g., cultural enrichment versus relaxation) are more satisfying and preferred (e.g., Garbarino and Johnson 2001). Goals and attributes are closely related as an attribute or a product cannot be useful unless it fulfills a goal (Markman and Brendl 2000). Each attribute contributes to fulfill consumers' goals. For example, processors of computers are designed to fulfill the goal of running programs quickly. Also, a number of different attributes can serve a particular goal, e.g. size and weight both help achieve the goal of portability. Therefore, it is natural that goals can influence attribute importance. I extend this notion by developing a framework that explains the processes by which goals influence the role of attributes in product evaluation.

It is argued in this research that the basic mechanism is that products are evaluated based on their ability to fulfill a subset of consumers' goals. Consequently, specific product features should positively impact the overall product evaluation to the extent that they indicate the product can fulfill one or more of those goals. Crucially, this requires that the attribute is perceived as both *relevant* to the goal (e.g. a laptop's weight is relevant to the goal of portability), and is *able* to fulfill that goal (e.g. a 1Kg laptop would be easy to carry). The ability of an attribute to fulfill a particular goal is similar in

concept to the notion of attribute level – as it is typically referred to in the choice literature – which usually refers to the utility, value or performance specification of an attribute (e.g., Green and Srinivasan 1990; Horsky, Nelson, and Posavac 2004; Kahn and Meyer 1991), e.g., a 10Gb USB has a higher level than a 1Gb USB in terms of capacity. The construct of attribute level is often used in conjoint analysis research. For example, in conjoint analysis, a set of attributes levels is given to consumers. By analyzing how consumers make preferences between these products, the implicit importance of the individual attributes making up the product or service can be determined (Green and Srinivasan 1990). Attribute levels are also used in product evaluation research, e.g., how managers look at shoppers' patronage behaviors based on the performance of a local mall in terms of certain attributes as price, convenience, fun, fantasy etc (i.e., attribute levels) (Yavas and Babakus 2009), and decision making, e.g., decision efficiency can be influenced by attributes numbers and attributes levels (Louviere et al. 2008). My definition of attribute ability refers to the perceived value of the attribute to fulfill the goal whereas an attribute's level is the specification of an attribute. Attribute level is really important because it impacts perceived attribute ability, i.e., the higher the attribute's level, the higher the ability of the attribute to fulfill the goal.

An attribute that is able to facilitate a goal is considered to have higher ability, which results in a more favorable product evaluation. This suggests that the ability of an attribute to fulfill a goal has a positive effect on the overall evaluation of the product (H1). For example, if the consumer's goal is to buy a fast computer, the faster the processor,

i.e., the higher the processor's ability to fulfill the goal, the more favorable the product evaluation.

H1: The ability of an attribute to fulfill a goal has a positive effect on the overall evaluation of the product.

The role of attributes in product evaluation depends mainly on consumers' goals. I propose that the positive relationship between product evaluation and the ability of a relevant attribute to fulfill a goal is strengthened by several goal-related factors. The factors I introduce are goal activation and goal-product fit. Before introducing these two factors, I will briefly discuss goal importance as another moderator, which has been addressed but lacks empirical support in related work.

Goal importance is a goal related factor through which the positive relationship between the ability of an attribute to fulfill a goal and product evaluation is likely to be strengthened, which is consistent with Sheth and Talarzyk (1972). Goal importance is defined as the degree to which the goals represent high-priority objectives (Fishbach, Friedman, Kruglanski 2003). Namely, goal importance means the degree to which the consumers treat the fulfillment of a goal as critical. When a goal is important, the relevant attributes become important as they help to fulfill the goal. When the ability of an attribute to fulfill an important goal is high, consumers will give a favorable evaluation of the product as it fulfills the goal to a good extent. When the ability of an attribute to fulfill an important goal is low, the low ability of an attribute is perceived as not being

good enough to achieve the goal and it acts as negative information or a weak argument in evaluation. Therefore low ability of an attribute results in an unfavorable evaluation. When the goal is not important, the relevant attributes take on less importance in overall product evaluation. Therefore, whether the ability of an attribute is high or low will not affect product evaluation much. That is to say, there is a weak (if any) relationship between the ability of an attribute and product evaluation when goal importance is low. This is consistent with Sheth and Talarzyk (1972). In this paper,

$$A_{ik} = \sum_{j=1}^N PI_{ijk} * VI_{ij} \quad (\text{Sheth and Talarzyk 1972})$$

Where A_{ik} = the attitude toward an object k expressed in terms of an individual i 's degree of like-dislike of that object, PI_{ijk} = individual i 's perceived instrumentality of the k th object toward attaining or blocking the j th goal or value, VI_{ij} = value importance to an individual i of the j th goal or value. Interestingly, PI is similar to attribute ability in my proposed model, VI is similar to goal importance and A is similar to product evaluation. In other words, Sheth and Talarzyk (1972) express the similar idea that goal importance moderates the relationship between attribute ability and product evaluation. However, Sheth and Talarzyk (1972) did not find empirical support for goal importance's moderating effect. Because of this, I tested goal importance's moderating role in product evaluation in Study 1.

A goal needs to be activated for the goal-relevant attributes to play a significant role in product evaluation. In other words, the relationship between attribute ability and product evaluation strengthens when goal activation increases. Goal activation is defined as the degree to which a goal occupies a consumer's thinking (e.g., Brandtstädter and

Rothermund 1994). Goals are more likely to influence the role of attributes in product evaluation when goals occupy a consumers' thinking. A goal is more likely to direct people to process goal relevant information, evaluate products that can fulfill the goal as being more favorable and guide their behavior to fulfill the goal when the goal is activated than not. For example, safety in general is an important goal to most people. However, that does not mean that safety affects product evaluation in all contexts. For example, a safety goal is seldom activated when consumers buy laptops (the safety goal can be relevant for purchasing laptops as there were cases when laptops blew up and hurt people). In that case, a safety goal will not have a big influence on the relationship between the ability of a safety relevant attribute and the product evaluation. In contrast, when a goal is activated, the goal is likely to strengthen the positive relationship between the ability of an attribute and product evaluation. In other words, as the goal activation increases, the ability of the attribute to fulfill the goal will become more important and the positive relationship between product evaluation and attribute ability strengthens.

The extent to which consumers perceive the alignment of the goal and the product (i.e., goal-product fit) is a second important factor that is likely to strengthen the positive relationship between product evaluation and the ability of an attribute to fulfill a goal. Goal-product fit means the extent to which consumers think of a product (category) as being related to a particular goal. That is, the extent to which consumers perceive a particular product as being an appropriate vehicle for fulfilling a particular goal. The underlying mechanism for proposing goal-product fit is that goals are cognitive knowledge structures in memory (e.g., Chartrand et al. 2008). If a certain product

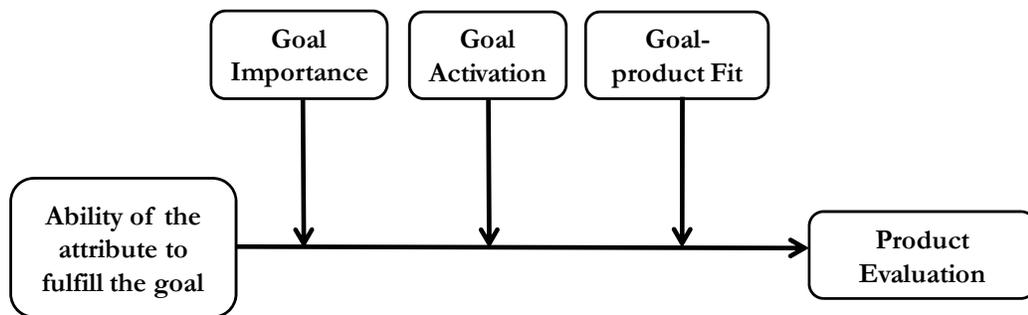
category in general has a bigger impact on the goal (e.g., cars have a big impact on environmentally friendly goal), or if a certain goal is often pursued in a situation that is associated with a certain product category (hygiene goals and shampoos), the goal and the product category become linked in memory and there is a goal-product fit. For example, a pair of binoculars is unlikely to be seen as relevant to goals related to environmental responsibility. Bicycles and plastic bottles, in contrast, are often associated with such goals. Goal-product fit should moderate the relationship between product evaluation and attribute ability in the following way: when the link and association between a goal and a product become stronger, i.e., the goal-product fit become stronger, the relevant attribute that can fulfill the goal becomes more important in overall product evaluation. Therefore, higher ability of the attribute increases product evaluation. In contrast, when goal-product fit is low, even attributes that fulfill activated goals are unlikely to play an important role in product evaluation, so product evaluation should not change much regardless of whether attribute ability is low or high. Therefore, when goal-product fit increases, the positive relationship between product evaluation and attribute ability should strengthen.

These arguments lead to hypotheses H2a and H2b. High goal activation and high goal-product fit are important moderators that strengthen the positive relationship between an attribute's ability to fulfill the goal and product evaluation. The conceptual model is shown in Figure 3-1.

H2a: The relationship between product evaluation and attribute ability strengthens when goal activation increases.

H2b: The relationship between product evaluation and attribute ability strengthens when goal-product fit increases.

Figure 3-1 Goal Related Factors Influence the Role of Attributes in Product Evaluation



3.3 What Factors Within the Consumption Contexts Can Activate Goals?

Given the hypotheses that goals influence the process in which attributes affect product evaluation, an important aspect of my thesis is to identify product related features of the consumption environment that are likely to activate particular types of goals. Specifically, it is proposed that choice settings, product categories and product attributes are three product related factors that can activate goals.

In the thesis, goal activation is defined as the extent to which a goal occupies a consumer's thoughts. The goal activation literature shows that goals can be broadly

activated in two ways. First, marketing research usually assumes that consumers' needs elicit goals (e.g., Armstrong et al., 2006; Griffith and Graham 2004). Needs are states of felt deprivation (Armstrong et al., 2006) – in contrast to goals that are states consumers desire to achieve (or avoid). Goals are activated either through decreases in one's current state or in increases in one's desired end state (factors that widen the discrepancy). This implies that consumers often possess a set of goals prior to searching and procuring a particular product. Second, contextual cues within the consumption environment may activate goals when there are cognitive associations between the cues and desired benefits (e.g., Chartrand and Bargh 1996; Chartrand et al. 2008; Mandel and Johnson 2002). Activated goals consequently influence product evaluation, though the contextual cues may not directly relate to product evaluation. For example, thrift versus prestige goals can be unconsciously activated by incidental exposure to images of thrift versus prestige (Chartrand et al. 2008). Priming safety or price or comfort by changing the background pictures and colors of web pages can affect consumers' product choice via a similar mechanism (Mandel and Johnson 2002).

While existing literature mainly focuses on how goals influence product evaluation and choice after a goal is activated by needs or contextual cues, I examine factors within the consumption environment that are likely to directly activate such goals. Specifically, I examine the role of the evaluation setting (individual evaluation vs. choice settings), product categories and product attributes in activating goals that, in turn, impact the role of attributes on overall product evaluation. In other words, it is proposed that the relationship between goals and product related factors can operate in both directions. On

the one hand, activated goals can influence how consumers make a choice (Bettman et al. 2008), which products to choose to satisfy the goal (Lewin 1935) and which attribute is important in deciding satisfaction (Garbarino and Johnson 2001). On the other hand, it is proposed that choice settings, product categories and product attributes themselves can activate goals.

I propose that these three broad factors, or goal triggers, can activate different categories of goals. These triggers represent specific product related features within the consumption environment: First is whether or not product evaluation occurs within the context of choice (i.e. selecting one product/brand from a consideration set) or an isolated product evaluation (e.g. evaluation of a product based on an advertisement); the second goal trigger is the product category; finally, I argue that particular product attributes can also activate the very goals that render such attributes important.

3.3.1 Choice Settings Can Activate Goals

Product evaluations made in the context of choice (versus individual product evaluation) are likely to activate additional goals related to the *act* of choosing per se. That is, consumers are motivated not just to evaluate a product but to choose one product within a set of competing options. Choice settings mean that there are several options in a choice, e.g., to choose a laptop from Apple, IBM or DELL. In contrast, individual evaluation settings refer to the context where products are typically evaluated on their own, e.g., in advertising.

It is proposed that choice goals can be activated by choice settings, such as goals related to simplifying or justifying a choice (criterion goals in the language of van Osselaer 2005), making a quick choice, or enjoying the shopping process (process goals). When individuals face several options in the choice settings, it is natural that they sometimes need to compare trade-offs among attributes. When the trade-offs among attributes are complex, it may motivate individuals to simplify the decision process or enjoy the shopping process rather than taking pains in comparing trade-offs among attributes and therefore such choice goals can be activated. Or, when individuals need to make a choice among several options rather than evaluating a product by itself, the goal of simply making a choice is activated by the choice settings.

In the thesis, it is proposed that choice settings versus individual evaluation setting (i.e., non-choice settings) make a difference in activating choice goals, which in turn influence the role of attributes in product evaluation. Regardless of the different terminologies of choice goals (e.g., Bettman et al. 2008; van Osselaer 2005), the current literature mainly focuses on how choice goals influence decision strategies (e.g., weighted adding, lexicographic strategies, Bettman et al. 2008). The limitation of the current literature is that they do not investigate how these goals influence the role of attributes in product evaluation in choice settings versus individual evaluation settings. To address this, the proposition in the thesis is that while attributes in individual evaluation settings might exert little impact on product evaluation, they may nevertheless affect evaluation in the context of choice when they can help satisfy such choice goals. For example, attributes along which different products differ may be more important in

the context of choice, where they help consumers distinguish between options, than in an isolated product evaluation where such a goal is less important. The choice setting as a goal trigger can be stated in the following broad conceptual proposition.

H3: Choice settings (versus individual evaluation settings) are likely to activate additional goals related to the act of making a choice. Therefore, attributes that are not important for individual evaluation settings become important when they help to fulfill the choice goals activated by the choice settings.

3.3.2 Product Categories Can Activate Goals

Particular product categories may be further associated with certain goals and the presence of the product category will activate the goal. I am not only proposing that the product category can become a goal-activating cue, but also proposing the role of this particular cue in product evaluation. Specifically, when a product category activates an associated goal, goal relevant product features become more important as they help to fulfill the activated goal. As stated in the previous section, goal activation strengthens the positive relationship between attribute ability and product evaluation. In a word, product categories act as a cue to activate the associated goals. In turn, goal activation makes the goal relevant attributes take on more importance in product evaluation. For example, bicycles and cars may evoke goals related to being environmentally friendly, and coffee might activate goals related to fair trade. In contrast, binoculars, as a product category, seem unlikely to activate thoughts about fair trade or protecting the environment.

Therefore, eco friendly attributes of cars (e.g., hybrid engines) can be more important in

product evaluation when cars activate the environmentally friendly goal. However, eco friendly attributes of binoculars (e.g., eco-glasses) are unimportant in product evaluation as binoculars can hardly activate environmentally friendly goal.

This mechanism of this proposition (i.e., particular product categories can activate the associated goals) is based on Bargh and his colleague's goal theory and the mechanism of this goal activation (e.g., stimulus-response conditioning or priming) is not the proposed contribution of the thesis. Goals as cognitive representations can be automatically activated by environmental stimuli (Chartrand and Bargh 1996). That is, with repeated and consistent choice (i.e., activation) of a particular goal in a certain social situation over time, the representation of that goal may become directly and automatically linked in memory to the representation of that situation (Bargh 1990; Posner 1978). As a result, situational features in the environment can automatically trigger goals chronically associated with those features (Chartrand and Bargh 1996). For example, domains of business (e.g., boardroom tables and briefcases) can activate the goal of competing with others at work (Kay et al. 2004). Based on Bargh's theory, when a certain product category is consistently associated with a particular goal, the goal should eventually become linked to the product category. Because of this, it is proposed that consideration of certain products can activate certain goals. In turn, these goals affect that goal relevant attributes become important in product evaluation.

H4: Broad product categories can activate certain associated goals.

3.3.3 Product Attributes Can Activate Goals

Finally, it is proposed that product attributes themselves can activate certain goals, which, in turn, can affect the role of the attributes in product evaluation. The underlying mechanism for proposing this is that each attribute is designed to fulfill a goal (or goals). When consumers learn and set up the association between the attribute and the goal in purchase situations, it is likely that the attribute can activate the associated goals. For example, seeing a certified fair trade mark (i.e., the attribute) on the coffee cup can activate the associated goal (e.g., protecting coffee farmers' welfare or, more broadly, goals to pay a fair price, rather than a purely self-interested goal of paying the lowest price).

More importantly, attributes as goal triggers provide new and important insights in understanding how such goal activation affects the role of attributes in production evaluation. For example, when a fair trade mark activates the fair trade goal, the fair trade attribute, which helps to fulfill the activated goal, becomes more important in evaluating product. Therefore the product evaluation is likely to increase if the fair trade attribute has a good ability to fulfill the goal. In contrast, a coffee product that clearly has no such attribute feature can not activate the associated goal. In this case, the lack of the attribute would play a very different role than in situations where, for whatever reason, the associated goal is activated. Specifically, when a goal is activated for whatever reason (e.g., the goal is primed by other cues than the attribute) and when the attribute is not present (i.e., the product clearly has no such a feature), the activated goal can not be fulfilled as there is no relevant attribute to achieve the goal. Therefore, the product

evaluation is likely to decrease. In other words, when an attribute is not present but the associated goal is activated by other triggers, the absence of the attribute does have a negative impact on the product evaluation as the product can not fulfill the activated goal. In contrast, when a goal is not activated and when the attribute is not present, the product evaluation will not decrease as the goal will not influence product evaluation when it is not activated. This mechanism is different from making inferences from a missing attribute (i.e., consumers are aware that the product has the attribute, but the attribute information can not be observed at the evaluation moment), which can also influence product evaluation. Inferences can be based on perceived correlations between missing and known attributes (e.g., the brand that is superior on the believed-to-be-correlated attribute (e.g., warranty) will be inferred to be superior on the unobservable attribute (e.g., durability)), evaluations of known attribute values (the brand that is superior on the observable attributes will be inferred to be superior on the unobservable attribute as well), or perceptions of market efficiencies (compensatory inferences, e.g., the apparently superior brand is inferior on the unobservable attributes) (see Chernev and Carpenter 2001 for a review). For example, consumers are shown to infer based on the values of other attributes within the same brand or the values of the same attribute across brands (Ford and Smith 1987; Huber and McCann 1982; Johnson and Levin 1985; Lee and Olshavsky 1997; Ross and Creyer 1992). For the inference's impact on choice, once inference making takes place, decisions are made as if all information were available (Gunasti 2009).

In short, the proposition that the presence of an attribute can activate an associated goal is summarized in the following hypothesis.

H5: Product attributes can activate associated goals.

3.3.4 Goal Importance as a Moderator in Activating Goals

Goal activation (e.g., by a product attribute) should be crucially dependent on the extent to which individuals possess the goal in the first place, which is influenced by the importance of the goal (high vs. low). Goal importance is defined as the degree to which the goals represent high-priority objectives (Fishbach, Friedman, Kruglanski 2003), i.e., the importance of goal fulfillment. When a goal is important, it is more likely that consumers have encoded the goal in the cognitive structure and memory, i.e., consumers possess the goal already in mind, there is a cognitive link between goal triggers and a goal, and the goal is more accessible. When a goal is important, consumers will give a priority to fulfill such a goal and choose products that achieve the goal. Therefore, the associations between the goal and the relevant product categories, and the associations between the goal and the relevant product attributes are stronger and more accessible for an important goal. In that case, it is more likely that the presence of the goal trigger (e.g., attributes) will activate the goal than when the trigger is absent. In contrast, when a goal is less important, consumers are less likely to possess the goal, the goal is less accessible and there is a weak link between a less important goal and its relevant attribute. In addition, a more important goal is likely to be activated as there are many goal triggers in the environment and suppresses the activation of other less important goals. Therefore,

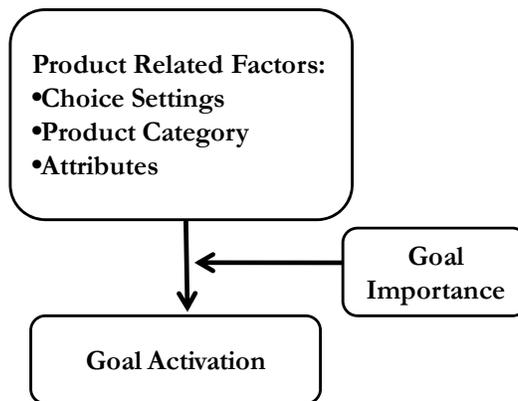
the less important goal is not likely to be activated regardless of whether the trigger is present or absent. For example, if an environmentally friendly goal is important to a consumer, the goal should be encoded and retrieved in cognition more than unimportant goals. As a result, the goal is more accessible in memory. When there is a goal trigger, e.g., biological degradable ingredients of shampoos, the environmentally friendly goal is more likely to be activated than when the trigger is absent. In contrast, when an environmentally friendly goal is not important, other more important goals might be activated, e.g., consumers will aim to buy a shampoo with a strong cleaning function. In that case, the environmentally friendly goal is less likely to be activated regardless of whether the trigger is present or absent. I state this argument in H6.

H6: The effect of goal triggers on goal activation is moderated by goal importance.

3.3.5 Summary of the Goal Activation Process

In summary, it is proposed that product related factors such as choice settings, general product categories, and specific product features can activate various goals. And this effect is strengthened with the increase of goal importance (figure 3-2).

Figure 3-2 Goal Activation Process



3.4 Summary of the Conceptual Framework

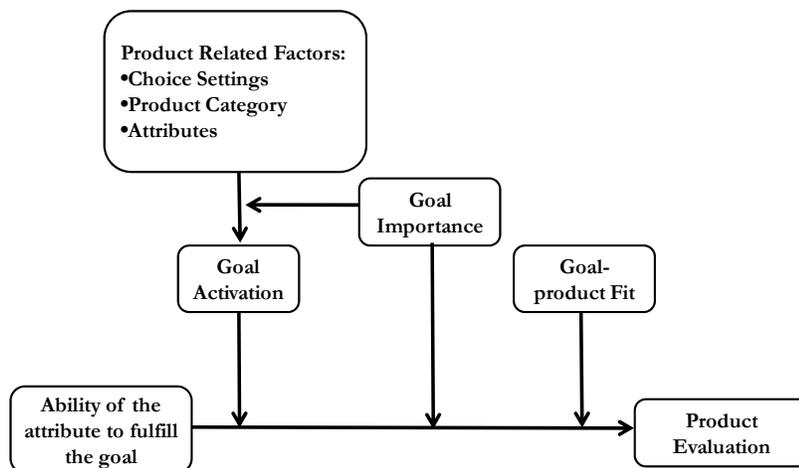
Attribute evaluation (or product evaluation) involves judging the “goodness” or “usefulness” of an attribute (or a product). This naturally involves a goal, as an attribute or (a product) cannot be useful unless it fulfills a goal. The thesis addresses the question of how attributes become important in the overall product evaluation from a goal perspective.

The basic mechanism is that products are evaluated based on their relevance and ability to fulfill a subset of consumers’ goals. The better the relevant attribute helps to fulfill the goal, the more favorable the product evaluation. In addition, goal activation and goal-product fit are two important moderators that strengthen the positive relationship between the ability of the attribute to fulfill the goal and product evaluation. Goal importance is another moderator which has been conceptually addressed (Sheth and Talarzyk 1972) but needs further empirical support.

As goals are expected to influence the role of attributes in product evaluation, it is also important to investigate what features of the consumption environment are likely to activate goals. Related work has shown that internal needs and external contextual cues can activate goals (Armstrong et al., 2006; Chartrand and Bargh 1996; Chartrand et al. 2008; Griffith and Graham 2004; Mandel and Johnson 2002). While the extant literature mainly focuses on how goals influence product evaluation and choice after a goal is activated by needs or contextual cues, the role of goals activated by *product (or consumption) related factors within* a particular context has received little attention. To address this, the thesis proposes that choice settings, broad product categories and certain product attributes are three product related factors that can activate goals within the consumption contexts. And this effect is strengthened with the increase of goal importance

The whole conceptual framework is described in figure 3-3.

Figure 3-3 Conceptual Framework



Chapter 4

Experimental Design and Results

4.1 Overview of the Studies

I mainly used a piecemeal approach to test the proposed framework. In other words, I broke down the framework into different parts and tested each part separately instead of testing the model together as a whole.

I have completed six studies for my thesis. The logic of the studies is as follows. Study 1 tested the basic proposition that the ability of an attribute to fulfill a goal can have a positive effect on the overall evaluation of a product (H1). In addition, this study also supported that goal importance strengthened the relationship between attribute ability and product evaluation. Study 2 tested the notion that the perceived fit between the goal and product moderates the relationship between the ability of an attribute and product evaluation (H2b). Studies 3, 4, and 5 tested the idea that choice settings, product categories and product attributes can all activate goals that impact the role of attributes on product evaluation (H3, H4 and H5). Study 5 also tested the role of goal importance as a moderator of the relationship of goal triggers (product attributes in this case) on goal activation (H6). Study 6 tested that goal activation strengthens the relationship between the ability of an attribute and product evaluation (H2a). Specifically,

Study 1 was designed to test that the ability of an attribute to fulfill a goal had a positive effect on the overall evaluation of the product (H1). This study also provided

evidence for the notion that goal importance strengthened the relationship between attribute ability and product evaluation.

Study 2 was designed to test the role of the perceived fit of the goal and product as a moderator of the positive relationship between the ability of an attribute and product evaluation (H2b).

Study 3 was designed to examine the role of choice versus non-choice settings (i.e., isolated product evaluation) in terms of activating additional choice goals (H3). It also tested the impact of choice goals on the importance of attributes in product evaluation.

Study 4 was designed to test whether product categories activates particular goals (H4).

Study 5 tested the role of product attributes in activating associated goals (H5), as moderated by goal importance. In other words, goals should be more likely to be activated when the attribute is present than absent and this effect should be strengthened as goal importance increases (H6).

Study 6 tested whether goal activation strengthens the positive relationship between the ability of an attribute and product evaluation (H2a).

4.2 Study 1: Basic Proposition- the Positive effect of the Ability of an Attribute to Fulfill a Goal on Product Evaluation

The purpose of the first study was to examine the basic proposition that the ability of an attribute to fulfill a goal has a positive effect on product evaluation (H1). This study also explored whether the positive relationship between the ability of an attribute to fulfill

a goal and product evaluation is strengthened with the increase of goal importance. The study was an online experiment consisting of a 2 (attribute ability: low versus high) * 2 (goal importance: low versus high based on a median split) between-subjects design. The main dependent measure was the evaluation of the product. The target goal was environmental friendliness and the goal-related attribute was the biodegradability of a brand of shampoo.

Method: One hundred and thirty-six undergraduate students participated in Study 1 in exchange for course credit. Participants were randomly assigned to the manipulated conditions of attribute ability (low versus high). The ability of the attribute was manipulated by varying information given about the environmental friendliness (i.e., organic, biodegradable ingredients) of the shampoo. Half of participants saw product information indicating a low level of organic, biodegradable ingredients (i.e., 5% organic, biodegradable ingredients). The remaining participants saw product information indicating a high level of organic ingredients (100% organic, biodegradable ingredients) (figure 4-1). Goal importance was measured as an individual difference. Based on a median split, participants were subsequently categorized as either high or low in goal importance.

Figure 4-1 Manipulation of the Ability of the Attribute

Product information used to manipulate ability level of attribute (low versus high).



Attribute at a high level manipulation:

The picture indicated “100% organic, biodegradable ingredients”

Attribute at a low level manipulation:

The picture indicated “5% organic, biodegradable ingredients”

Participants read a section on shampoo evaluation, which included a picture of a shampoo product and descriptions of and its attribute. The major attributes were brand name, size, scent, hair type, and the biodegradability of the product. The ability of the attribute was manipulated by varying information given about the biodegradability (i.e., organic ingredients) of the shampoo. Half of participants saw product information indicating a low level of organic ingredients (5% organic ingredients). The remaining participants saw product information indicating a high level of organic ingredients (100% organic ingredients) (figure 4-1). Finally, to measure goal importance, they rated how much they cared about an environmental responsibility goal both attitudinally and behaviorally on a 15-item goal importance measurement ($\alpha=.93$) (adapted from Fraj and Martinez 2006, table 4-1). Each of these goal importance items was measured on a 4-

point scale. Based on a median split, participants were subsequently categorized as either high or low in goal importance.

Table 4-1 Items that were used to measure goal importance

(on a 4-point scale: “disagree”(1), “slightly disagree” (2), “slightly agree” (3), “agree”(4))

Items that measure the importance of the “environmentally friendly goal”
1) I <u>care a great deal</u> about protecting the environment
2) I am <u>NOT concerned</u> about the environment
3) I <u>OFTEN think</u> about protecting the environment
4) I <u>do a lot of things</u> to help protect the environment
5) It is <u>important</u> to buy products that are environmentally friendly
6) I have a <u>responsibility</u> to protect the environment
7) I do <u>NOT think</u> it is important for consumers to consider the environmental impact of the products they purchase
8) Whenever I am buying a product I <u>think about</u> its impact on the environment
9) I <u>always question</u> whether a product is environmentally friendly before I make a purchase
10) I tend <u>NOT to think</u> about the environmentally impact of most products before I buy them
11) If I don’t know whether a product is environmentally friendly or not – I <u>always find out before</u> I purchase
12) I <u>always try</u> to buy environmentally friendly products
13) I <u>spend MORE</u> money for products that are environmentally friendly when available
14) I <u>always try to avoid</u> products that harm the environment
15) I <u>do NOT try</u> very hard to purchase products that are environmentally friendly

Dependent variables. All items were measured along 7-point scales. Participants’ evaluation of the shampoo was measured using two items anchored by “*not favourable favourable*” and “*don’t like it – like it*” ($r = .93$; table 4-2). To check whether the

manipulation of the level of the organic ingredients influenced the perceived ability of the attribute, participants also answered the question of “how good WOULD YOU SAY this brand is in terms of environmental friendliness” anchored by “*not at all good – very good*” (table 4-2).

Table 4-2 Measured Variables

	A set of questions (take shampoo for example)
1	What is your overall opinion of this product along the following dimensions (“favorable” and “like”)?
2	Please list all the features that you considered about this particular brand of shampoo when forming your opinion. You should mention EVERYTHING that impacted your overall opinion (even if there was no information about it in the product description or you weren’t certain about how good the product was in that respect).
3	For each feature (e.g. attributes) you considered please rate how <u>good</u> you thought the brand was along that dimension, as well as how <u>important</u> that particular thing was for your overall opinion.
4	Here are a few specific questions about the environmental friendliness of the product. Please answer these questions regardless of whether you mentioned this on the previous page or not. The questions include: <ul style="list-style-type: none"> • Did you consider whether this shampoo was environmentally friendly? (yes or no) • How good WOULD YOU SAY this brand is in terms of environmental friendliness? <ul style="list-style-type: none"> • How certain are you about this? • If you DID CONSIDER whether this brand was environmentally friendly, how important was this to your overall evaluation of the brand?

Results. The manipulation check showed that the attribute was perceived to be more environmentally friendly when the organic ingredients were 100% than 5% ($F(1, 127) = 19.69, p < .05; M = 5.77$ vs 4.62). An ANOVA on the primary dependent variable supported the notion that the ability of an attribute to fulfill a goal (low vs. high) had a main effect on product evaluation, which supported H1 ($F(1, 134) = 4.46, p < .05; M_{\text{high}} = 4.52, M_{\text{low}} = 4.06$). Moreover, goal importance (high versus low based on a mean split¹) moderated the positive relationship between the ability of an attribute to fulfill a goal and product evaluation ($F(1, 132) = 5.89, p < .05$). Specifically, when a goal (in this case, environmental responsibility) was not important to consumers, shampoo evaluations were similar when the relevant attribute level changed from low to high ($M_{\text{high}} = 4.06, M_{\text{low}} = 4.04, F < 1, p > .05$). However, when the environmentally friendly goal was important, shampoo evaluation was higher when the ability of the attribute was high versus low (i.e., 100% versus 5% organic ingredients) ($M_{\text{high}} = 5.13, M_{\text{low}} = 4.07, F(1, 132) = 13.02, p < .05$). The result showed that goal importance strengthened the positive relationship between attribute ability and product evaluation.

Discussion. Study 1 showed that the ability of an attribute to fulfill a goal had a positive effect on the overall evaluation of the product. This was consistent with the basic proposition of the current thesis – that products are evaluated according to the extent to which their attributes can help to fulfill consumers' goals. Further, this relationship was

¹ Using goal importance as a continuous variable, regression also showed that goal importance moderated the positive relationship between the ability of an attribute to fulfill a goal and product evaluation ($r = .20, p < 0.05$)

strengthened when goal importance increased, i.e., higher ability of the attribute increased product evaluation much more when goal importance was high.

4.3 Study 2

It is proposed that this relationship (between the ability of an attribute to fulfill a goal and product evaluation) is strengthened when goal-product fit increases, i.e., higher ability of the attribute increases product evaluation more when consumers consider the product an appropriate means to fulfill the goal (i.e., goal-product fit is high) (H2b). I investigated this notion in Study 2. Goal-product fit means the extent to which consumers think of a product (category) as being related to a particular goal. That is, the extent to which consumers perceive a particular product as being an appropriate vehicle for fulfilling a particular goal. For example, a pair of binoculars is unlikely to be seen as relevant to goals related to environmental responsibility, therefore, there is a low goal-product fit between the environmentally friendly goal and binoculars. However, when consumers are educated that binoculars do impact the environment in many ways, the binoculars are associated and related to the environmentally friendly goal. In this case, the goal-product fit becomes high. And that was the manipulation of goal-product fit I used in this study.

When goal-product fit is high, the relevant attribute that can fulfill the goal should become more important in the overall product evaluation. Therefore higher ability of the attribute will increase product evaluation. In contrast, when goal-product fit is low, even attributes that fulfill activated goals are unlikely to play an important role in product

evaluation. Therefore product evaluation will not change much no matter the attribute ability is low or high.

Participants were randomly assigned to one of the manipulated conditions of an online experiment consisting of a 2 (ability of an attribute: irrelevant versus high) x 2 (goal-product fit: low versus high) between-subjects design. The main dependent measure was the product evaluation. To manipulate abilities of an attribute, I gave different information of a pair of binoculars' lens (optical glass, i.e., irrelevant attribute versus optical eco-glass, i.e., high ability attribute). Optical glass was an irrelevant attribute in terms of not being relevant to fulfill an environmentally friendly goal. In other words, consumers usually do not link optical glass to an environmentally friendly goal as they are not aware of how optical glass can protect or harm environments. Optical eco-glass was used as a high ability attribute as ecological glass helps to reduce harm to the environment, as can be inferred from the name of "eco-glass". Normally binoculars' glasses are either optical glasses or eco-glasses. It is weird and not realistic to design a fake low attribute ability such as "5% eco-glass". Therefore I used "irrelevant versus high" attribute abilities rather than "low versus high" abilities in this experiment.

To manipulate goal-product fit, I gave two different versions of an article about how to choose binoculars. In the low goal-product fit version, subjects first read an article about "a guide to choosing binoculars" and the basic factors to consider included magnification, lens coating and weight of the binoculars. As normally a pair of binoculars is unlikely to be seen as relevant to goals related to environmental responsibility, there should be a low goal-product fit between the environmentally friendly goal and

binoculars in this manipulation. In the high goal-product fit manipulation, subjects read the same article with an additional paragraph talking about how binoculars can impact environment (e.g., the lead and arsenic in glasses can pollute environment). This additional paragraph pointed out that the binoculars are associated and related to the environmentally friendly goal. In this case, the goal-product fit should be high.

Method. One hundred and twenty-one participants from Syracuse University’s Study Response panel responded to the study. The product of interest was a pair of binoculars. Goal-product fit was manipulated by having participants read one of the two different versions of an article from a website on a few things about evaluating binoculars at the beginning of the study. The articles were identical except for a short addition in the high product-goal fit condition, where it was mentioned that buyers should, as with all products, consider the environmental impact of the products they purchase (figure 4-2).

Figure 4-2 Goal-product Fit Manipulation

Goal-product fit manipulation for a pair of binoculars in Study 2

High goal-product fit manipulation:

In the article on how to evaluate binoculars, there is an additional paragraph stating “Many people tend to forget this when they are buying binoculars, but like many other products, it’s also important to consider the environmental impact of the product. For example, glass used in binoculars is typically made with lead and arsenic –both of which are serious environmental pollutants. Some manufacturers now use glass that does not use these materials. Heavy metals are frequently employed in the

manufacture of plastics as well. So, if you're at all concerned about the environment, it's worth looking out for products that are manufactured in more environmentally friendly ways."

Low goal-product fit manipulation:

The article didn't have the previous paragraph.

The studied goal in this study was environmental friendliness. After the article, participants then went on to evaluate a specific pair of binoculars. They were shown a picture of a pair of binoculars that, among other attributes (magnification, lens diameter, weight, look, price), contained information about the lens material. The ability of the attribute was manipulated by varying information about the lens material. Half of the participants were told that the lenses were made from optical eco-glass (a lead and arsenic free product) (i.e., high ability of the attribute). The remaining participants were told that the lenses were constructed out of optical glass, which has no information that was relevant to environmental friendliness of the attribute (i.e., the attribute was irrelevant for the environmentally friendly goal) (figure 4-3).

Figure 4-3 Manipulation of the Ability of the Attribute

Product information used to manipulate the ability of the attribute in Study 2



Attribute at a high level manipulation:

The picture indicated “lens made from high quality, optical ECO-GLASS (manufactured with no lead or arsenic)”

Attribute at a low level manipulation:

The above picture indicated “lens made from high quality, optical glass”

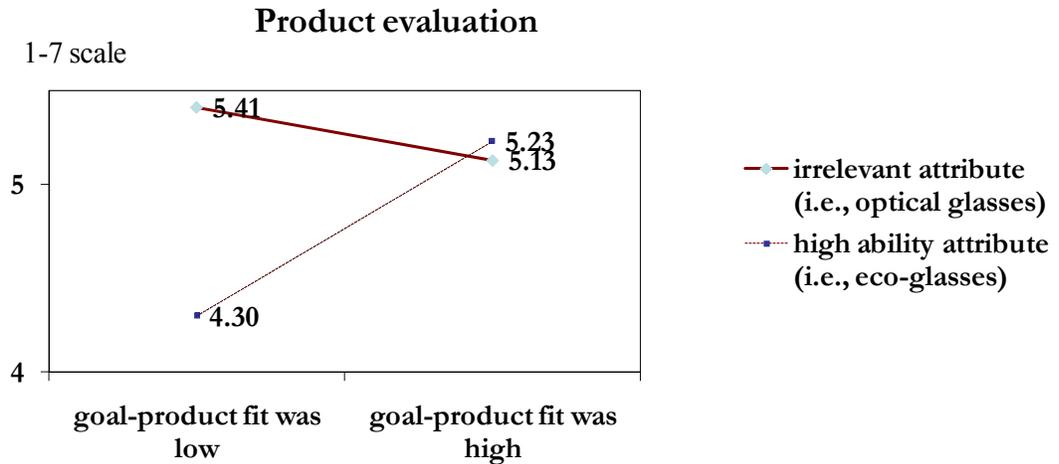
Dependent variables. Following the picture, participants responded to two questions about overall evaluation of the binoculars on a scale from 1 (“*not favorable*”/“*don’t like it*”) to 7 (“*favorable*”/“*like it*”). To check the manipulation of goal-product fit, at the end, participants rated on four items that were designed to measure the extent to which participants believed binoculars were relevant to their environmental goals, i.e., the perceived fit between the binoculars and the environmental friendly goals (table 4-3). These items were measured from 1 (“*strongly disagree*”) to 6 (“*strongly agree*”).

Table 4-3 Measured Variables

	<i>To what extent do you agree or disagree with each of following statements?</i>
1	Binoculars should be manufactured in ways that address environmental concerns.
2	To me, there is a link between environmental concerns and binoculars.
3	Binoculars are a product that is relevant to environmental concerns.
4	If I were to think of binoculars, I would think of environmental concerns.

Results: The ANOVA results showed a significant attribute ability x goal-product fit interaction on product evaluation ($F(1, 117) = 5.13, p < .05$, figure 4-4). Specifically, it indicated that high ability led to more favorable product attitudes when the product was seen to fit with the goal than when the product did not fit with the goal ($M_s = 5.23$ vs. $4.30; F(1, 117) = 6.22, p < .05$); when the attribute was irrelevant, product evaluations were similar when the product was seen to fit with the goal versus when the product did not fit with the goal ($M_s = 5.13$ vs. $5.41; F < 1, p > .05$) (figure 4-4).

Figure 4-4 The Interaction between Attribute Ability and Goal-product Fit on Product Evaluation



Discussion: The major finding in Study 2 was that an attribute with higher ability was more likely to increase favorable product evaluation when goal-product fit was high. When participants perceived that a product could and should achieve a goal, attributes became more valuable to the extent that they helped fulfill that goal.

In this study, when goal-product fit was low, product evaluation decreased when the attribute changed from optical glass (i.e., irrelevant attribute) to optical eco-glass (i.e., high ability attribute). The possible reason was that when the binoculars were not considered to be an appropriate means to fulfill the environmental goal (i.e., goal-product fit was low), participants were driven by other goals, e.g., functional goals rather than the environmental goal in buying binoculars. When participants were thinking about the functional performance, the attribute that fulfilled other goals such as the environmentally friendly goal diluted its ability to fulfill the functional performance goal, which decreased

the product evaluation. In other words, the eco-glasses that fulfilled the environmentally friendly goal diluted the perceived overall functional performance of the product, therefore the product evaluation decreased when it changed from optical-glasses to eco-glasses. For example, participants might think that the optical eco-glasses may not help to see clearly as optical glasses.

An alternative explanation is that the goal-product fit manipulation actually manipulated goal activation and it was actually goal activation that drove the findings. However, this was not likely to be true. It is showed in Study 5 that attributes could activate goals. Therefore the mere presence of “eco-glasses” could activate the environmentally friendly goal across low and high goal-product fit conditions. However, “eco-glasses” led to more favorable product attitudes when the product was seen to fit with the goal than when the product did not fit with the goal ($M_s = 5.23$ vs. 4.30 ; $F(1, 117) = 6.22, p < .05$). This showed that this finding was caused by goal-product fit rather than goal activation as goal activation were similar across these two conditions (i.e., low and high goal-product fit conditions where the lens are always “eco-glasses”). Therefore, this alternative explanation did not stand.

Study 2 showed that goal-product fit strengthened the positive relationship between the ability of the attribute to fulfill the goal and product evaluation. In addition to showing that the nature of goals (e.g., goal-product fit) influences the process in which attributes affect product evaluation, another important aspect of my thesis is identifying several product related features within the consumption contexts that can activate goals.

Study 3, 4 and 5 were designed to test the role and influence of choice settings (vs. Non-choice settings) (H3), product categories (H4) and product attributes (H5) on goal activation and product evaluation.

4.4 Study 3

Study 3 was designed to examine the notion that choice settings (vs. Non-choice settings – i.e. individual product evaluation) can activate additional goals of *choosing* (i.e., choice-related goals) besides primary consumption goals (H3) that affect the influence of product attributes on the overall product evaluation. An unimportant attribute for consumption goals may nevertheless be important for goals related to choosing (i.e., choice goals) when such goals are activated. In contrast, consumption goals, and not choice goals, are likely to be the salient goals in the context of individual product evaluation (e.g., when evaluating a single product in an advertisement). Choice goals should influence product evaluation in addition to consumption goals when there are several options in the choice setting. In such cases, attributes that help to fulfill the choice goal become more important in product evaluation, though the attribute might be unimportant in an individual product evaluation setting. For example, a distinguishing attribute that is otherwise unimportant (e.g., Mp3 features in a digital photo frame) may become important in fulfilling choice goals while it may not be important for consumption goals (e.g., picture quality) of the digital photo frame.

In order to investigate this idea, Study 3 was a 2 (product evaluation in the context of choice vs. In isolation) x 2 (attribute ability: low versus high) x 2 (order: brand A then

brand B versus brand B then brand A) between-within factorial design. There was a target brand (i.e., brand A) and a second brand (i.e., brand B). The second brand was displayed simultaneously with the target brand in the choice setting and sequentially in the individual evaluation context. And the order of the target brand and the second brand was counterbalanced across conditions. As this study's focus is that the same attribute can be more or less important because it helps to fulfill different goals to different degree, the primary dependent measures were evaluation of each brand, the importance of each attribute, and choice (only in the choice setting).

Method. Sixty-four students participated in Study 3 in exchange for course credits. Participants evaluated two different digital picture frames, which were presented either in a context where they had to choose between the two (presented simultaneously, i.e., a choice setting) or evaluate each one individually with no mention of having to make a choice (presented sequentially, i.e., an individual evaluation setting). One of the brands was not able to play MP3 files (low ability) while the other could (high ability) (figure 4-5). Other attributes included price (\$99.97) and memory capacity (256MB memory), which were identical across brands. These two attributes were chosen as they were important in evaluating digital photo frames and consumers would expect to learn information about such attributes. The target attribute (i.e., “the ability to play MP3 files”) was chosen to avoid ceiling effect as it was considered not important for the quality of digital photo frames. The order of brands was counterbalanced (and had no effect, $F < 1$). Specifically, in the choice setting, the order of brands was counterbalanced by switching

positions of brand A and brand B in the table (figure 4-5), i.e., half of the subjects saw brand A in the left column in the table and another half saw brand A in the right column. In the individual evaluation setting, the order of brands was counterbalanced by switching the sequence of seeing brand A and brand B. In other words, half of the subjects saw brand A with associated attributes first, then saw brand B on the next page. And another half saw brand B with associated attributes first, then saw brand A on the next page.

Figure 4-5 Manipulation of the Ability of the Attribute in Study 3

Product information used to manipulate the ability of the attribute in Study 3.

Digital Photo Frame

Brand A	Brand B
 \$99.97	 \$99.97
256 MB memory	256 MB memory
No ability to play Mp3 files	Ability to play Mp3 files

Low ability: no ability to play Mp3 files

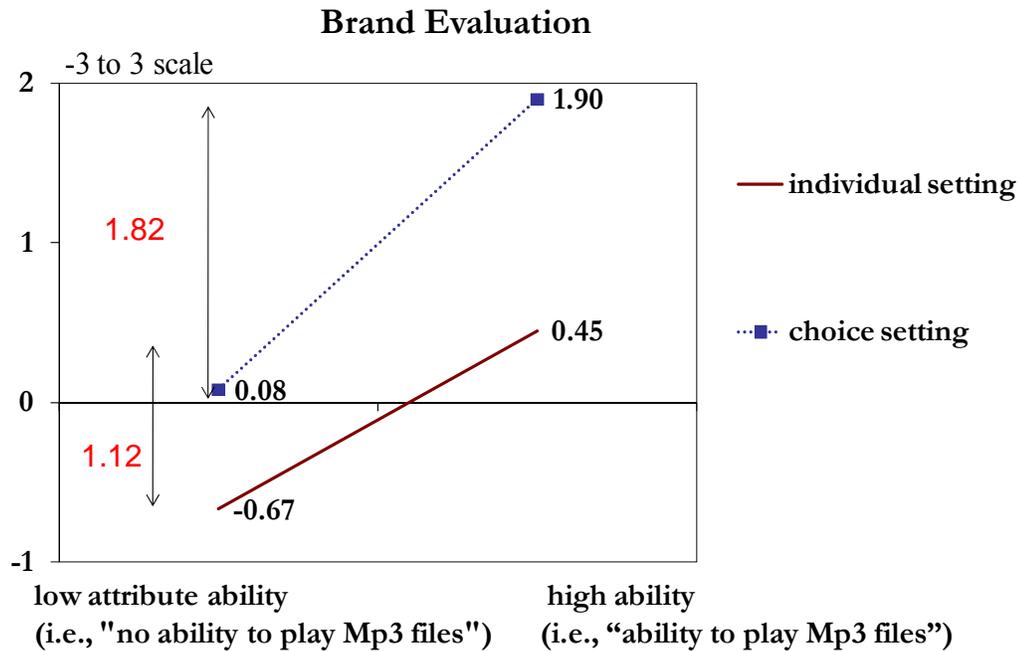
High ability: ability to play Mp3 files

Participants were then asked to make a choice between Brand A and B and evaluate Brand A and B in the choice setting, or they were asked to evaluate Brand A and B in sequence in the individual evaluation setting. The overall evaluations of Brand A and B

were measured on a scale from 1 (“*not favorable*”/“*don’t like it*”) to 7 (“*favorable*”/“*like it*”). At the end, they were asked about the importance of each attribute as measured from 1 (“*not important*”) to 7 (“*very important*”). The prediction was that “the ability to play MP3 files” was more important in the choice setting as this differentiating attribute helped to fulfill the choice goal whereas it did not help to fulfill the performance goal in the individual evaluation setting. Consequently, the difference in the evaluation of brand A and B should be greater in the choice setting than in the individual evaluation setting.

Results. Results showed there was a main effect of setting on the importance of the MP3 feature which indicated that attribute ability was considered more important in the choice setting than in the individual evaluation ($M = 5.33$ vs. 4.16 ; $F(1, 60) = 7.42$, $p < .05$). Consistent with this, there was a significant interaction between settings and attributes ability on brand evaluation as the difference in evaluation between the two brands (high ability minus low ability) was larger in the choice setting than in the individual setting (based on repeated measures analysis, in the choice setting, $M_{\text{brand with ability to play Mp3 files}} = 1.90$, $M_{\text{brand with no ability to play Mp3 files}} = 0.08$; In the individual evaluation setting, $M_{\text{brand with ability to play Mp3 files}} = 0.45$, $M_{\text{brand with no ability to play Mp3 files}} = -0.67$; in other words, $M_{\text{Differences}} = 1.82$ vs. 1.12 ; $F(1, 57) = 5.50$, $p < .05$; figure 4-6).

Figure 4-6 Interaction of Settings and Attribute Ability on Brand Evaluation



The manipulation check showed that “the ability to play Mp3 files” of the digital frames was a less important attribute than price or memory capacity ($M_{\text{Mp3}} = 4.71$ versus $M_{\text{price}} = 5.70$ versus $M_{\text{memory}} = 5.70$, $F(1, 317) = 12.50$, $p < .05$). Post-hoc analyses showed that the ability to play MP3 files was considered less important than both price and memory ($p < .01$ and $p < .01$).

Discussion. Choice goals are not related to the core functions of a product, but can nevertheless exert an important influence on the role of product attributes in product evaluation. The reason is that attributes that help to fulfill the choice goal become more important in the choice setting whereas the same attribute might be irrelevant to the

primary consumption goals that are active in individual product evaluation. As shown in the analysis, “the ability to play Mp3 files” of the digital photo frames in general was a less important attribute (i.e., a trivial attribute) than price or memory capacity and it should play a less important role in product evaluation per se. In other words, the individual product evaluation should not change much regardless of whether the digital photo frame has “the ability to play Mp3 files” or not (when evaluating the digital photo frame itself without a choice setting). However, “the ability to play Mp3 files” became more important when there were two similar digital photo frames and the differentiating factor was the “the ability to play Mp3 files”. Importantly, participants were not simply reporting the greater role of a differentiating feature in a choice setting here, as they also evaluated the products overall differently. As the “the ability to play Mp3 files” attribute could help to make a choice between the two, the unimportant attribute in the individual evaluation settings became more important in the choice settings. In short, consumers may form different evaluations of the same product when it is in the choice setting than in the evaluation setting.

The limitation of the study was that I did not measure goal activation as the process variable. However, it was obvious that in the choice setting subjects were aware that they were making a choice whereas they knew that they evaluated individual products in the individual evaluation setting.

4.5 Study 4

Study 4 was designed to examine the idea that certain product categories can, over time, become associated with the pursuit of certain types of goals (e.g. coffee and fair trade). The mere presence of such categories should therefore activate related goals (H4). With repeated and consistent choice (i.e., activation) of a particular goal with a product category over time, the representation of that goal may become directly and automatically linked in memory to the representation of that product category, consistent with Bargh's theory of linking a goal to a certain situation (Bargh 1990; Chartrand and Bargh 1996). The underlying mechanism for proposing this is that goals are cognitive knowledge structures in memory (e.g., Chartrand et al. 2008). If a certain goal is often pursued in a certain situation which is associated with a certain product category, the goal and the product category become linked in memory. The presence of the product category will automatically activate the goal through a mechanism that is similar to stimulus-response conditioning.

Study 4 was an online experiment in which participants were exposed to a variety of different product categories that were hypothesized to vary in the extent to which they were likely to activate fair trade related goals. This study did not seek to show that, once activated, fair trade goals are capable of impacting the role of related product attributes on product evaluation – Study 1 demonstrated this basic effect of the ability of attribute on product evaluation. Instead, the primary goal of the current study was to demonstrate that different product categories can and do activate certain consumption-related goals. The prediction of Study 4 was that when a product category was linked with a certain

goal, subjects would be more likely to think about such a goal when they saw the product. Specifically, this study tested the association between each of the four product categories (coffee, tea, chocolate, red wines) and the fair trade goal. Nowadays, fair trade coffee becomes a competitive feature and is popular in advertising and promotion. Therefore, the association between coffee and the fair trade goal should be the strongest among coffee, tea, chocolate and red wines. Tea is less associated with the fair trade goal than coffee as the fair trade feature of tea is seldom advocated in mass media. Chocolate and red wines theoretically can be associated with the fair trade goal as both products involve giving cocoa or grapes farmers fair prices. However, as consumers are seldom educated that chocolate and red wines transactions also involve fair trade issues, the links between the fair trade goal and chocolates or red wines are weak. In short, it is predicted that coffee will activate the fair trade goals more, followed by tea, chocolate and red wines.

Another prediction of Study 4 was that for product categories which were linked with a certain goal, subjects would rate that there was a higher fit between the goal and the product (i.e., goal-product fit). Conceptually, the prediction about fit not only tests the strength of the cognitive association between a goal and a product category, but also tests to extent to which a product category is considered as a means to achieve the goal. Goal-product fit is important to study as it has implications for product evaluation. When goal-product fit is high, the association between a product and an associated goal is strong and it is more likely that the presence of the product category will activate the goal. More importantly, as the product is a means to fulfill the goal, goal relevant attributes are more likely to play an important role in product evaluation when the goal is activated.

Managerially, this prediction about fit between a goal and a product provides markers implications for managing goals in product evaluation. For example, marketers can activate goals that have a high fit with a product so that the goal relevant attributes become more important in product evaluation. Or when marketers introduce a new feature of a product, the new feature will play an important role in product evaluation when consumers perceive a fit between the goal and the product. For example, Study 2 showed that eco-glasses of binoculars increased product evaluation only when consumers perceived binoculars as appropriate means to fulfill environmentally friendly goals. Therefore, it is important to understand how the fit between the goal and products vary across product categories.

Method and measures: One hundred and thirty-two university students participated in a 4-level between-subjects experiment in exchange for credit towards their course. All the information was given on a specially designed website. An instruction indicated that “the purpose of this study is to see what kind of things consumers think about when they evaluate certain types of products. In this case, we will be asking you about X”, where X was one of four different product categories: coffee, tea, chocolate, or red wine. Only one picture of coffee, tea, chocolate or red wine was randomly assigned to participants to manipulate product category (figure 4-7). No product attributes were given in order to avoid the possibility that it was specific product attributes, rather than the category more generally, that was responsible for activating goals.

Figure 4-7 Manipulation of Different Product Categories

Subjects saw only one of the four pictures

Product pictures used to manipulate different product categories in Study 4

“The purpose of this study is to see what kind of things consumer think about when they evaluate certain types of products. In this case, we will be asking you about coffee.”

a) Coffee



b) Tea



c) Chocolate



d) Red wines



As the purpose of the study was to test that certain product categories could activate the associated goal, I measured goal activation by counting the number of considerations related to fair trade goals in thought listing. Specifically in the study, participants were asked to list up to eight things they would consider when choosing products of this kind. Participants were asked to list each separate consideration in a separate textbox. Specifically to decide whether a thought was related to fair trade goals, if the thought was related to “fair trade”, “fair”, “equal trade”, or “equality”, I coded the thought as being related to fair trade goals. Otherwise, I coded the thought as not being related to the fair

trade goal. So each subject's thought listing was coded as either "activated" (fair trade goals appeared in one or more thoughts) or "not activated". It was not necessary to sum up thoughts about fair trade as such thoughts usually appeared at most once among eight different thoughts.

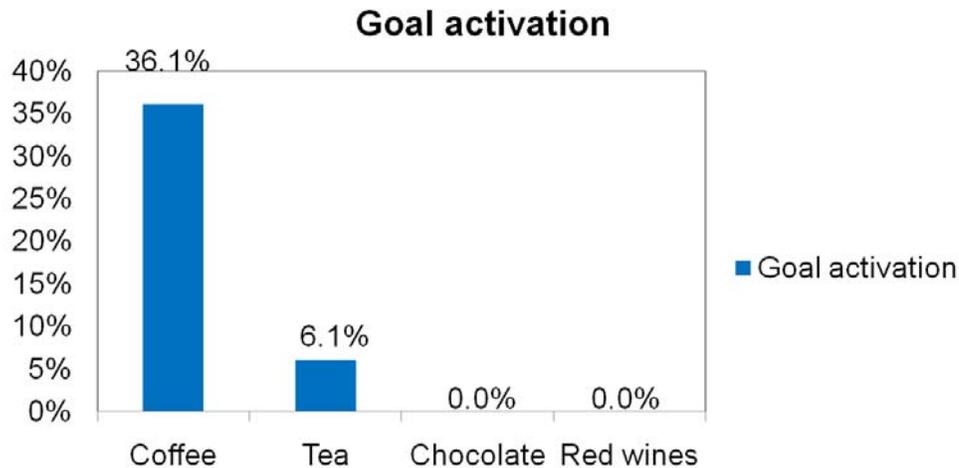
The perceived fit between each product category and the fair trade goal (i.e., goal-product fit) is another measurement in the study. The prediction is that when the link between a product and a goal is stronger, it is more likely that the perceived fit between the product category and goal is higher, i.e., consumers are more likely to consider the product as an appropriate vehicle for fulfilling the particular goal. This study aimed to show that product categories vary in terms of perceived fit between each product category and a particular goal (in this case, the fair trade goal). It is important to understand the perceived fit as it has implications for product evaluation. For example, when goal-product fit is high, the goal relevant attribute plays more important role in product evaluation, which was evidenced in Study 2. To measure this, at the end of the study, subjects were asked to rate on 5-items that measured this construct ($\alpha = .93$, table 4-4: measurement of fit between the product category and the fair trade goal). The fit was measured on 1-7 point scales.

Table 4-4 Measurement of the Goal-product Fit

	<i>To what extent do you agree or disagree with each of following statements?</i>
1	The product (category) in the picture has big impact on fair trade issues.
2	To me, there is a link/association between fair trade and the product (category) in the picture.
3	The product (category) in the picture is a product that is relevant to fair trade.
4	The product (category) in the picture is a significant means to fulfill fair trade goals.
5	If I were to think of the product (category) in the picture, I would think of fair trade concerns.

Results: A chi-square test showed that the number of who listed fair trade related considerations varied across product categories ($\chi^2(3)=30.89, p <.05$). Specifically, for coffee, 36% (13 out of 36 participants) listed “fair trade” related words (e.g., “fair trade”, “fair”, “equal trade”, or “equality”) in the thought listing measurement, i.e., the fair trade goal was activated for 36% participants when they saw a picture of coffee. Comparatively, the goal was activated for 6% (2 out of 33 participants) versus 0 (0 out of 32 participants) versus 0 (0 out of 31 participants) when participants saw a picture of tea versus chocolate versus red wines. This is shown in the figure 4-8.

Figure 4-8 Goal Activation by Product Categories in Study 4



Follow-up chi-square analyses were conducted for each of the six possible pair-wise comparisons using a Bonferroni-adjusted alpha level (Keppel and Wickens 2004). As I ran 6 follow-up tests each with d.f.=1, the new alpha (α) was

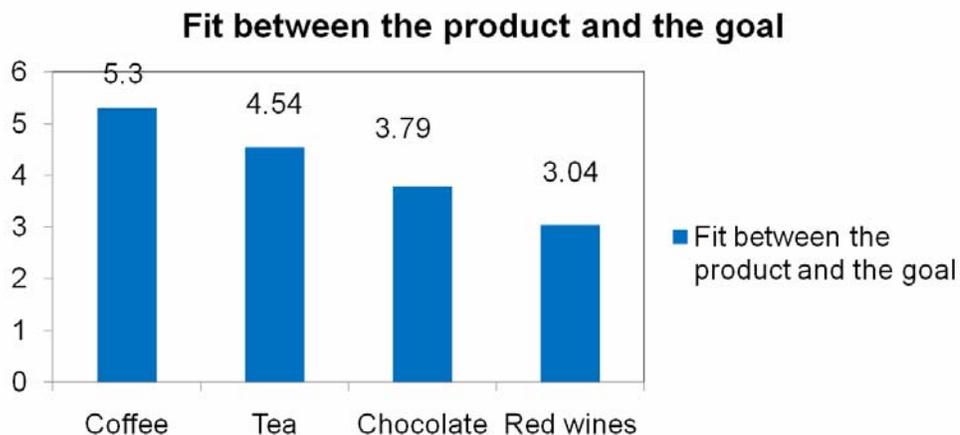
$$\alpha = (1 - (1 - .05)^6) / 6 = .044$$

The post hoc follow-up tests showed that the level of goal activation was significantly different between coffee and each of the three other product categories (tea, chocolate and red wines). Specifically, coffee activated the fair trade related goals more so than tea ($\chi^2(1) = 9.14, p < .044$; 36.1% versus 6.1%), chocolate ($\chi^2(1) = 14.29, p < .044$; 36.1% versus 0%), and red wine ($\chi^2(1) = 13.89, p < .044$; 36.1% versus 0%). There was no significant difference between tea and chocolate, or between tea and red wines in activating the fair trade goal ($\chi^2(1) = 2, p > .044$; 6.1% versus 0%; $\chi^2(1) = 1.94, p > .044$;

6.1% versus 0%). There was no significant difference between chocolate and red wines in activating the fair trade goal (chi-square was not calculated as the patterns were the same across chocolate and red wines; 0% versus 0%).

Consistent with this, the ANOVA result showed that the product category had a main effect on the fit between the product and the goal ($F(3, 127)=25.53, p <.05$; figure 4-9). Specifically, the post-hoc tests showed coffee had the highest fit with the fair trade goal than tea, chocolate and red wines ($M=5.3$ for coffee versus 4.54 for tea versus 3.79 for chocolate versus 3.04 for red wines, for each pair-wise comparison, Bonferroni, $p <.05$).

Figure 4-9 Fit between the Product Category and the Fair Trade Goal



Discussion: The results supported the idea that product categories are capable of activating certain consumption-related goals (H4). As shown in the study, coffee had the strongest association with the fair trade goal, more so than any of the other studied categories (tea, chocolate and red wine). When a product category is strongly associated with a certain goal, the presence of the product category itself, i.e., the abstract product

(without any attribute information) can activate the associated goal. Also, when a product category is strongly associated with a certain goal, the perceived fit between the goal and the product category is high, i.e., consumers treat the product category as an appropriate means to fulfill the goal.

More importantly, the study provides implications for product evaluation, i.e., products themselves can activate different goals. This goal activation depends on the association between the product and a particular goal. The implication for product evaluation is that goals activated by product categories will influence people in product evaluation, which marketers may not be aware of. For example, cars can activate environmentally friendly goals and relevant attributes such as hybrid engine can become important in product evaluation. In contrast, when product categories activate a particular goal and there is no attributes to fulfill the goal, it is likely that product evaluation will decrease as the goal can not be fulfilled (future research needs to be done to provide empirical evidences for this argument). Another implication is that additional goals can be activated within the consumption contexts (e.g., by product categories) besides the goals consumers originally have. These additional goals will influence product evaluation too. For example, price is usually an important attribute in product evaluation and some coffee brands are blamed for being over-priced. However, coffee itself can activate the fair trade goal. In such a situation, the fair trade goal can direct people to focus on the benefits the coffee farmers get from the premium price (which rationalize why the price of the fair trade coffee is high) instead of thinking about the profits the coffee company makes from the price.

4.6 Study 5

Study 5 tested the hypothesis that product attributes themselves are capable of activating consumption-related goals (H5). Additionally, the effect of product related factors (e.g., a product attribute) on goal activation should be crucially moderated by goal importance (H6). When a goal is important, it is more likely that consumers possess the goal already in mind and the goal is more accessible. In that case, it is more likely that the presence of the goal trigger (e.g., attributes) will activate the goal than when the trigger is absent. In contrast, when a goal is less important, consumers are less likely to possess the goal. Therefore, the goal is not likely to be activated no matter the trigger is present or absent.

Study 5 also tested H2a – that the relationship between attribute ability and product evaluation should strengthen as goal activation increases. It means that higher ability of an attribute to fulfill a goal is more likely to result in a more positive product evaluation when the goal is activated than when it is not activated (H2a). In other words, when a goal is activated, product evaluation will become, in part, a function of the level of the now relevant attribute. In contrast, when the goal is not activated, the ability level of a relevant attribute should have little impact on product evaluation as such attributes are not important in product evaluation.

Method. Ninety-nine students participated in a 3 (perceived ability levels of an attribute: absent vs. low versus high) x 2 (goal importance: low vs. high based on a

median split) between-subjects factorial design in exchange for credit towards their course. The focal goal was environmentally friendly goal and the studied product was a brand of shampoo. Perceived ability of an attribute was manipulated at three levels: absent vs. low versus high, i.e., absent versus 5% organic ingredients versus 100% organic ingredients. The organic ingredients were chosen as it helped to fulfill the environmentally friendly goal. Goal importance was measured as an individual difference variable. Based on a median split of goal importance, participants were subsequently categorized as either high or low in goal importance. The main dependent measure was the evaluation of the product and goal activation.

The study was an online study. Participants first went on to the section on shampoo evaluation on a designed website. A picture of the shampoo and its attributes descriptions were given. The major attributes were brand name, size, no scent, hair type, organic and biodegradable ingredients. The ability of the attribute was manipulated by varying information given about the organic ingredients of the shampoo. One third of participants saw product information without anything about organic ingredients of a shampoo. Another one third of participants saw product information indicating a low level of organic ingredients (5% organic ingredients). The remaining participants saw product information indicating a high level of organic ingredients (100% organic ingredients) (figure 4-10).

Figure 4-10 Manipulation of the Ability of the Attribute

Product information used to manipulate ability level of the attribute (low versus high versus absent) in Study 5



Attribute at a high level manipulation:

The picture indicated “100% organic, biodegradable ingredients”

Attribute at a low level manipulation:

The picture indicated “5% organic, biodegradable ingredients”

Attribute was absent manipulation (in Study 5 only):

The picture had no information about “organic, biodegradable ingredients”

Participants then responded to two questions about overall evaluation towards the shampoo, using a scale from 1 (“*not favorable*”/“*don’t like it*”) to 7 (“*favorable*”/“*like it*”). They were next asked about goal activation, i.e., to list up to five considerations around this particular brand of shampoo when forming their opinion. If they listed things that were related to environmental responsibility in any of the five things, I coded the goal as being activated and otherwise as not being activated. It was not necessary to sum up thoughts about environmental responsibility as such thoughts usually appeared at most

once among five different thoughts. Finally, to measure goal importance, they rated how much they cared about an environmental responsibility goal both attitudinally and behaviorally on a 15-item goal importance measurement ($\alpha=.93$) (adapted from Fraj and Martinez 2006, table 4-5). Each of these goal importance items was measured on a 4-point scale. Based on a median split, participants were subsequently categorized as either high or low in goal importance.

Table 4-5 Items that Were Used to Measure Goal Importance in Study 5

(on a 4-point scale: “disagree”(1), “slightly disagree” (2), “slightly agree” (3), “agree”(4))

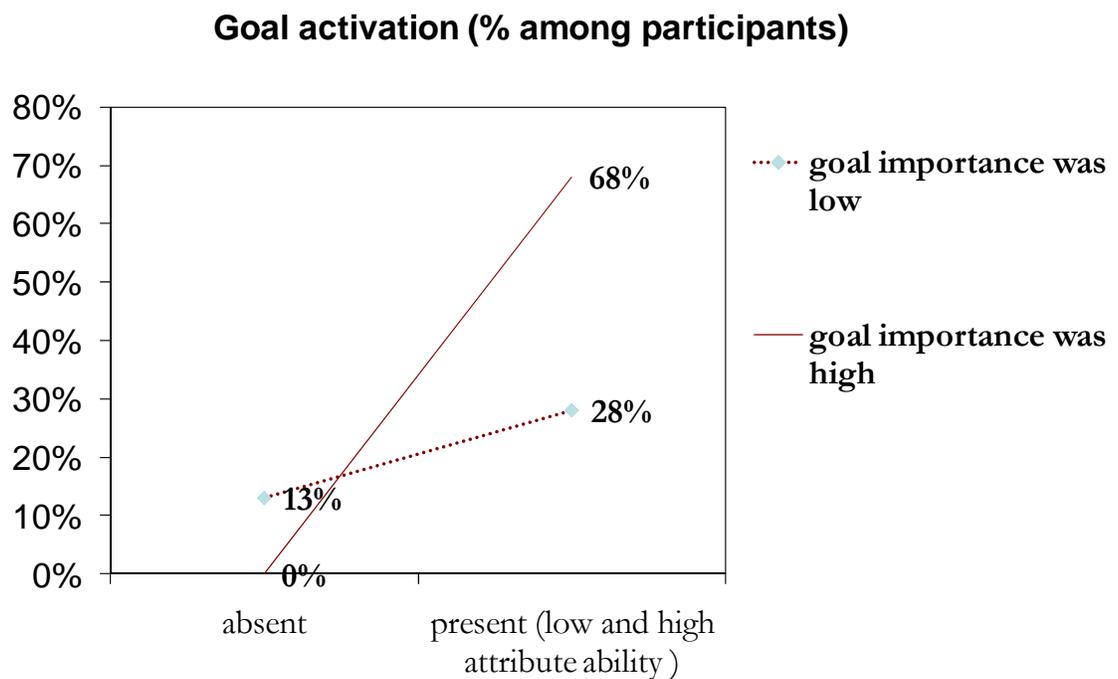
Items that measure the importance of the “environmentally friendly goal”
1) I <u>care a great deal</u> about protecting the environment
2) I am <u>NOT concerned</u> about the environment
3) I <u>OFTEN think</u> about protecting the environment
4) I <u>do a lot of things</u> to help protect the environment
5) It is <u>important</u> to buy products that are environmentally friendly
6) I have a <u>responsibility</u> to protect the environment
7) I do <u>NOT think</u> it is important for consumers to consider the environmental impact of the products they purchase
8) Whenever I am buying a product I <u>think about</u> its impact on the environment
9) I <u>always question</u> whether a product is environmentally friendly before I make a purchase
10) I tend <u>NOT to think</u> about the environmentally impact of most products before I buy them
11) If I don’t know whether a product is environmentally friendly or not – I <u>always find out before</u> I purchase
12) I <u>always try</u> to buy environmentally friendly products
13) I <u>spend MORE</u> money for products that are environmentally friendly when available
14) I <u>always try to avoid</u> products that harm the environment
15) I <u>do NOT try</u> very hard to purchase products that are environmentally friendly

Results. The perceived ability of the attribute was manipulated at three levels: absent versus low versus high. To test H5 (i.e., product attributes can activate goals), low and high ability levels were aggregated into a “present” level as “low” and “high” ability made no difference in terms of activating the goal (the supporting data will be shown at the end of this paragraph). In other words, this analysis compared how attributes could activate goals when it was present versus absent. Using chi-square analysis, results supported H5, i.e., attributes could activate goals, i.e., the target goal was activated for 49.3% versus 6.7% participants when the attribute was present versus absent ($\chi^2(99)=16.4, p <.05$). In addition, it is found that goal importance (high versus low²) moderated the process in which the target attribute (i.e., organic ingredients) activated the goal, supporting H6. Specifically, when the goal was important, the target goal was activated for 67.6% versus 0% of participants when the attribute was present versus absent ($\chi^2(51)=18.55, p <.05$). In contrast, when the goal was not important, the target goal was activated for 28.1% versus 12.5% participants when the attribute was present versus absent ($\chi^2(48)=1.56, p >.05$; figure 4-11). This showed that the effect of goal triggers (in this case, the product attributes) on goal activation was moderated by goal importance. In the study, the attribute was manipulated at three levels: absent versus low ability (i.e., 5% organic ingredients) versus high ability (i.e., 100% organic ingredients) rather than absent versus present. Among the above analysis of H6, I combined the “low” and “high” ability of the attribute as “attribute is present” because “low” and “high”

² Using goal importance as a continuous variable, regression also showed that goal importance moderated the relationship between attribute presence and goal activation ($r=.15, p<0.05$)

ability made no difference in terms of activating the goal. Specifically, the target goal was activated for 31% versus 26% participants when the attribute was low versus high when goal importance was low ($p > .05$); the target goal was activated for 60% versus 77% participants when the attribute was low versus high when goal importance was high ($p > .05$).

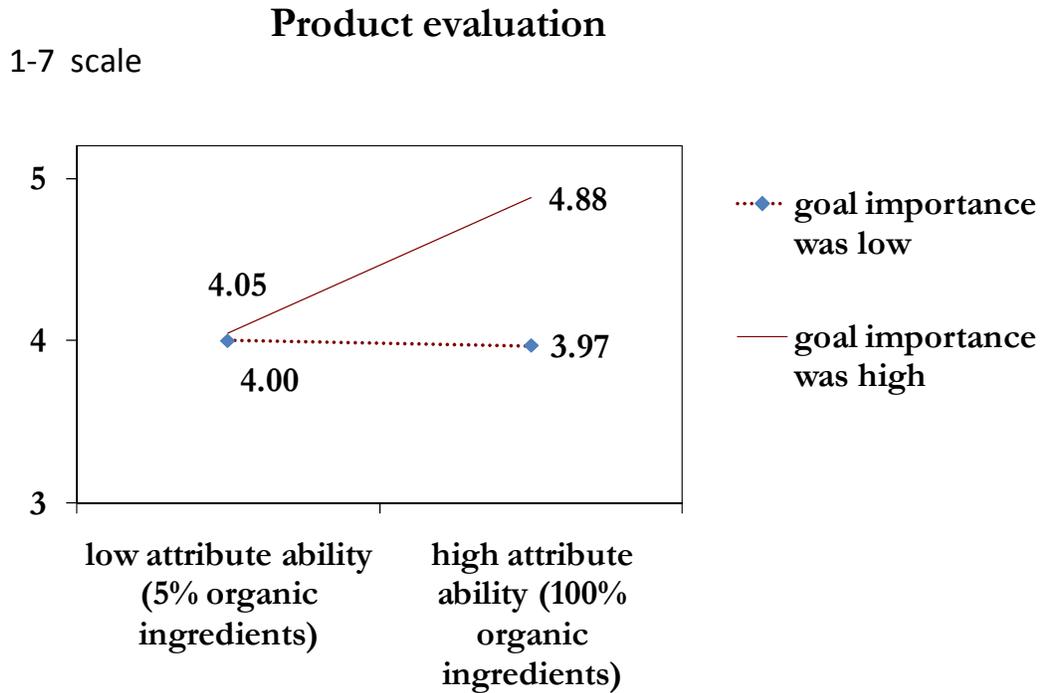
Figure 4-11 Interaction of Attribute Presence and Goal Importance on Goal Activation



An ANOVA showed that goal importance (high versus low) marginally moderated the positive effect of attribute levels (low versus high) on product evaluation ($F(1, 65) = 2.67, p = .10$). Specifically, when goal importance was low, $M_{low} = 4.00, M_{high} = 3.97, F(1,$

65) = .004, $p > .05$; when goal importance was high, $M_{\text{low}} = 4.05$, $M_{\text{high}} = 4.88$, $F(1, 65) = 5.48$, $p < .05$) (figure 4-12). In other words, when the goal was less important, the relevant attribute had no detectable effect on product evaluation. Therefore, shampoo evaluations were quite similar when the attribute level changed ($M_{\text{low}} = 4.00$, $M_{\text{high}} = 3.97$, $F(1, 65) = .004$, $p > .05$). The attribute did not affect evaluation to much of an extent, as those participants did not care about an environmentally associated goal and the goal relevant attributes. However, when the goal was important to participants, the relevant attribute was important in product evaluation. Thus shampoo evaluation was more positive when the attribute level changed from low to high ($M_{\text{low}} = 4.05$, $M_{\text{high}} = 4.88$, $F(1, 65) = 5.48$, $p < .05$) as the attribute became more valuable to the degree that it helped to achieve the goal. The “attribute was absent” condition was not included in the analysis as the goal was seldom activated in such a condition (as shown in the previous paragraph). Therefore, it was not meaningful to discuss goal importance’s influence on product evaluation in this condition.

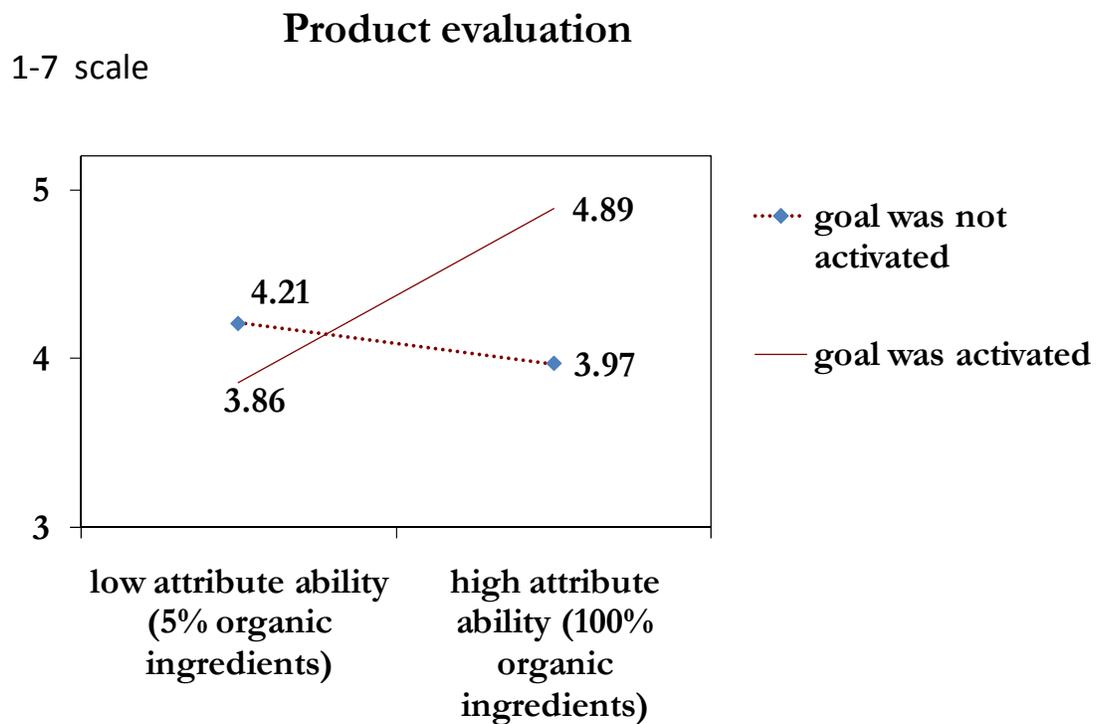
Figure 4-12 Interaction of Attribute Ability and Goal Importance on Product Evaluation



As goal activation was a measured process variable rather than a manipulated variable in this study, it was not legitimate to test that goal activation moderated the relationship between attribute ability and product evaluation (H2a). However, goal activation did not correlate with the independent variable, i.e., attribute ability (low vs. high, see previous analysis at the beginning of the results section), which reduced the chance that goal activation was confounded with attribute ability in data analysis. Given this, I still used goal activation in ANOVA analysis to see whether the result was consistent with H2a. The ANOVA for product evaluation supported the notion that goal activation (coded as activated versus not activated) moderated the positive relationship between attribute abilities (low versus high) and product evaluation ($F(1, 62) = 5.64, p < .05$). When the goal was not activated, $M_{\text{low}} = 4.21, M_{\text{high}} = 3.97, F(1, 62) < 1, p > .05$; when the goal was

activated, $M_{\text{low}} = 3.86$, $M_{\text{high}} = 4.89$, $F(1, 62) = 8.10$, $p < .05$) (figure 4-13). This finding is consistent with the hypothesis that higher ability of an attribute to fulfill a goal is likely to result in a more positive product evaluation when the goal is activated than when it is not. To further provide experimental support for H2a, Study 6 was conducted.

Figure 4-13 Interaction of Attribute Ability and Goal Activation on Product Evaluation



Discussion: The results suggested that presenting an attribute itself could activate an associated goal, and that this effect was moderated by the importance of the goal. Specifically, the more important a goal was to a participant, the more likely a product attribute activated the goal (when the attribute is present than absent) as the participant

possessed the goal in mind already and the goal was more accessible when there was a goal trigger. By activating the goal, the attribute (goal trigger) exerted a more important influence in product evaluation. The effect was moderated by goal importance, i.e., higher ability of the attribute to fulfill a goal increased product evaluation much more when goal was important than when it was unimportant. Further, the finding was consistent with H2a, i.e., higher ability of the attribute resulted in a more positive product evaluation when the goal was activated by the attribute than when it was not activated. However, as goal activation was a measured instead of a manipulated variable in the study, Study 6 was conducted to provide experimental support for H2a.

4.7 Study 6

Study 6 was conducted to test H2a, i.e., the relationship between attribute ability and product evaluation is strengthened with the increase of goal activation. The study was an online experiment consisting of a 2 (attribute ability: low versus high) x 2 (goal activation: yes vs. no) between-subjects design. The main dependent measure was the evaluation of the product. The target goal was a fair trade goal and the goal-related attribute was the fair trade beans of coffee.

Method. One hundred and thirty-nine students participated in a 2 (attribute ability: low vs. high) x 2 (goal activation: yes vs. no) between-subjects factorial design. First, goal activation was manipulated in an article ostensibly from an online coffee guide that participants read prior to product evaluation (figure 4-14). Both articles were identical

except for a short addition in the goal activation condition that mentioned fair trade could bring many benefits to coffee farmers.

Figure 4-14 Manipulation of Goal Activation in Study 6

Goal Activation Manipulation:

An article of “what to look for when buying coffee”

“Canadians consume more than 40 million cups of the stuff a day – an average of about 2.6 cups daily for each coffee drinker...

Perhaps the first thing to think about is the taste...Body... Acidity... Aroma...

There’s something else to think about to when you’re buying coffee – how much of it is fairly traded...

Unfortunately, low prices and powerful international buyers mean that many coffee producers receive very little for the coffee they grow...

While fair trade is a complicated affair, there is compelling evidence that it helps these growers...

In the high goal activation condition: the article included this paragraph

In the low goal activation condition: the article did not include this paragraph

Then, student subjects were presented with information for a brand of coffee. The major attributes were roast, taste, acid and body. The ability of the attribute was manipulated by varying information given about fair trade beans of coffee. Half of subjects saw the coffee with 5% fair trade beans (low ability) whereas another half saw 75% (high ability) fair trade beans (figure 4-15).

Figure 4-15 Manipulation of the Ability of the Attribute in Study 6

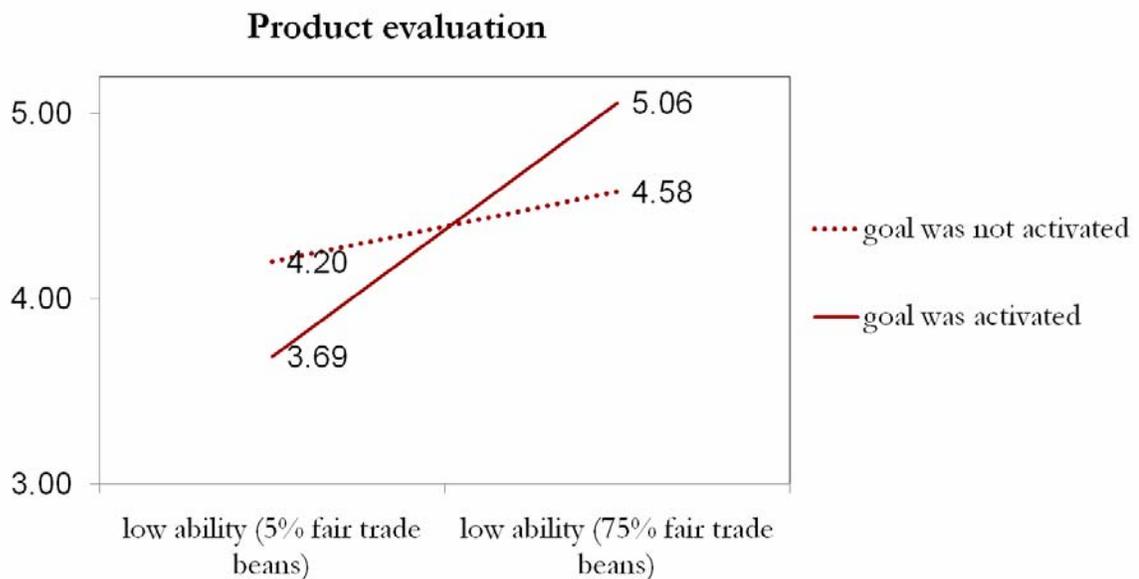


5% vs. 75% fair trade beans

Participants then responded to two questions about overall evaluation towards the coffee, using a scale from 1 (“*not favorable*”/“*don’t like it*”) to 7 (“*favorable*”/“*like it*”). They were next asked about goal activation, i.e., to list up to five considerations around this particular brand of coffee when forming their opinion. If they listed things that were related to fair trade in any of the five things (e.g., “fair trade”, “equal trade”), I coded the goal as being activated and otherwise as not being activated. It was not necessary to sum up thoughts about fair trade as such thoughts usually appeared at most once among five things in this task.

Results. Examination of the thoughts listings showed that participants generated more thoughts related to the fair trade in the goal activation conditions ($X^2(136) = 4.53, p < .05$), which showed that the manipulation of goal activation was good. Consistent with our predictions in H2a, a significant attribute ability x goal activation interaction ($F(1, 135) = 5.59, p < .05$) indicated that the effect of attribute ability on product evaluation was more pronounced when the goal was activated (goal activated: $M_s = 3.69$ vs. 5.06 ; $F(1, 135) = 21.72, p < .05$; goal not activated: $M_s = 4.20$ vs. 4.58 ; $F(1, 135) = 1.72, p > .1$; figure 4-16).

Figure 4-16 Interaction of Attribute Ability and Goal Activation on Product Evaluation in Study 6



Discussion: The results suggested that the relationship between attribute ability and product evaluation was strengthened with the increase of goal activation, i.e., H2a was supported. A Goal was more likely to influence the role of attributes in product evaluation when the goal was activated, i.e., the goal occupied a consumers' thinking. A goal was more likely to direct people to process goal relevant information and evaluate products that can fulfill the goal as being more favorable. As goal activation increased, the relevant attribute that could fulfill the goal (in this case fair trade beans) became more important and the positive relationship between attribute ability and product evaluation was strengthened.

Chapter 5

Discussion, Contributions, Limitations, Future Research and Conclusions

5.1 Discussions

The way consumers evaluate and choose amongst different products is a central topic in marketing research. Many approaches either explicitly or implicitly assume that product evaluation is a function of product attributes, although the specific emphasis varies across approaches. For example, some research focuses on the way in which consumers combine attribute information (e.g., Cohen, Fishbein and Ahtola 1972; Day, Shyi and Wang 2006); other research focuses on the way consumers *process* attribute information (Chen and Chaiken 1999, Petty and Wegener 1999; Wegener and Carlston 2005); while other research emphasizes the way consumers *compare* attribute information across products (e.g., Bettman et al., 2008; Bettman, Luce and Payne, 1998; Kahneman and Tversky 2000; Lichtenstein and Slovic 2006). Across the majority of this work the importance (or weight) of each product attribute is either exogenous or empirically determined. Consequently, there is little theory that explains how and why particular attributes can become important in overall product evaluation and decision making.

This paper addressed the question of why particular attributes become important in product evaluation and decision making from a goal perspective. Attribute evaluation or

product evaluation involves judging the “goodness” or “usefulness” of an attribute or a product. This naturally involves a goal, as an attribute or (a product) cannot be useful unless it fulfills a goal. The starting point of my thesis is the proposition that product attributes take on importance to the extent that they are perceived to satisfy consumer’s activated goals.

To address this question, my framework was structured around two research questions. First, by what means do goals influence the role of product attributes in product evaluation? Second, what factors can activate goals within a particular consumption context?

With regard to the question of how goals influence the role of product attributes in product evaluation, the basic proposed idea is that attributes are evaluated based on their ability to fulfill a subset of consumers’ goals. Specifically, it is proposed that an attribute’s ability to fulfill a goal has a positive impact on product evaluation. In addition, it is tested that the positive relationship between an attribute’s ability to fulfill a goal and product evaluation strengthens when goal activation increases or goal-product fit increases. First, when a goal is activated, it is more likely that the goal-relevant attributes play a significant role in product evaluation and individuals evaluate products that can fulfill the goal as being more favorable. As goal activation increases, the ability of the goal-relevant attribute to fulfill the goal will become more important and the positive relationship between product evaluation and attribute ability strengthens. Second, goal-product fit is a second important factor that is likely to strengthen the positive relationship between the ability of an attribute to fulfill a goal and product evaluation. As

some products are seen as more likely vehicles for fulfilling certain goals, the goal and the product category become linked in memory and there is a goal-product fit. It is proposed that when goal-product fit becomes stronger, the relevant attribute that can fulfill the goal become more important in the overall product evaluation. Therefore, higher ability of the attribute increases product evaluation. In contrast, when goal-product fit is low, even attributes that fulfill activated goals are unlikely to play an important role in product evaluation. Hence product evaluation will not change much whether the attribute's ability is low or high.

I next sought to investigate what factors are likely, in the context of a consumption episode, to activate relevant goals. It was proposed that product related factors such as choice settings, general product categories, and specific product features can activate various goals. Choice settings can activate goals related to the act of choice, such as simplifying or justifying a choice, making a quick choice, or enjoying the shopping process (process goals). The implication is that while attributes in individual evaluation settings might exert little impact on product evaluation, they may nevertheless affect evaluation in the context of choice when they can help satisfy other goals (e.g., to make a choice). This proposition is tested and supported in Study 3- it is found that an attribute (e.g., ability to play Mp3 files) which is unimportant for the quality goal in the individual setting can become more important when it helps to fulfill a choice goal. In addition to choice settings, it is proposed that product categories can activate goals. Particular product categories may be associated with certain goals and the presence of the product category may consequently activate the goal. Literature shows that with repeated and

consistent choice (i.e., activation) of a particular goal in a certain social situation over time, the representation of that goal may become directly and automatically linked in memory to the representation of that situation (Bargh, 1990; Posner 1978). As a result, situational features in the environment can automatically trigger goals chronically associated with those features (Chartrand and Bargh 1996). Along similar lines, it is proposed that if a certain goal is often pursued in a certain situation which is associated with a certain product category, the goal and the product category become linked in memory. Therefore it is argued in the thesis that the presence of the product category will automatically activate the goal. Similarly, it is proposed that product attributes themselves can activate certain goals, which, in turn, affect the role of the attributes in product evaluation. The underlying mechanism for proposing this is that each attribute is designed to fulfill a goal (or goals) to a certain degree. When consumers learn and set up the association between the attribute and the goal in purchase situations, it is likely that attributes themselves can activate the associated goals.

The goal activation (e.g., by a product attribute) should be crucially dependent on the extent to which individuals view the goal as being important in the first place. When a goal is important, it is more likely that consumers possess the goal already in mind and the goal is more accessible. In that case, it is likely that the presence of the goal trigger (e.g., attributes) will activate the goal than when the trigger is absent. In other words, when an attribute is absent, the associated goal is less activated though the goal is important to consumers, which shows that it is the product attribute that activates the goal.

In contrast, when a goal is less important, consumers are less likely to possess the goal. Therefore, the goal is unlikely to be activated whether the trigger is present or not.

5.2 Contributions and Implications

Existing literature has shown that goals play an important role in evaluating objects (Chernev 2004; Garbarino and Johnson 2001; Lewin 1935; Markman and Brendl, 2000; Markman, Brendl and Kim 2009), affecting people to take different decision strategies to compare the trade-off across attributes (Bettman et al., 2008), impact individuals' information processing (e.g., Huffman and Houston 1993; Huffman 1996; Peterman 1997; Ratneshwar, Mick and Reitingger 1990), evaluating attributes' importance according to specific promotion or prevention goals (e.g., Chernev 2004). Though we have understanding of the relationship between goals and product evaluation, there is little research that directly addresses how goals influence the importance of the attributes in the overall product evaluation.

The proposed framework makes contributions in that it provides an integrated framework of how goals influence the role of attributes in product evaluation. First, the framework investigates the extent to which product evaluation is based on a relevant attribute's ability to fulfill a goal. In addition, the positive relationship between attribute ability and product evaluation strengthens when goal activation increases. Specifically, as the goal activation increases, the ability of the attribute to fulfill the goal will become more important and the positive relationship between product evaluation and attribute ability strengthens. Further, goal-product fit is a second important factor that is likely to strengthen the positive relationship between the ability of an attribute to fulfill a goal and

product evaluation. When goal-product fit becomes stronger, the relevant attribute that can fulfill the goal becomes more important in the overall product evaluation. Therefore, higher ability of the attribute increases product evaluation. In contrast, when goal-product fit is low, even attributes that fulfill activated goals are unlikely to play an important role in product evaluation. Hence product evaluation will not change much whether the attribute's ability is low or high.

Next, as a goal can influence the role of attributes in product evaluation, I focus on product related features within the consumption environment that are likely to activate certain goals. Those features include the evaluation context (choice settings versus individual product evaluation settings), product categories and specific product features. Goal activation should further be crucially dependent on the extent to which individuals view the goal as being important (high vs. Low). When a goal is important, it is likely that consumers possess the goal already in mind and the goal is more accessible. In that case, it is more likely that the presence of the goal trigger (e.g., attributes) will activate the goal than when the trigger is absent. In contrast, when a goal is less important, consumers are less likely to possess the goal.

The framework provides insights for work relevant to product evaluation. First, it helps us to understand why preferences appear to be malleable in product evaluation. For example, in study 2, for the same binoculars with eco-glasses, subjects had higher evaluation of the binoculars when goal-product fit was high than when goal-product fit was low. An attribute that was unimportant for a quality goal (e.g., ability to play MP3 files of digital photo frames in Study 3) in the individual evaluation setting could become

more important when it helped to fulfill the goal of making a choice between a target brand and a competing brand. Accordingly, evaluations for the target brand and the competing brand changed across the individual setting and the choice setting. From the proposed goal-based view, different goals are activated in different contexts, which drive the evaluation process. Thus the influence of an attribute in overall product evaluation varies with the degree to which the attribute helps to fulfill various goals. This proposed framework helps us understand product evaluation from a new perspective. For example, a computer has numerous features, which is ambiguous information that can be interpreted positively (e.g., the computer is versatile) or negatively (the computer is not easy to use). Subjects who had previously exposed to “versatility” ad evaluated the computer more favorably than those who had previously exposed to “ease of use” ad (Yi 1990, 1993). In other words, the same computer can be evaluated differently according to the extent to which it can fulfill consumers’ activated goals (versatility vs. ease of use) based on the proposed framework.

A second insight from the thesis is that it helps to explain why a trivial attribute becomes important in product evaluation. In literature, the way of defining the concept of a “trivial attribute” is that it is an attribute that is judged either by “experts” (Carpenter et al. 1994) or by consumers (Meyvis and Janiszewski 2002) to be of low relevance to product performance. According to the thesis, a trivial attribute that is not relevant for a particular consumption goal (i.e. product performance) may become important when an extra-consumption goal is activated. Through the “lens” of the proposed theory, some current findings about trivial attributes can be explained from a perspective of goals. For

instance, a trivial attribute becomes influential when it helps to justify a choice goal to others (Schlosser and Shavitt 2002; Brown and Carpenter 2000) or a trivial attribute can decrease product evaluation when it cannot fulfill the quality goal (Meyvis and Janiszewski 2002) though goals are seldom the focus of the cited research.

Additionally, the framework shows several manageable ways to activate goals that consequently influence the role of attributes in product evaluation. For example, it is proposed that attributes may activate associated goals, e.g., a fair trade certification mark for coffee might activate a goal of helping poor farmers in developing countries. Such goals are not necessarily related to the functional quality of the product. However, attributes that help to fulfill the goals become more important in product evaluation and influence choices. Another example is that goals can be activated by attributes to compete with other brands. For instance, Tide is a successful brand in detergent market. It provides premium quality products and has been differentiated into many segments. Because of these, it is difficult for other brands to compete with Tide in terms of quality. However, marketers can use attributes to activate goals that may or may not relate to cleaning ability. Say, the brand of Springtime uses “biodegradable ingredients” on its label to activate the environmental goal and the brand gains a competitive advantage by providing an attribute that can fulfill the goal. Though the attribute of “biodegradable ingredients” is really secondary to the central function of detergent, it can drive people to take such features into account as they activate non-functional goals that consumers have. Therefore, activating goals by attributes is a managerial way to gain competitive advantage. In addition, another way to increase an attribute’s importance is to put the

product in a choice setting rather than an individual evaluation setting. As shown in my study (i.e., digital photo frames in Study 3), the Mp3 feature is generally treated unnecessary and unimportant when consumers buy a digital photo frame. However, it can be important in the choice setting when it helps to differentiate and simplify a choice. In other words, a product attribute which is not necessary relevant to a quality goal (e.g., ability to play Mp3 files) can nevertheless influence product evaluation and choice when it helps to fulfill a choice goal.

However, marketers should be aware that goal activation is more effective for those who care about such a goal to begin with, or to those who perceive a product as being fit to fulfill the goal. Study 5 provided evidence that the change of the attribute levels (absent vs. low vs. high) had no impact on product evaluation when a goal was not important to a consumer though I did not report this in Study 5 as it was not the study focus. Highlighting an attribute does not mean that in every case it will affect consumers' evaluation. The extent to which a goal is activated by these product related factors depends on how important the goal is to the consumer. For example, if consumers don't care about fair trade goals, then it is not likely that a fair trade mark can activate this goal. When a goal is activated, the product needs to be related to the goal (i.e., have a good fit) for the goal to have an impact on the role of attributes in product evaluation. In the binoculars example, Nikon has promoted their "eco-glasses" in their campaigns. However, this paper shows that when consumers perceive a low fit between binoculars and environmental goals, the "eco-glasses" will not increase the product evaluation.

Marketers need to be careful as it is not clear what exactly constitutes a “high” and “low” level of an attribute – in other words, what translates to high and low perceived ability. Presumably high and low perceived ability is relative and changing according to what it is compared to and what consumers’ expectations are. For example, 1Gb is considered a large hard drive and has higher ability to fulfill storage goals comparing to 512MB. However, 1Gb becomes a low ability attribute when comparing to 2Gb.

5.3 Limitations

As most of my studies used student subjects, researchers may criticize it as a limitation. However, I do not think this is a big concern. First, I recruited subjects from non-student pool in Study 2, i.e., subjects were from different ages, different professions and different ethical backgrounds in Syracuse University’s Study Response panel. And the study results were consistent with the broad idea that goal related factors (in this case, goal-product fit) strengthened the relationship between attribute ability and product evaluation. This provides evidence that the findings do not necessarily limited to student population. Second, students themselves are consumers. They were familiar with the products (e.g., shampoos, binoculars, coffee) and goals (e.g., environmentally friendly goals, fair trade goals) used in the studies. Therefore, their responses can represent consumers’ opinions to a certain degree. In the meanwhile, I admit that student subjects are slightly more homogeneous than those of non-student subjects. And caution must be exercised when attempting to extend any relationship found using college student subjects to a non-student population.

It is proposed that when a goal is activated and there is no relevant attribute, product evaluation is likely to decrease as the goal can not be fulfilled. However, I did not find evidences for this proposition, which is another limitation of the thesis. To test this proposition, subjects were randomly assigned to one of the three conditions: the target brand of a digital photo frame which “has the ability to play Mp3 files”; or the target brand “has no ability to play Mp3 files” (i.e., the product had no relevant attribute to fulfill the goal); or it did not indicate whether the photo frame had the ability to play Mp3 files (i.e., the goal relevant attribute was missing). In three conditions, along with the target brand, there was a second brand which “has the ability to play Mp3 files”. It was predicted that the target brand would be evaluated more favorable in the first condition (i.e., with the ability to play Mp3 files) than that in the second condition (i.e., with no ability to play Mp3 files) but not necessarily than that in the third condition (i.e., the information of ability to play Mp3 files was missing). However, the product evaluations in these three conditions were not significantly different. The possible reason was that the manipulated attribute, i.e., ability to play Mp3 files, was not important in the overall product evaluation. In other words, a digital photo frame’s major function was to show photos and it did not matter to subjects whether it had the ability to play Mp3 files. A future study is needed to test whether the results will change if using a more important attribute.

Another limitation is that the studies in my thesis mainly used extra-consumption goals such as the environmentally friendly goal, the fair trade goal and choice goals, which do not necessarily related to the functional performance of products. It will be

more rigorous if more studies are conducted using consumption goals (e.g., goals related to the functional performance of products) to generalize the findings in the thesis.

However, it is proposed that goals, no matter what types of goals, should influence the evaluation of attributes' importance by the same mechanism. The purpose of choosing these extra-consumption goals is to show that a broad array of goals (which do not limit to consumption goals) influence the role of attributes in product evaluation in the same way proposed in the thesis. For consumption goals, literature shows that goals play an important role in evaluating objects (Chernev 2004; Garbarino and Johnson 2001; Lewin 1935; Markman and Brendl, 2000; Markman, Brendl and Kim 2009), which is different but consistent with the proposed mechanism. Another reason for choosing extra-consumption goals is to show that trivial attributes (which are unimportant for quality or performance goals) can become important when it helps to fulfill extra-consumption goals. For example, in Study 2, eco-glasses became more important when binoculars were viewed as an appropriate vehicle to fulfill an environmentally friendly goal (i.e., goal-product fit was high) than when the product evaluation was driven by a quality goal as binoculars were not seen to fit with an environmentally friendly goal (i.e., goal-product fit was low). In Study 3, "ability to play Mp3 files" became more important when it helped to fulfill a choice goal whereas it was a trivial attribute for a quality goal in the individual product evaluation setting.

The proposed framework is applied to the contexts in which consumers deliberately consider attributes in product evaluation. In other words, the proposed framework is tested when individuals intend to make an accurate and correct judgment in product

evaluation (e.g., to choose a shampoo that protects environment). However, I did not test how goals influence the role of attributes in product evaluation when consumers take a heuristic and simple way to evaluate products. The reason is mainly because attributes may not be considered in product evaluation when consumers take a heuristic approach, in which case there is no relationship between attribute ability to fulfill a goal and product evaluation. It is an interesting future research direction to study how the proposed framework can be extended or modified in the latter situation (i.e., consumers evaluate products in an effortless way).

Lastly, I can not conclude how the proposed framework functions as a whole as I tested it in a piecemeal way. I did not test the model in a holistic way because of three reasons. First, the experimental design will be very complex as there are many variables involved and some of them can be correlated (e.g., both product categories and product attributes can activate same goals). Second, it will be difficult to manipulate variables in experiments. For example, manipulating goal-product fit may manipulate goal activation too as mentioning a goal has the possibility to activate a goal. Third, it will be difficult to test process variables as there are lots of underlying mechanisms going on. For example, it is proposed that choice settings, product categories and product attributes can activate associated goals. When testing the framework holistically, it would be difficult to tell which one of the choice settings, product categories and product attributes actually activate goals. And when there are multiple goal triggers, different goals can be activated and it is hard to tell whether a focal goal's effect on product evaluation is influenced by other goals. However, testing the model as a whole will provide insights of how different

elements integrate together in terms of product evaluation. To do this, process variables need to be carefully designed to examine the underlying mechanisms.

5.4 Future Research

The basic proposition in the thesis is that attributes are evaluated according to the degree to which it helps to fulfill a goal. A future research direction is to study what if a goal is activated but the goal relevant attribute is absent. To answer this question, it is proposed that consumers' evaluations crucially depend on the inferences consumers make- whether they infer the product does not have the attribute or whether they infer the information is missing. First, they may think the product does not contain the goal relevant attribute, which is likely to result in a negative product evaluation as the product can not fulfill the goal. As mentioned previously, I ran a study using digital photo frames and predicted that the target frame with "no ability to play Mp3 files" would be evaluated less favorable than another frame with "ability to play Mp3 files". However, the product evaluation in these two conditions did not differ much. The possible reason was that the attribute of "ability to play Mp3 files" was too unimportant to impact product evaluation even when subjects were aware that the product could not fulfill the relevant goal satisfactorily. Future studies are needed to see whether the importance of the attribute is a moderator in this effect. Second, consumers may infer the value or the ability of the attribute when the attribute is absent. In other words, consumers believe that the product contains the attribute. However, the attribute's information is missing and is unobservable from the product. In the latter case, the missing attribute does not

necessarily lead to a negative product evaluation. In what conditions consumers will respond in one of the two ways will be a future research direction.

Another future research direction is to study the dynamic interaction between goals. For example, when a goal is activated, it can inhibit the activation of another goal which is unrelated to the original goal, e.g., when you are hungry, the eating goal can inhibit goals such as taking a shower or doing workout. This is usually called the suppression effect (Shah and Kruglanski 2002), which happens because of cognitive resource limits, i.e., there is limited cognitive capacity to process other competing goals (Shah and Kruglanski 2002) or cognitive inhibition, i.e., the current goal cognitive association inhibits the activation of other cognitive associations in mind (Anderson, Reder and Lebiere 1996; Anderson and Spellman, 1995). The implication for product evaluation is that an attribute's impact on product evaluation will be decreased if the associated goal is suppressed. For example, you walk into a computer store thinking about buying a fast computer. However, you may be attracted by the sleek design of the computers. In this case, the fancy-looking goal suppressed the fast quality goal. Accordingly, the processor of the computer may be less important in the overall product evaluation. Furthermore, it is likely that the suppression between goals may be moderated by a goal's relative importance, the strength of the goal-product fit, the strength of the goal and the other goal association and the fit between two goals, which are future research directions.

5.5 Conclusion

This thesis has explored why certain product attributes are important or unimportant, and to explore the implications of this for product evaluation research. To address this, First, I suggest that product evaluation is based on an attribute's ability to fulfill a particular goal. Specifically, I suggest that goals are more likely to influence the impact of product attributes on product evaluation when goals are activated and perceived to fit with the product. Second, I focus on three product related features within the consumption environment that are likely to activate certain goals, i.e., choice settings, product categories and product attributes. And the effect of goal triggers on goal activation is moderated by goal importance. The proposed framework makes contributions in that it provides an integrated framework of how goals influence the role of attributes in product evaluation.

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