

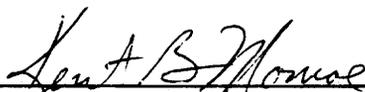
**THE INFLUENCE OF AFFECT ON PRODUCT EVALUATIONS AND  
SEARCH BEHAVIOR: AN INTEGRATION OF AFFECT AND  
THE ECONOMICS OF INFORMATION**

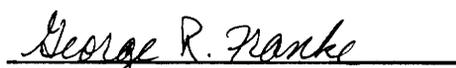
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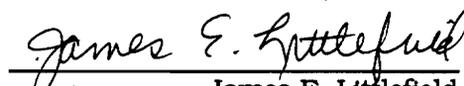
Larry D. Compeau

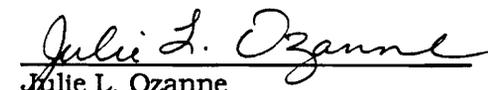
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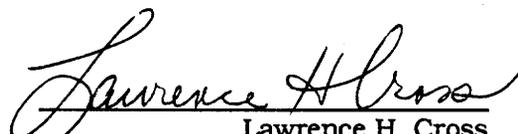
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October 1991

Blacksburg, Virginia

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**THE INFLUENCE OF AFFECT ON PRODUCT EVALUATIONS AND  
SEARCH BEHAVIOR: AN INTEGRATION OF AFFECT AND THE  
ECONOMICS OF INFORMATION**

by

Larry D. Compeau

Committee Chairman: Kent B. Monroe  
Marketing

(ABSTRACT)

This research challenges the cognitive view of consumers as goal-driven, rational, problem-solving, information processors. Consumer's feeling states, or affective responses, are viewed as beneficial to consumers in that they provide information for the decision-making process.

Two separate studies, based on two divergent perspectives, were conducted to investigate consumers' feeling states. An experimental study investigated the relationships between affective responses and product evaluations. Specifically, the economic theory of information was extended to include "affective information" and a model was developed that hypothesized that affective responses to affective information would influence subsequent product evaluations. Two experiments were conducted to examine the model. One experiment tested this notion using a verbal communication method (i.e., a written product description) and the other experiment employed the use of a visual communication method (i.e., a video). In general, the results supported the

Abstract

influence of affective responses on expectations of perceived quality across both communication methods. Moreover, when affective components were added to models based on cognitive responses only, significantly more variance was explained.

The second study focused on an in-depth examination of consumer shopping experiences, centering on the feelings consumers experience while shopping, as a result of shopping, and during consumption of the products purchased. Moreover, the meaning of these shopping experiences, to the consumer, was also investigated. Six existential-phenomenological, in-depth interviews were conducted to develop both the structure of each participant's shopping experiences and an interpretation of their meaning to the participants. In general, it was found that shopping is a relationship between self, others, and the world (i.e., environments such as social and political); it is an expressive communication act that discloses self to others and at the same time reflects meaning about self back from objects and others. Concomitantly, the world acts to constrain this process. Shopping is an emotional experience that appears to be highly influenced by significant others. The penalties and rewards of shopping are defined as much by others as they are defined by self. Moreover, the process of shopping appears to contribute as much to the meaning of shopping as does the result of shopping (i.e., the product purchased). The response of others to purchase decisions attached meaning for the shopping process and for the products purchased.

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To others who aspire to a similar goal, I share the inspiration of Walt Whitman:

**"that the powerful play goes on,  
and you may contribute a verse."**

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# CHAPTER 1

## Introduction

Marketing researchers have criticized the unrealistic assumptions that economists make about the behavior of consumers. Perhaps the most serious criticisms concern the challenges against the notion of the consumer as a perfect information processor and utility maximizer. Yet, one cannot help notice the striking similarity between this economic view and the currently dominant cognitive view of consumers in marketing research wherein consumers are viewed as goal-driven, rational, problem-solving, information processors. Certainly, a contribution has been made by relaxing the constraints of consumers as perfect information processors and possessing complete and perfect information, but accepting the notion that errors are made in the deliberate logical and mathematical calculations does not alter the underlying basic assumptions.

The assumptions underlying this information processing view of consumer behavior need to be examined critically. In particular, the notion of rational behavior seems to focus research attention on certain topics such as decision rules (including heuristics), multi-attribute models of choice, and information processing and search. But, the amount of consumer behavior that can be explained by this rational approach

has been disappointing (Olshavsky and Granbois 1979).

An alternative approach is to introduce the notion of behavior being influenced by emotion, or feeling states. Behavior that cannot be adequately explained by applying cognitive decision rules may be based on feeling states that don't adhere to these rules. Consumer's emotions, feelings, or affect may influence consumers' preferences, choices, and evaluations. Therefore, the challenge is to integrate the research on affect, economics, and marketing to form a theoretical structure that can accommodate the role of feeling responses in buyer behavior. The goal is to achieve a better understanding of consumer behavior.

The purposes of this chapter are to (1) argue that affect should be a central construct in consumer behavior research, (2) briefly define affect, (3) identify the specific objectives of this research, (4) provide an overview of the conceptualization and the research, and (5) discuss the theoretical, methodological, and substantive contributions of this research.

## **AFFECT AS A CENTRAL MARKETING CONSTRUCT**

One goal of marketing research is to understand consumers' behavior. Most consumer behavior is thought to be based on cognitive, rational, goal-driven thought and consumer behavior models reflect this view (Bettman 1979; Engel, Blackwell, and Kollat 1978; Howard and Sheth 1969). However, research founded on this notion has not demonstrated an ability to explain as much behavior as one might think given its predominance in the literature (Olshavsky and Granbois 1979; Kassarian 1978, 1986). New approaches to consumer behavior must be developed that extend the current conceptualization and allow for a significant amount of behavior to occur as the result of

"nonrational" forces. In other words, not all behavior may be attributed to rational thought; indeed, some behavior may be influenced by other processes that occur within the individual.

Affect, i.e., moods, emotions, and feeling states, is one factor that researchers should consider as a central construct in studying consumer behavior. In psychology, researchers are reexamining the role of affect in human behavior. In his article that spawned the current tide of interest in affect, Zajonc (1980) challenged the research community to reconceptualize affect and its role in providing information upon which to base behavior. However, prior to Zajonc's article, Isen and her colleagues had already set out on a stream of research to examine the influence of affect on memory and cognitive processes, problem-solving and decision making, risk perception, and judgment and evaluation (Isen, Shalke, Clark, and Karp 1978).

Over the course of the last twelve years a relatively large body of empirical evidence has been amassed demonstrating the pervasive influence of affect on behavior and the cognitive processes believed to precede behavior. Affect has been shown to: influence thoughts recalled and the categorization process, serve as a retrieval cue for positive material in memory, induce familiarity, reduce the complexity of decision tasks, allow for more efficient decisions, influence the use of simplifying heuristics, influence risk aversion, influence judgments of both related and unrelated stimuli, and influence the communication process. As a result, consumer researchers can no longer adequately represent the role of affect in consumer behavior as a footnote to the cognitive process (cf. Bettman 1979).

Affect should be conceptualized as a central construct in the study of consumer behavior; a construct that is viewed as important as cognitive, rational thought. There are some purchase situations where the rational information processor view may be appropriate; however, it appears that many purchase decisions do not

involve this high level of cognitive elaboration (Kassarjian 1978; Olshavsky and Granbois 1979). Although it is tempting to explain these situations as the result of processing limitations, a more comprehensive, parsimonious, and compelling explanation is that feeling states may influence purchase behavior.

## **DEFINING AFFECT**

Affect is a fuzzy concept that has eluded precise definition. It is important to establish the scope of this research by identifying exactly what feeling states are the focus of these efforts; however, a complete development must await a review of the literature. Thus, although considerable effort is devoted to a conceptualization of affect in Chapter 2, a brief definition is appropriate to lay the foundation for the focus of this research. "Feeling states" is a global term used to refer to all types and forms of affect, emotions, preferences, attitudes, evaluations, and moods. A feeling state differs from a cognition in that it is a more holistic physiological and psychological state that permeates the mind and body. Although one can "think" about being happy, experiencing happiness involves more than just thinking. The entire body responds as a whole. One's mind is not happy, nor is one's eyes happy; the whole body and mind as a unity is happy.

In the context of consumer research, an important group of feeling states are those simple spontaneous feelings that occur everyday during the shopping and consumption processes. For example, the excitement of seeing a red sports car while driving past a new car dealer, or the contentment associated with enjoying a new piece of furniture, or the frustration of not being able to find one's size. The focus of this research therefore, is on these everyday feeling states that seem to occur so often during

a normal course of the day. These feeling states tend to be specific to a particular stimulus, are usually short-lived, do not involve much cognitive effort, and are not very intense. Although an interesting area for research, stronger emotions such as hate, anger, and fear are not part of the scope of this study. These everyday, low-level feeling states are referred to as affective responses, or more simply affect (Isen et al. 1978).

These low-level, everyday affective feeling states are conceptualized as influencing attitudes, evaluations and preferences, but conceptually distinct because attitudes, evaluations, and preferences always involve a significant level of cognitive effort and are more enduring. Although at times little or no cognitive effort is required for an affective response to occur, it does not suggest that cognition does not play a role in affective responses. As the conceptual model presented in Chapter 2 lays out, cognition may have a large and significant role in affective responses. The point here is that significant cognitive effort is not always necessary for an affective state to occur, whereas attitudes, evaluations, and most preferences suggest significant cognitive effort. Some preferences may be based solely on affect (Zajonc 1980); however, the two are not equivalent since a feeling state may not be in the form of a preference (e.g., one may be happy about buying a particular item but may not have preferred that item over all others), and a preference does not always have to be based solely on a feeling state (e.g., one may prefer a product simply because of its widespread availability).

Finally, affective responses are conceptualized as providing information for the consumer. Consumers use the feedback on how they "feel" as input into other cognitive processes. Specifically, it is proposed that cues associated with product stimuli elicit affective responses. These affective responses, or feeling states are used by consumers as information for subsequent evaluations and decisions, much as they use what might be termed a more cognitive type of information. Thus, affective information, information about feeling, is used by consumers. Therefore, one of the major characteristics of affect

is its informational nature. Affect is information; it can be communicated and used in decision-making situations. A more complete conceptual development of affect is provided in Chapter 2.

## **RESEARCH OBJECTIVES**

The primary goal of this research is to gain greater insight and understanding concerning "feelings" that consumers experience. Toward this end, two primary research questions drive this investigation, "What feelings do consumers experience in their everyday shopping activities and what is the meaning of these shopping experiences?" and "Do consumers respond affectively to information and what role does this affective response play in consumers' decision making process?"

To address the first research question, an in-depth descriptive investigation seems appropriate. The goal would be to gain rich insight into the feelings consumers experience as they shop for and consume products. Moreover, some analysis to determine the meaning of these experiences would be required. Existential phenomenology has seen considerable use in psychological research and is recently becoming popular as a clinical approach as well (Thompson, Locander, and Pollio 1989). Existential phenomenology is the blend of two interrelated perspectives, existentialism and phenomenology (Valle and King 1978). Existentialism addresses itself to the concrete existence of the individual person. Phenomenology is the study of things as they appear to develop an essential understanding of human consciousness and experience. One of the primary contributions of phenomenology is the development of specific methods for studying experiences. Thus, existential phenomenology is a philosophical discipline that seeks to understand human experiences free of the

presuppositions brought about by culture, as much as this is possible (Valle and King 1978). Existential phenomenology is a perspective that implies a methodology. As a perspective, existential phenomenology embraces the concept of multiple realities depending on one's position in the landscape. Thus, one methodological implication of this perspective is that as much attention is focused on the background of the phenomenon as the foreground, or more precisely, the researcher's preconceived notions of what the phenomenon is. Special attention is given to the context in which an event occurs, as well as studying the event itself. Methodologically, the focus is on the experience of the participant as it was lived, that is, the lived-world of the participant. Consequently, the methodology is descriptive involving disciplined reflection. Open, in-depth interviews that focus on the participants' experiences are often used to implement the methodology. Thus, this research will conduct a set of in-depth existential phenomenological interviews to consider this first research question, the result of which will be a description of consumers' shopping experiences and the remembered feelings that were a part of those experiences. Moreover, an interpretation of the meaning of these experiences will be presented. Thus, all of the literature review and conceptual development contained in Chapter 2 is not specific to answering this research question and is presented in order to consider the second research question.

The second research question suggests that a theoretical structure needs to be developed to hypothesize the role of affect as an informational component in the consumer decision making process. This research integrates the study of affect in psychology and consumer behavior with various concepts and theories of consumer behavior from economics and marketing. Specifically, it is a premise of this research that the two disciplines, economics and psychology, may contribute more to an understanding of consumer behavior when they are considered together than either can contribute separately. On the one hand, a large body of empirical results demonstrate

the pervasive influence of affect, yet the research lacks an overall theoretical structure to provide a research agenda and guide future research efforts. On the other hand, the economic theory of information presents a logically compelling and parsimonious conceptualization of consumers' search for and use of information (i.e., consumers will search as long as it will benefit them to do so). However, this theory lacks any significant body of empirical results testing the theory (Calfee and Ford 1988). The few empirical examinations that are available provide weak support for the theory at best due to the mixed results.

Consequently, there is a need for a theoretical structure to integrate affect into consumer behavior, and at the same time there is a need to extend the economic theory of information to incorporate information components beyond the notion of cognitive/rational information. The goals of this aspect of the research are to (1) provide a conceptual framework with which to model and study affect as information in the context of consumer behavior, and (2) extend the economic theory of information to include the substantive knowledge of the influence of affect. This research therefore, extends and modifies the economic theory of information to incorporate the concept of "affective information," develops propositions based on the modified theory, and tests a subset of these propositions in two laboratory experiments.

Thus, this research actually is comprised of two separate studies. One study employs the use of laboratory experiments to test aspects of a theory, and the second study provides an in-depth examination of the experiences that consumers encounter in their everyday shopping and consumption acts.

## CONCEPTUAL OVERVIEW

In this section a brief overview of the conceptual model, based on the economic theory of information, is provided as an introduction to the experimental study. This conceptual overview is only appropriate for the development of the experimental study and is not part of the development of the study using the existential phenomenological interviews.

The economic theory of information contains three basic premises (Stigler 1961):

1. Information is a commodity and therefore can be produced, marketed, sold, purchased, traded, and consumed.
2. Information has value; better information leads to better decisions which increases utility.
3. There are costs, both psychological and economic, associated with the acquisition and ownership of information.

Given this view of information as an economic commodity, Stigler theorized a cost-benefit model of consumer search; i.e., consumers will search for additional information as long as the marginal cost of acquiring information is less than the marginal benefit of the search. However, consistent with economic theory based on the assumption of consumers as rational utility maximizers, information is conceptualized as what could be termed cognitive/rational information; i.e., information such as price and warranty which are rationally evaluated to form logical judgments about products.

This research extends this conceptualization to include a two-dimensional view of information. Information is considered to possess both a cognitive/rational

dimension and an affective dimension. Hence, the same premises apply to the affective dimension of information and any theoretical propositions that can be derived from the economic theory of information also apply to the affective dimension of information.

Affective information is considered valuable since it informs buyers about properties of the object that cognitive/rational information may not communicate as well (e.g., feelings that may occur with product use). Thus, it is posited that consumers search for affective information just as they search for cognitive/rational information, and there is a cost associated with the acquisition and use of affective information. Moreover, the value placed on products often incorporates an affective investment. Hence, the definitions of utility, costs, and benefits are extended to include affective components.

The definition of search cost is expanded to include the opportunity costs associated with the deferral or loss of an affective experience. As a buyer continues the search process, the affective experience associated with the purchase and consumption of a particular alternative is postponed and potentially lost. The definition of search benefits is extended to include the affective benefits associated with the search process itself. In other words, buyers may obtain affective pleasure from performing search. For example, some shoppers may find it fun and exciting to go to a mall to shop; other shoppers may find it rewarding and pleasant to gather information taking pride in making the best purchase choice possible. Finally, the notion of utility is expanded to specifically include the utility derived from affective experiences. One product may provide greater utility than another similar product if it provides a "better" affective experience.

It is posited that affective information is communicated by the seller to the buyer two ways. Direct communication occurs when a buyer is informed about an affective experience associated with the product verbally (e.g., "You'll experience

excitement you've never felt before"). Indirect communication occurs when the affective experience is signalled via sensory/physical features of the product, advertisement, package, or promotion. This latter mode of communication occurs when buyers attach a feeling response to a physical/sensory stimulus (e.g., red cars are exciting for me to drive).

According to the model, affective information is used by consumers to develop affective expectations for the product via an imagery process; i.e., consumers imagine how they will feel in certain product usage situations if they purchase the product (Mittal 1988). These affective expectations influence product evaluations and search behavior. For instance, strong positive affective expectations may result in higher quality expectations. The simple cost-benefit model of search behavior also suggests certain relationships. For example, the opportunity cost associated with deferral or loss of the expected affective experience could cause an attenuation of external information search if the opportunity cost is viewed as greater than the benefits associated with the additional search. On the other hand, the opportunity cost associated with the deferral of the affective experience may not be enough to motivate the buyer to stop the search process.

## **OVERVIEW OF THE RESEARCH**

The goal of this research is to obtain a better understand feelings consumers experience in their shopping and consumption activities. A major focus is on how consumers arrive at affective responses and how those affective responses influence subsequent product judgments. Literature from the psychological study of affect, economic study of information search, and marketing study of consumers' evaluative

processes is integrated to form a theoretical structure that embraces the role of feeling responses in buyer behavior. Resultant propositions are empirically tested in two experiments.

A second major focus is a more in-depth examination of consumer shopping experiences, centering on the feelings consumers experience while shopping, as well as feelings consumers experience about the products themselves. Moreover, the meaning of these shopping experiences to the consumer is also of interest. A methodology that allows consumers' naturally occurring experiences to be the focus of the research and promotes an in-depth examination of these experiences to develop an understanding of their meaning to the consumers is appropriate for this effort. Thus, in-depth interviews are conducted to explore these experiences. An interpretation of shopping experiences, focusing on what the experiences mean to the consumer and the feelings that are part of these experiences, is developed. From these interpretations, an overall interpretation of shopping can be identified.

The need for the examination of consumers' feelings is prominent in the literature (e.g., Gardner 1985; Peterson, Hoyer, and Wilson 1986; Zajonc 1980); however, progress has been slow. The research has been constrained by the lack of a rich descriptive base and a broad theoretical framework and its mono-perspective approach to the phenomenon (i.e., use of laboratory and field experiments). A broad, integrative conceptual model based on the economic theory of information (Stigler 1961) is developed and a portion of it empirically tested. Also, this study explores feelings in the lived-world of consumers' shopping experiences via in-depth existential-phenomenological interviews, thus providing a different paradigmatic view of the phenomenon and providing a descriptive view of the phenomenon.

The experimental phase of the research manipulates affective information to examine the influence of affect on judgments of product quality in order to establish

causal linkages between affective information, affective responses to this information, and product quality evaluations. Pretests are conducted to assist in the selection of the test product and form of stimuli presentation and the construction of scales to measure the affective response and expertise on the subjects. Two experiments are conducted where affective information level (the amount of affective information, low versus high) is manipulated to examine its effects on consumers' evaluative judgments in a between subjects design. Each experiment examines a different method of communicating affective information (e.g., written product description versus visual product stimulus). This study also analyzes the hypothesized causal relationships, including both direct (written) and indirect (visual) effects, via causal modeling and structural equations analysis.

The in-depth interviews capture consumers' experiences which are used to develop an interpretation of the significance and meaning of shopping and consumption for these consumers. The interviews are conducted in the participants homes and an unstructured interview format is employed to allow the narration of the experiences to unfold in an unrestrictive manner.

## **SIGNIFICANCE OF THE RESEARCH**

The justification for this research lies in its contribution to the discipline. Depending on one's perspective, or world view, the contribution may be assessed using different criteria. Usually, a research project is conducted within one research perspective or paradigm. In this research, two perspectives were embraced to examine the phenomenon. Thus, given the different world views adopted to conduct the research how does one assess its overall contribution? What criteria should be applied to assess

the contribution? A complete discourse on the philosophy of science is beyond the scope of this research and consequently the ontology, axiology, and epistemology of the various world views is not articulated here (see Anderson 1983 or Hudson and Ozanne 1988 for a review). However, it should be noted that different criteria may be used to assess the contribution of a research study depending on the world view that is embraced by the researcher. For the present research, it is a fair characterization to describe the experiments as being conducted within a positivistic paradigm, whereas the interviews are conducted within an interpretivist paradigm.

One approach is to evaluate the contribution of each study by applying one set of standards, whatever set of standards that is appropriate given one's adopted world view. For example, if one subscribed to a more positivistic world view, standards such as internal validity, construct validity, reliability of measures, generalizability, enhancement of current theory, statistical significance, and conceptual development of testable hypotheses might be applied to assess the study's contribution to the discipline. However, if one subscribes to a more interpretivist view, standards such as richness of the descriptive data, completeness of the interpretation, coherence, and contribution to an overall understanding of the phenomenon might be applied. Hence, one set of standards could be applied for both studies. This method is not acceptable if one accepts that knowledge is created in different ways. To apply the positivist standards to an interpretive study would render the study impotent since the study was not conducted with those criteria in mind. Moreover, to apply the criteria for an interpretive study to a positivistic research effort would do the same.

A second approach is to use criteria that can assess the contribution of any study, regardless of the world view within which it is conducted. For example, Laudan (1984) suggests the criteria of demonstrability, semantic critique, and epistemic critique. However, these criteria were proffered as a means to adjudicate value conflicts between

paradigms, not to judge the contribution of any one study. Moreover, it does not appear that the criteria have functioned well (Anderson 1986).

Therein lies the dilemma. On the one hand there appears to be no universal standards by which to judge the contribution of research conducted within different world views; on the other hand, applying one set of standards from one world view is tantamount to saying there is only one path to knowledge, and in effect, dismissing any contribution of a study beyond its fit within the world view.

A third approach is to employ the standards used by the paradigm specific to each study, in the form of a "self-justifying" network (Anderson 1986). In other words, the contribution of the experiments that are conducted in a positivist tradition should be assessed using the criteria that are part of the positivist world view, while interpretivist values would be applied to the in-depth interviews. If one believes only in the positivist world view, then the criteria to assess the contribution of the interviews will appear woefully inadequate. Thus, it is tempting for the positivist to position the interviews such that their contribution can be assessed using positivist criteria. For example, a positivist might prefer to view the interviews in terms of how the results might reshape current theories as a form of an "exploratory" piece of research, rather than to accept the interpretivist's criteria of providing an understanding of the phenomenon. Therefore, unless readers can move across paradigms and accept the ontological, axiological, and epistemological aims of the different paradigms when assessing the contribution of the research, this approach will be unsuccessful. This critical relativist perspective, however, is based on a weak form of incommensurability between paradigms. That is, although it is assumed that one can step back, removing oneself from a world view, and accept momentarily another world view in order to assess the contribution of a study, the differences between the paradigms are not adjudicable and the contribution of each study must be evaluated based on the aims of the world view in which it is conducted.

Thus, to evaluate the contribution of the two studies in this research a critical relativist perspective will be employed.

The justification for the two experiments lie in their contributions to the three domains of research knowledge: conceptual, methodological, and substantive. In the conceptual domain, the primary contribution of this research is the extension of the economic theory of information to incorporate the notion of affect. The essence of this contribution is a two-dimensional view of information. This model of affective information embraces the role of feelings in the consumer decision making process, extending previous thinking. The model provides a framework that can stimulate future research. The conceptualization of affective information provides researchers the opportunity to test the influence of affect on behavior by manipulating the communication of affective information. Moreover, the two-dimensional view of information has implications for all information processing-based theories of consumer behavior. That is, if information is conceptualized as two-dimensional, then information processing-based theories of consumer behavior apply to affective information as well as cognitive/rational information. For example, Bettman's (1979) model of consumer choice posits that "Consumers are subject to limitations in processing capacity." (p.223). Thus, if information includes affective information then the proposition suggests that consumers are limited in their ability to process affective information.

Within the methodological domain, one contribution is the development of methodology to measure affective responses. The methodology allows for the measure to be specific to the product. That is, through pretesting, affective responses appropriate to the product stimulus are identified for use in the measure. A second contribution is the replication of the first experiment examining a written (direct) communication mode, with an experiment examining a visual mode of communication (indirect communication). This replication allows for a more robust examination of the theory and the validity of the

studies.

The role of "feelings" in consumer behavior is a substantive issue (i.e., feelings are believed to influence consumer decision making) that is far from being understood. The predominant cognitive view of consumers tends to regard emotions as disruptive to logical and rational thought processes. Also, the difficulties faced by researchers in examining feeling states are enormous and progress has been slow. The difficulty of studying affect combined with a view of affect as disruptive rather than productive provides little incentive for researchers to explore the phenomenon of affect. Consequently, what little substantive knowledge is available, tends to be fragmented and without any central focus. Yet, affect is an integral part of life. The importance of affect takes on greater proportions when one attempts to separate all forms of affect (i.e., emotions, moods, and feeling states) from behavior. In fact, just as one is always in a state of thought, one is always in a state of affect. Moreover, affective states are not always dysfunctional (Pieters and van Raaij 1988b). This results of this research suggest that affective responses are important sources of information for consumers and are used in the decision making process. Moreover, consumers' affective responses appear to be sensitive to the level of affective information that is available.

Thus, affect is viewed in this research as a valuable aspect of behavior, contributing information that assists consumers in their decision-making. This view of affect opens the door for researchers to study affect in a different light and to make significant contributions in developing a better understanding of the role of affect in consumer behavior. The role of emotion should no longer be left only to those who explore it in their poems, art, music, and literature.

"And what is the role of emotion in the study of cognition? We leave it to the poet, the playwright, the novelist. As people, we delight in art and in music. We fight, get angered, have joy, grief, happiness. But as students of mental events, we are ignorant of why, how" (Norman 1985, p.326).

Alternatively, the interviews provide an interpretation of shopping that illuminates the respondents' lived experiences. The base of the interpretation rests on thickly contextualized experiences as described by the participants. Moreover, the interpretation discloses the meaning of shopping experiences as a complex set of interrelationships between the consumer, significant others, and her lived-world. That is, shopping is an emotional, expressive, communicative act that reflects on one's self-image, and connects one's self with others and the world. The primary contribution of the interviews is the understanding of what shopping means to the participants.

In the final analysis, one has to ask "What has been learned from this research," regardless of the perspective. Affect is a complex experience that plays a major role in the shopping experiences of consumers. Consumers don't appear to operate in a solely cognitive fashion; consumers' shopping experiences are filled with emotions that influence the shopping process and are influenced by the shopping process. Affective responses reflect psychological interrelationships between the product, the context, the consumer, and significant others. Consequently, consumers may choose products for affective reasons that do not appear obvious. For example, a consumer may choose a product, not because of the product's attributes, but because the product will enhance the consumer's self-image, producing a positive affective state. Moreover, these affective states appear to be part of the product evaluation process.

In sum, the research results suggest that affect is an important aspect of consumers' experiences and deserves research attention. Shopping experiences are saturated with affective states that influence shopping behavior. Consumers appear to shop for affective experiences as well as for the products themselves. Finally, the use of different research perspectives suggests that different research perspectives offer researchers an opportunity to catch different glimpses of affect in the consumers' experiences, thus extending our understanding of those experiences.

## **OVERVIEW OF CHAPTER 2**

The next chapter reviews the literature related to the study of affect, the economic theory of information, and the relatively new area of economic psychology. Issues associated with conceptual, methodological, and substantive domains from each research area will be discussed. The viewpoints from economics and psychology are integrated in a conceptual model that considers affect as information. Theoretical propositions are derived from the model suggesting that information has two dimensions, a cognitive/rational dimension and an affective dimension.

## **OVERVIEW OF CHAPTER 3**

The third chapter develops specific research questions, converts theoretical propositions into empirically testable hypotheses, and details the methodology that is employed to address these research questions and operational hypotheses. The research is proposed to be conducted in two parts. One study seeks to gain knowledge of the lived-experiences relevant to consumers use of affective information via in-depth interviews. Another study employs the use of an experimental design which manipulates affective information and examines its impact on product quality expectations. Prior to the experiment, pretests are implemented to select the product stimulus and develop measurement scales. The results of the experiment are analyzed using analysis of variance, correlational analysis, regression analysis and structural equation analysis.

## **OVERVIEW OF CHAPTER 4**

Chapter 4 presents the results of the two pretests and two pilot tests conducted to identify an appropriate product stimulus, develop measures, and test the strength of the manipulation. Implications of these results on the conduct of the experiments are also addressed.

## **OVERVIEW OF CHAPTER 5**

Chapter 5 discusses the analyses and results of the two experiments. A detailed description of the procedures used in the implementation of the experiments along with a presentation of the experimental instruments is also presented. Finally, a summary of the results across both experiments are provided.

## **OVERVIEW OF CHAPTER 6**

Chapter 6 presents the analysis and interpretations for the six participants interviewed as part of the existential phenomenological study. A detailed presentation of the analysis and development of major themes is provided for two respondents. A generalized interpretation of shopping and its meaning to consumers is developed from these interviews.

## **OVERVIEW OF CHAPTER 7**

Chapter 7 discusses the conclusions that can be drawn from the research conducted. The contributions of the research for the three domains, conceptual, methodological, and substantive, are also presented. Implications of these results for researchers, managers, public policy makers and consumers are addressed. Finally, the limitations of this research and suggestions for future research are considered.

### **SUMMARY**

The study of affect may provide additional insight into the behavior of consumers; certainly its pervasiveness in lived-experiences would seem to suggest no less. This research builds upon previous efforts by integrating two different disciplines (i.e., economics and psychology) to form a view of affect as information. Consequently, existing theory concerned with consumers' use of information is relevant and is examined in this research.

This chapter has presented the research questions and provided an overview of the research domain and the proposed research. The motivation for the research was supported through a discussion of its significance and contribution. Finally, a brief review of the chapters to follow was provided.

## **CHAPTER 2**

# **Conceptualization and Review of Literature**

The essence of consumer research, within both economics and consumer behavior, is based on the implicit assumption that consumers are logical and rational in their purchase behavior. This assumption is certainly not unreasonable, but it has led researchers to focus on the more complex rational and logical cognitive-oriented components of buyer behavior. However, this cognitive orientation has overlooked the pervasive role that emotions play in everyday life, including purchase situations. The feelings that buyers experience in purchase and consumption situations may influence buyer behavior such that the behavior appears as nonrational. "Acting on emotion," "responding to emotional appeals," "letting emotions interfere," (with a more logical and rational decision process) are common examples of how the influence of emotion is often described. A basic premise of this dissertation research is that consumer research would benefit from the integration of noncognitive concepts such as mood, emotion, and affect with the more cognitive concepts such as attribute evaluation, product evaluation, and information search (e.g., Bettman 1986; Holbrook 1986; Kassarian 1986).

Moreover, it is posited that consumers respond to information both affectively and cognitively and that affective responses to information may explain certain aspects of consumer behavior that a cognitive approach does not address. Information that elicits affective responses, for example, written product descriptions, advertisements, or physical cues associated with the product, is called affective information.

Three classes of literature are relevant to the research issue: research on affect, research on the economic theory of information, and research in the area of economic psychology. These research streams cut across several disciplines. For example, relevant research on affect can be found in disciplines such as cognitive psychology, social psychology, industrial and organizational behavior, communication, and marketing and consumer behavior. Research investigating the economics of information can be found in economics and marketing and consumer behavior research streams. The emerging area of economic psychology integrates theory and empirical results from the psychology discipline with current economic thinking. With this diversity of research in mind, this chapter is organized with two primary goals.

One goal of this review is to demonstrate that consumer behavior can be better explained and understood by including the examination of the effects of feeling states. Integrating key concepts with empirical results across the different research areas allows for the extension of current thinking to incorporate the notion of information that can cue or elicit feeling states, or affect, called affective information. That is, physical product cues (e.g., color, smell, shape) and verbal product cues (e.g., product descriptions) may elicit both an affective response and a more cognitive response. Specifically, the empirical evidence associated with the study of affect can be used to extend the economic theory of information to include the "economics of affective information." Moreover, the economic theory of information can be used to model affect. As a result, it is expected that more of the behavior associated with evaluations and

search can be explained by integrating these two constructs. The potential contributions will be illustrated through selected relevant findings from all three of the literature streams.

The second goal is to develop a conceptual model that integrates affect, and affective information, with cognitive information in an overall model that explains consumers' subjective evaluations and search behavior.

The presentation in this chapter is organized into four main sections. The first section focuses on the economics of information research. An overview of the research is provided followed by a discussion of the conceptual and methodological issues relative to the research. Sections two and three are organized in a similar manner for the research areas of affect and economic psychology. Section four develops a conceptual model that integrates affect and the economics of information, including a research agenda detailing the research questions that will be examined in the current research. Finally, a summary of the chapter is presented.

## **THE ECONOMICS OF INFORMATION**

Most economists consider the seminal work by Stigler (1961) as the first articulation of the economic theory of information. However, in 1945 Scitovsky observed that "more often than not people judge quality by price," thereby establishing the notion of price as an information cue that consumers can seek out and use to gain knowledge about the quality of products. Based on the central notion of asymmetric information, that is, the seller may have more information about a product than the buyer, Stigler built the economics of information theory on three basic premises. First, information is a commodity; it can be produced, marketed, sold, purchased, traded and

consumed. Second, information has value. Better information about products can lead to better purchase decisions. Third, there are costs associated with the acquisition and ownership of information including both psychological (e.g., mental effort) and economic costs (e.g., costs involved in search).

The theory assumes, as do most economic theories, that both buyers and sellers seek to maximize utility (i.e., they behave in their own self interests). This utility maximization goal however, is subject to constraints on resources (e.g., money, time, information processing capacity). Therefore, Stigler proposed that consumers will search for product information as long as the marginal cost of acquiring the information is less than the marginal benefit from the search.

This simple cost-benefit model of information search implies a price distribution will exist since consumers do not have perfect information and must incur costs for information that will assist them in making better purchase decisions. This information cost leads to a distribution of informed customers and consequently a distribution of prices that consumers will pay; presumably, better informed buyers will pay less.

In response to Stigler's conceptualization, several research streams have developed examining different hypotheses the economics of information theory suggests.

## **Information About Price**

Early economics literature focused on the lack of information about prices (e.g., Stigler 1961; Stiglitz 1979) with the principal result that price dispersion can exist in equilibrium markets due to costs associated with acquiring price information (see Ippolito 1988 for a review). Different consumers have different costs and benefits associated with search and as a result some consumers will be better informed than others. The less informed buyers allow some sellers to charge higher prices.

A significant amount of information about products however, is available "free" to buyers in the form of advertising; "free" in the sense that consumers do not have to make direct payment for the information such as buying a copy of Consumer Reports or hiring a consultant, not that it is totally costless. Buyers are likely to be somewhat skeptical about this "free" information since they recognize that the seller is attempting to persuade them to purchase the product and consequently may provide biased information. A major extension to Stigler's work focuses on the verification of advertising claims (Calfee and Ford 1988). The verification issue has been approached in two ways. One research stream has focused on the use of "signals" to provide cues to the "quality" of the product or integrity of the seller. The other research stream has concentrated on the search behavior of consumers.

### **Signaling - Information About Quality**

Within the economics literature, although relatively little had been learned about price as an information cue, attention quickly turned to information about quality (e.g., Akerlof 1970; Klein and Leffler 1981; Nelson 1974; Stiglitz 1987). Akerlof's (1970) classic "lemons" model demonstrated that market collapse can occur when consumers cannot judge quality prior to purchase. Sellers employ the resulting incentive of uninformed buyers to promise high quality goods but deliver low quality goods even though average quality in the market is known. Consumers are willing to pay for average quality but sellers are only willing to sell products at less than average quality at average quality prices. Consequently, consumers' average quality judgments are lowered. This spiral continues until the only products in the market are of lowest quality. Higher quality producers are driven from the market since consumers are not willing to pay prices higher than the average market quality. One way to avoid this collapse is if consumers can judge the quality of products prior to purchase either due to

the nature of the product or as a result of "signals" or cues that can be used to infer product quality.

Nelson (1970) initiated a more specialized area of research within the economics of information paradigm called "signaling." A signal is a bit of information that a seller can provide to consumers that can improve the predictability of another bit of information (Nelson 1970; Ippolito 1988). Signals such as price, advertising intensity, warranty, reputation, brand name, and scale are considered to provide information about other aspects of a product such as performance, reliability, durability, or more commonly, overall quality. A signal is revealed to the market at some cost to the seller. In order for a bit of information to serve as a signal for a product characteristic, there must be:

- (1) observable differences in the product characteristic across sellers,
- (2) differences in the cost of providing the signal across sellers, and
- (3) a correlation between the signal and the product characteristic desired by buyers (Monroe 1990).

In an attempt to demonstrate (3) above, researchers have investigated any actual positive correlation between price and "objective" product quality (Gerstner 1985; Curry and Riesz 1988; Tellis and Wernerfelt 1987). From the economist's point of view, if no positive correlation exists, then price does not satisfy the requirements for a signal. However, consumer researchers would claim that consumers need only to perceive a correlation. The relationship has been found to be substantially weaker than expected and inconsistent across products (Monroe 1990).

A cogent explanation for these results is that the "objective" quality concept does not capture the quality of the product as the consumer perceives quality. There are

two reasons why objective quality may not equate to perceived quality. First, perceived quality is a psychological perception and hence, a subjective judgment that is influenced by factors that may effect the evaluation. Although it is likely that subjective quality judgments and objective quality would correlate, research in the psychology of perception has demonstrated that cognitive processing is not perfect and perceptions are rarely exact images of the object being perceived (Bettman 1979;, Bruner 1968; Gibson 1960, 1966; Neisser 1967, 1976). Consequently, marketing researchers began to study the relationship between price and subjective quality judgments, or perceived quality (e.g., Monroe 1973; Monroe and Krishnan 1985; Olson 1977; Zeithaml 1988) (see Rao and Monroe 1989 for a review). Although statistical test results appear somewhat mixed in that the relationship between price and perceived quality is strong in single-cue studies and seemingly inconsistent in multicue studies, an integrative review of the literature demonstrated that the principal result of this work is that consumers do use price to infer quality although other cues (e.g., brand name) are also important (Rao and Monroe 1989).

A second reason for this weak empirical relationship across both research streams may be that quality, whether objective or subjective, has been defined from a more rational cognitive perspective. The primary difference articulated between objective quality and perceived, or subjective, quality is the consumers ability to judge objective quality accurately. Even with this extension from objective to subjective quality, results do not appear to be as strong as one might expect given the cogent arguments presented by Scitovszky (1945) and Stigler (1961). A logical conclusion is that there is more involved in forming subjective judgments of product quality than the rational cognitive evaluation of a product's attributes, regardless of the consumers' ability to do so. One possibility is that consumers may attach value to noncognitive aspects associated with the product. For example, affective responses to the product may influence buyers

evaluative judgments (Compeau 1990).

Economic research in this area has mainly concentrated on the signaling of quality via price (e.g., Akerlof 1970; Alcaly and Klevorick 1970; Lambert 1980; Wolinsky 1983; Milgrom and Roberts 1986; Stiglitz 1987). In sum, the results of this research area suggest:

- (1) if buyers use price to infer quality then a positive slope demand curve can result, equilibrium may not be characterized by demand equal to supply, and firms may not lower prices in response to downward shifts in the demand curve or in response to price cuts by competitors since this action may signal a deterioration in quality,
- (2) when price is the only cue, buyers tend to associate higher levels of quality with higher prices, and
- (3) price is only one of several cues (e.g., brand name, store) that buyers may use as indicators of quality.

However, Stiglitz (1987) convincingly argues that all that is required for price to play a role in conveying quality information is that there remain some buyer uncertainty in the selection. In other words, as long as the buyer is the least bit uncertain as to the best product to buy, price will convey information about quality to that buyer.

More recently, both economists and marketing researchers have begun to investigate other signals such as advertising (Nelson 1970; Klein and Leffler 1981; Milgrom and Roberts 1986; Devinney 1987; Kirmani and Wright 1989), reputation (Shapiro 1983), warranty (Nelson 1970; Cooper and Ross 1988; White and Truly 1989), and scale (Devinney 1988). In general, the results suggest that all of these cues appear to be used as signals in the market, however there is little evidence as to when and under what circumstances buyers will use which signals.

## **Search**

A significant amount of research attention within the economics of information literature has focused on "search." Additionally, there is a substantial body of work examining search in the cognitive based consumer behavior research area. Although not actually a part of the economics of information stream of research, a review of this body of literature is included since it makes a contribution and is relevant to the issues at hand.

Stigler (1961) defined search as the canvassing of sellers to ascertain information. This definition has been expanded to include sources of information other than sellers (e.g., independent consumer magazines) and to interpret more broadly the term "canvassing" to include most any activity involved in information acquisition. The central issues here are the amount of search consumers perform, the determinants of search behavior, and the impact of search on purchase decisions and behavior.

Given that consumers tend to be skeptical of advertising claims, Nelson (1970) recognized that products may be classified according to the verifiability of claims made about them. Nelson posited two classes of goods: search goods and experience goods. According to Nelson, buyers are less likely to be skeptical of claims that can be verified prior to purchase (i.e., during search). Products, or more accurately, product attributes, for which claims can be verified prior to purchase are "search" attributes. Buyers are likely to be more skeptical of claims concerning product attributes that can be only verified after purchase, or when the buyer consumes, or "experiences" the product; these attributes are called "experience" attributes. Finally, Darby and Karni (1973) extended Nelson's framework and suggested that some products and services are so technically complex, buyers may never be able to verify claims made about the product. Buyers should therefore be most skeptical of claims about these "credence" attributes.

Goldman and Johansson (1978) found that consumers' general ability,

knowledge of the market, and experience in the market were not significantly related to search. Similarly, Ford, Smith, and Swasy (1988) attempted to categorize claims as search, experience, or credence claims and concluded,

"the implicit assumption of the information economists that ad claims can be unequivocally assigned to one category or another, and that consumers are likely to engage in the level of processing that this task would require, is a weak assumption at best" (p.243).

On the other hand, consumers are skeptical of advertising claims, consistent with the assumption of the economics of information theory (Calfee and Ringold 1988). As suggested by Darby and Karni (1973), Drumwright and Kane (1988) found that hospital/surgical services appear to be credence products in that consumers were not informed about prices and could not evaluate quality even after consumption. In the most comprehensive test to date, Ford, Smith, and Swasy (1990) provided support for Nelson's (1970) framework. Consumers were more skeptical of experience than search attribute claims. Moreover, consistent with Nelson (1974), consumers were also more skeptical of subjective claims (vague and imprecise) than of objective claims (precise and more easily verified). Conversely, no statistical support was found for the Darby and Karni (1973) suggestion that consumers will be more skeptical of credence attribute claims than experience attribute claims.

These results may be due to an insufficient distinction between experience and credence goods or attributes, or the methodology may not have been strong enough. However, it may be that consumers are not more skeptical of claims made about credence products even though they cannot evaluate the quality of these products even after consumption. One explanation for these seemingly inconsistent results may be that consumer skepticism is based on factors other than the rational cognitive information that is typically measured.

A second stream of research examines the amount of search consumers perform. According to the economics of information theory, consumers should search

until the marginal cost of additional search exceeds the marginal benefits. This cost-benefit relationship suggests that a significant amount of search would be expected for many products, especially for high priced products and products with wide quality and price dispersions where the benefits of search would appear to be the greatest.

The results of empirical research on the amount of search in which consumers engage however, are overwhelmingly in agreement; consumers search very little, even for expensive products such as cars (Andrews 1990; Katona and Mueller 1955; Morgan 1988; Newman and Staelin 1972; Ratchford 1982; Ratchford and Gupta 1987; Ratchford 1988; Wilkie and Dickson 1985). Consequently, researchers have attempted to identify determinants of search behavior to explain the inconsistency between the theory and the empirical results.

Newman (1977), after an exhaustive review of field studies investigating the determinants of search, ascertained that only three conclusions could be drawn with confidence from the literature. Search increases when (1) the consumer believes that the purchase is important, (2) there is more that needs to be learned, and (3) the information needed can be easily acquired and used.

Prior knowledge has been proposed as a determinant of search by both economists and marketers (Weitzman 1979; Ratchford 1982; Punj and Staelin 1983) and empirical evidence is available in the marketing literature (e.g., Goldman and Johansson 1978; Johnson and Russo 1984; Punj and Staelin 1983; Urbany 1986, Urbany, Dickson and Wilkie 1989; see Newman 1977 for a review). The results support three dramatically different conclusions about the relationship between prior knowledge and search, if any relationship exists at all.

Several studies have found a negative relationship between prior knowledge and search (Anderson, Engledow, and Becker 1979; Katona and Mueller 1955; Moore and Lehmann 1980; Newman and Staelin 1971, 1972; Swan 1969; Urbany 1986). This

negative relationship may exist because consumers with prior knowledge about the product alternatives do not need additional information. On the other hand, it may be that consumers with prior knowledge can search more efficiently (e.g., faster and better screening of useful attributes). In direct contradiction with these results, some models of consumer search behavior posit a positive relationship between prior knowledge and search based on the notion that prior knowledge makes it easier (i.e., lowers the cost) to process new information and thus promotes information search (Johnson and Russo 1984; Punj and Staelin 1983). Some empirical support has been found for this relationship (Jacoby et al. 1978; Brucks 1985).

A third group of studies has found an inverted-U shaped relationship between prior knowledge and search (Bettman and Park 1980; Hempel 1969; Johnson and Russo 1984). The previously inconsistent findings of both positive and negative relationships can be explained by the inverted-U relationship. Punj and Staelin (1983), and Brucks (1985) however, found no support for the inverted-U shaped relationship. Punj and Staelin (1983) found a negative and linear relationship between knowledge about the choice alternatives and search. Brucks (1985) found a positive and linear relationship between objective product class knowledge and search. However, Punj and Staelin (1983) identified two unique components of prior knowledge with different effects on search behavior; specific product knowledge causes less search and general product-class knowledge causes more search, consistent with Brucks' results. Higher search costs were also found to reduce search. An unexpected finding was that although satisfaction was related to cost savings, it was not related to search suggesting that consumers will only be satisfied as a result of more external search if this search results in cost savings. However, other search goals were not examined. Satisfaction may result from obtaining the product at a lower cost, but satisfaction may also occur due to purchasing a "better" product at a similar cost. "Better" may simply be a color that the

consumer likes more and does not necessarily imply a higher standard of objective quality. Consequently, no cost savings are involved.

Finally, a few studies have reported no significant relationship between prior knowledge and search (Bennett and Mandell 1969; Brucks 1985; Claxton, Fry, and Portis 1974). The nonsignificant relationship found by Brucks (1985) was between subjective knowledge (i.e., confidence in what consumers think they know) and search.

In an attempt to explain some of these inconsistent findings, Urbany, Dickson, and Wilkie (1989) focused attention on the different forms of uncertainty (knowledge uncertainty versus choice uncertainty) that consumers may have about their prior knowledge. They found that knowledge uncertainty (uncertainty regarding what is known about the alternatives) had a weak negative effect on search. Taken together with the majority of studies that have found a negative relationship between prior knowledge and search these results suggest that consumers will search less if levels of prior knowledge and confidence in that knowledge are greater. The researchers suggest that greater knowledge uncertainty may reflect higher costs of search. One implication of this hypothesis is that consumers may resort to simpler decision heuristics due to these high search costs and not search for the more rational cognitive information, but instead, search for other types of information that may be less costly. One possibility is information about how the consumer would "feel" if the product were purchased. Affective responses have been hypothesized to involve much less effort than cognitive responses (Hoffman 1986; Zajonc 1980).

Unrelated to knowledge uncertainty, choice uncertainty (uncertainty regarding which alternative to choose) increased search behavior (Urbany, Dickson, and Wilkie 1989). A seemingly serendipitous finding of the Urbany, Dickson, and Wilkie (1989) study is that consumers could express high uncertainty about their knowledge, and yet also articulate high levels of confidence about their choice. Moreover, these consumers

tended to search less than consumers who expressed both low knowledge and choice uncertainty. In other words, consumers were certain about which brand to choose, which model to select, and at which store to shop even though they were uncertain about the availability of features, the performance of different brands and models, and the most important considerations in making the purchase choice.

These results suggest that buyers can be confident in the choice they make even though they lack confidence in their knowledge about the factors that have been hypothesized to influence the choice. This raises the question, upon what then is this choice confidence based, if not on factors such as features and performance? One explanation, and a central thesis of this paper, is that affective factors may influence consumers' evaluations, search behavior, and consequently choice.

In sum, the results are not clear regarding the relationship between prior knowledge and search, if any relationship exists. However, given the evidence, it appears at this point that specific product class knowledge, combined with confidence in that knowledge, reduces search since less information is needed. General product class knowledge appears to increase search because search efficiency is enhanced. Search also increases with the importance of the purchase and when consumers believe that the information needed is easily acquired and utilized.

## **Conceptual Issues**

Research interest in the economic theory of information has recently increased in the marketing literature. The economic theory of information seemingly explains certain aspects of consumer behavior in a concise manner, yet attempts to validate the theory empirically have yielded weak and mixed results. This situation may be due to certain conceptual constraints implied by the theory and methodological weaknesses in the empirical testing of the theory. This section discusses the conceptual issues. As is

usually the case, methodology implies theory and vice versa; consequently, the two cannot be completely segregated. Therefore, some of the issues discussed represent both conceptual and methodological issues.

**1. The rational buyer assumption (*homoeconomicus*).** The frequency and potency of criticism levied against the seemingly unrealistic assumptions made by most economic theories does not render that criticism less worthy of mention here. The assumption of buyers as rational, logical information processors that selfishly seek to maximize utility by making efficient use of all available information (*homoeconomicus* or REM: rational economic man) is a naive assumption and bears little resemblance to buyers in real markets (Etzioni 1988; MacFadyen 1986; Monroe 1990; Olshavsky and Granbois 1979). Consumer researchers, who are often at the forefront in leveling criticism against the rational economic man assumption, are not however, totally exempt from the criticism of making unrealistic assumptions. The information processing paradigm so predominant in consumer research also assumes that consumers are rational "computer-like" information processors (Bettman 1979; Russo 1988), although the assumption of perfect information and utility maximization is usually relaxed. As a result, the focus of most research is on the cognitive rational aspects associated with behavior. Moreover, it would not be appropriate for economists to completely withdraw from the *homoeconomicus* assumption since critics have no alternative theory to replace REM; certainly psychologists cannot provide a complete theory of human behavior (MacFadyen 1986). However, as the body of research on human behavior grows, the knowledge gained can be integrated with the economic theory and certain assumptions, such as utility maximization, perfect information, and rationality relaxed or even discarded altogether.

Stigler's economics of information model assumes that the consumer can

decide a priori the number of searches s/he will undertake and that once search has concluded select the "best" alternative. This assumption is problematic since it is highly unlikely that consumers will know how many searches to undertake prior to any search activity. Moreover, the "best" alternative is usually determined by focusing on cognitive rational evaluations of the products' attributes. The theory does not recognize any consumer emotions. The implicit assumption is that consumers do not allow feelings to influence their judgments, search behavior or choice. This narrow view of the consumer is not justified in light of recent research investigating feeling states (affect) and their effects on consumer behavior (e.g., Gardner 1987; Isen 1984; Isen et al. 1978; Wilson et al. 1989).

Including affect in the economic theory of information may provide insight into the stark contradictions between the theory and the empirical results. As Calfee and Ford (1988) conclude:

"We are left with conflicting results. On the one hand, theory with a high degree of face validity argues that consumers will search for information until marginal benefit equals marginal cost, and argues that consumers will be skeptical of advertising for experience and credence attributes (especially for high-priced products). This suggests a high level of search. But as noted above, consumers do not search much."

It seems likely that consumers would spend a great deal of time and effort on search on at least major purchases, however as Morgan (1988, p. 278) so eloquently summarized the empirical results thus far,

"Briefly put, there was, even in major purchases, a startling lack of deliberation, of specification of qualities, of consideration of brands, or of visiting of stores, and not even a substantial span of time from thinking of buying to purchase...the overwhelming finding in search of an explanation is the casual purchase-without-choice, even for cars."

It is clear that consumers just don't search as much as would be expected. One possible explanation is that a consumer's decision to stop searching is based on factors usually not considered in the rational cost-benefit model. Specifically, affective states may influence search behavior.

**2. *Homoeconomicus extended* - The implicit assumption that information and information search is always rational and cognitively oriented and equating signals to cognitive rational information precludes including other forms of information.** Another conceptual issue involves an extension of the *homoeconomicus* assumption to the signaling literature. Thus far, only cognitive oriented rational signals have been considered to be part of the theory. Price, advertising intensity, warranty, reputation, brand name, and scale are conceptualized as signals in terms of consumers' cognitive rational evaluations of the relationship between these signals and the predictive attribute. For example, from a behavioral perspective<sup>1</sup>, price is a signal of quality if consumers rationally assess a correlation between price and quality and make the logical conclusion that sellers will charge higher prices for higher quality products. This approach is completely devoid of any role that feelings may play in the process.

Although some products are purchased mainly for their utilitarian performance attributes (cognitive rational attributes) (e.g., computers, appliances) others may be purchased for the way the product will make the buyer feel (affective nonrational attributes) (e.g., movies, musical recordings, haircuts). Most products are probably a mix of both cognitive and affective attributes. It is likely that consumers' feeling states will impact on their use of signals (Isen and Daubman 1984; Gardner 1987). Moreover, some signals may specifically be used by consumers to predict affective responses that will result from the purchase of a product. For example, the choice of a brand name by managers is often made with consideration for its affective suggestion. Brand names for cars like GTO, Gran Sport 400, Laser, the classic MUSTANG, and the new Dodge Viper signal affective experiences such as excitement and fun. On the other hand, CONTINENTAL, MARQUIS, and PARK AVENUE suggest feelings of indulgence,

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<sup>1</sup>The term "behavioral" is not used here to refer to the classical Skinnerian behaviorism paradigm of psychology, but to differentiate between the economic approach which assumes a consumer's behavior, and the consumer behavior approach which studies consumer behavior.

distinction, importance and greatness.

**3. The overly restricted scope in the conceptualization of utility.** Economists assume that consumers maximize their utility functions, yet there are many behaviors that do not fall in line with this thinking (Frank 1986). Kahneman and Tversky (1979) and Thaler (1985) are just two examples of research that has consistently demonstrated that consumers' behavior does not follow the traditional economic prescriptions. For example, the slope for losses is steeper than for gains in the value function (a psychological extension of utility) (Kahneman and Tversky 1979; Thaler 1985). This suggests that consumers act differently to an equivalent economic situation when framed differently as either a loss or a gain. Usually the explanations for these nonrational behaviors center on explicating a complex and long chain of cognitive events that somehow "distort" a logical solution. However, a more complete explanation is that the consumers also allow their affective states to influence their behavior. The concept of utility, although rarely explicitly defined, usually refers to satisfaction in some rational economic terms. Traditional economic analysis accepts the utility function as datum (Frank 1986). Although this utility function is conceptualized as involving the satisfaction derived from different types of goods and often includes a risk element, specific provisions for affective states are usually not included. Yet, certainly it seems that there is utility and disutility associated with feelings such as contentment, happiness, excitement, fear, anger, and guilt. Instead of accepting the utility function as a given entity, the scope of utility needs to be expanded to include feeling states. There does not appear to be any choice in this matter. If economists insist on defining rational behavior as selecting actions which maximize utility, and given the substantial body of evidence that nonrational behavior is prevalent, either the entire rational choice framework must be dismantled or the concept of utility extended (Frank 1986).

**4. Comparisons across studies both within a research stream and across research streams, are difficult because of (1) de facto conceptual definitions as the result of the operationalization (i.e, a general lack of conceptual definitions) and (2) the diversity of conceptual definitions when they are provided or can be inferred.**

Focusing on the primary dependent variables of quality and search, and independent variables of price and prior knowledge, the lack of a programmatic stream of research has led to divergent conceptual definitions of these constructs. Since many conceptual definitions have been implied through operational definitions, this issue also is a methodological concern. This variation across studies hampers any effort at synthesis since it is unlikely that the research is attempting to measure the same thing. Because the research is in its early stages, there is a lack of a theoretical foundation that can provide for more consistent conceptual definitions. One component of a conceptual definition is systemic, that is, the relationship of the construct to other constructs in a system or theory (Peter 1981). If theory is unknown or weak, then it is likely that conceptual definitions will be weak or nonexistent. Although the economic theory of information has a great deal of face validity, when this theory is applied in other research domains, such as consumer research and psychology, the meanings of the constructs change (Anderson 1983, 1986). Consequently, the constructs are vague and confused.

Search has been conceptually defined as "canvassing" (Stigler 1961) and operationally defined (often without any reference to a conceptual definition) as the number of attributes examined, number of brands considered, number of stores shopped, number of information sources used, amount of time spent on search activity, and lapse of time between first consideration and purchase. Are these measures all indicators of a single unidimensional construct of search, or are researchers tapping different concepts or dimensions? Recent evidence suggests that search may be multidimensional since different relationships seem to exist with independent variables

depending on how search was measured (e.g., Brucks 1985; Urbany, Dickson, and Wilkie 1989). For example, search may involve the dimensions of motivation for search, length of time, effort involved, quantity of information processed, and efficiency of processing. As an illustration, search performed to increase confidence in a choice decision appears to be different dimensionally from search performed for psychological benefits (e.g., pleasure, achievement); consequently, the dimension of motivation for the search may differentiate search behavior.

Quality has been viewed as both "objective" and "subjective." Prior knowledge has been defined as knowledge about the product class, knowledge of individual product attributes, prior experience in the market, and as objective or subjective. Even price has been defined differentially. Economists tend to view price as an objective entity that has a single meaning. Consumer behavior researchers and psychologists view price as a psychological concept, a perception of a stimulus where meaning is attached to the physical stimulus.

Although other evidence is available, it should be readily clear at this point that systematic attempts to conceptually formalize the constructs would be beneficial. For example, much of the price-quality research has been atheoretical. Recent attempts to provide a comprehensive theoretical model can be found in Grewal and Monroe (1990) and Zeithaml (1988). Similar efforts are needed for search.

**5. Lack of recognition of individual differences.** Differences in individual consumers' approaches to product evaluation and search have rarely been incorporated into models of search. An obvious exception is Punj and Staelin (1983); they found that individual differences in the level of consumers' desire to seek information was an important factor in explaining search behavior. It is likely that differences in other behavioral goals would be relevant in understanding search behavior. For example, some consumers may be

price oriented, the goal is to find the lowest price. Other consumers may be quality oriented with a goal of finding the best quality. Still other consumers may be fun oriented where the goal is to have fun searching and shopping.

Nelson's (1970) classification of product attributes assumes homogeneity of knowledge across consumers. That is, in order for product characteristics to be labeled as search or experience attributes, all consumers must view the attributes in the same way. This is simply another way of stating the rational economic man assumption at the aggregate level and has the same lack of validity. Experience attributes for some consumers will be search attributes for other consumers, depending on their prior knowledge or expertise. For example, to a novice, the claim that a computer is fast may be an experience attribute. The only way for the novice to tell if the computer is fast is to work on it. An expert on the other hand might check the speed of the disk drive and the clock speed of the processor, examine if cache memory is used and so forth to render the claim a search claim. The expert can tell without ever using the computer whether or not the computer is fast. Moreover, differences in levels of knowledge have been shown to impact product evaluations (Rao and Monroe 1988).

There is also evidence that there are differences in the types of knowledge a consumer may have (Punj and Staelin 1983; Brucks 1985; Urbany, Dickson, and Wilkie 1989). General product class knowledge, specific product attribute knowledge, objective knowledge, subjective knowledge, knowledge uncertainty, and choice uncertainty appear to be relevant aspects of prior knowledge.

The current focus on prior knowledge seems restrictive given the variability in levels and types of knowledge. Alba and Hutchinson (1987) propose two major components of knowledge: familiarity and expertise. Familiarity is the level of accumulated product-related experience and expertise is the ability to perform product-related tasks successfully. Research on search appears to have only accounted for the familiarity

component of knowledge. Future research should also incorporate expertise.

The current economic theory of information does not account for any affective responses within the search process or as a result of the process of search. It is likely that some of the stimuli encountered in the search process will elicit affective responses. A store's decor, background music, a friendly salesperson, the smell of the interior of a new car are all examples of more sensory stimuli that can elicit affective responses. These affective responses may influence the search process. Moreover, mere affective expectations may influence the search process. For example, a buyer performing search may know that the rational and logical way to maximize "utility" would be to continue to search since this is the first set of stereo speakers that s/he has examined. Note that utility here is defined in the traditional economic manner. Yet, the consumer's logical process is overwhelmed by the affect associated with getting the new speakers home and hooking them up to the stereo system, reading the literature about them, calling friends to come over and listen to them. This affective expectation interrupts the search process and the buyer decides that "utility" includes the utility of experiencing an expected affective state as soon as possible; the purchase is made without further search. It is likely however, that the buyer, upon leaving the store and queried as to why the purchase was made, would focus on product attributes such as quality, price and availability to cognitively justify the decision (Zajonc 1980).

Some consumers may get pleasure from the search activity itself (i.e., shopping around) while others may find search unpleasant. Consumers who view search as a pleasant social activity are likely to engage in more search. In this instance, utility might include the psychological utility that is derived from the search process itself (Wilkie 1988). The role of affect in the search process appears to be an important issue.

**6. The boundaries of the economic theory of information have not been established.** In the research on search, economists and marketers have primarily concerned themselves with products where a significant amount of search would be expected due to a high price (e.g., cars, major appliances). Consequently, it is not known whether the limited amount of knowledge available applies to search behavior for products with lower prices where lower levels of search would be expected. Moreover, no consideration has been given for exactly what constitutes "information." It appears to be implicitly assumed that information means rational cognitive-oriented data. However, the social psychology and communication literature suggests that information can be transferred via affective responses as well as the more rational cognitive responses (e.g., Sypher, Sypher, and Haas 1988; Buck, 1984). To the extent that affective information communication operates, the implicit assumption of the boundary of the theory to include cognitive data only renders the previous work incomplete.

**7. The terms "cost" and "benefit" have been used inconsistently. Moreover, the current conceptualizations are too narrow in scope.** The conceptual definitions of cost and benefit within the economics literature are direct derivations of the concept of utility and include such notions as the opportunity cost of time, actual costs associated with travel to different stores, and direct costs to purchase information (e.g., buyers' guides). Therefore, much of the discussion on the utility concept is applicable here and will not be repeated. Psychologists and consumer researchers have extended these definitions to include some non-economic concepts such as mental effort costs (Shugan 1980). There is no descriptive evidence to date that identifies the elements of search costs from the consumers' perspective. Usually, the cost of search is manipulated by charging the respondent a fee for information, and therefore little is known about how consumers view and use search costs.

Moreover, even the extensions made by psychologists and consumer researchers to include psychological concepts have not gone far enough. The main thesis presented here is that there are affective costs and affective benefits that need to be included in the conceptualizations of costs and benefits.

**8. Lack of theoretical structure for the study of the communication abilities of signals.** The study of signals has proceeded in an exploratory manner without much theoretical guidance. Except for Nelson's (1974) initial thoughts most of the research has attempted to identify whether certain bits of information can be, and are used as signals (e.g., Cooper and Ross 1988; Devinney 1987; Kirmani and Wright 1989; Klein and Leffler 1981; Lambert 1980; Milgrom and Roberts 1986; Shapiro 1983; Wolinsky 1983). The disciplines of psychology and communication have developed theoretical structures that explain the communication of information (see Sypher, Donohew, and Higgins 1988 for several different approaches). One of the most glaring omissions in the study of signals as communicators of information compared with these conceptual models is the lack of any recognition of the possible role of affect. That is, information has both affective and cognitive components. Thus, signals may communicate both cognitive and affective information.

**9. The study of search behavior has not incorporated uncertainty or risk as a factor.** If the assumption of consumers as perfect information processors is relaxed, search assumes the role of a risk reduction behavior. In other words, search is no longer performed to make an optimal decision, but to reduce the chances of making a poor decision. Consequently, other behaviors that reduce risk can be performed in place of search. In situations where the risk of a poor decision is already low and acceptable, no search behavior may be performed. Behaviors that can reduce risk, other than search,

need to be identified. For example, relying on affective responses (e.g., trust in a salesperson, pleasantness of a store's decor) may reduce the chance of making an unacceptable choice, but would not be captured as search behavior by measures employed to date.

**10. Lack of empirical investigation by economists.** This issue is another example where the conceptual and methodological aspects cannot be separated. Economists rarely put their conceptualizations and analytical derivations to empirical tests. For example, only two studies from the economics literature have empirically tested the price-quality relationship (Cornell 1978; Gabor and Granger 1966). In her review of the economics literature, Ippolito (1988) calls for empirical research for almost every issue discussed. This lack of empirical investigation by economists is a methodological issue as well as a philosophy of science issue. The philosophy of science issue of whether disciplines need to empirically validate their theories is left for others to debate. However, the methodological fallout from this philosophy is to leave researchers outside the discipline to interpret and operationalize the theoretical constructs. Marketing research is often the only source for empirical tests of economic theory. Empirical investigations by economists could provide marketing and consumer researchers guidance in interpreting and operationalizing the constructs. The consumer behavior and marketing literature has a great deal of empirical evidence that can improve economic theory. The economic theories need to be extended and modified to account for this empirical evidence.

## **Methodological Issues**

The major methodological concerns relevant to the economics of information research center on the following issues. These issues have hampered progress and

constrain any substantive conclusions that can be drawn from the literature.

**1. Operationalization of the constructs.** In an integrative review, Rao and Monroe (1989) found that the strength of the manipulation of price was a significant factor in explaining the variance in the relationship between price and perceived quality across studies. It is likely that weak manipulations may also be a factor in the study of the effects of other signals on evaluative judgments. Moreover, Ford, Smith and Swasy (1990) note that it might be better to vary the length of inter-purchase cycles systematically rather than the price to examine any effects of different levels of experience claims on skepticism. Another methodological concern is the use of self-report methods and retrospection for search behavior measures. Although some studies have used simulation methods (e.g., Brucks 1985; Urbany 1986), other studies have asked respondents to think back when they made a purchase and recall information, often temporally distant (Punj and Staelin 1983; Urbany, Dickson, and Wilkie 1989). This method combines all of the biases of self-report measures with the biases and inaccuracies associated with recall measures taken after a significant time period has elapsed (Converse and Presser 1986; Hippler and Schwartz 1987; Rosenthal and Rosnow 1984; Strube 1987). Little confidence can be assumed with this methodology and reliability and validity estimates have been weak (Punj and Staelin 1983; Urbany, Dickson, and Wilkie 1989).

As a logical extension to the conceptual issues that identified the need to incorporate affect into models of search and evaluative judgments, measures also need to be developed to capture any affective responses. Moreover, measurement of search costs and benefits have been based mainly on economic measures. New measures need to be developed to measure the psychological costs and benefits associated with affect.

**2. Confounding.** The operationalization of some variables have caused confounding. Price/product combinations in the price-quality literature are potentially confounded since there is no way to determine if the changes in the price levels or in the types of products caused the change in quality perceptions (Rao 1986).

Research has potentially confounded affect manipulations with the manipulations of the types of claims. For example, Ford, Smith and Swasy (1990) manipulated the type of claim at two levels: objective and subjective. The subjective claims however, tended to use more affect eliciting phrases such as "XX has an extraordinary collection of jewelry," or "XX treats you fairly time after time," whereas the objective claims were more cognitive oriented (e.g., XX trucks are available with V-8 or V-6 engines). Similarly, Kirmani and Wright (1989) manipulated advertising campaign elements. Again, there is a potential confound with affect. The more expensive campaigns were described as advertisements that would appear on television shows that were "filmed at an exotic European location; special laser visual effects were used," with a spokesperson described as "a TV or movie star like Linda Evans or Sally Field." Contrast that description with the low cost campaign described as "filmed at a TV studio; no special visual effects are used," with a spokesperson described as "a female homemaker/worker." It is likely that these two images are going to elicit different affective responses as well the more rational cognitive responses and both types of responses will likely influence the respondents' quality perceptions of the product.

Costs have also been confounded with benefits due to the assumption of the "average" consumer, or homo-economicus. For example, it is assumed that all consumers view time and mental effort spent on search as a cost. However, this assumption may be challenged. Some consumers may view shopping as a social experience that is enjoyable and consequently a benefit (Guiltinan and Monroe 1980). Mental effort may be a stimulation or arousal that is also welcomed as a benefit. Hence, costs for some

consumers may be benefits for others.

**3. Lack of programmatic method variance.** A majority of the empirical evidence examining the economics of information from the marketing literature relies on surveys that often take place months after the purchase. Although the biases that may be introduced by memory have already been discussed, this reliance on the survey method also has other methodological implications. All methods are flawed (McGrath 1982) and when an area of study relies predominantly on one method, the ability to draw conclusions about the validity of the theory is diminished. In other words, method implies theory, and to be monomethod is to be monotheoretical since the method cannot be separated from the theory. For instance, the survey method may be a critical factor in explaining the weak results in terms of explained variance. Studies relying on the recall survey method report total explained variances of 1% (Punj and Staelin 1983), 6% (Andrews 1990), and the highest is 11% (Punj and Staelin 1983). In contrast, Goldman and Johansson (1978) using panel data that was recorded at the time of the purchase explained 14% of the variance in search. Consumer research studies employing experiments have explained over 30% of the variance in certain search behaviors (Brucks 1985). These differences in explained variance could be due to differences in models; however this issue cannot be resolved until similar models of search are tested using different methods. Moreover, as the body of literature grows, empirical tests of the effects of method can be performed via meta-analysis (Hunter, Schmidt, and Jackson 1982).

**4. Nomothetic approach.** Understanding behavior at the individual level is the focus of idiographic research. Nomothetic research draws inferences about groups of individuals. Considerable error occurs when nomothetic inferences are applied to individuals

(Jaccard and Wood 1986). All of the economic-based literature is performed at an aggregate level and hence can be considered as nomothetic research. Consumer research is also primarily nomothetic even though responses from individuals are obtained; these responses are aggregated to perform statistical tests using means, standard deviations, and correlations (e.g., ANOVA, regression, LISREL). The conclusions drawn from these analyses, therefore, are only relevant at the aggregate level of analysis; however, they are often mistakenly interpreted as applicable to each and every respondent.

Consequently, the substantive results that were discussed previously do not contribute to the understanding or prediction of individual search behavior. Idiographic research is required to determine if these results are applicable at the individual consumer level. On the whole consumers search very little; the search behavior of any individual consumer in a given situation, however, is still unknown.

### **Summary of Major Limitations**

One major limitation that appears to cut across many of the issues discussed here is the lack of consideration for any role that feelings or affect might play in the processes of search and evaluation. This myopic view of the cognitive-oriented rational consumer combined with the methodological weaknesses due to the lack of a programmatic research structure suggest a significant deviation from the previous course is required to gain additional insight into why consumers don't search as much as might be expected.

# RESEARCH ON AFFECT

The research on affect has grown rapidly in the last ten years. It appears that as the information processing paradigm became entrenched in consumer research, the empirical results suggested that cognition was not the only important factor in explaining consumer behavior. Researchers then turned to the more "feeling" side of behavior. The research reviewed here comes primarily from two disciplines, psychology and consumer behavior. A few studies from the communications literature directly relevant to the research question are also included.

This section provides a review of the relevant affect literature. First, substantive results are discussed followed by presentations of the conceptual and methodological issues. The substantive domain review is organized by the different dependent variables investigated. Finally, a summary of the major limitations is provided. The purpose of this review is to highlight the substantial evidence available for the effects of feeling states on behavior. Before this review can proceed however, there must be an understanding as to the conceptual meaning of affect.

## **A Conceptual Definition of Affect**

Affect is a generic global term that has been used to refer to many different concepts such as moods, attitudes, emotions, evaluations, and preferences (Pieters and van Raaij 1988a). In prior research, affect has been conceptualized as (1) a positive or negative feeling state with no reference as to a more specific form (e.g., pleasantness, happiness, joy), (2) a mood, (3) an attitude, (4) specific emotions, (5) an overall evaluation, and (6) a preference (Peterson, Hoyer, and Wilson 1986). Compeau (1990) identified five dimensions of affect that discriminate among these different forms: object

of reference, causal specificity, intensity, cognitive effort, and duration. Although often used interchangeably, affect, emotions, preferences, attitudes, evaluations, and moods can be disentangled by examining the relative location of each along these five dimensions. Figure 1 illustrates these five dimensions of "feeling states."

Although there is overlap between the different types of feeling states along one or more of the dimensions, this five dimensional conceptualization of feeling states does assist in separating and defining more accurately the different aspects of feeling states. Moreover, the dimensions point to differences that allow one feeling state to be defined in terms of how it is similar and how it is different from other feeling states. For example, moods generally do not have an object of reference, that is, a mood is not directed at something specific. People aren't in a bad mood towards something. Moods permeate the entire lived-world of the person; they are not directed at a specific object of reference. Sometimes moods may be attributable to a specific cause, for example a poor grade on an exam, or an argument with a loved one, however, in some instances a mood may not have any identifiable cause, such as when one "wakes up in a bad mood." Thus, for the dimension of causal specificity, moods may lie anywhere along the dimension. Generally, moods do not need a high level of cognitive effort in order to pervade everyday living. It is not necessary that one think a great deal in order to elicit a mood. Moods just seem to happen, to be there. On the other hand, deliberation about a particularly sad or happy event appears to be able to heighten the strength of the feelings. For example, it is often suggested that one "will feel better if you take your mind off it," indicating that not thinking about a particularly sad event will reduce the negative mood associated with it. Moods also can vary in intensity and duration. Some moods are strong and seem to disrupt daily activities. Other moods simply exist in the background of the day. Some moods may last months while most moods seem to dissipate rather quickly, often lasting only hours.



**FIGURE 1: A FIVE DIMENSIONAL VIEW OF FEELING STATES**

There appears to be a correlation between the intensity of the mood and its duration; that is, more intense moods seem to last longer. Thus, in general, moods are pervasive, often without any object of reference, involve little cognitive effort and are relatively short in duration.

Attitudes, on the other hand, are focused, have a specific object of reference, involve considerable cognitive effort and last longer than moods. A great deal of confusion surrounds the relationship between attitude and affect. Unidimensionalist views of attitude equate attitude and affect (Lutz 1981). Tripartite views of attitude consider affect as one component of the overall evaluation or attitude (Lutz 1981). In either case, attitudes are the result of a long sequence of cognitive evaluations. Although the cognitions may be forgotten and the resultant "feeling" remembered, it is nonetheless primarily a cognitive-based evaluation (Fishbein and Azjen 1975). Emotions or feeling states influence evaluations, but the word attitude, given its historical use, is just not appropriate to describe these feeling states. Moreover, there is evidence to support the conceptual difference between an evaluation and affect.

Breckler and Wiggins (1989) found evidence of discriminant validity for the distinction between affect (emotional responses and feelings engendered by an attitude object) and evaluations (thoughts, beliefs, and judgments about an attitude object). Furthermore, affect and evaluation were both correlated with attitude, even after partialling out the effects of one from the other. Finally, affect was correlated with independent measures of mood, but evaluation was not. These results suggest that affect is conceptually distinct from attitudes and evaluations. Others have found similar results (Bagozzi and Burnkrant 1979; Breckler 1984; Burnkrant and Page 1982; Bagozzi, Tybout, Craig, and Sternthal 1979).

In general, the research suggests that attitudes, evaluations, and preferences are caused by a specific object or event and are focused toward an object of reference. In

other words, people have attitudes toward something, they evaluate something, and they prefer something over other things. Moreover, however difficult it may be to precisely identify them, there usually are identifiable causes. For example, one may prefer one product over another because of its lower price; one may have a negative attitude toward Ford cars since her father never liked Fords. Attitudes are more enduring than moods, evaluations, or preferences. The intensity of attitudes seems to vary. Some attitudes are very intense, particular toward other people. Finally, attitudes, preferences, and evaluations involve considerable cognitive effort.

Emotions are feeling states that tend to be immediate responses to specific stimuli, last a short period of time, involve some cognitive effort, are directed at a specific object of reference, and are very intense. By examining the relative positions of different feeling states, or affect, conceptual discrimination between them is possible.

The focus of this research is on the everyday, low-level feeling states, or affect, that are low in intensity, last only for a short period of time, are directed at and caused by a specific object of reference, and involve little cognitive effort (e.g., happiness, disgust, fear, pleasantness) referred to as affective responses (Isen 1984). This form of affect is conceptualized as a more immediate response that may influence attitudes, evaluations and preferences, or may evolve into a mood, but is conceptually distinct because it is not enduring, it is always low in intensity and involves little cognitive effort. It is important to study these feeling states because they are relatively subtle and induced by relatively small things and consequently may occur frequently (Isen 1984). Strong emotions are not considered here; that strong emotions can effect behavior is widely accepted (Plutchik 1985; Plutchik and Kellerman 1980).

Although at times little or no cognitive effort is required for an affective response to occur, it does not suggest that cognition does not play a role in affective responses. As the conceptual model presented later clearly lays out, cognition may have

a large and significant role in affective responses. The point here is that significant cognitive effort is not always necessary for an affective state to occur, whereas attitudes, evaluations, and most preferences suggest significant cognitive effort. Some preferences may be based solely on affect (Zajonc 1980); however, the two are not equivalent since a feeling state may not be in the form of a preference, and a preference does not always have to be based solely on a feeling state.

Finally, the affective responses of concern in this research are conceptualized as providing information for the consumer. Consumers use the feedback on how they "feel" as input into other cognitive processes. Therefore, one of the major characteristics of affect is its informational nature; it can be communicated and used in decision-making situations.

### **The Influence of Affect on Memory and Cognitive Processes**

Because memory is often considered an integral component of decision-making, risk evaluation, evaluation, and judgment, it is difficult to completely separate the literature on memory from these other areas. Usually, affective states are thought to influence decision-making, risk evaluation, evaluation and judgment via memory. Results from studies examining primarily other variables are included here if memory was also investigated.

Most of the early work on the influence of feeling states on memory and memory processes concentrated on moods (Gardner 1985; Isen 1984). Reviews by Isen (1984) and Gardner (1985, 1987) suggest that affective states, both when information is stored and upon retrieval, can influence information recall; moreover, affective states can increase the accessibility of mood congruent thoughts associated with a particular behavior in memory. Bower (1981) refers to this phenomenon as "state-dependent" memory.

An exemplar of the research that led to these conclusions is a study by Isen, Shalke, Clark, and Karp (1978). The results of two experiments were reported. In the first experiment respondents in a shopping mall were given free gifts (notepads for females, nail clippers for males) thereby inducing a good mood. About 50 yards down the hall, the respondents were asked to participate in an ostensibly unrelated consumer opinion survey and describe and provide evaluations of products they owned (automobiles and televisions). The inducement of a good mood was found to improve the respondents' evaluations of performance and service records of their products. In the second experiment a good mood was induced by respondents winning a computer game in a laboratory setting. Respondents in this experiment who had won the game were better able to recall positive material in memory.

These results supported their conceptual model which posits that people in a good mood are more likely to retrieve positive material from memory and that this improved access to positive material affects decision-making processes. Specifically, it was proposed that thoughts associated with the good mood will serve to cue other positive material in memory; i.e., good moods serve as a memory retrieval cue, a "cognitive loop." Consistent with the cognitive loop hypothesis, Lawson (1985) found that mood was associated with better recall for mood congruent product information; however, mood did not affect recognition memory. These results suggest that recall is more sensitive to mood effects than recognition (Lawson 1985).

The potency of the contribution of this single study lies both in the conceptualization and the methodology. Conceptually, the "cognitive loop" hypothesis is parsimonious and simple, yet appears to offer a logical accounting for the phenomena; however, a theoretical framework is lacking. Methodologically, the study is strong since the manipulations of mood were unrelated to the dependent measures thereby adhering to the conceptual definition of mood as a general and pervasive feeling state. Moreover,

the mood manipulation was fairly innocuous; it did not permeate the environment and hence, the significant results suggest that the mood state need not be highly potent to have an effect. This conclusion is somewhat tenuous, however, since mood was never actually measured. Finally, the hypothesized results were found in two dramatically different research settings, a shopping mall and a laboratory, providing additional confidence in the robustness of the phenomena.

Strull (1983; 1984) added two mediating variables to this process: the type of processing in which the consumer is engaged and prior knowledge. Strull (1984) found that affective states at the time of encoding had a direct effect on product evaluations but only for those subjects that formed an evaluation at the time of encoding (referred to as "on-line" evaluation). Subjects who formed evaluations at the time of recall demonstrated no effects of the affective state at the time of encoding. Moreover, Strull (1983) found that subjects with high levels of prior knowledge were not influenced by mood states. Strull posits that high knowledge subjects are more likely to have formed a previous evaluation and are therefore more or less immune from the effects of mood states.

There is also some evidence that affective states can influence categorization, a cognitive process where similar items are grouped together and which is presumed to occur in memory (Rosch 1978). Positive affect has been shown to influence the way in which cognitive material is categorized. Isen and Daubman (1984) found that subjects in whom positive affect had been induced three different ways tended to create and use categories more inclusively than control subjects. Specifically, the positive affect subjects tended to group more stimuli together and include weaker exemplars in a category. In contrast, negative affect had "borderline" significance effects similar to positive affect. Isen and Daubman conjecture that this may be the result of an "affect repair" process where people engage in processes to make them feel better and

consequently show the effects of positive affect suggesting an asymmetry of the influence of affective states.

Additional evidence for the effects of positive affect on cognitive organization can be found in Isen, Johnson, Mertz, and Robinson (1985) where positive words, or a positive affective state and neutral words, elicited a broader range of associates. These results suggest that positive affect alters the direction (more positive) and the complexity of the cognitive context. Thus, positive affect may promote greater creativity and improved problem-solving.

A rich body of literature has also grown up around the issue of "mere exposure," i.e., the phenomenon of liking without recognizing (e.g., Hoffman 1986; Lazarus 1984; Obermiller 1985; Stephens 1988; Wilson 1979; Zajonc 1980; Zajonc and Markus 1982). Generally, subjects have demonstrated increased levels of preference or liking for stimuli with greater levels of exposure, even though they could not discerningly recognize those stimuli from other stimuli. These results suggest that memory does not play a role in all types of familiarity as most cognitive theories profess.

Two studies have reported an inverse relationship between the intensity of affect (either positive or negative) and familiarity (Gerard, Green, Hoyt, and Connolly 1973; Moreland and Zajonc 1982); i.e., the stronger the affective response, the lower the reported familiarity. In contrast, Stephens (1988) found that respondents reported greater familiarity for faces that elicited strong affective responses (either positive or negative), whether or not those faces had been seen before. Stephens suggests that affect may induce a sense of familiarity as a result of "mislabeling" affect as familiarity. That is, people tend to see things they like or dislike as familiar. A possible explanation for this phenomena is that people feel that in order to like or dislike a stimulus they must have previously evaluated it and therefore are familiar with the stimulus. This explanation of Stephens (1988) results provides support for Zajonc's (1980) argument

that affect may sometimes be primary and that cognitive responses may be formulated to justify the affective response.

In summary, there is substantial empirical evidence that affect influences memory and cognitive process. In general,

1. people tend to recall more thoughts congruent with their affective state,
2. people create fewer and more inclusive categories under positive affect,
3. positive affect can alter the direction and complexity of the cognitive context,
4. affect can serve as a retrieval cue for positive material in memory,
5. affect can induce familiarity, and
6. prior knowledge and processing type may mediate effects of affect on memory.

### **The Influence of Affect on Problem Solving and Decision-Making**

Previously in the discussion of the influence of affect on memory and cognitive processes, it was suggested that since positive affect was related to fewer and more inclusive categories, positive affect might enhance creativity and problem solving (Isen 1984). Research studying the influence of affect on decision making indicates that affect may also influence the strategies that are used to solve problems. In their review on positive affect and decision making, Isen, Means, Patrick, and Nowicki (1982) concluded that positive affect tended to reduce the load on working memory, reduce the complexity of the decision making task by adopting simplifying heuristics (i.e., considering fewer alternatives, doing little checking of information), and that these effects may facilitate or impair performance. Since this review several other studies have shed more insight as to the relationship between affect and decision making.

Isen and Means (1983) found that positive affect subjects (compared to a control group) made decisions more quickly, were less likely to review information they

had already examined, and were more likely to ignore information considered unimportant in selecting one of six fictitious brands of cars. Moreover, positive affect subjects were more likely to use the "elimination by aspects" strategy. Positive affect was interpreted therefore as increasing the efficiency of the decision making process.

In a related series of studies (Isen, Daubman, and Nowicki 1987), positive affect, induced by a comedy film or a gift of candy, was shown to facilitate creativity; feeling good increased the combining of material in novel ways and seeing relationships between divergent stimuli. Moreover, these effects were not observed for negative affect or simple arousal (exercise) groups. These findings imply that positive affect influences the way in which material is processed, consistent with research on affect and memory.

In the organizational behavior literature, Carnevale and Isen (1986) found that positive affect facilitated constructive and cooperative bargaining by reducing the use of contentious tactics, increasing integrative capacity, and leading negotiators to discover integrative solutions in face-to-face negotiations usually characterized with contentiousness and discord.

Gardner and Hill (1988) also found that mood influenced strategies for brand selection. Subjects in a positive mood tended to use an experiential strategy (choice based on feelings associated with prior or expected experiences) and subjects in a negative mood were more likely to use an informational strategy (choice based on careful information evaluation).

In contrast, Mackie and Worth (1989) concluded from their results that a positive mood reduced cognitive capacity to process messages. They found that subjects in a positive mood did not show differences in attitude change as the result of weak or strong counterattitudinal messages, whereas subjects in a neutral mood showed attitude change indicative of systemic processing. However, their data are also consistent with the previous results in that the message provided was counterattitudinal and therefore,

positive mood subjects may have simply been more effective in counterarguing (a seemingly creative process) and consequently did not change their attitudes as quickly.

In summary, it appears that people in positive affective states tend to:

1. reduce the complexity of the decision task,
2. make more efficient decisions,
3. employ the use of simplifying heuristics, and
4. use an experiential strategy.

### **The Influence of Affect on Risk Perception**

Given the evidence presented on the influence of affect on memory and decision making, a logical extension would posit that positive affect would elicit more positive thoughts and consequently promote risk taking behavior because of the optimism that would be generated. However, it is also likely that people would tend to protect a positive affective state and therefore be risk averse. In their review, Isen et al. (1982) discuss this paradox and conclude that the context of the decision will determine whether the person in a positive affective state will engage in risk taking or risk averse behavior. Specifically, if the risk is ambiguous, unclear, or low, positive affect people will be risk takers; if risk is clear or high, people in a positive affective state will be risk averse.

Consistent with this hypothesis, Isen and Patrick (1983) found that positive affect subjects bet more on a low risk bet and less on a high risk bet compared to control subjects. In contrast, however, in a hypothetical risk-taking situation, positive affect subjects were more daring than control subjects on a high risk bet. Isen and Patrick conclude that hypothetical risk taking is less influenced by affect.

Johnson and Tversky (1983) found that negative affective states tended to increase estimates of the frequency of undesirable events and positive affective states

tended to decrease estimates of the frequency of undesirable events, consistent with the cognitive loop hypothesis.

Acceptable levels of risk have also been found to be influenced by affect. When stakes were high, people in whom positive affect had been induced generally required better odds before they would place a bet compared to a control condition; when stakes were low, people in whom positive affect had been induced were more likely to be more risk prone (Isen and Geva 1987). Moreover, those people in the positive affect group who were contemplating a high risk bet reported more thoughts about losing.

In more direct tests of the relationship between affect and risk perceptions, Arkes, Herren, and Isen (1988) concluded that positive feelings can foster both risk-averse and risk-prone behavior. If the potential loss is emphasized, the subject in a positive affective state is risk averse. If the potential loss is minimized, the positive affect subject is risk taking. In other words, people in a positive state tend to protect that state when the prospect of losing threatens the positive state. These results also explain why subjects in the hypothetical risk situation were risk prone (Isen and Patrick 1983); the loss was not viewed as real and did not threaten the positive affective state.

Finally, the discussion on risk could not be concluded without drawing some connection to the risk behavior posited by prospect theory and more specifically the value function as proposed by Kahneman and Tversky (Kahneman and Tversky 1979; Tversky and Kahneman 1981) in the economics literature and extended by Thaler (1985) in the marketing literature.

Prospect theory is concerned with how people make decisions involving uncertain outcomes. Prospect theory suggests that the way alternatives are presented influences the decision. This framing effect occurs in response to a reference point; that is, the reference point determines the frame of the decision. If the prospect is evaluated as being positive relative to the reference point then the prospect is viewed as a gain; if

evaluated as negative relative to the reference point, a loss. The value function posits that people are more sensitive to losses than gains.

Isen, Nygren, and Ashby (1988) proposed and found support for the notion that positive affect causes more extreme utilities to be associated with losses. Specifically, subjects in the positive affect condition reported higher probability estimates for gains and lower probability estimates for losses (more optimistic), but demonstrated risk averse behavior when faced with a gamble suggesting that possible gains are not much more attractive to happy people but potential losses are much more aversive.

In general, people in positive affective states tend to be risk averse to protect the positive affective condition.

## **The Influence of Affect on Judgments and Evaluations**

In 1932, Laird had housewives evaluate the quality of four identical pairs of silk stockings except for a slight scent. One pair maintained the slightly rancid natural scent; the other three pairs had slight scents of narcissus, fruit, and sachet. These scents were so faint that only six of 250 housewives detected the scents. The results demonstrate that silk hose that smells good is judged to be of higher quality. Laird concludes that subconscious sensory impressions can influence judgments. Although not labeled as affect by Laird, it is likely that the housewives' affective responses to these pleasant scents influenced their product evaluations. Jenkin (1957) discussed at great length the role of affect in perception. His thesis, over 30 years ago, maintained that perception is not wholly a rational and cognitive effort. Recent empirical evidence suggests that Jenkin's thesis was well conceived. This section reviews research that has examined the influence of affect on evaluations and judgments.

A number of studies have examined the influence of affect on the evaluations of persons. For example, Abelson, Kinder, Peters, and Fiske (1982) found that affect was

highly predictive of evaluations of political candidates, adding significant variance explanation over and above that due to cognitive evaluations of traits. Moreover, good feelings and bad feelings were much more independent of each other compared to good and bad trait judgments. Similarly, Veitch and Griffitt (1976) examined evaluations of other people. They found that affective states induced via news stories influenced later evaluations of others (i.e., strangers). Subjects who heard the bad news broadcast gave lower evaluations than subjects who heard the good news broadcast.

Forgas and Bower (1987) examined the effects of mood on person-perception judgments and found that happy subjects made more positive judgments than did sad subjects. Subjects also spent more time learning about mood-congruent information, were faster in making mood-consistent judgments, and had better recognition and recall memory for mood-congruent characteristics. Finally, the effects for the positive mood were much stronger than for the negative mood. These results are consistent with the series of studies by Isen and colleagues discussed previously where objects (products) were also evaluated. Moreover, the results support the cognitive loop hypothesis (Isen et al. 1978); people in a happy mood seek out and attend to positive information which results in more positive evaluations. The major extension that can be derived from this study for the cognitive loop hypothesis is that people in a positive (negative) affective state will not only recall more positive (less positive) information (internal search), but will also search for and examine more intensely positive (less positive) external information about the object of evaluation (external search).

Griffitt (1970) studied whether a person's mood, as manipulated by physical comfort or discomfort, would impact on their evaluations of strangers. By varying the temperature and humidity in the experimental room, negative moods were induced with higher levels of temperature and humidity and were found to generate more negative evaluations of a stranger. Note that in the first study, the affect was in direct response

to characteristics associated with the person being evaluated, but in the last three studies the affect was in response to completely unrelated stimuli. Thus, it appears that evaluations can be influenced by affect in response to related and unrelated stimuli.

A number of studies have examined evaluations of objects/products. Isen et al. (1978) found that good mood improved the evaluations of the performance and repair records of products that were unrelated to the mood inducing stimulus. On the other hand, Ger (1986) found that a mood induction affected the evaluations of only related products, without any global effect, although results were mixed and confusing. Srull (1986) found that mood, at the time of encoding information, had a significant effect on product evaluations for subjects who were forming evaluations "on-line" (i.e., at the time the information is encoded). Mood at the time of information retrieval had an effect on product evaluations for subjects who were forming evaluations based on memory (i.e., at the time of information recall).

In her review of the consumer behavior research on moods, Gardner (1985) cited seven studies with empirical evidence for the conclusion that mood states influence evaluations of both novel and familiar stimuli in mood-congruent directions; however only one study examined evaluations of products, the Isen et al. (1978) study previously discussed. Other studies included in the review by Gardner (1985) illustrate evidence for the influence of affective states on evaluations. For example, Isen and Shalcker (1982) found that subjects who "found" a dime evaluated ambiguous slides more favorably than did control subjects; moreover, subjects given bogus feedback that they had failed a test rated the same slides less favorably. After inducing subjects with moods of elation or depression, Carson and Adams (1980) found that evaluations of the enjoyableness of activities were enhanced in the elated mood. Subjects indicated they were more satisfied with their lives after self-generating happy life events compared to subjects who had generated sad life events (Schwartz and Clore 1983).

A number of studies have examined the effects of affective states on the evaluations of a number of other stimuli. Srull (1983) determined that subjective mood states strongly influenced initial evaluations of advertisements. Kraiger, Billings, and Isen (1989) demonstrated that affective states influenced task perceptions. Affective states that originated outside the task influenced both specific and global perceptions and evaluations of the task. Positive affect subjects reported better evaluations for task feedback, skill variety, task significance, and global satisfaction with the task. Gardner and Wilhelm (1987) found that context-induced moods were associated with more favorable (positive mood) and less favorable (negative mood) evaluations of advertisements.

At this point it seems overwhelmingly clear that experiencing an affective state can influence judgments and evaluations. All of the studies reviewed thus far have examined the experience of certain affective states on behavior. A relevant issue is whether one must experience the affect in order for it to influence subsequent behavior. Specifically, it has been shown in other research areas that expectations can influence behavior. For example, reference points have been posited to "frame" decisions (e.g., Kahneman and Tversky 1979; Klein and Oglethorpe 1987; Puto 1987; Thaler 1985; Tversky and Kahneman 1981, 1982). One type of reference point has been defined as expectations (Thaler 1985). Puto (1987) proposed that expectations influence reference points which in turn frame the decision and therefore influence the decision. In an unrelated study, Zeithaml, Berry, and Parasuraman (1988) discuss how consumers' expectations influence their evaluations of service quality. Steenkamp and van Trijp (1989) differentiate between quality expectations and quality experience and found support for the influence of the expectations on the experience. This leads to questioning whether there are such things as affective expectations and whether or not affective expectations influence affective experiences.

Wilson, Lisle, Kraft, and Wetzel (1989) argue that affect is often formed in an expectation-driven manner. The results indicate that affective expectations do exist and can influence the affective experience. Specifically, when a stimulus value was consistent with the affective expectation, subjects formed evaluations relatively quickly. When a stimulus value was inconsistent with the affective expectation but not noticed, the stimulus was assimilated into the expectation, i.e., the stimulus was evaluated consistent with the expectation. This evaluation was also formed relatively quickly. When a stimulus value was inconsistent and was noticed as inconsistent, subjects formed their evaluations more slowly than either of the first two cases.

These results suggest that in a marketing context, affective expectations may be formed based on product characteristics, advertisements, packaging, and other types of communication that can convey affective information. These affective expectations may then be used as a reference point with which to judge the affective experience. Moreover, if consumers form affective expectations from these communications, in essence, the seller is "signalling" affective responses.

## **Affect and Communication**

In their discussion on the role of affect in interpersonal communication, Sypher, Sypher, and Haas (1988) conclude:

"Almost every cognition has an identifiable affective tag, and, for the most part, these cognitions cannot be separated from their affective component. Our words, our tack, is naturally affective. The very best speakers are those who stir the listeners' emotions, who maintain their attention by effectively playing on the listeners' affective responses. Communication without affect would be very dry, if not impossible."

Much of the research on communication and affect has focused on the relationship between nonverbal communication and affect; i.e., the communication of affect via nonverbal behavior. It is generally accepted without debate that affect is communicated,

that is, that one can recognize an affective state of another via communication process; that it can occur even without verbal communication is also not challenged (Ekman 1973; Ekman and Friesen 1969). Two separate communication processes have been proposed: a spontaneous, automatic process that is based on the changing affective states of the participants and a symbolic process involving intentional messages (Buck 1984). It is the spontaneous process that is of concern in this research, and unfortunately the process that has had little investigation (Sypher et al. 1988).

What has been shown however, is that there are developmental differences in people's capacity to construct and respond to **affective messages or information** (Burleson 1984). Sypher and Sypher (1987) found that even mild positive affect elicited more appeals in a persuasive context. Specifically, subjects in the mild positive affect condition were able to generate more arguments, or persuasive appeals, than subjects in the mild negative affect condition. Sypher and Zorn (1987) found that negative affect was linked with the tendency to suppress differentiation in coworker descriptions. That is, coworkers that were disliked were described as all being similar, whereas coworkers that were liked were described more differentially. Moreover, liked coworker cognitive structures were more elaborate and organized than disliked coworker structures.

To summarize, affect can be communicated. Affect communication may even be less effortful in that it can occur through nonverbal almost automatic processes. Finally, affective information is valuable in understanding the message.

Within the marketing and consumer behavior disciplines, there is a substantial body of literature that examines the role of affect in advertising. The research is more applied and in general the results are consistent with the literature already discussed. Much of the research examines the role of the affect in advertisement evaluations (e.g., Batra 1986; Batra and Holbrook 1988; Batra and Ray 1986; Cacioppo and Petty 1989; Gardner and Wilhelm 1987; Ger 1986; Holbrook and Batra 1987; Isen

1989; Machleit 1986; Moore and Hutchinson 1983; Ray and Batra 1983). The major contributions of this literature relevant to the current effort are:

1. affect plays an important role in persuasive communications such as advertisements,
2. affective responses to advertisements influence advertisement evaluations,
3. advertisements communicate affective information, and
4. advertisements that create positive affective states lead to positive feelings for the product advertised; that is, there is a transfer of the affect from the ad to the product (Ger 1986).

## **Conceptual Issues**

Although much of the research on affect has followed the traditional hypothetico-deductive framework, in general, the research suffers from the lack of a theoretical framework. As a result, other problems have developed. A discussion of a few of these conceptual issues follows. As mentioned previously, because some of these issues are closely related to methodological issues they are not discussed separately.

**1. Lack of a theoretical framework.** One of the major conceptual issues regarding the role of affect in consumer behavior is the debate concerning whether affect precedes or follows cognition. This debate stems from an even larger issue: the lack of a theoretical framework for the study of affect. The study of cognition has had the benefit of the information processing theoretical framework to organize research issues and lay out a research agenda. General models of consumer behavior based on the information processing paradigm are available (e.g., Bettman 1979; Howard and Sheth 1969). The role of affect, as defined here, is not included in these general models of consumer

behavior. The closest reference to affect is in Bettman's model where affect referral, the process of relying on previously formed overall evaluations, is considered as a heuristic that might be used in some situations.

The study of affect has no broad theoretical umbrella from which to derive a research agenda and thus, most of the research is largely exploratory in nature. It seems likely that the relationship between affect and cognition will not be fully resolved until a theoretical framework for affect can be supported with empirical evidence. In contrast, the economics of information research seems to be antithetical to the research on affect. On the one hand, the research in the economics of information is rich in theory but relatively little empirical work has been done to test the theory and available results provide weak support for the theory at best.

Conversely, the affect literature is rich with empirical results demonstrating the influence of affect on many different behavioral variables, but all without any general theory of affect in consumer behavior. A primary thesis of this research is that the theory of economics of information can be used to model affective information and that the empirical results in the study of affect can contribute to the extension of the economics of information theory directly relevant to consumers' product evaluations and search behavior. A brief review of the affect-cognition debate is provided next as a foundation for the conceptual model.

There is evidence that affective responses can occur independently of cognition, and consequently, can influence consumers' attitudes, judgments, preferences, behavior, and perceptions (e.g., Isen 1984; Ray and Batra 1983; Wells and Petty 1980; Zajonc and Markus 1982). Further, research studying the impact of mood (an overall affective feeling state) on memory, judgments, perceptions and behavior suggests that mood can: (1) promote behavior with expected mood congruent outcomes, (2) influence recall (i.e. people will recall mood congruent thoughts), (3) bias judgments

in mood congruent directions, and (4) increase the accessibility of mood congruent thoughts associated with a particular behavior in memory (Gardner 1985; Isen 1984). Thus, a particular mood can increase the likelihood that a particular behavior will occur.

To the contrary, a second view, while agreeing that affect and cognition are independent, posits that cognition precedes affect (e.g., Anand, Holbrook and Stephens 1988; Fishbein and Ajzen 1975, Lazarus 1984). A great deal of research on attitudes assumes that affect is the result of cognition (Ryan and Bonfield 1975).

A third perspective, however, suggests that affect and cognition involve common processes and are interdependent. Accordingly, the "accessibility hypothesis" attempts to integrate affect and cognition by positing a cognitive loop such that an affective state can act as a prompt or cue for associated material (Clark and Isen 1982; Isen et al. 1978). Clark and Isen (1982) propose that feelings are stored in memory and are linked to behaviors, objects, and/or situations. Consequently, people have memories for certain feeling states and when a particular experience produces a specific feeling state, this feeling spreads to other related nodes that are linked to behaviors, objects, situations, and/or episodes.

Research based on the "accessibility" hypothesis has demonstrated the potential impact of affective states on memory, cognition, judgment, behavior, and perceptions. The potency of this hypothesis lies in its integration of affect and cognition and the conceptual argument that affect and cognition are interdependent since they are believed to be based on common processes. However, one limitation is that affect is viewed mainly as a mediator of cognition. The accessibility hypothesis does not allow for any "direct effect" of affective responses. Equally important, the hypothesis does not explain why affect can at times appear more influential than cognition and at other times the opposite seems to hold. Consequently, researchers still debate whether affect can occur without cognition (Anand, Holbrook, and Stephens 1988; Hoffman 1986).

Two problems are central to the resolution of this debate. First, affect is probably more complex than a simple overall like-dislike conceptualization so common in the literature. This like-dislike conceptualization tends to support a cognitive primacy argument since it represents an overall evaluation of an object that is likely to be more cognitively involving. Thus, the primacy argument, at least in part, is based on the conceptualization of affect. The conceptualization of affect needs to be advanced to incorporate other relevant "feeling" dimensions beyond a simple overall like-dislike. Secondly, it also seems too simplistic that either affect or cognition is primary. An integration of affect and cognition needs to be developed that reflects the complex interplay between affect and cognition, based on the premise that people are probably in a constant flow of feeling and thinking. Moreover, the conceptualization should posit reasons why judgments appear to be mainly based on affect or cognition.

Compeau (1990) proposes a model integrating affect and cognition for consumers' evaluative judgments whereby three broad types of affective responses, each requiring a different form or type of processing activity are posited: (1) a direct affective response to physical/sensory stimulus; (2) an affective response to the match between physical/sensory aspects of the stimulus and the internal representations or schema associated with the stimulus; and (3) an affective response to the meaning of the stimulus beyond the physical/sensory aspects (Hoffman 1986). Moreover, the model incorporates affect as a multidimensional construct identifying five dimensions (specificity, causal specificity, intensity, cognitive effort, and duration). This model (discussed later in more detail) integrates affect and cognition into a unified conceptualization that illustrates how affect and cognition interact at different levels to help consumers form integrated judgments. Although a step in the right direction, the Compeau model does not account for the role of affective information and how consumers use the communication of affective information.

**2. Conceptually defining affect.** There is little agreement as to how to define affect (Peterson, Hoyer and Wilson 1986). Generally, affect has been conceived as either a positive or negative feeling state. However, it is likely that there may be different types of positive (or negative) affective states. For example, joy and contentment, happiness and elation, pleasant and thrilling, are pairs of positive affective states, and yet seem to be qualitatively different, although they may simply represent different intensities of the same feeling state. The scope of affect needs to be identified in terms of the different affective states or intensities. Moreover, the conceptualization of affect must incorporate the multidimensionality that has been discussed.

**3. The role of affect in "framing" has not been considered.** The examination of the effects of "framing" decisions (Kahneman and Tversky 1979; Thaler 1985) has focused on the rational cognitive interpretations of the seemingly nonrational behavior. During the "editing" stage of the two stage choice process, the decision maker "frames" the decision into a simpler form. However, during this editing stage affective responses to stimuli may influence how consumers "judge" or "frame" the decision. Affective responses may influence consumers' evaluations and behaviors and thus make these behaviors appear not to follow "optimal" behavioral prescriptions provided for by traditional economic theory.

For example, Thaler (1985) presents scenarios where a person finds something of value or is given something of value for free. The results suggest that people will frame this situation differently compared to a situation where a person has paid for the item of value, and discusses how this different framing leads to different behaviors. However, Isen et al. (1978) randomly selected subjects in a shopping mall and gave them a free gift. Respondents who received the free gift gave significantly higher evaluations, compared to a control group, to an apparently unrelated consumer survey asking for

product evaluations. Consequently, it is not certain whether it is only the cognitive evaluation of prospects that leads to the different frames or whether affective responses to stimuli presented in a frame also influence the framing process.

In another study, consumers rated qualitative attributes of ground beef described as either "75% lean" or "25% fat" (Levin and Gaeth 1988). The evaluations were found to be more favorable for the former description over the latter. These results were attributed to the cognitive information processing associated with the different frames the descriptions elicited. Moreover, the study found that the information framing effect reduced when consumers actually tasted the product, and concluded that the product experience diluted the impact of the information framing. However, affective responses to the sensory stimuli of "lean" and "fat" were not measured and therefore may represent an alternative explanation for the results. Moreover, the affective responses to sensory cues associated with the actual tasting of the product may have attenuated initial cognitive responses.

Finally, De Haes, Pennink, and Welvaart (1987) found that affect caused people to change their reference point used in evaluations. Cancer patients lowered their aspirations or expectations of life satisfaction using other cancer patients as reference points rather than healthy people. This adjustment of their reference point allowed them to restore their life satisfaction to acceptable levels.

**4. Negative affective states** Little work has been done on negative affective states. It appears that negative affect is not the bipolar opposite of positive affect and must be studied independently. The independence of positive and negative affect is a methodological issue as well. If affect is conceptualized as a low-level positive or negative feeling state then the effects of negative affect must be examined. Part of the difficulty is in the inducement of a low-level negative affect state. It appears that people can be in a

generally mild positive affect state, but negative affect states seem to predominantly occur at higher intensities.

## **Methodological Issues**

Most of the research on affect has been well conceived and executed. Most notably, the series of studies by Isen and colleagues is impressive due to its methodological sophistication and programmatic development. Any one study, taken by itself, does not establish much validity for the conceptual propositions; however, taken as a whole the research stream demonstrates the pervasive effects of affect. However, several methodological issues do exist. Most of these issues are mainly the result of the lack of a theoretical framework and methodological limitations due to the phenomena being studied.

**1. *Affect cannot be directly manipulated.*** A major methodological issue is the inherent inability to directly manipulate affect since it is an unobservable hypothetical construct. Generally, affective states are induced via stimuli or events and then manipulation checks are performed to establish the validity of the manipulation (e.g., Isen et al. 1978). Unfortunately, although manipulation checks enhance our confidence in the manipulation, they do not rule out all rival hypotheses for the effects. Several other methods are available to further increase confidence in the manipulations and should be employed.

An obvious method that has been used extensively is replication. The finding of similar results even when conditions of the experiment have changed increases the confidence of the manipulations employed. As the design of the manipulation changes across experiments, certain rival explanations plausible under one set of conditions may be eliminated due to implausibility under other sets of conditions (Perdue and Summers

1986). For example Isen and colleagues in addition to employing the use of manipulation checks, have consistently induced mood manipulations in several different ways including free gifts, finding money, and watching a funny show; these manipulations have occurred across many different experimental conditions.

The use of several dependent variables can also enhance the confidence in the manipulation if the pattern of results is consistent with the hypotheses (Perdue and Summers 1986). This procedure allows for greater confidence in a manipulation within a study.

**2. Measuring affect.** Measuring or operationalizing affect is an elusive endeavor. If one adopts a psychological approach to affect, paradoxically, the measurement of affect requires cognitive effort (Peterson, Hoyer, and Wilson 1986). As Sigmund Freud noted "...affects are often very intractable" (1924 p.226). The task of measuring affect has not become any easier after 65 years of study.

One of the most disturbing problems is that affect has been shown to bias interpersonal ratings due to four types of rating errors: leniency, halo effect, range restriction and level of interrater agreement (Tsui and Barry 1986). Consequently, it might be expected that affect may also bias self-ratings of affect due to these errors. In essence, ratings of self-affect will be exaggerated in the affective state direction. For example, a person in a good mood will tend to bias his or her rating of that good mood in a positive direction as a result of the good mood.

Some researchers are suggesting the use of physiological measures of affect such as facial response (Cacioppo, Losch, Tassinary, and Petty 1986). The use of physiological measures can enhance the measurement of affect. First, physiological measures can assist in the examination of the validity of both self-report measures and physiological measures. Secondly, maximally different methods can help "triangulate"

the measure of affect (Cook and Campbell 1979). Finally, physiological measures may be less intrusive and may allow for a more natural affective response to occur without intervention.

Another approach would be to use magnitude scaling as a method of measurement. Magnitude scaling addresses some of the limitations associated with category scaling such as forcing responses to conform to the limited resolution of the categories, and artifactually constraining or elaborating judgments (Lodge 1981). Moreover, a significant aspect of capturing affect is the ability to discriminate different levels of the intensity of the response. An advantage often associated with measurement methods such as magnitude scaling where all judgments are made relative to an explicit reference is that finer and more accurate control over the discrimination of the stimulus and the response is possible (Lodge 1981).

There is a wide variance in the measures that have been used in the past. The use of different operationalizations can be advantageous in establishing construct validity when a conceptual definition is shared. However, when the conceptual definitions change with the operationalizations it is anyone's guess as to what is actually being measured. Thus, researchers should attempt to validate new measures before their use is implemented.

**3. The independence of negative and positive affect.** The independence of negative and positive affect has generally been assumed in most of the research. Bradburn (1969) examined affect with separate five-item measures of positive affect (excitement/interest, proud, pleased, top of the world, things going your way) and negative affect (restless, lonely, bored, depressed, upset) and found evidence of independence. Since then, a series of studies have examined the independence of negative and positive affect (e.g., Benin, Stock, and Okun 1988; Diener and Emmons

1985; Larson 1987; Warr, Barter, and Brownbridge 1983). In general the results are mixed. Most studies have found that the independence is dependent on some other aspect such as time or emotional intensity. The most recent evidence (Benin et al. 1988) indicates that the subscales for positive and negative affect are not independent as a result of LISREL analysis. The point is that the independence of negative and positive affect cannot be assumed and must be demonstrated in each study.

**4. Lack of control for individual differences in affect intensity.** Several studies have shown that affect intensity, the typical reactivity and variability of an individual's emotional responsiveness, is a stable individual characteristic (see Larsen and Diener (1987) for a review). Additionally, affective intensity appears to influence many affective and cognitive consequences. For example, higher levels of affective intensity are related to more fragmented social networks, more complex goals, and higher levels of activity (Larsen and Diener 1987). Harris (1989) found that high affect intensity subjects generated more empathetic cognitive thoughts in response to an advertisement with an emotional appeal for support for a service organization.

It appears that in spite of the differences in affect intensity of individuals, the influence of affect is strong enough to demonstrate significant results. However, the magnitude of the influence of affect may be attenuated by these individual differences in affect intensity.

## **Summary of Major Limitations**

The major limitation of the research on affect is the lack of a theoretical framework that can bring many of the implications of the empirical findings under one umbrella for marketing and consumer research. The extant research is fragmented and disjoint. Although there is clear evidence for the influence of affect on many different

behaviors, there is no obvious conclusion for the research for marketers and consumer researchers. Methodologically, the research needs to incorporate more complex multidimensional measures of affect.

## **Economic Psychology**

The purpose of this section is to identify the conceptual work that has already been done in integrating psychology and economics. Specifically, several economic psychologists have theorized about the role of affect on economics. This body of literature is not reviewed in full detail and is presented only as illustrative evidence for the integration of affect and the economics of information.

The emerging field of economic psychology is characterized by frontier thinking integrating psychological and economic concepts. For example, Frank (1986) in a provocative piece, integrates emotions into the utility function. His basic thesis is that seemingly irrational behavior appears rational when emotional goals are attached to it. MacFadyen (1986) provides a critical review of the REM (rational economic man) assumption in economics. Maital, Maital, and Pollak (1986) integrate social learning theory and economic behavior; specifically, the economic theory of intertemporal choice. Oliver and Winer (1987) develop a model of consumer expectation and suggest implications for consumer economics. These examples illustrate the advances that are being made in the intersection of psychology and economics.

In his discussion on economic psychology as a field of study, Warneryd (1988, p. 9) defines economic psychology as a discipline that:

"studies the psychological mechanisms and processes that underlie consumption and other economic behavior. It deals with preferences, choices, decisions and factors influencing these, as well as the consequences of

decisions and choices with respect to the satisfaction of needs. Furthermore, it deals with the impact of external economic phenomena upon human behavior and well-being. These studies may relate to different levels of aggregation: From the household and individual consumer to the macro level of whole nations."

Thus, economic psychology is closely related to economics where theory is deductive and generally accepted, empirical evidence is highly abstract and aggregated, mathematics plays an important role in the development of models to explain and predict behavior, and simplifying assumptions are prominent to make measurement feasible. Psychology on the other hand is a data-driven enterprise, with little use for the mathematical derivation of models (except for the relatively small area of mathematical psychology), where individual differences are emphasized not assumed to average out, and where there is no commonly accepted theory (Warneryd 1989). As Katona concluded, "Economics without psychology has not succeeded in explaining important economic processes and psychology without economics has no chance of explaining some of the most common aspects of human behavior" (Katona 1951, pp. 9-10).

It therefore seems logical to combine the strengths of both disciplines; that is, introduce some of the psychological concepts that have gained substantial empirical support into the powerful economic theory. The focus of this research is the integration of the economic theory of information and the psychological study of affect. Although affect has been examined in the area of economic psychology (e.g., Etzioni 1988; Mittal 1988; Pieters and van Raaij 1988a, 1988b), the intersection between affect and the economics of information has not been probed.

Pieters and van Raaij (1988a), in their discussion of the role of affect in economic behavior, note that economists study economic behavior with only cognitive factors and that affect may contribute to explanations of seemingly irrational behavior. As a result of a literature review of affect, they conclude that the effects of affect on economic behavior are substantial and consistent enough to warrant attention.

A critical point made is that the **affective system is a communication system** (Pieters and van Raaij 1988a). First, residual affect from prior situations may elicit an "excitation transfer." Excitement from a previous situation is communicated in a new situation. Second, affect is communicated to others. Facial expressions, body positions (Morris 1977), and verbal statements of feelings all communicate affect. According to Pieters and van Raaij, affect is a quicker communications system than the cognitive system. This conclusion is consistent with the conceptualization of affect as a more immediate and spontaneous feeling state.

In a recent article, Etzioni (1988) proposed a radical view of the intersection between affect and cognition in decision-making. Etzioni proposes that only affectively neutral decisions without normative commitments involve any significant amount of information processing. In other words, most decisions are made on the basis of affective involvement and commitments to values; however, there is a narrow region of affective and value indifference where information processing is invoked as a decision strategy. The idea merits consideration, especially when the nature of the manipulations and measures of "cognitive" processes are considered. It is likely that even if no information processing occurred in a decision-making process, respondents will generate one when asked due to artifacts associated with the study and social norms.

Mittal (1988) takes a less radical view and proposes that consumers rely on an affective choice mode (ACM) in the purchase of expressive products. His thesis is that expressive products, products that are purchased for their psycho-social benefits (e.g., sensory enjoyment, affective state attainment, social benefits) as opposed to utilitarian benefits, promote the use of a decision strategy that relies on affective-based judgments and evaluations. Mittal also posits that sensory expectations from the product and contemplation of the affective experience are likely to be important elements in brand appraisals. An empirical test of this model using LISREL gave support for the thesis that

expressiveness in products makes affective choice mode more likely, which suppresses information processing (Mittal 1988).

The connection that Mittal did not make is that these expectations and contemplations may not only influence product evaluations, but may also impact on the search process. If the contemplation of an affective experience is reasonably strong, it is likely that the anticipation for the affective experience may "interrupt" the search process since the buyer may judge the "cost" of postponing the affective experience as higher than the benefit of additional search.

## **Summary of Literature Review**

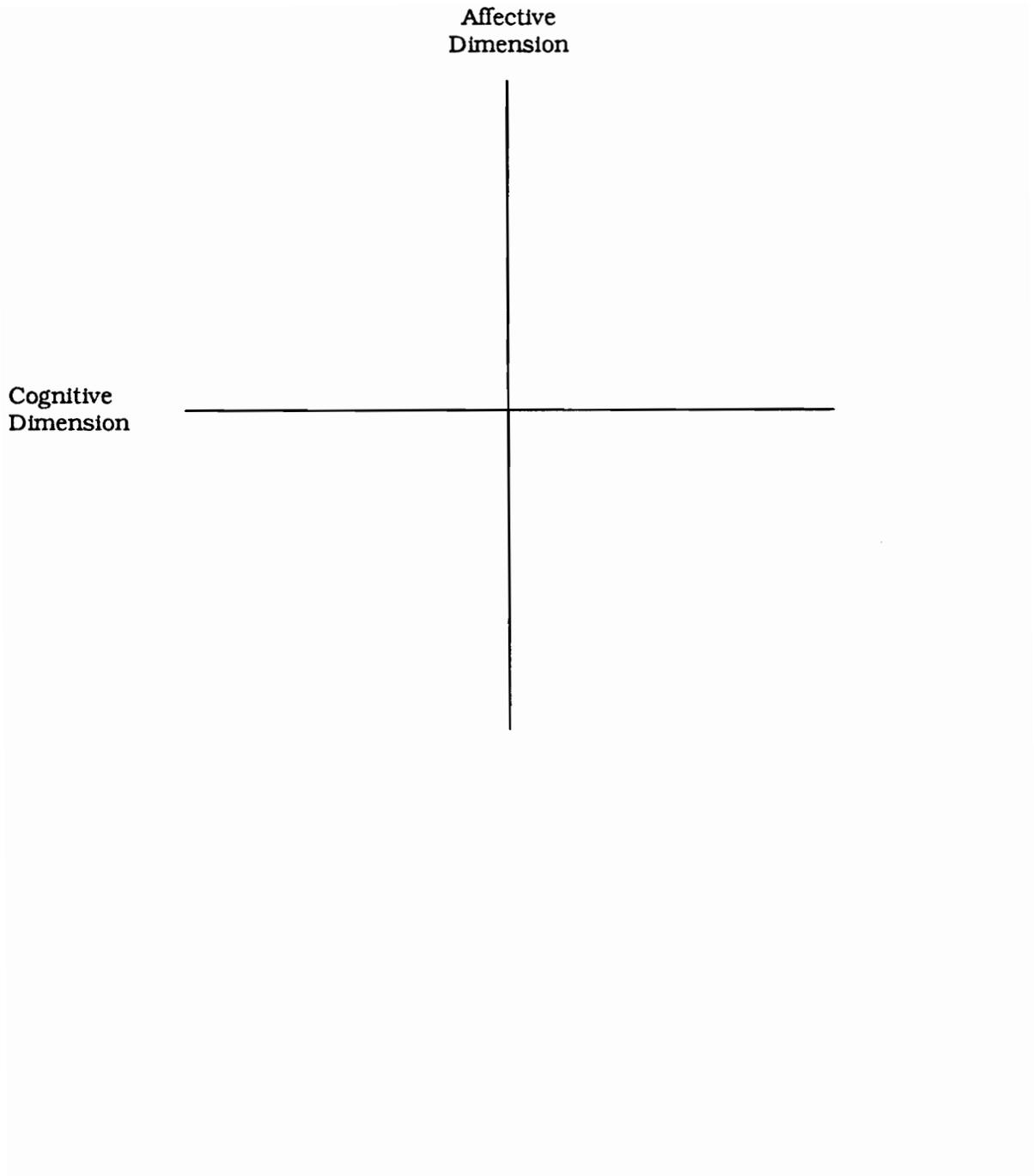
Much economic behavior cannot be adequately accounted for by economic theory. A major factor not considered is the more emotional, feeling-based, "nonrational" aspects of consumer behavior, namely affect. Affect is an integral part of consumer behavior and has pervasive effects on memory, cognitive processes, judgments, evaluations, risk perceptions, communication, and decision-making.

There is sufficient conceptual and empirical support for the integration of affect and economic theory to provide more complete explanations of consumer behavior. Specifically, this research will extend the economic theory of information by including affect as a major construct of the theory.

# **A Conceptual Integration of Affect and The Economic Theory of Information**

The literature reviewed in this chapter suggests an integration of affect with the economic theory of information to address major weaknesses of each research area: an apparent lack of explanatory power of the economic theory as evidenced by the extant empirical results, and the lack of a theoretical framework for affect research in consumer behavior. In this section, a proposed conceptual model is developed in two separate stages. First, the notion of affect as an informative and economic concept is explored, referred to as the economics of affect. The objective here is to establish the notion of information as two dimensional; the affective dimension of information is operationally similar to the cognitive/rational dimension of information within the economics of information theory. Figure 2 illustrates this two dimensional view of information. Specifically, affective information is a commodity and has value; it can be produced, communicated, marketed, sold, traded, and consumed and there are costs associated with the acquisition and ownership of affective information (affective investment).

Next, given that affective information can be communicated, the influence of affect on consumers' evaluative judgments and search behavior is considered. The notion that sellers can signal affective experiences is developed and the influence of affect and affective goals on search behavior is examined. Expertise is introduced as a moderator variable. Throughout this section, theoretical propositions will be derived that flow from the conceptual model. Finally, the section will conclude with a brief summary of the research issues.



**FIGURE 2: A TWO DIMENSIONAL VIEW OF INFORMATION**

## **Affective Information**

Consider a buyer (B) looking for a used car. Assume that B has a particular type of car in mind. Two classified advertisements present B with information about two nearly identical cars that B is looking for. The only difference is that in one ad information about the car's color, red, is provided. Assume further that B has an affinity for red cars. Upon reading both ads, B decides to call first on the car that is red since B likes red cars. In listening to the seller describe the car B gets excited and sets up an appointment as early as possible to see and test drive the car. Assuming the car upon inspection does not dramatically differ from B's expectations, a sale is consummated. The car in the other ad was never considered again after the ad was initially read.

This hypothetical example illustrates how affective information, or more accurately the affective dimension of information may be communicated and how it may influence subjective evaluations and the search process. The word "red," a sensory cue, included in the car's description elicits an affective response and affect is communicated. The positive affect allows more positive thoughts to be generated (Isen et al. 1978) as B forms an initial evaluation of the car. At the same time, the red car is categorized as to the "affect" it is expected to generate and thoughts connected with that category come to mind; B's affective response develops into an affective expectation, i.e., an expectation of excitement, fun, and pride from driving the red car. B thinks about pulling in the driveway of a friend's house, the look on coworkers faces when s/he drives into work, and how s/he will look in the car driving downtown for an ice cream on a warm summer night. Possibly, B owned a red car before and positive thoughts about the previous red car may also be brought to mind. In sum, the communication of affect involves the intentional sharing of meaning, wherein meaning is meant to be actually feeling. That is, the sender expects the receiver to experience a certain feeling response.

Finally, the need to experience the affective state that has developed in B's

mind motivates B to call about the car. As B talks to the owner about the car, the affective expectations are reinforced by the owner's description. The owner might use phrases like "fun to drive," "a real head turner," and "a beautiful bright red," phrases that heighten the affective anticipation and motivate B to go see the car. As soon as B catches a glimpse of the car, the bright red sensory cue causes an immediate affective response confirming initial affective expectations (affective-based images). The car isn't in as good shape as B wanted, the price is more than the car is really worth, but B purchases the car anyway.

The main idea is that the affective responses, in addition to the more rational cognitive responses, influence initial and actual evaluations of the car and also impact the search process. From a rational (i.e., cognitive) point of view there is little cost and substantial potential gain by continuing the search process a few minutes and calling about the other car. Yet, if the postponement of the affective experience that B was anticipating is included as a cost, that is, the notion of a time value associated with affective experiences (e.g., feeling happy today is worth more than feeling happy tomorrow), then the cost of additional search for B may have been greater than the benefit.

This process is not altogether different from including words like "economical" in eliciting a more rational and cognitive-dominant response and communicating a more cognitive dimension oriented information. Data is processed both affectively and cognitively (Zajonc 1980). Although some data may be more cognitively-laden (i.e., rational) (e.g., economical, good gas mileage, new tires) and other data more affect-laden (e.g., red, fun to drive, a real charmer), it is likely that all data are interpreted using both dimensions to some degree. Therefore, it is not required that the information processing approach be totally abandoned in order to examine affect and affective processes. What is required is that stimuli and events must be conceptualized as two dimensional in

terms of the information they communicate, the more emotional, feeling-based affective information and the more rational cognitive-based information.

Two points of clarification are needed relevant to the use of the terms data, and affective and cognitive information. The word data is used to describe the raw stimulus without meaning. For example, the word "red" as data is the simple combination of three letters. The cognitive interpretation of "red" is a color of certain brightness, hue, and saturation (Zajonc 1980). The affective interpretation of "red" may be one of pleasantness, like/dislike, and other "feeling" responses that relate the color red to the self. The terms cognitive information and affective information imply data as having some innate property that allow it to communicate either affective or cognitive information. This view is unrealistic however, since it is likely that the same data can communicate both affective and cognitive information. Thus, one cannot identify data as affective or cognitive, only the responses to the data, consistent with Zajonc's argument that affective responses are interactions between stimulus and self. It is assumed here however, that certain data may be identified that tend to elicit more of one type of response rather than the other, on the whole. Data that tend to elicit affective responses are referred to as "preferanda" by Zajonc (1980). Technically, "affective dimension data" and "cognitive dimension data" would be preferable terminology. However, in order to be consistent with the literature, "affective information" will be used to refer to the interaction between those aspects of the data that tend to elicit affective "feeling" responses and the person (i.e., the affective dimension). "Cognitive information" will refer to aspects of the data that tend to elicit rational "thinking" responses (i.e., cognitive dimension).

A radical departure from the information-processing view of buyer behavior has been proposed by Etzioni (1988). Etzioni posits that a majority of choices involve little or no information processing, but are largely or exclusively based on affective involvements and normative commitments (values). Only when affect is neutral or

indifferent, and values do not favor the choice of one alternative over another do buyers resort solely to cognitive information processing.

Less radical, Mittal (1988) proposes an "affective choice mode" (ACM) of consumer brand selection. In his model, Mittal contrasts consumer choices as choices made either in terms of cognitive operations, the information processing mode (IPM), or in terms of holistic, feeling (affective) operations, the affective choice mode (ACM). ACM is not without cognition; Mittal allows cognition to occur in the sense of sensation and perception, but ACM does not include a cognitive evaluation of a product's individual attributes to arrive at an overall evaluation. The main thesis is that some products, i.e., expressive products, will promote ACM processing. Expressive products are products purchased for their ability to satisfy psycho-social goals such as sensory enjoyment, mood-states attainment, social goals, and self-fulfillment. Utilitarian, or functional, products are purchased for performance characteristics. Although Mittal attempts not to dichotomize products as expressive or utilitarian, and labels the difference a distinction, the dichotomy of ICM versus ACM processing renders the argument impotent. According to Mittal ACM is an alternative to ICM; consumers will engage in ACM for more expressive products and ICM for more utilitarian products. The implicit assumption is that expressive products communicate, or signal, affective information.

The process that Mittal suggests is that sensory attributes associated with the product signal affective responses by evoking an imagery-construction process. The consumer forms an image of enjoying the expressive benefits of the product and appraises the product based on this image. Although not explicitly discussed, Mittal clearly suggests that sensory attributes associated with products can communicate affective information. This conceptualization is consistent with the imagery processing literature (MacInnis and Price 1987). Imagery is a process by which sensory information is represented in working memory and is evoked as a sensory experience (MacInnis and

Price 1987). Yuille and Catchpole (1977) note that imagery involves concrete representations of feelings (as well as ideas and memories) and allows the direct recovery of past experiences. These definitions of the imagery process are congruent with the notion that affective responses occur as the result of conditioned responses to sensory stimuli (Batra 1986, Greenwald 1968, Hoffman 1986, Zajonc 1980). Park and Mittal (1985) note that imagery is holistic. Zajonc (1980) defines affect as holistic and thus the holistic nature of imagery processing fits with the characterization of affect as holistic.

The form of imagery processing proposed by Mittal (1988) can be characterized as high-elaboration imagery processing in that it involves the construction of not just a single image, but a "scene" which consists of a series of events, similar to a scene from a movie. Moreover, the imagery process proposed by Mittal appears to be a daydream or fantasy, also considered to be high-elaboration imagery processing (MacInnis and Price 1987). Finally, Lang (1977) conducted several experiments and concluded that if, and only if the imagined scenario elicited an emotional reaction would intentions be affected. In other words, imagery alone may not influence intentions; the emotions that are evoked by the image however can influence intentions.

Pieters and van Raaij (1988a, 1988b) also suggest that affective information is communicated. They identify four functions of affect: interpretation and organization of information, mobilization and allocation of resources, sensation seeking and avoiding, and communication. It is this last function that is of focal interest here. According to Pieters and van Raaij, people not only communicate affect, but manage the communication of affect. Three forms of affect expression management are identified: (1) expressing no signs of affect when experiencing affect, (2) expressing signs of an affective state without experiencing it, and (3) expressing signs of a different affect than the one being experienced. Accordingly, the communication of affect at an interpersonal level appears to be an important function to manage given the effort implied by this process.

Consequently, it appears that the communication of affective information is useful and valuable and thus affective information itself has value. The affective dimension of information informs consumers about properties of a product that the cognitive dimension cannot communicate. For example, the phrase "this car is fun to drive" can communicate both a cognitive information dimension (e.g., easy to drive) and an affective information dimension (e.g., I will enjoy myself when driving this car).

Zajonc (1980) discusses ways that affective responses differ from cognitive responses; four of which appear relevant, with some minor modifications, in differentiating the affective dimension of information from the cognitive dimension.

***Affective information implicates the self.*** Affective information will be interpreted in terms of how it relates to the self. Referring to the previous example, assume the ad read "1966 RED MUSTANG FOR SALE." "The car is red," is a cognitive response. "I love red cars," is an affective response. An affective response then always relates the information to the self connected with a feeling state. Consequently, the definition of affective information refers to an interaction between the data and the self (Zajonc 1980).

***Affective information is easier to process.*** Zajonc admits that he can't be specific about what preferanda are (the class of features that elicit affective responses), but describes them as interactions between gross object features (global, vague, or configural features) and internal states of individuals that are holistic, involve less effort, and are easier to understand than cognitive responses.

***Affective information is easier to communicate.*** Zajonc also suggests that affect is easier to communicate because it involves less effort to process. Moreover, some affect is communicated without any conscious effort at all. This notion is consistent with the

communication literature examining nonverbal communication (e.g., Ekman 1973; Ekman and Friesen 1969).

***Affective information is highly context dependent.*** According to Zajonc (1980), affective information is more influenced by the context than cognitive information. For example, a person may like a particular red dress at a party but dislike the same red dress at work. Therefore, to study affective information the researcher must pay as much attention to the context as to the stimulus since the affective communication of the stimulus changes when it is in a different context. Unlike cognitive-based research where the removal of the stimulus from the context is often assumed not to change the meaning of, or the response to the stimulus, without a context most affective information has no interpretation. To continue the previous example, what affective responses might occur to the word "red" without any context in which to place it?

In summary, information has two dimensions: an affective dimension and a cognitive dimension. Affect is communicated; moreover, affect communication is less effortful. Affective information is valuable because it informs consumers about properties associated with the product that cognitive information cannot communicate, i.e., emotional-based feeling states. Affective information also has value because it assists consumers in developing quick overall initial evaluations of the product which include affective expectations; often with little or no concurrent deliberation.

Thus, it logically follows that if affective information has value, then consumers will search for it. Hence the connection with the economic theory of information. The economic theory of information deals with information. If information is conceptualized as two dimensional, the affective dimension and the cognitive dimension, then the theory should be directly applicable to both dimensions.

## **The Economics of Affect**

The economic theory of information presumes that information, and now by extension, the affective dimension of information, (1) is a commodity and can be produced, marketed, sold, purchased, traded, and consumed, (2) has value in that better affective information can lead to "better" purchase decisions, and (3) has costs associated with its acquisition and ownership. The theory assumes that buyers and sellers seek to maximize utility, subject to constraints on resources. Moreover, buyers will search for product information as long as the marginal cost of acquiring the information is less than the marginal benefit from the search. A couple of problems arise in the extension of this theory to assimilate the affective dimension of information.

First, the notion of "better" purchase decisions has been traditionally interpreted as benefits that lead to greater utility, subject to constraints on resources. The definitions of benefits and utility need to specifically incorporate the notion of affect benefits and affect utility. In other words, there is utility or satisfaction gained from affective experiences and consumers are willing to pay for those affective experiences. When people pay a \$10.00 cover charge to see a comedian, they are not there to get jokes to impress their boss so they will get a raise (a more rational-cognitive utility explanation). They are willing to pay \$10.00 to laugh and have fun, an affective experience. Therefore, choosing a product that is higher priced and yet has less durability may provide greater utility if it provides the buyer with a more valuable affective experience. Methodologically, this affective utility should not be attenuated due to the characteristics of the research environment and procedures. There is the possibility of promoting more rational, cognitive-based satisfaction/utility estimates by the nature of the experiment. In other words asking subjects for estimates of utility or satisfaction when they have just been bombarded with specific information about a product's attributes hardly seems to be a fair test of the influence of the more feeling-

based responses on projected utility or satisfaction.

Second, the notion of costs needs to be extended to include opportunity costs associated with affect. Giving up or postponing an opportunity to experience a desirable affective state is a cost. In the previous example, one of the costs of additional search beyond the red car is the opportunity cost associated with the postponement, or even possible loss, of the affective experience that the buyer has come to expect from the purchase of the red car. This conceptualization is consistent with empirical results on delay of gratification (Mischel 1974; Mischel and Moore 1973). The results suggest that a positive sensory and emotional experience is produced via imagery of possessing and consuming a product and that this image results in a reduction in a consumer's ability to delay gratification (MacInnis and Price 1987).

Furthermore, buyers and sellers may have an affect investment in a product. Affect investment is the degree of sentiment that is associated with the object. For example, parents may allow an old toy to remain unused rather than sell it at a fair price because of the affect they have invested in the toy. The value of family heirlooms can be conceptualized similarly. Real estate brokers often have to gently persuade sellers of a home to lower their price because the house is not valued by buyers based on the seller's affect investment. This approach can also explain why certain "old" products gain in value faster than others even though they are less rare. For example, a generation of young people were captivated by and grew up with the Ford Mustang. The price of 1964-1970 Mustangs is consistently above other cars that are more rare, faster, and better in so many different rational ways (Cars and Parts 1990). One explanation for these higher prices is the affect people have invested in the Mustang from prior experiences; the chance to experience the same affective responses that are linked to the Mustang has value creating higher demand resulting in higher prices. Unlike the previous assertions, the notion of affect investment is not a premise of the theory and should be empirically

tested. Based on the previous discussion, it is likely that affect investment will manifest itself in the value a person places on the item.

**Proposition 1: There is a positive relationship between the amount of affect investment in a product and its perceived value.**

Perceived value is the importance, significance, or overall worth attached to the product by the buyer. The variance in prices for products with affect investments may be due in part to the variance in the affect investment. Empirical evidence for this hypothesis would provide support for the concept that affect has value; however, it does not deal with the notion of buyers searching for affective information. It is posited that if affective information has value, then buyers will actively search for affective information since it will assist them in their decision-making process.

**Proposition 2: If buyers value affect, buyers will also value affective information and therefore, buyers will search for affective information.**

Finally, the affective value of the search process needs to be recognized. Consumers may gain affective benefits from the search process itself (Bloch, Sherrell, and Ridgway 1986; Guitinan and Monroe 1980; Hirschman 1980). Punj and Staelin (1983) found that an individual characteristic labeled "Desire to Seek Information" was the second most important factor in search activity. Some people simply enjoy shopping, others enjoy the confidence and expert status that may result from search. Therefore, the degree to which consumers attach benefits to the affective experience associated with search will influence search behavior. It seems likely that the more positive the affective experience associated with information search, the greater the tendency to search, regardless of the costs or other benefits.

**Proposition 3: Ceteris paribus, there is a positive relationship between the degree of affect buyers associate with the information search process and their propensity to search.**

Affect is defined as a low-level feeling state (Isen 1984). This feeling state may be comprised of a complex of feelings including pleasure, enjoyment, disgust, contentment and so on. Propensity to search is viewed as a stable individual trait that identifies the degree of willingness that the consumer has to seek information on a regular basis.

These extensions to the economic theory of information have implications for hypotheses derived from the theory. Specifically, implications for research on information about quality and signaling, and search are discussed.

### **Signaling and Information About Quality**

As previously developed, one way to avoid the market collapse demonstrated by Akerlof (1970) is to provide consumers with the information necessary to judge product quality prior to purchase. Before implications of the affective dimension of information on quality judgments can be addressed however, perceived quality must be defined.

Perceived quality is defined as the bundle of benefits expected (quality expectation or initial quality judgment) or experienced (quality experience or actual quality judgment) by the buyer as the result of the purchase of a product (cf. Steenkamp and van Trijp 1989). Note that benefits would include any affective experiences the buyer values positively. The process hypothesized by which the buyer arrives at a quality judgment is based partially on Puto's (1987) framing process and incorporates Fiske and Pavelchak's (1986) notion of category-driven affect.

Fiske and Pavelchak propose that categories have affective tags. When a stimulus is categorized an affective tag for the category is retrieved and an affective expectation is formed, called category-driven affect. This process is consistent with Zajonc's (1980) view of affect as holistic and cued by broad, general physical features of the stimulus. These product categories enable a rapid affective response based on

simply categorizing the product. An alternative to this approach is when categories are not available and buyers resort to a piecemeal process of generating affect by retrieving affective tags associated with each attribute considered. Although an important process, the focus of this research effort is on category-based affective responses.

It is proposed that the buyer approaches the purchase situation with a set of cognitive/rational and affective expectations for the product based on information collected as the result of information search and categorization processes. Additionally, the buyer has affective and cognitive/rational objectives for the purchase. Therefore, similar to Puto (1987) the quality expectation judgment should in part be based on the buyer's affective expectations (category-driven affect), cognitive/rational expectations, and purchase objectives.

**Proposition 4: A quality expectation judgment is determined in part by the affective and cognitive/rational expectations for the product and the purchase objectives.**

For example, a buyer looking for a restaurant to which to take a date may have cognitive/rational goals such as good food, reasonable prices, close proximity, and acceptance of credit cards. Affective goals might include a romantic experience and fun. The buyer engages in a search process gathering cognitive and affective information about the ability of different restaurants to deliver the bundle of benefits that meets the buyer's objectives. Based on this information the buyer forms expectations for the different restaurants. Through an iterative process these expectations are revised until time runs out or the buyer is comfortable in making a choice and selects a restaurant. The expectation for the restaurant selected will continue to evolve until the buyer actually experiences the meal at the restaurant. The experience will be compared to the expectation (the reference point) to arrive at the actual quality judgment. Note that both the cognitive dimension of the experience and the affective dimension of the experience

will be compared with the affective and cognitive dimensions of the expectation to arrive at the overall actual quality judgment.

**Proposition 5: A quality experience judgment is determined in part by the comparison of the actual quality experience along two dimensions, affective and cognitive experience, with a similar two-dimensional quality expectation which serves as a reference point.**

The contribution of this conceptualization is its ability to explain seemingly nonrational behavior. Extending the current example, the buyer is queried about the meal the next day and the buyer indicates that the dining experience was less than expected, i.e., low quality. Upon further questioning the buyer indicates that the food was good, it was attractively priced, and the meal was paid with a credit card. According to these cognitive-based goals the buyer should perceive the quality as was expected. However, romance did not occur as expected because there were kids sitting next to their table making noise and the overall judgment is negative.

Part of the reason for the low quality judgment may also lie in the restaurant's inability to "signal" that romantic dinners are not an affective benefit that is offered. A signal was previously defined as a bit of information that a seller can provide to buyers that can improve the predictability of another bit of information (Nelson 1970; Ippolito 1988). Assuming that information has an affective dimension, a signal may be an affective bit of information that can cue an affective experience, i.e., an affective expectation. As an illustration consider again the restaurant owner. To signal a romantic experience the owner could describe the restaurant as romantic, design an ad that "looks" romantic, pick a name that is romantic and so on. Moreover, the product itself can signal a romantic experience through background music, lighting, decor, physical layout, and dress of the staff. The point is that buyers don't rely solely on cognitive information to make judgments; affective information, and hence affective signals, also influence judgments. Consistent with Mittal (1988), Compeau (1990),

Hoffman (1986), and Zajonc (1980) it is likely that physical sensory cues and verbal cues that are sensory-laden will tend to elicit affective responses.

**Proposition 6: Sensory-laden verbal cues and physical sensory cues tend to "signal" more affective responses versus cognitive responses.**

Moreover, it would be expected that positive affective responses would influence the quality judgments as previously developed. That is, *ceteris paribus*,

**Proposition 7: There will be a positive relationship between the affective response to the signal and the quality expectation judgment; that is, the more positive the affective expectation as a result of the signal, the higher the quality expectation.**

In the literature review, a significant volume of research on price as a signal of quality was reviewed. In general, the relationship between price and perceived quality was found to be weaker than expected; this result was attributed to the lack of including the affective component in conceptualizations and operationalizations of perceived quality. If affect is an important dimension of a quality judgment, it would be expected that the relationship between price and quality expectations would be stronger given the proposed definition since buyers will be willing to pay more for a product that provides a "better" affective experience.

**Proposition 8: *Ceteris paribus*, the relationship between price and quality expectation judgments will be significantly stronger when quality expectations are represented by both the affective and cognitive/rational responses versus the cognitive/rational response only.**

It also logically follows then,

**Proposition 9: *Ceteris paribus*, significantly more variance in quality expectation judgments will be explained by both the affective and cognitive/rational responses, than the cognitive/rational response only.**

The basic thesis underlying all of these propositions is that a significant factor, affect, has been ignored in the study of subjective evaluative judgments associated with products. Next the implications for affect on search are discussed.

## **Search**

Search is defined as any activity engaged in by a buyer where the transfer of information (including both dimensions, affective and cognitive) about a product occurs. This is a broad definition and includes passive search activities as well as active search activities. It has already been proposed that buyers who have positive affective responses to the search process will, in general, search more than others. However, this does not address the search activity for a given product or situation.

The literature review on search illustrated the lack of empirical support for the hypotheses regarding search behavior based on the simple cost benefit model suggested by the economic theory of information proposed by Stigler (1961). Moreover, cognitive/rational approaches have been unable to provide explanation for much of the variance in search behavior. The results that do converge suggest that consumers don't search much at all. Because the effort necessary to make the optimal product choice is costly (Russo 1988), consumers may rely on affective responses and affective expectations to provide an overall holistic evaluation of the product since it involves less effort. Given all of the barriers to effective cognitive information use examined by Russo (1988) including insufficient knowledge, inadequate effort, information processing limitations, missing information, irrelevant information, and biased information, the relevant question seems to be, why do consumers bother to search at all? Examining the role of affect in search behavior may provide some insight.

Previously, the simple cost-benefit model of search was revised to include both affective and cognitive components of costs and benefits. It was claimed that affective

responses during the course of the search process may impact on search behavior. Specifically, in the example given, a positive affective response to a product description appeared to "interrupt" the search process and encourage a more immediate purchase.

The influence of affect on search is two-pronged. First, it would be expected that under the cost-benefit model of search, all things being equal, products perceived as higher in quality would elicit less search; that is, there is less to gain by additional search since there is little likelihood of finding a higher quality product. Therefore, the direct influence that affect has on quality judgments should also be manifested as indirect effect on search.

More critically, a direct influence of affect on search behavior is proposed. According to Mittal (1988), affective responses to the stimuli will undergo an imagery building process that results in an image of the buyer enjoying the affective experiences associated with the product. It would be expected that the stronger the affective response the more vivid and salient the affective image would be. This would motivate the buyer to perform actions necessary to experience the affective expectation.

**Proposition 10: There is a positive relationship between the strength of the positive affective response and the intensity of a positive affective expectation.**

Intensity is defined as the richness, reality, detail, clarity, vividness, salience, and motivating capacity of the affective expectation. Moreover, the intensity of the affective expectation image is dependent, in part, on the level of cognitive elaboration (MacInnis and Price 1987). Elaboration is defined by MacInnis and Price as reflecting the extent to which information is integrated with prior knowledge<sup>2</sup>. Therefore, the greater the cognitive elaboration, the greater the intensity of the positive affective expectation.

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<sup>2</sup>The complexity of the interrelationship between cognition and affect should be apparent by now, and consequently the previous notion of consumers in a constant flow of feeling and thinking is worth repeating. Cognition and affect are not mutually exclusive processes.

**Proposition 11: There is a positive relationship between the level of cognitive elaboration and the intensity of the positive affective expectation; the higher the degree of cognitive elaboration, the more intense the affective expectation.**

But what happens if the affective response is not positive? Little research has investigated negative affect and therefore there is an inadequate base on which to form hypotheses. However, Gardner and Hill (1988) did find that subjects in a negative mood tended to use an informational strategy; subjects based their choice on careful information evaluation. Subjects in a positive mood tended to make a choice based on feelings. Therefore, it is proposed that negative affective responses and neutral affective responses will not result in any affective expectations. A negative affective response will merely eliminate the product from further consideration or promote the use of cognitive information.

**Proposition 12: Non-positive affective responses will not result in an affective expectation and will tend to promote the use of cognitive/rational information.**

When a buyer has strong positive affective responses, a more intense and motivating affective expectation is formed. The buyer should perceive greater benefit from the purchase of the product due to the affective experience that is anticipated. Consequently, the stronger motivation to experience the affective expectation prompts the buyer to attenuate the search process since the opportunity cost associated with the postponement, or even loss, of the affective experience is judged to outweigh any added benefits from additional search. In other words, the greater the intensity of the positive affective expectation, the less the buyer will search.

**Proposition 13: There is an inverse relationship between the intensity of a positive affective expectation and the amount of search performed.**

The incentive for additional search is reduced. The buyer perceives great benefits

associated with experiencing the affective expectation and the opportunity cost of postponing or losing that experience is simply too high compared with the potential benefit of finding a better deal.

According to Nelson (1970) and extended by Darby and Karni (1973) three classes of product attribute claims may exist: search, experience, and credence based on buyers' ability to verify the claims. Empirical support for this classification scheme is weak (Ford, Smith, and Swasy 1988). Incorporating affect into this scheme muddies things up a bit. First, two types of affective expectations can be identified, those that are a result of a direct affective claim (e.g., "an exciting car to drive"), and those that are formed by affective responses to cues or signals (e.g., a red car is exciting for me to drive). All direct affective claims appear to be experience claims and hence buyers would be more skeptical of direct affective claims than search claims. Affective responses to signals that result in affective expectations however, are formed by the buyer. There is no reason for the buyer to be skeptical of his/her own feelings. Therefore, affective expectations based on affective responses to signals are not the result of affective claims, but claims about particular product characteristics, or search claims. Consumers should be least skeptical of these claims since they are easily verified upon physical inspection.

**Proposition 14: Buyers will be more skeptical of affective expectations elicited by direct affective claims than affective expectations formed as a result of affective responses to signals.**

Ford, Smith, and Swasy (1990) reported higher levels of skepticism for experience attribute claims compared to search attribute claims supporting Nelson's (1970) hypotheses. The same study found that although consumers could not judge the quality of a credence product, they were not more skeptical of claims about the quality of the product suggesting that their skepticism and judgments of quality are based on

factors other than the cognitive dimension of the information provided. The conceptualization that affect can influence quality judgments has already been developed. Of interest at this point is consumer skepticism. It is proposed that buyers may rely on affective responses to determine how skeptical they are of credence attribute claims since it is likely that buyers know that they may never be able to evaluate the quality of the product in terms of objective and measureable criteria, so they rely on affective responses. Moreover, affective information is easier to process and takes less effort.

**Proposition 15: Buyers will rely more on affective responses to determine level of skepticism for credence claims than for experience claims.**

### **The Role of Expertise**

Although familiarity, expertise, prior knowledge, and prior experience have been used interchangeably, expertise is defined here as comprised of three components: knowledge, familiarity and confidence. A great deal of conflicting or confusing experience may lead to high levels of knowledge and familiarity, but little confidence. An individual who thinks s/he has a low level of expertise will be more likely to respond like a novice than an expert, even though objective measures of ability to perform product related tasks might be indicative of an expert. Familiarity and knowledge are therefore considered necessary but not sufficient conditions for expertise; confidence must also be present. Moreover, although experience may lead to greater knowledge there are other methods to gain knowledge. Thus, experience is viewed as an antecedent to expertise. Finally, familiarity is distinct from prior knowledge in that consumers may be familiar with a product, but have little knowledge about the product (e.g., complex products that are used often such as cars, stereo components, and computers).

The role of expertise in the conceptual model is not clear. On the one hand, as

a consumer gains experience with and knowledge of a product or product class, expectations develop that can influence the internal information available for cognitive responses (Bettman 1979; Markus and Zajonc 1985). The greater the amount of knowledge, the more developed the cognitive structure, and hence, the larger the quantity of thoughts available. This positive relationship between knowledge and internal search has been well documented (Johnson and Puto 1987). If one has a well-developed cognitive structure and is confident in using this knowledge (high expertise), then the cognitive response would have an important influence on the evaluative judgment. If an individual knows little about the object, or is not confident in using the available knowledge (low expertise), the affective response would be an important influence on the evaluative judgment.

Consumers, therefore, rely on available information, affective or cognitive/rational, to form evaluative judgments. Expert consumers have a great deal of cognitive information available and will integrate this cognitive information along with affective responses. Since the cognitive information is so rich, the affective response would not be as beneficial nor influential. Novice consumers do not have much information and must rely more on affect. Therefore, a negative relationship between expertise and the influence of an affective response to the sensory/physical stimuli on the quality expectation judgment would be predicted.

The influence of expertise on search behavior should be similar. That is, higher levels of prior knowledge, and hence *ceteris paribus*, expertise, will facilitate the acquisition of new information and increase search efficiency (Bettman and Park 1980; Brucks 1985; Johnson and Russo 1984), leading buyers to rely more on the cognitive dimension of the information rather than the affective dimension. This is due in part to the reduced effort required which lowers the perceived costs associated with cognitive processing of information. Also, buyers may feel motivated to use information in which

they have invested time and effort, similar to an asset that should produce some income. Consequently, the greater the expertise the lesser the influence of affect on search.

Even though positive affective expectations are posited to negatively influence the amount of search performed, it does not necessarily follow that because experts will be influenced less by these affective expectations they will search less. If experts feel that additional information is not required for the purchase decision, it is likely that they will not engage in additional search, regardless of their affective expectations. Consequently, a negative relationship between expertise and the influence of affective expectations on search behavior would be predicted.

On the other hand, according to the imagery literature, prior knowledge enhances the degree of elaboration and hence promotes more intense images. Consequently, it would be expected that the more intense images would have a greater impact on quality evaluations and search behavior. In other words, a positive relationship between prior knowledge and the influence of an affective response to the sensory/physical stimuli on the quality expectation judgment via a more intense affective expectation would be predicted. Moreover, a positive relationship between prior knowledge and the influence of affective expectations on search behavior would be predicted. These two pairs of propositions positing the effect of prior knowledge on judgments and search are antithetical. Therefore, no specific predictions concerning the effect of expertise are made.

## Summary

The role of affect is a central issue that merits the research attention of marketers, consumer behavior researchers, and economists. The influence of affect permeates buyer behavior and must be considered a core element for any theory of buyer behavior. This chapter reviewed literature from three domains, economics, marketing, and psychology, relevant to the role of affect in consumer behavior. Key conceptual and methodological issues were identified. A model was developed that addressed some of these conceptual issues by integrating the economic theory of information with the substantive knowledge of affect.

The thesis of this work is not radical, nor is it new or novel; it is important. The efforts represented here are consistent with the conclusion drawn by Kassarian (1986):

**"It is clear to me that affect is so much more powerful that it completely dominates rational processing."**

# **Chapter 3**

## **Research Design and Methodology**

This chapter details the research design and methodology used to investigate the research issues discussed in Chapter 2. Moreover, theoretical propositions will be operationalized and converted to empirically testable research hypotheses. In brief, the objectives of this research are to explore affective experiences in shopping and consumption activities, to develop a better understanding of how consumers use affective information, and to test the influence of affect on product quality judgments based on the proposed conceptual model.

### **The Research Program**

Different research questions demand different research approaches. In this study there are two divergent research questions about what is believed to be a single phenomenon. First, the research seeks to detail and understand the affective lived experiences of consumers in their everyday shopping and consumption activities.

Secondly, the role of affective responses, particularly regarding how they are elicited via information and their subsequent effects on product evaluations, will be examined. The first research question requires that a research approach be adopted to allow in-depth probing of actual consumer experiences, a primarily descriptive exercise. The latter research issue demands a totally different approach, one where causal relationships can be examined.

The ability to describe what happens is a different research activity from investigating why it happens (Rosenthal and Rosnow 1984). Rosenthal and Rosnow (1984) lay out three levels of scientific inquiry: descriptive, relational, and experimental. The first level, descriptive inquiry, carefully maps out what happens behaviorally. The access to lived experience is a key component of descriptive behavioral research. The second level, relational inquiry, seeks to identify how certain changes in behavior correspond with changes in some other set of observations. Finally, the objective of the third level of inquiry, experimental inquiry, is to establish causal relationships between variables of interest. Thus, this research effort will necessarily involve two divergent research inquiries.

Based on these similar notions of different approaches to research for different objectives, the proposed research is divided into two distinct studies. One study explores the lived affective experiences of consumers to gain a rich and detailed description of emotions in shopping and consumption activities. These inquiries are performed at an individual level but common themes across individuals will be identified. In this phase qualitative methods are appropriate to examine the phenomenology of affect since the goal of qualitative research is to explore in-depth the feelings people experience and the structure, or relationships, between the different aspects of these experiences (Goldman and McDonald 1987; Thompson, Locander, and Pollio 1989). These inquiries will yield primarily idiographic knowledge, i.e., knowledge of individual consumer behavior.

However, any common themes identified can be considered to be idiothetic (Jaccard and Wood 1986).

Within the positivist paradigm (used in a broad sense to include logical positivism, empiricism, and falsificationism), it is common to use this qualitative research as a precursor to experimental research (Brinberg and McGrath 1985; Rosenthal and Rosnow 1984). However, new research perspectives accept qualitative research as a scientific contribution on its own (Giorgi 1975). For positivists then, the contribution of the qualitative study would primarily result from its ability to enhance future experimental inquiries (Brinberg and McGrath 1985). All research involves a priori theory about the phenomena of interest (Anderson 1986); therefore, a detailed understanding of the phenomena in terms of everyday knowledge obtained from the people who experience it enhances the development of a priori theory. Thus, within a positivist perspective, one benefit from the acquisition of a detailed description of the phenomena, beyond the understanding that it can provide to constituents of the research, is the enhancement of researchers' a priori theory, which may improve subsequent causal research efforts. The position taken here is that this qualitative study makes a contribution beyond serving as a precursor to more "scientific" research efforts. The insight gained from this approach stands as a scientific contribution in the quest for understanding consumers' experiences. Moreover, the output of the research fits with the goal of the research and addresses the research question.

The second study examines the influence of affect on product evaluations and search behavior using a laboratory experiment. This effort will produce nomothetic knowledge. Although the influence of affect on the behavior of any individual consumer will not be known, the impact on the behavior of a group consumers will be inferred. Validity is defined in this stage as correspondence or fit and is primarily concerned with construct validity and the ruling out of rival hypotheses (internal validity).

Hence, the understanding of affect and affective information should be enhanced due to these two different research perspectives. Moreover, the two perspectives with which the phenomenon is approached also enhance the confidence in the knowledge produced (Anderson 1986; Hudson and Ozanne 1988). Not that convergence is expected or desired; simply put, two perspectives should offer greater knowledge and understanding than one. The studies executed in tandem should each contribute knowledge that can assist in gaining an understanding of the phenomenon.

A central focus of the experimental effort is the construct validity of "affective information." As Peter (1981) notes, a single study does not establish construct validity. Construct validity is a generalization issue; specifically, can the construct be generalized back to the theory? The validity of a construct must be inferred across many different studies, preferably using maximally different methods in order to separate the method from the construct. Therefore, two experiments will be conducted to provide better evidence for the inference of construct validity. Moreover, the conduct of two experiments will allow for the examination of the model in two different contexts. The experiments will provide insight into specific relationships between affective information and consumers' product evaluations in different contexts.

The first two sections present the methodology for the two studies. Within the section for the experimental study, theoretical propositions developed in Chapter 2 are translated into operational hypotheses where appropriate. Rationale for testing these specific hypotheses is also provided. Issues associated with the research design, independent variables, dependent variables, sample selection, stimulus presentation, data collection techniques, and related issues concerning validity and the limitations of the design and methodology are discussed for the experiment. For the qualitative study, issues associated with the design, development of rapport, conduct of the interview, interpretive process, data analysis and bias bracketing are discussed. Finally, each

section presents the analytical techniques to be employed in the analysis of the data.

## **The Phenomenology of Affective Consumer Experiences**

This section presents the methodological procedures that will be used to operationally explore consumers' affective experiences. A priori themes that flow from the literature review and the conceptual model developed in Chapter 2 will be articulated. The primary research objective for this study is to understand how consumers use affective information and to grasp the essence of affective expectations and experiences. However, because this effort is qualitative, propositions will not be converted to operational research hypotheses; instead, a priori themes will be articulated (Schouten 1991).

Affect is a lived-experience; therefore, it is important for the researcher to acquire detailed information concerning consumers' affective experiences during the purchase and consumption of products. A priori themes can be developed from the literature review and conceptual model developed in Chapter 2 to guide the effort. As the themes are developed, definitions of the relevant constructs are also provided as a starting point. However, as will later be articulated in the methodology section, these definitions are only starting points and will change and develop as the research progresses. Moreover, no attempt will be made to use these higher-order constructs during the qualitative research phases; to do so would force the participants to adopt terms to describe their experience that may not accurately reflect that experience (Thompson, Locander, and Pollio 1989).

This investigation examines some of the basic concepts associated with use of the affective dimension of information. Specifically, the portion of the conceptual model

developed in Chapter 2 concerning the economics of affective information and buyers' use of affective information will be explored. The goal of this first study is to capture the essence of consumers' affective experiences during purchase and consumption behavior.

## **THE EXISTENTIAL-PHENOMENOLOGICAL METHODOLOGY**

A research design must be selected that best matches the assumptions surrounding the phenomena of interest, the research goals, and the constraints imposed by the research question. Due to the goal of rich descriptive output and in-depth understanding, this study will employ a qualitative research method, an existential-phenomenological approach to in-depth individual interviews, called the phenomenological interview. The purpose of this study is to describe the human experience as it is lived (Thompson, Locander, and Pollio 1989).

Feeling states are lived-experience. Consumer researchers have recently criticized consumer research for ignoring experience (Holbrook and Hirschman 1982; Levy 1981; Mick 1986). Moreover, the adequacy of conventional research methods has been challenged (Hirschman 1986; Hudson and Ozanne 1988; Thompson, Locander, and Pollio 1989). The goal of this research is to identify recurring experiential patterns in the lived affect experiences of consumers. An existential-phenomenological approach is appropriate where the goal of the research is to understand the consumer's experience (Thompson, Locander, and Pollio 1989), consistent with the goals of this research. As Thompson, Locander, and Pollio (1989, p. 144) state:

"For consumer researchers to understand experience, they must first employ methods and assumptions that allow for experience to exist."

It is in this spirit that this study is conceived; methods must first be employed that allow the affective experience to exist in order for it to be understood. Feeling states are

thought to be more difficult for participants to detect, disclose and describe. These three major obstacles of detection, disclosure, and description need to be overcome in the study of affect.

**Major Obstacles in the Exploration of Affect.** First, subjects may find the task of detecting and recognizing their feeling states to be more formidable than detecting their thoughts. This struggle may in part be due to thoughts being stored in memory using words or pictures (MacInnis and Price 1987); however, feeling states are lived experiences and are not likely stored in memory as simple words or pictures (Zajonc 1980). Therefore, in order for respondents to detect and recognize a previous feeling state, more effort is required than a simple memory retrieval; it is possible that feeling states must be reconstructed each time using information stored in memory about the event or object. The respondent must first recall the event and survey his or her entire biological system at the time of the event, including any salient thoughts at that time. This survey will yield indicators of the feeling state. These indicators must be synthesized into an overall description. It is likely that this process involves a categorization process; that is, the feeling state is categorized (Fiske and Pavelchek 1986). However, the subject is limited to categorizing the feeling state into those categories that can be labeled with words in order for the feeling state to be recognized. Therefore, due to the impreciseness of language, information about feeling states may be lost. Nonetheless, some label is attached to the feeling state. It is important to note that this elaborate cognitive effort is not required to **experience** the feeling state; it is required to **detect** the feeling state, consistent with the conceptualization of an affective response as an immediate response. Therefore, the methodology employed should provide adequate time for this process to occur, and encourage deep reflection.

The second obstacle is the potential reluctance of subjects to disclose feeling states. Expressing feelings appears to be more personal and revealing than expressing more rational thoughts based on cognitive structures. Consequently, disclosing true feelings involves exposing oneself, a "baring of the soul." Revealing oneself so nakedly is a larger risk than articulating cognitive structures. By expressing feelings, one assumes the risk of total rejection since the feeling state is holistic; whereas, by expressing a cognitive structure one assumes the risk of the rejection of that thought or possibly one's ability to develop such thoughts, a much lesser risk. In other words, revealing to someone that graduate study is difficult and involves a great deal of independent study is less risky than revealing that one feels lonely and depressed. Consequently, the methodology employed must minimize the risk the respondent feels in exposing feelings.

Finally, feeling states are more difficult to describe (Zajonc 1980). This obstacle is related to the obstacle of detection although conceptually distinct because description requires external verbalization whereas detection can be achieved wholly within the mind. Therefore, social norms associated with the articulation of feelings and the limitations of the language used may influence how subjects describe their feelings. For example, a person may detect a feeling state labeled "yuchy" in their mind, but describe the feeling state as sadness, since they view "yuchy" as a socially unacceptable descriptor. Or, a person may feel depressed but describe their feeling state as sadness since sadness may be perceived as more socially acceptable than depression which suggests an emotional illness. This view is also supported by Pieters and van Raaij's (1988a) notion that people manage the expressions of affect such as expressing no signs of affect when experiencing affect, expressing signs of affect without experiencing it, and expressing signs of a different affect than one is experiencing. Consequently, the research methodology employed should minimize the social desirability demand characteristics and provide participants with an environment that encourages the

participant to feel relaxed and uninhibited so as to express the affective experience as candidly as possible.

***The Phenomenological Interview.*** The phenomenological interview represents an alternative methodology (alternative with respect to most positivistic forms of inquiry) that is perhaps the most powerful method for achieving an in-depth understanding of another person's experience (Kvale 1983). The in-depth individual interview is conducted free-form, i.e., without structure, to allow the participant as much freedom of expression as possible.

In-depth individual interviews are preferred over group interviews due to the reduced opportunity for social desirability demand characteristics to influence responses. Since participants will be aware that they are participating in a research study, many demand characteristics may influence their responses; the effects of these social desirability demand characteristics may be intensified due to the presence of other participants. Most importantly, participants will frequently attempt to justify a response in a socially acceptable manner; often this socially accepted justification involves rationalizing a "feeling" (nonrational) response (Zajonc 1980). But this is exactly the situation that must be avoided. In order for subjects to open up and discuss the role of affect in their search, purchase, and consumption behavior, they must feel comfortable to do so. Subjects must not be made to feel that buying a product based on emotions is an inappropriate response; on the contrary, it is exactly those feelings that is the object of this investigation. According to Ellsworth (1977) the research setting should be selected so that the research question can be fairly asked. It appears unlikely that a group interview would be a fair environment. Similarly, group interviews have the potential for domination by a minority of participants, artificially constraining the responses of others.

Group interviews, such as focus groups, provide relatively unstructured output due to the diminished ability to maintain control of the interview setting. Consequently, when attempting to probe areas of consumer behavior thought to be easily influenced by social norms, such as the influence of "nonrational" feelings on purchase behavior, control of the research environment is critical. Better control can be achieved in an individual interview setting. Furthermore, the group process does not facilitate establishing attribute priorities (Claxton, Ritchie, and Zaichkowsky 1980). In the present effort the establishment of the priority of attributes that communicate affective information is of focal interest. Finally, individual interviews have been demonstrated to be more productive (Fern 1982).

## **DATA COLLECTION**

The collection of data will proceed by the conduct of individual in-depth interviews. Each interview will be audio recorded to archive the data. For each participant, the length of interview will vary depending on the researcher's judgment of whether or not new pertinent information is being collected. The specifics of the interview format and the procedures for the data collection are discussed in detail in this section.

**Interview Format.** Each interview is unstructured allowing the respondent to find his or her own way to approach the phenomena of interest yielding a conversation, not a vocalized survey (cf. McCracken 1988). This unstructured approach is preferred since it allows for a more rapid development of rapport, maximizes participants' opportunities to introduce topics in a manner that is comfortable to them, and lets participants develop the discussion at their own pace (Schouten 1991), all of which are critical concerns when attempting to get participants to express their feelings.

Initial interviews are scheduled for ninety minutes. Ninety minutes was chosen because although additional time may be required, participants might not want to participate if a longer time was scheduled. Follow-up interviews over the course of one to two months are used as necessary to gain additional information and to clarify information already collected.

**Interview Setting.** The setting of the interview must provide an environment where participants feel comfortable in freely describing their experiences and stimulate deep reflection. Since the inquiry centers on the affective responses to products, participants will probably be most comfortable discussing their feelings associated with their possessions when the possessions are available to "trigger" these feeling states. Hence, interviews should be conducted in a setting where the participant can interact with the object. Most likely these objects would be available in the participants' homes and therefore the interviews will be conducted there. This will allow for the interview to move to the garage if a conversation concerning affective responses to one's car is broached or to the bedroom if the participant wishes to discuss jewelry, and so forth. Moreover, it is likely that an interview conducted in the participant's home will give the participant a sense of control which may enhance the development of rapport. Finally, if short follow-up interviews are necessary to provide additional clarification, the telephone may be appropriate since the participant would be still interviewed in his or her home.

Consistent with these notions, the interviewer should dress smartly, but casually. A pair of casual pants with an open collar shirt and sweater should suggest an informal appearance conducive to the establishment of rapport. Moreover, it is unlikely that participants will "dress-up" for the interview and therefore, overdressing on the part of the interviewer could make the participant uncomfortable.

An opening request such as "Tell me about a recent shopping experience." will

start the establishment of rapport by providing an easy question that is interesting for most people to answer. A follow-up question will start the approach to the topic of interest, e.g., "What happened after you bought \_\_\_\_\_?" This should allow the participant opportunities to communicate about the ownership of the product. Probes such as asking the participant to describe the last time s/he went shopping, and asking them to show the interviewer any product that was mentioned will encourage the participant to relate the affective experience associated with the activity to the product used in the activity. The establishment of rapport combined with the presence of the product should allow for rich descriptive accounts of the lived experiences. Once a product that appears to be affective-laden for the participant is identified, probes can be used to explore themes associated with the affective experiences in the purchasing and consumption of the item.

The methodology focuses on the participant's description of the experience. The interviewer asks descriptive questions and avoids the use of "why" questions which would tend to shift the focus of the conversation away from a description of an experience to a more abstract explanation or justification. No attempt is made by the interviewer to get the participant to describe the experience in conceptually abstract terms; respondent terms are defined by the respondents and hence the meaning of the terms for the researcher is derived from an "emic" perspective; that is, an emic perspective requires that the researcher adopt the perspective of the participant. It is this "emic" perspective that allows the researcher to develop an idiographic understanding of each participant's description.

## **ANALYTICAL PROCEDURES**

In a hermeneutical circle fashion, the understanding of each interview assists the researcher in an understanding of the phenomena in a holistic manner; that is, the

interpretation progresses via an iterative process of relating a part of the text to the whole (Bleicher 1980; Ricoeur 1976). The interpretations are constantly revised as the researcher grasps each section of text. The interviews will be audio recorded and verbatim transcripts of the interviews will be prepared. During the interview, note taking by the interviewer will be restricted to only those thoughts that might be lost even with a audio archive in order to maintain rapport and comfort. Immediately after each interview is completed, the interviewer will prepare detailed field notes.

The recording of the interview will be transcribed and an iterative process of coding, categorizing, and abstracting the data will be used to identify patterns and an overall structure for the experiences (Giorgi 1975; Schouten 1991; Wertz 1983). The output of this effort will consist of a rich description of the consumer's lived shopping experiences and the meaning of these experiences to them. This rich description is then interpreted, with the transcript of each interview treated as an autonomous body of data. Questions such as, "Is the researcher's interpretation at the level of the respondent's lived experience?" and "Does the interpretation take into account all parts of the transcript?" will be used to guide the interpretive process (Thompson, Locander, and Pollio 1989). This interpretation then will guide, but not constrain, subsequent interviews.

After all of the interviews have been conducted and analyzed independently, the final analysis will sort and categorize the data collected from all of the interviews in order to consolidate the patterns identified into emergent themes. Through this interpretive process, common themes and patterns will be identified by the researcher. The rich descriptive information combined with the knowledge of common themes enhances the understanding of consumers' affective shopping and consumption experiences.

## **SAMPLE**

In any research effort, one criterion for sample selection is the goal of the research. In this case, the goal of the research is to gain an understanding of how consumers use affective information and the role of affect in consumers' perceptions of value. The sample therefore, should consist of respondents who have considerable shopping and consumption experiences. Theoretically, this should include most consumers; however, it is likely that some consumers are going to be naturally more "talkative" than others. Therefore, the conduct of the interview, i.e., facilitating an environment which encourages respondents to talk about shopping and consumption experiences, is as critical as the sample selected.

The use of student samples has been debated (Calder, Phillips, and Tybout 1981, 1982, 1983; Lynch 1982, 1983). According to Calder et al., the use of student samples is appropriate if the goal of the research is to test theory versus generalizing results. Lynch argues that testing theory is generalizing results since it primarily involves a test of construct validity and construct validity is a matter of generalizing the construct measured back to the theory. Therefore, Lynch advocates the use of relevant and representative samples for all research. In the present effort, theory testing is not a goal; the goal of the research is an understanding of consumers' lived experiences and what those experiences mean to them. Therefore, the bench-mark of the appropriateness of a student sample for this research is whether students somehow differ from other consumers in their experiences. Since students are on the average fairly young, their level of experience in the purchase and consumption of products is somewhat limited. Moreover, since there is reason to believe that this lack of experience might constrain the depth of their responses, they are an inappropriate sample. It is proposed that staff at a university and/or people from a local church be interviewed, although any adult consumer would be an appropriate participant.

Participants will be recruited via acquaintances the researcher has at the university and church and personal friends. Some friends and acquaintances will act as contacts for the recruitment of other participants. Although interviews with both men and women would be informative, providing the opportunity to look at common differences in their shopping and consumption experiences, this effort will be limited to recruit only female participants due to the much larger scope that would be required for both sexes to be interviewed. Moreover, women still tend to be the primary shopping unit in most households and should have a vast array of experiences upon which to draw. Other than their contribution to knowledge, no other inducement will be offered for the participants' participation. However, each participant will be assured of strict confidentiality. Although verbatim quotes from the interviews may be published, participants will be assured that fictitious names will be used to preserve confidentiality.

The number of interviews to be conducted is in part dependent on the amount of knowledge gained from each interview. The criteria for determining the number of interviews to conduct is the amount of confidence that the researcher has in the knowledge that has been acquired indicated by the level of redundancy in the information being gathered. The researcher must be confident that the richness and detail of the descriptions is sufficient for a deep understanding. It is anticipated that at least 5, but probably no more than 10 interviews will be required before the researcher will feel confident in the knowledge gained based on other research using the phenomenological interview method and as sufficient for the generation of themes (McCracken 1988; Thompson, Locander, and Pollio 1989).

## **LIMITATIONS OF THE PHENOMENOLOGICAL INTERVIEW**

All methods are flawed (McGrath 1982), and the phenomenological interview method is no exception. A major flaw of the phenomenological interview is that, as an

interpretive method, it falls far short of the most consistently applied criterion of evaluation which requires that the phenomenon be examined in the natural setting (Blumer 1969; Hudson and Ozanne 1988). This criterion is considered to be important since a major part of the epistemology of interpretive methods is based on the assumption that the context is part of the phenomenon. However, a unique approach that can be utilized in the phenomenological interview is to get respondents to mentally place themselves in the context being discussed. Although not as ideal as examining the phenomenon in its natural setting, this alternative approach does make the context salient.

The ability of the researcher to effectively "bracket" biases and social/cultural backgrounds also limits confidence in the results (Hudson and Ozanne 1988; Thompson, Locander, and Pollio 1989). To the extent that the researcher allows his or her biases and social/cultural background to influence the respondents answers, the conduct of the interview, and the interpretation of the transcript, confidence in the description of the phenomena is diminished. Biases on the part of the participant can also limit the results. Participants may have expectations about the researcher or may intentionally mislead the researcher (Hudson and Ozanne 1988). In an effort to limit the impact of the researcher's biases on the interpretation, a rigorous "bias bracketing" process will be followed by the researcher (Colaizzi 1978). This bracketing process consists of the researcher interrogating any presuppositions held by probing inquiries concerning the selection of this topic, the potential influence of personality on the study, the impact of research values on conduct and results of the study, and the hidden gains that might accrue to the researcher from this study. Thus, the researcher does not cleanse the mind of these presuppositions, but merely articulates them and recognizes them so their impact may be assessed in light of the conduct of the study and the results.

The use of individual interviews as opposed to group interviews is still debated

(Calder 1977; Fern 1982; Goldman and McDonald 1987). Goldman and McDonald view group interviews as sometimes enhancing participants' willingness to converse about sensitive subjects, exactly the reason that individual interviews were selected for this research. That is, respondents may find it more difficult to disclose their true feelings in a one-to-one interview environment; the realization that others have similar experiences and feelings as members of the group begin to open up may provide for a very candid discussion. However, it is desirable to facilitate respondents probing deep into their own feelings, and therefore, the individual interview is considered to be the better alternative for this research effort, since the ability of some participants to lead others in a discussion would have a devastating effect on the natural unfolding of the participants' experiences.

Finally, the small sample size and the fact that respondents are not representative reduces the generalizability of the results.

## **The Influence of Affective Responses On Consumers' Product Evaluations**

The goal of this study is to experimentally manipulate affective information to examine its causal effects on consumers' product evaluations. Experiments are an appropriate methodology since the goal is to establish a causal relationship between the variables of interest. This phase of the research corresponds to the second stage of the Validity Network Schema, utilizing the theoretical path (Brinberg and McGrath 1985). The objective is to combine elements and relations from the conceptual and substantive domains to form a set of hypotheses. These hypotheses are then tested using

measurement and comparison techniques selected from the methodological domain. In this section an experiment is discussed which will causally examine the influence of affective information on quality expectations.

Chapter 2 presented a conceptual model integrating affect into the economic theory of information. Considering that many experimental examinations have occurred over the last thirty years focusing on only the cognitive/rational dimension of information, it is unrealistic to expect a single study to test all of the propositions previously developed. Therefore, only a subset of propositions will be examined in this first experiment; the other research questions are left for future efforts.

The choice of which propositions to examine is guided by the central thesis of the investigation. That is, those propositions that examine the central thesis of the influence of affective information on product quality expectations will be investigated. This present research effort is restricted in scope to examining only product quality expectations. The effects on search behavior and peripheral issues, such as skepticism of claims, and affect investment will not be included in the scope of this investigation. The final choice is also influenced by the results of the exploratory investigations. Knowledge gained from these investigations may change the final design.

This set of experiments examines the effects of affective information on product quality judgments. This section converts the theoretical propositions presented in Chapter 2 to empirically testable hypotheses. The methodology including the independent variable manipulations, design, sample, stimulus presentation, dependent variable measures, data collection procedures, research plan, and data analysis is presented.

## RESEARCH HYPOTHESES

This section translates those theoretical propositions presented in Chapter 2 that will be investigated into empirically testable hypotheses. First, the operationalization of the independent construct, affective information level, will be outlined to enhance the interpretation of the research hypotheses.

Affective information was conceptualized as one dimension of information, a dimension that communicates emotional or feeling state information. It was conceived that verbal and physical cues can provide different levels of affective information. Specifically, the inclusion of a description of certain physical/sensory product cues such as color, overall shape and design, aroma, texture, and taste in a verbal cue will increase the level of affective information. The availability of physical/sensory product cues also determines the level of affective information. For example, a black and white photo, a color photograph, a video with sound, and the actual product have increasingly higher levels of affective information since each stimulus contains higher levels of physical/sensory cue availability. Consequently, the operationalization of the level of affective information will be based on the level of physical/sensory product cues available.

The conceptualization also posited that there were two different modes of affective communication, direct and indirect. Direct affective information communication occurs when an affective response to the purchase or consumption of a product is communicated verbally. Indirect affective communication occurs when an affective response is "signalled" or suggested via physical/sensory product cues. Therefore, the affective information can be communicated in either a direct, i.e., a verbal description of affect, or an indirect, i.e., actual physical/sensory product cues or accurate representations context. Thus, two experiments are required to test both communication methods, since combining them in a single experiment would require the assumption

that the level of affective information across both communication modes would be constant; an assumption that cannot be tested and appears unrealistic. For example, is it reasonable to assume that a written product description and a picture could be prepared as stimuli that would provide the same level of affective information? Clearly, the difficulty of assessing the level of affective information of each of these stimuli preclude such an operationalization.

In sum, two experiments will be conducted to test the influence of affective responses to different levels of affective information on product quality judgments. One experiment will examine this effect in a direct communication context, while the other experiment will essentially replicate the first, but in an indirect communication environment. The hypotheses however, will be the same for both experiments and are developed next.

### **Affective Information Level Effects (H1)**

It was proposed that sensory-laden verbal cues and physical sensory cues tend to "signal" a more affective response versus cognitive response. Consequently,

H1(a): Subjects presented with product stimuli that contain a high level of affective information will have stronger affective responses than subjects presented with product stimuli that contain a low level of affective information.

H1(b): Subjects presented with product stimuli that contain a low level of affective information will have more thoughts listed than subjects presented with product stimuli that contain a high level of affective information.

The conceptual model also posits that these affective responses will generate affective

expectations, the intensity of which are positively related to the strength of the affective response.

H1(c): There will be a positive relationship between affective responses and affective expectations.

H1(d): Subjects presented with product stimuli that contain a high level of affective information will have more intense affective expectations than subjects presented with product stimuli that contain a low level of affective information.

Moreover, these affective responses will also directly influence subjects product quality expectations via their affective expectations.

H1(e): There will be a positive relationship between affective responses and product quality expectations.

According to the conceptual model, these affective expectations are positively related to the product quality expectation.

H1(f): There will be a positive relationship between affective expectations and product quality expectations.

That is, since only positive affective responses are being studied, subjects presented with stimuli with a high level of affective information (affective-laden stimuli) should expect higher product quality than subjects presented with stimuli with a low level of affective

information. This relationship is the main effect of the model and thus represents a major thesis of this research.

H1(g): For subjects presented with product stimuli that contain a high level of affective information, product quality expectations will be higher than the product quality expectations for subjects presented with product stimuli with a low level of affective information.

The model also proposes that the cognitive response will influence cognitive expectations and quality expectations.

H1(h): There will be a positive relationship between cognitive/rational response and product quality expectations.

H1(i): There will be a positive relationship between cognitive/rational response and cognitive/rational expectations.

H1(j): There will be a positive relationship between cognitive/rational expectations and product quality expectations.

Finally, it was posited that both the affective and the cognitive/rational responses and expectations together would explain more variance in the quality expectation judgment compared to the cognitive/rational responses/expectations only.

H1(k): The explained variance for product quality expectations will increase when affective responses are included with cognitive/rational responses.

H1(l): The explained variance for product quality expectations will increase when affective responses and affective expectations are included with cognitive/rational responses and cognitive/rational expectations.

## **METHODOLOGY**

Within the context of experimental investigation, McGrath (1982) notes that the goal for any research effort is to maximize generalizability, measurement precision, and contextual realism for the phenomena to be studied. Unfortunately, these "desiderata" are such that the maximization of one desideratum requires that at least one or both of the others be compromised to some extent.

The goal of the present research is to examine empirical evidence for a theory concerning the role of affective information in product evaluations. Given that theory testing is the primary objective, the internal validity of the study is of paramount importance. To maximize internal validity, the investigation must provide a high degree of control over the setting, subjects, procedures, and variables. Consequently, the use of a laboratory experiment, where control can be maximized, seems most appropriate given the goals of the research.

### **Levels of Independent Variable**

The hypotheses call for the manipulation of one independent variable, affective information level. Because the knowledge concerning the impact of affect on product evaluations is in the early stages, only two levels of this variable will be manipulated. This is not to suggest that conceptually the variable is viewed as dichotomous; to the contrary, affective information is considered to be continuous, however only two points will be examined in this initial study.

In investigations of information search, information is often operationalized as the provision of verbal cognitive/rational information about product attributes such as price, size, and product features (Brucks 1985; Moore and Lehmann 1980; Ratchford 1975; Urbany 1986). That is, information about two attributes is considered as more information than information about one attribute. This procedure can be adapted for the provision of affective information.

For the direct information mode experiment, two levels of affective information can be provided by the presence or absence of direct verbal affective claims. For example, in a product description, phrases describing affective experiences associated with the purchase or consumption of the product would be present in the high affective information condition, but absent in the low affective information condition (e.g., pride of ownership, the excitement of..., the thrill to...).

For the indirect information mode experiment, the level of affective information in the stimulus must be manipulated. Since the conceptual model proposes that sensory/physical product cues communicate the affective information, two levels of affective information for the indirect mode can be achieved by the provision of product stimuli either rich in sensory attributes or lacking in many sensory attributes. For example, the high affective information group could view a color videotape while the low affective information group would be presented with a black and white video.

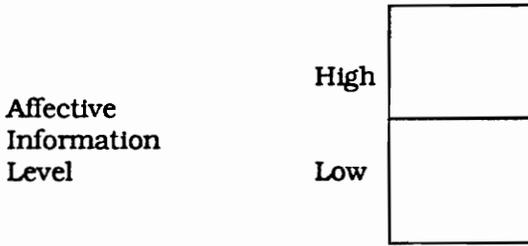
The limitation of this approach is that only two points are provided for the effect of affective information on product quality expectations and conclusions cannot be drawn about the functional relationship between affect and product quality expectations.

## **Design**

The research will be conducted using a between subjects design with two levels of affective information (high and low) for each experiment. The first experiment

will manipulate two levels of affective information in a direct communication mode context and the second experiment will manipulate two levels of affective information in an indirect communication mode context. The two different treatment groups act as controls for each other (Calder, Phillips, and Tybout 1981). Subjects will be randomly assigned to one of the two treatment conditions in each of the experiments.

Experiment 1: Direct Communication Mode



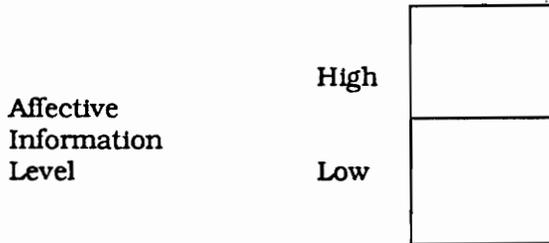
Dependent Variable: Product Quality Expectations

Independent Variable: Affective Information Level (A)

Statistical Model:  $Y_{ijk} = \mu + \alpha_i + \beta X_{ijk} + \epsilon_{ijk}$

where:  $i = 1, 2$   
 $j = 1, 2, \dots, n$   
 $k = 1, 2, \dots, n$   
Y = perceived quality expectation  
X = covariate "expertise"

Experiment 2: Indirect Communication Mode



Dependent Variable: Product Quality Expectations

Independent Variable: Affective Information Level (A)

Statistical Model:  $Y_{ijk} = \mu + \alpha_i + \beta X_{ijk} + \epsilon_{ijk}$

where:  $i = 1, 2$   
 $j = 1, 2, \dots, n$   
 $k = 1, 2, \dots, n$   
Y = perceived quality expectation  
X = covariate "expertise"

**FIGURE 3: PROPOSED RESEARCH DESIGN**

A between subjects design is proposed since the research is not concerned with practice (learning) effects; on the contrary, the research focus is on the effects of affective information in the absence of practice. In other words, at this stage of inquiry the progression from one level of affective information to another, or from one affective information mode to another is not of interest. Moreover, the carry-over effects of such a design are to be avoided since they may interfere with the ability to isolate treatment effects (Greenwald 1976).

A factorial design would be preferable for its advantages of economy and generality (Keppel 1982); moreover, a factorial design makes more efficient use of the sample and thus is more economical than two one-way designs. However, due to the inability to assure constant levels of one factor across the levels of the other factor, the two-way factorial design is not appropriate and two one-way designs will be implemented. Thus, the design does not allow both the amount of affective information and the affective information communication mode to vary at the same time providing a more general effect. The impact of the level of affective information therefore, cannot be examined across different types of communication modes. Additionally, the effect of information mode cannot be examined across different levels of affective information.

No interaction is hypothesized between affective information level and affective information communication mode and thus, interpretation of the effects using two single-factor experiments should not be misleading, since the effects should be unique to the level of the affective information in each experiment.

## **Sample**

The sample selection is always guided by the research goals. In this case, the goal of the research is to test theory. Therefore, a sample should be selected that allows for a fair test of the theory. Since the research is in its early stages, a sample that

minimizes the individual differences and maximizes the opportunity for the effects to manifest themselves is appropriate. Students are a convenient sample and there is no reason to suspect that the influence of affective information on product quality expectations would be any different from other consumers as long as a relevant product stimulus is chosen. The procedure for product selection is outlined in a later section. In addition, a student sample offers the advantage of potentially higher levels of homogeneity which can assist in the detection of treatment effects since random noise due to individual differences is reduced (Calder, Phillips, and Tybout 1981). Therefore, a student sample will be employed.

An appropriate sample size can be determined via power analysis. Compeau and Monroe (1990) report effect sizes of affect on product quality perceptions of .29 and .33 as measured by eta. According to Cohen (1977, p.284):

$$f = \sqrt{(\eta^2 / (1-\eta^2))}$$

and one can solve for  $f$ . Using the .29 effect size estimate to be conservative,  $f = .30$ , somewhere between a medium ( $f = .25$ ) and large ( $f = .40$ ) effect size. Setting the alpha level of .05 with two levels of affective information, in order to achieve at least a power of .80, the cell size must be 44 subjects, for a total sample size minimum of 88 for each experiment (taken from the power tables in Cohen 1977, p.312.).

### **Affective Information Communication Mode**

As previously developed, two experiments will be required to test the hypothesized effects across different communication modes. Therefore, any two modes of communication are appropriate as long as they provide a test of the hypotheses in different communication contexts. Pretests will not be required to select those stimuli

that best represent the two modes of affective information, direct and indirect. The definitions are simple and the key element involves making certain that the stimuli used for the direct affective information communication mode is verbal, and the stimuli used for the indirect affective communication mode contains only physical/sensory product cues.

## **Independent Variable Manipulation**

The procedure for establishing the levels of the independent variable, affective information level, is described in this section.

When little is known about the phenomena being studied, initial investigations must provide a research process that maximizes the opportunity to detect the hypothesized effects. One step toward that goal is a strong manipulation of the independent variables. The levels of affective information need to be selected to allow a strong manipulation in this early empirical examination. If the manipulation is too weak, power might be reduced and statistical conclusion validity would be compromised. Pretests will be used to determine the level of affective information present in various verbal and physical sensory product stimuli. Those stimuli that present the most opposite extreme levels of affective information (low and high), for both verbal and physical/sensory stimuli, will be selected.

## **Stimulus Presentation**

The form of stimulus presentation will be determined by the results of the pretests exploring the manipulation of the independent variable. Product related stimuli (e.g., written product descriptions, photographs, videotapes, models, and actual products) will be selected based on their ability to communicate opposite levels of affective information directly or indirectly depending on the experiment being conducted.

A confound could occur if brand information is included or if the brand is recognizable with either verbal or physical/sensory product stimuli. The brand may elicit an affective response which would be confounded with the affective response to the affective information. Therefore, any suggestion as to a brand should be avoided. Although this procedure reduces the realism of the experimental conditions, the trade-off is considered acceptable to preserve the control required to provide a fair test of the hypotheses. Allowing brand information in the stimuli would tend to introduce more random noise in the design and increase unexplained variance, reducing the power of the test. However, this same result may occur if brands are inferred. Therefore, careful pretesting must be performed to select stimuli that do not suggest brands, or if that is not possible, measures will have to be developed to assess the overall attitude toward the brand, and statistically remove any variance due to its presence.

### **Dependent Variable**

The variable of interest is product quality expectation. Although not explicitly labeled as such, most of the previous research has measured product quality judgments as expectations rather than experience (see Rao and Monroe 1989 for a review). These studies generally provide product stimuli in the form of written descriptions or simulated advertisements and then ask the subject to rate product quality. Without experiencing the product, this quality judgment must take the form of an expectation. This research recognizes this distinction. Moreover, the focal interest is on judgments of quality expectations, not judgments of quality experience; that issue is left for future research.

Previous research has been criticized for measuring quality using single indicators (Monroe and Krishnan 1985). More recent research has used multiple indicators (e.g., Dodds 1985, Dodds and Monroe 1985; Grewal 1989; Krishnan 1984). However, the multiple indicators only tap the more rational/cognitive dimensions of

quality perceptions (e.g., reliability, durability, workmanship). If such an operationalization were employed in the present effort the cognitive focus would seem to preempt any test of the impact of the affective response on the quality expectation. It is more sound methodologically to use multiple indicators since constructs are usually more complex than what can be captured by a single indicator (Churchill 1979). Based on the above reasoning a single indicator of product quality expectation is tempting. However, multiple indicators can be selected to maintain a more holistic evaluation without unduly emphasizing a more cognitive-based evaluation. Indicators such as overall quality, global satisfaction and the value a person would attach to the product appear reasonable. Note that value is not used in the tradition pricing research sense of a cost/benefit ratio (Monroe 1990), but refers to an individual evaluation of the product's overall importance.

In the final analysis however, a more accurate measure of consumers' perceptions of expected product quality might employ both affective and cognitive measures and an overall holistic perception. That is, if part of a consumer's judgment of product quality includes how the product makes him or her feel, researchers need to measure this dimension. However, to include specific items to tap these feelings as part of the quality measure in this effort would be tautological.

## **Mediating Variables**

Several variables are hypothesized to mediate the relationship between the level and mode of affective information and subjects' product quality expectations. This section discusses how these variables will be measured.

***Affective Response.*** The affective response measure must capture the different emotions, moods, drives, and feeling states that the product stimulus elicits. Moreover,

the intensity of the response must be captured. The complexity of capturing this affective response is amplified due to its product specific nature. Consequently, a product must first be selected before a scale can be constructed to measure the affective response, since different emotions, moods, and feeling states are relevant for different products (Compeau and Monroe 1990). However, once a product has been selected a procedure similar to Compeau and Monroe (1990) can be employed. This procedure presents pretest subjects with a comprehensive list of possible feeling states. Subjects are requested to circle any and all feeling states that they might experience as the result of the purchase or consumption of the product. Those items selected most often based on some criterion are used in the scale construction.

Finally, the ability to capture the intensity of the response is enhanced since only positive affect is being investigated. Had both positive and negative affect been included, the ability to capture both direction and intensity in a single measure would have been reduced (Compeau and Franke 1990).

**Cognitive Response.** The cognitive response will be captured with two measures. First, respondents will be asked to perform a thought listing task. These thoughts then will be self-coded by the respondents as part of a later task as to direction and content. In other words, each thought will be identified by the respondent as being directed toward either the product itself or the stimulus (e.g., product description, picture, video). Secondly, a multiple-item scale will be constructed, similar to prior multiple-indicator measures of product quality expectations (Dodds 1985; Dodds and Monroe 1985; Grewal 1989).

**Affective Expectation.** The affective expectation measure must capture both content and intensity. That is, both the nature of the feelings that the subject expects to

experience as the result of the purchase and consumption of a product and the intensity of this expectation must be measured. Recall that the intensity of the affective expectation was defined as the richness, reality, detail, clarity, vividness, salience, and motivating capacity of the affective expectation. Consequently, a multi-item scale will be constructed to capture this intensity dimension of the affective expectation, separate from the content. Content will be operationalized by a multiple-item measure asking respondents to indicate their level of agreement with certain types of affective expectations upon purchase of the product (e.g., "I expect that I would feel excited," "I expect that I would feel happy."). Additionally, two open ended questions will ask respondents to describe how they would feel upon purchase of the product and why they would feel that way.

**Cognitive/Rational Expectation.** The cognitive/rational expectation will be operationalized using both rating scales and open-ended questions. This measure cannot be constructed until a product stimulus has been selected since the expectations are likely to be different for different types of products. A multi-item rating scale will measure respondents' expectations about the more rational aspects of the product. The open-ended questions will probe the more qualitative aspects of the cognitive/rational expectation by asking respondents to describe any thoughts they might have upon purchase of the product and why they might think that way.

**A Covariate: Expertise.** As developed in the conceptual model in Chapter 2, it is likely that a buyer's level of expertise may mediate the effects of affective information on affective responses, affective expectations, and hence product quality expectations. However, the scope of this investigation does not include a critical examination of the expertise construct. No hypotheses were formulated and no attempt will be made to

manipulate expertise and examine its effects. Nonetheless, to ignore the role of expertise in this experimental examination would introduce noise into the design and weaken the overall test of the hypotheses.

Consequently, some measure of "expertise" must be included in order to control for its effects. By including a measure of expertise, its effects can be statistically removed through analysis of covariance. The inclusion of the covariate should increase the power of the tests.

Expertise will be measured using a multi-item rating scale tapping the dimensions of familiarity, confidence, and knowledge as developed in Chapter 2.

## **Data Collection**

The measurement of the dependent variable, product quality expectation, and the mediating variables, affective response, affective expectation, cognitive response, cognitive expectation, and the covariate expertise will primarily rely on rating scales, although some open ended questions will also be used. Pretesting will provide useful information for the construct of the rating scale to be used. There is evidence that scales with finer discriminations may more accurately capture information (Compeau and Monroe 1990; Parducci 1982).

Parducci (1982) recommends the use of twenty-point rating scales based on evidence that twenty-point rating scales reduce the contextual effects produced by the number of categories used in the rating scale, the range of the stimuli, and the number of stimuli. Compeau and Monroe (1990) tested both seven- and nineteen-point rating scales for a multiple-item measure of perceived quality and found that the nineteen-point scale demonstrated higher reliability and better evidence of unidimensionality. Some pretesting with nineteen-point scales will be performed to determine whether or not they will be used.

The seven- and nine-point scales will have a verbal cue at each number. Any nineteen-point scales employed will have verbal cues at 3-point intervals. The verbal cues will be determined based on the work by Lodge (1981). Verbal cues that have been previously shown to be relatively equidistant on a linear scale will be employed. These verbal cues will allow for a more accurate mapping of the subject's true response to the measuring instrument (Lodge 1981).

### **Pre-Experimental**

The research plan for each experiment calls for two phases. The first phase consists of three pretesting stages and the second phase consists of the actual experiment.

**Product Selection.** The first phase is designed to implement those pre-experimental tasks necessary before actual data collection can begin. This section details the steps necessary for the selection of a product and the stimuli to be used in the manipulation, and for the construction of the various measures to be implemented.

The selection of a product for the experimental manipulation is considered to be critical to the success of the experiment. The lack of explicit consideration and testing to select an appropriate product has been criticized (Ferber 1977; Olson 1973). A conceptual and empirical process will be implemented to select an appropriate product stimulus. The next section presents a conceptual review that identifies three criteria deemed crucial in the selection of a product. Empirically, pretests will be conducted to examine which product appears to best meet these criteria.

The conceptual model posits that affective responses are stimulated by physical and verbal cues associated with the product that are sensory-laden. The product selected must present the subject with a sufficient level of sensory stimulation

in order for the affective response to occur. Moreover, the level of sensory stimulation must be variant and controllable by the researcher. That is, it is necessary that the sensory level be manipulated in the experiment in order to present subjects with different levels of affective information.

The product should also be of character that promotes an affective response. Some products tend to be utilitarian in nature and are less likely to elicit much of an affective response (e.g., electric clothes dryers, push lawn mowers, roofing shingles, electric light bulbs). Other products may be more multisensory and fun to own and use; hence, they possess a more hedonic nature and are more likely to stimulate affective responses (e.g., music recordings, works of art, houses, nick-knacks) (Batra 1986). Wells (1980) identifies other fun products: foods, beverages, clothes, vacations, and new cars. Cleaning products, insurance, denture adhesives, and proprietary medicines are considered by Wells to be avoidance products; i.e., utilitarian products that would not be purchased unless they helped the consumer do something. Therefore, the product selected should be a more hedonic product that is considered to be fun, multisensory and capable of eliciting emotional responses.

Lastly, a product should be selected that is relevant to the sample selected, i.e., student subjects. The product should be one that students are at least potential purchasers, and preferably users of the product. If affective responses are learned, prior product use/consumption may enhance the opportunity for affective responses. In order to statistically remove any variance due to different levels of familiarity, familiarity, as one dimension of the construct expertise, will be measured as a covariate.

**Stimuli Selection.** This section elaborates on the process that will be used to select the specific stimuli to be presented to the subjects in the experiment.

To select the verbal cues necessary for the direct communication mode

experiment, pretests will be used to present subjects with various verbal product stimuli, i.e., product descriptions, to determine the level of affective information present. This determination will be done in two ways. First, the concept of affective information will be explained to the subjects. Subjects will simply be asked to then rate the level of affective information in a series of various verbal product stimuli. The stimuli will be presented in different orders to different groups of subjects to test for order effects.

Secondly, subjects will be presented with the verbal product stimuli and measures of their affective responses will be obtained, without any discussion of the concept of affective information. This is a more direct test of the affect-eliciting capability of the stimuli. This two-method approach allows for more confidence in the selection of the levels of affective information.

Similar to the above procedure, pretests will also be used to present subjects with various physical/sensory product stimuli to determine the level of affective information present for the indirect communication mode experiment. This determination will also be done using the two methods just described. The concept of affective information will be explained to the subjects and subjects will then rate the level of affective information in a series of various physical/sensory product stimuli. The stimuli will be presented in different orders to different groups of subjects to test for order effects. As before, another group of subjects will also be presented with the physical/sensory product stimuli and their affective response measured, without any discussion of the concept of affective information.

**Scale Construction.** The process that will be employed to construct the various scales to be used as measures in the experiment will be detailed in this section. Three scales will need to be constructed: affective response, affective expectation, cognitive/rational expectation, and expertise.

The construction of the affective response scale will follow the procedure used by Compeau and Monroe (1990). Once a product has been selected, a pretest will be conducted where respondents will identify any feeling states that they might experience as the result of the purchase or consumption of the product. The list presented to the respondents will be a comprehensive list of feeling states developed via a careful review of the relevant literatures especially focusing on emotional typologies.

The affective expectation scale will also be product specific. That is, the items to be included in the scale will depend on the nature of the product. Pretesting will be required to identify relevant items. A multi-item scale will be constructed to capture both the intensity dimension of the affective expectation, and the content. Content will be measured by the multiple-item measure asking respondents to indicate their level of agreement with certain types of affective expectations upon purchase of the product (e.g., "I expect that I would feel excited," "I expect that I would feel happy."). These affective expectation items will be identified through pretesting.

A multi-item scale to measure the cognitive/rational expectation will be constructed based specifically on the product selected. Although pretesting will be required to determine exactly which items will be used, items asking about respondents expectations for the ability of the product to perform along several different dimensions such as efficiency and reliability are likely to be included if a durable product is selected. If a consumable product, such as a food product, is selected items such as expected ease of preparation or expected ability to satisfy hunger might be included.

A multi-item rating scale tapping the dimensions of familiarity, confidence, and knowledge will be constructed during the pretesting phase. Similar to Compeau and Monroe (1990), the scale will be a self-report measure, not an objective evaluation of knowledge (Rao and Monroe 1988). Items for knowledge might include questions concerning ability to use and explain aspects of the product, amount of knowledge..

Items for familiarity might include how frequently respondents use and purchase the product, how well-accustomed they are in purchasing and using the product, and an overall subjective rating of familiarity. The confidence measure might include items such as their reliance on their knowledge, trust in their knowledge, and an overall subjective rating of their confidence in their knowledge.

In sum, the goal of this first phase is to generate the product, stimuli, and measures for the four experimental conditions.

## **Conduct of the Experiment**

The conduct of each experiment involves the presentation of the product stimulus material and then the administering of the measurement instrument.

Subjects will be randomly assigned to one of the two treatment conditions in each experiment. Subjects will be told that the purpose of the study is to simply look at how consumers respond to particular products. The point of this brief explanation is to attenuate hypothesis guessing and to let the subjects know that the research is examining both thoughts and feelings. A week prior to the actual experimental manipulation, subjects will complete a pretest questionnaire to capture the expertise measure. Additionally, if a branded product is used, overall attitude toward the brand would also be measured as part of this pretest. A week later, subjects will then be exposed to the product stimulus. Written product descriptions for the direct communication mode experiment will be worded to appear like brochure descriptions to make the task appear more realistic for the subject and to reduce subjects' concern with the purpose of the experiment. The survey instrument will be completed next followed by a post-test which will request the respondents to code their thoughts in any thought-listing questions. Lastly, the subjects will be debriefed.

## **Analysis**

This section presents the statistical models and procedures that will be used to analyze the data.

**Univariate Analysis of Covariance.** The primary statistical tool to be used to test the hypotheses is the univariate analysis of covariance test. The univariate analysis is appropriate since only one dependent variable is being measured; analysis of covariance is required since the statistical variance for the covariate "expertise" will be removed before statistical inference tests are conducted. Table 1 presents the analysis that is appropriate for this design. The affective information factor is considered to be a random factor since only two points from an assumed continuous population distribution are being sampled.

The following analytical procedures assume that the test for an interaction between the covariate and the independent variable is not significant, and that the effects of the covariate have been statistically removed; i.e., adjusted means will be used. The hypotheses in this section will be supported if the F tests for main effect is significant.

Given the one-way design with two levels of affective information, the statistical null hypothesis to be tested for H1(g) is:

$$H_0: \mu_1 = \mu_2$$

If the null hypothesis is rejected at the alpha = .05 level, then it can be concluded that the two levels of affective information do not lead to the same level of quality expectations, establishing support for H1(g). This will be done for each experiment.

**TABLE 1**  
**ANALYSIS OF VARIANCE FOR PROPOSED DESIGN**

SOURCE OF VARIATION	DEGREES OF FREEDOM	EXPECTED MEAN SQUARE	F RATIO
Affective Information Level	a-1	$\sigma^2+n_A\sigma^2$	MSA/MSW
Within Subjects (Error)	a(n-1)	$\sigma^2$	-
Total	an - 1	-	-

A similar design and analysis will be used to test hypotheses H1(a), H1(b), and H1(d). The effects of the affective information level will be tested however, on the measure of the appropriate mediating variable, affective response intensity, cognitive response (i.e., number of thoughts) or affective expectation intensity respectively.

**Correlation Coefficients and Regression Analysis.** This section details the hypotheses that will be tested using correlation coefficients and regression coefficients for statistical inference.

Affective response, a mediating variable, was hypothesized to have both direct and indirect effects on product quality expectations. The indirect effect occurs through the effect of the affective response on affective expectations (H1(c)). The direct effect was hypothesized in H1(e). However, affective expectations is also a mediating variable and was hypothesized to have a direct effect on product quality expectations (H1(f)).

These hypotheses will be initially tested via a simple product moment correlation coefficient. A follow-up test will use a simple linear regression model and regress affective expectations on product quality expectations and test for significance of the regression coefficient. Similarly, it was hypothesized that positive relationships would occur between cognitive/rational response, cognitive/rational expectations, and product quality expectations (H1(h), H1(i), H1(j)); these hypotheses will be tested in a similar manner.

To test H1(k), a simple linear regression will also be performed in a two step model. First a model with only the cognitive/rational response as an independent variable will be run. Next, affective response will be entered as an additional regressor variable and a partial F test will be performed on the change in the coefficient of determination ( $R^2$ ) to test for the significance of the increase in the explained variance due to the addition of the affective response variable to the model. H1(l) will be tested in

a similar manner.

**Structural Equation Path Analysis.** Path analytic methods are appropriate to examine measurement issues and to estimate the relationships among the variables in a model (Hayduk 1987). One procedure available to perform this analysis is a computer program, LISREL (Linear Structural RELationships) (Jöreskog and Sorbom 1981, 1989). A primary advantage of using this structural equation path analytic technique is that the path coefficient estimates are attenuated for measurement error. Therefore, it would be preferable to perform structural equation path analysis to analyze the relationships among the variables as proposed by the conceptual model, rather than the regression procedures previously outlined.

It is recommended however, that the sample size for most models be at least 200 (Boomsma 1982). If this conservative rule were applied to this research, 800 subjects would be required since there are four experimental conditions which would be tested in a multi-group model. Bearden, Sharma, and Teel (1982) note that sample size requirements vary with model complexity; simple models can be estimated well with samples as small as 50. Hayduk (1987) also suggests that sample sizes as small as 50 can be instructive however, any LISREL analysis with a sample size of less than 100 definitely deserves extra attention.

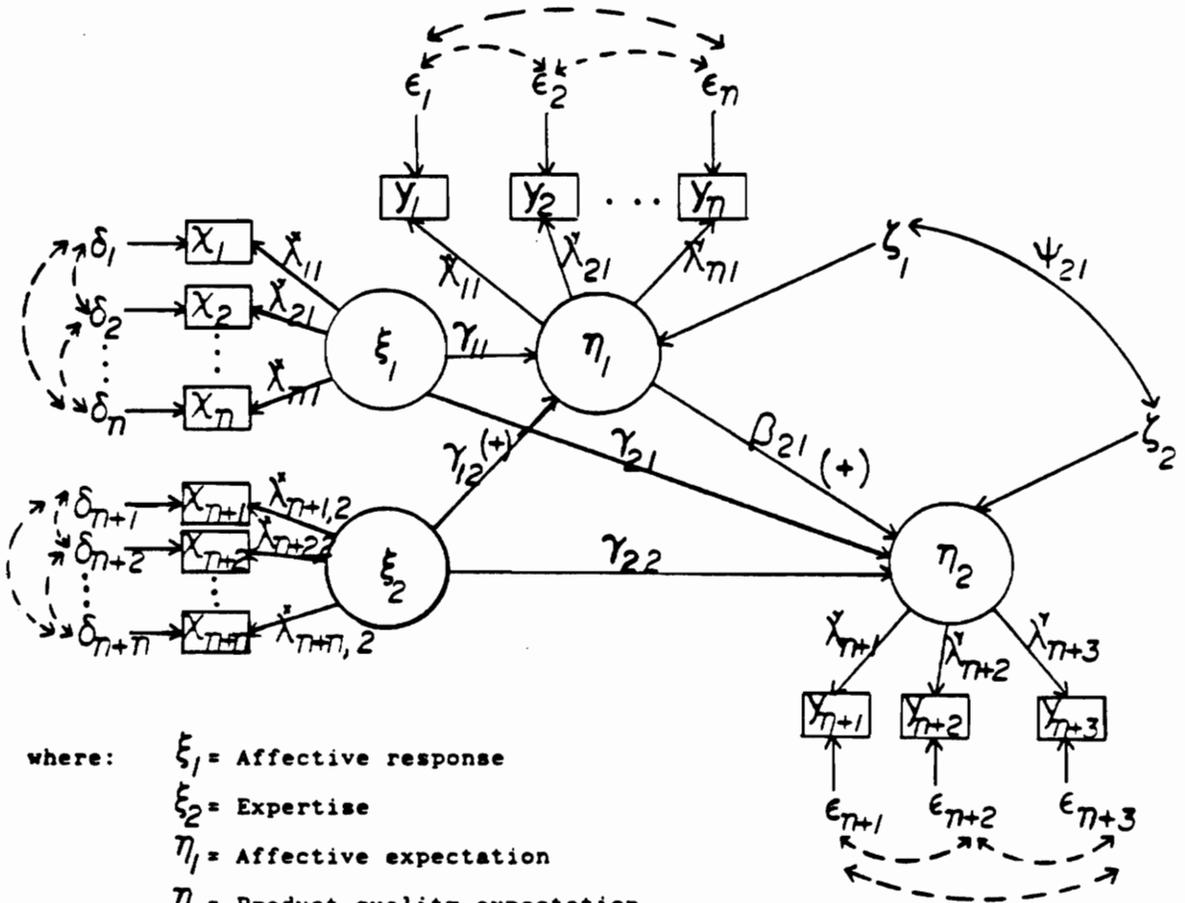
The previous power analysis indicated a cell size of 44 would be required to obtain a power of .8. Assuming that a goal of 50 subjects per cell was attained, the LISREL analysis would involve four models each with a sample size of 50, unacceptable according to most standards.

There is justification however, to perform the analysis despite the small sample size. Regression results may be misleading since the coefficient estimates are not attenuated for measurement error (Hayduk 1987). It would be advantageous to

obtain estimates of relationships that have been attenuated for measurement error as does LISREL. Moreover, since the LISREL analysis is a secondary analysis, results can be compared to the regression analysis to look for inconsistencies. Finally, there are procedures that can be performed to examine the impact of the small sample size on the overall model fit and the parameter estimates (Bagozzi 1977; Bagozzi and Yi 1988; Bearden, Sharma, and Teel 1982; Hayduk 1987; Jöreskog and Sorbom 1989). Certainly, extreme care must be exercised in the interpretation of the results of this analysis, however this analysis does provide additional information about the hypothesized relationships. Therefore, LISREL will be used as a follow-up analysis.

The purpose of the LISREL analysis is to examine the relationships among the variables across the experimental conditions. Although the models are identical, the levels of the independent variables are different and therefore represent different groups of data. All possible pairs of models without and then with equivalence restrictions can be run and the results compared. A statistical test can also be performed on the change in the  $X^2$  statistic. This procedure allows for a more critical examination the relationships of the variables in the model. The model to be analyzed for both experiments is presented in Figure 4.

The purpose of this research is to examine the relationships between the variables in the proposed conceptual model. These variables are hypothetical constructs and hence are unobservable, or latent. These latent constructs are conceptualized to manifest themselves in the indicators that are used to operationalize the latent variable. These indicators comprise the measurement model while the relationships between the latent variables is referred to as the structural model (Hayduk 1987).



- where:
- $\xi_1$  = Affective response
  - $\xi_2$  = Expertise
  - $\eta_1$  = Affective expectation
  - $\eta_2$  = Product quality expectation
  - $x_1 - x_n$  = Affective response indicators
  - $x_{n+1} - x_{n+n}$  = Expertise indicators for dimensions of knowledge, confidence, and familiarity
  - $y_1 - y_n$  = Affective expectation indicators
  - $y_{n+1}$  = Product quality expected indicator
  - $y_{n+2}$  = Overall product satisfaction expected indicator
  - $y_{n+3}$  = Overall value of product indicator

**FIGURE 4: MEASUREMENT AND STRUCTURAL MODEL**

The measurement model will be examined first to determine the extent of measurement error (Jöreskog and Sorbom 1989). The structural model will be examined after the measurement model has been assessed. LISREL will be run using a multi-group design. Overall fit and the magnitude and sign of the path coefficients will be examined. In general, it is expected that the theory should be supported across both levels of affective information for both experiments.

## **SUMMARY**

The research program was outlined including the qualitative and experimental (including the pre-experimental stage) studies. This chapter derived operational hypotheses from the theoretical propositions developed in Chapter 2, and presented the proposed design and methodology that will be used to examine the phenomenon for both a qualitative study and an experimental study. Research design, data collection procedures, independent variable manipulations, mediating and dependent variable measures, sample size and selection, stimulus selection and presentation, product selection, data collection procedures, and analytical techniques were discussed for the experimental study. The interview format, setting, data collection and analysis procedures, and sample characteristics were discussed for the phenomenological interviews.

## **CHAPTER 4**

# **Pretests Results and Analyses For the Experimental Study**

This chapter describes the instruments, procedures, and results of three pretests that were conducted to gather information to assist in the design and conduct of the experiment. This pre-experimental work was necessary to identify an appropriate product, design the product stimuli, develop measures, and test the manipulation (i.e., conduct power analysis). The first section describes the data collection instruments, procedures, analyses, and results for the first pretest. The second and third sections present similar discussions for the second and third pretests. Each section also discusses the decisions concerning the implementation of the experiment that were made as a result of the findings from each pretest.

## **PRETEST 1**

The first pretest was conducted to identify an appropriate product stimulus and possible affective descriptors for different products to develop an affective response measure. The product selected must satisfy three criteria: it must be relevant to the sample population, it must provide sufficient sensory information that can be manipulated, and it must promote an affective response.

### **The Data Collection Instrument**

The instrument used in the first pretest is presented in Appendix A. As part of the development of this instrument, fifteen undergraduate students at a large southeastern university were interviewed in two groups of eight and seven, to initially identify products to include on the questionnaire. Respondents were asked "What products do you get excited about when you go shopping for them?" A list was developed and further discussion encouraged about the different products. From this discussion, nineteen products emerged that respondents identified as emotionally exciting. These products were included in the first section of the pretest instrument to measure the levels of emotional excitement for each. However, in order not to artificially constrain the pretest sample to only these products, respondents for the pretest were also asked to identify any other products that are emotionally exciting for them. Additionally, respondents identified the single product for which they get most emotionally excited.

A list of 35 affective descriptors was gleaned from the emotion, affect, and mood literature (Batra and Holbrook 1988; Gardner 1985, 1987; Izard 1977; Plutchik and Kellerman 1980). From this list of thirty-five affective descriptors, respondents were asked to circle any and all descriptors that might describe how they feel when shopping

for the product they identified as the product for which they get most emotionally excited.

A measure was also included to get an idea of how often the respondents shopped for various items, how often they shop in general, and how much they enjoy shopping. A few pieces of demographic information, i.e., gender, age, and family income, were also collected to test for any differences in responses.

## **Procedures**

Ninety-one undergraduate students at a large southeastern university completed the questionnaires at the beginning of a regularly scheduled meeting of three different sessions of an introductory marketing course. The students were not awarded extra credit as this was an in-class project. Fifty-seven males and thirty-four females completed the questionnaire.

## **Results**

The three primary objectives of this pretest were to identify an appropriate product, start preliminary development of the affective measures and to test for differences on gender, income, and age. Gender was tested since it is possible that women and men may respond differently to different product stimuli. For example, it is likely that women might have stronger affective responses for colognes compared with men. Moreover, there may be differences in how often the participants shop based on gender. Similarly, possible differences due to a person's level of income may be relevant for certain product stimuli. For example, someone who has grown up in a very modest income family may respond with a strong affective response toward, say a Ford Mustang, since any car might be affectively exciting; whereas, a person with a higher level of income may not consider a Mustang as exciting as a BMW. Additionally, people with

higher income levels may shop more often since they have more money with which to purchase items. Thus, differences due to income and gender may result in differences in affective responses. Age was also collected to test for differences that might occur, however, since a student sample is used, it is unlikely that any material differences will exist for emotional excitement and frequency of shopping. The basic idea of including these demographic variables was to test for differences that might exist due to the product stimuli tested and the measure of expertise to be captured in the experiments.

Of the nineteen products listed, cars had the highest mean for emotional excitement (6.22 on a 7-point scale), followed by vacations (6.00), a new house or apartment (5.78) and stereo equipment (5.73). Moreover, 72% of the respondents indicated that shopping for a car generated considerable or great emotional excitement (points 6 and 7 on the scale); "vacations" were second on their list with 68% selecting a 6 or 7 on the scale. When asked to identify the single product that makes the respondent most emotionally excited, cars were identified by 44% of the respondents. Clothes (11%) and vacations (10%) were the next two most frequently identified items. Finally, cars were also identified more often than any other product as being the most fun to shop for (28% of the respondents listed cars) and the product that is the most fun to use or consume (18%).

Respondents did identify other products such as jewelry and gifts as products that are emotionally exciting but no other product demonstrated the consistent high levels of emotional excitement as cars. In sum, cars seem to be a strong choice by respondents as a product that can elicit strong affective responses, thereby satisfying one criterion for product selection. Since similar respondents (undergraduate students) were used for the pretest and will also be used for the experiment, the car should be a relevant product stimulus. In other words, students are familiar with cars and are qualified to answer questions concerning their responses to a car stimulus, satisfying a

second criterion.

A third criterion requires that one can manipulate the sensory cues associated with the product stimulus to promote different levels of affective responses. Such a manipulation can be accomplished with a car stimulus since cars have many different sensory attributes including color, sound, smell, design, smell, and texture. Consequently, presenting a product stimulus such as a video of a car in black and white and then the same video in color should allow for different levels of sensory cue availability.

However, a lingering question is whether all cars are equal in their affective response stimulation. In other words, it is likely that, on average, some cars will generate a stronger affective response than others; some cars may not elicit much of an affective response for many people (e.g., more utilitarian vehicles such as plain brown sedans). Consequently, the choice of a particular brand and model is critical and in need of further examination.

An examination of income and age revealed no significant differences due to these two demographic variables for either the emotional excitement associated with the different products, or level of shopping and enjoyment of shopping. However, t-tests conducted on gender showed that, in general, women shop more ( $\bar{X}_{\text{Male}}=4.6$ ,  $\bar{X}_{\text{Female}}=5.7$ ,  $t_{(1,89)}=5.6$ ,  $p<.01$ ) and enjoy shopping more ( $\bar{X}_{\text{Male}}=4.9$ ,  $\bar{X}_{\text{Female}}=6.2$ ,  $t_{(1,89)}=6.4$ ,  $p<.01$ ). Moreover, women indicated that they got more emotionally excited about cars than men ( $\bar{X}_{\text{Male}}=6.1$ ,  $\bar{X}_{\text{Female}}=6.4$ ,  $t_{(1,89)}=1.69$ ,  $p=.095$ ). Consequently, it was decided that the experiments should be balanced on gender across cells to minimize the bias effect of these potential differences. For those 40 respondents who identified a car as the most emotionally exciting product in question 21, 18 affective descriptors from question 22 were circled by at least 25% of the respondents (see Table 2).

**TABLE 2**  
**FREQUENCY COUNTS FOR AFFECTIVE DESCRIPTORS - PRETEST 1**

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<u>Descriptor</u>	<u>Count</u>	<u>Percent of Total N= 40</u>
Exciting/Excitement	36	90%
Anticipation	32	80%
Fun	29	73%
Pride	22	55%
Desire	21	53%
Joy	20	50%
Upbeat	20	50%
Happy	19	48%
Adventurous	19	48%
Positive	18	45%
Pleasure	18	45%
Expectation	18	45%
Satisfying	17	43%
Interesting	13	33%
Appealing	13	33%
Good	12	30%
Uplifting	10	25%

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It was decided that all 18 of these descriptors would be used in a future pilot study and reduced to a smaller subset for the experiment, if indicated.

## **Discussion**

Based on the results of this first pretest, it was decided to use a car for the product stimulus and to have equal numbers of men and women in the cells. However, upon closer scrutiny it was discovered that car was used as the example on the first page of instruction and "New Car" was the first item in the list of products. Consequently, a priming effect may have occurred. Respondents may have rated car high in emotional excitement and may have listed car in the open-ended questions as the result of being primed with a car as an example in the instructions. A product not being tested should have been used or the order of the products should have been varied to examine this priming possibility.

Therefore, it was decided that a second pretest would be necessary to examine this potential priming effect. Moreover, the second pretest could also probe further as to the brands, colors and models of cars that elicit affective responses.

## **PRETEST 2**

The goals of the second pretest were to test the priming effect that may have occurred in the first pretest and to collect data regarding the emotional excitement generated by different brands, models, and colors of cars. This process would allow for the development of specific stimulus material for the experiment.

## **The Data Collection Instrument**

The instrument used in this second pretest is presented in Appendix B. The example was changed in the instructions on the first page from a car to stereo equipment. The first section asking respondents to rate 19 products for the level of emotional excitement was identical to the first pretest except the order was changed. "New Car" was now moved to the middle of the list. Questions regarding which products are most fun to shop for, most fun to use or consume, how often the respondents shop and how much they enjoy shopping were also carried over from the first pretest. A new question asked respondents to list up to five brands of cars they find emotionally exciting, ranked in order of the excitement they generate. Respondents were also asked to indicate the exterior car color they find most exciting and to rate different models (e.g., convertibles, sedans) as to their emotional excitement. So as not to constrain responses, respondents were also able to list other models and rate them. Finally, the same demographic information was collected as in the first pretest.

## **Procedures**

The questionnaires were completed by 17 men and 21 women for a total sample size of 38, in a senior level marketing course at a large southeastern university. As before, the respondents were not awarded extra credit for completing the survey; it was conducted as an in-class exercise.

## **Results**

The results are very similar to the results of the first pretest. The mean for the level of emotional excitement generated by cars was again the highest (6.66), with 87% of the respondents indicating that it generated considerable or great emotional excitement (points 6 and 7 on a seven point scale, respectively). Therefore, it does not appear that

the use of a car in the example as part of the instructions combined with the placement of "New Car" at the top of the list caused biased results. Moreover, a new car was indicated by the greatest number of respondents (40%) as the product that generates the most emotional excitement. Although clothes outranked cars as being the most fun to shop for in this sample (34% versus 20%), cars were again identified as the product that is the most fun to use or consume.

Respondents indicated that brands of sporty cars were the most exciting, with Ferrari, Porsche, BMW, Mazda, Jaguar, and Mercedes being the brands most frequently named. Respondents also preferred cars that are red (42%) or black (36%). Finally, the roadster outpaced the other models (e.g., four-door sedan, station wagon) for emotional excitement with a mean of 6.11; 82% rated the roadster either a 6 or a 7 on the seven point scale.

In debriefing however, the respondents indicated that Ferrari, Porsche, Jaguar, and Mercedes were all too pricey and they really never expected to actually buy one. Consequently they really didn't know much about these cars and never really shopped for them. However, the Mazda Miata MX-5, the Honda Civic CRX, the Ford Probe, and to a lesser extent, the Chevrolet Corvette, were cars mentioned that they felt they could afford and might actually buy one day. Moreover, although these cars generated less emotional excitement than say a Ferrari, respondents indicated that they were still emotionally exciting cars. The respondents also indicated they could relate better to these cars since it was possible that they might own one someday.

Since (1) Mazda was identified both on the survey itself by 21% of the respondents and in the debriefing discussion as a brand that generates emotional excitement and is relevant to the sample population, (2) the roadster was the most emotionally exciting model, and (3) red was identified as the most emotionally exciting color, a red Mazda Miata MX-5, a sports car/roadster, was selected as the product

stimulus.

Again, as in the first pretest, significant differences between males and females were found for some responses. College women shop more ( $\bar{X}_{\text{Male}}=4.4$ ,  $\bar{X}_{\text{Female}}=5.3$ ,  $t_{(1,36)}=2.66$ ,  $p=.01$ ) and enjoy it more ( $\bar{X}_{\text{Male}}=4.9$ ,  $\bar{X}_{\text{Female}}=5.9$ ,  $t_{(1,36)}=2.97$ ,  $p<.01$ ) than college men. However, no significant difference was found in the level of emotional excitement generated by cars for men versus women. Nonetheless, these differences, as well as the differences found in the first pretest, suggest that some allowance be made for potentially different responses due to gender differences. It was decided that the original decision to balance the cells on gender should be maintained.

## Discussion

Given the results of this second pretest, combined with the results of the first pretest, it was decided that a pilot study could now be conducted using a red Mazda Miata roadster for the product stimulus. The affective response measure would be based on the eighteen items identified in the first pretest and the cells of the experiment would be balanced based on gender.

## PILOT TESTS

The objectives of the pilot tests were to develop specific stimulus materials, test the measurements, test the manipulation, and work out details of the implementation for the experiments. Two pilot tests were conducted, one testing the direct communication mode and a second testing the indirect communication mode. Both pilot tests will be presented together since the examination of measurement issues

was based on data collapsed across the two communication contexts.

This section will first discuss the development of the stimulus materials, followed by a discussion of the instruments, including the development of the measurements for both pilot tests. The procedures for each pilot study will be presented next, followed by a discussion of measurement issues based on the results of the two pilot studies, where the data was collapsed. Each pilot test's more substantive results will be presented next. Finally, a summary of the decisions made regarding the experiment, as a result of these findings, will be reviewed.

## **Development of Stimulus Materials**

The first task was to decide on the form of the stimulus materials for both pilot studies. Deciding on the form of stimulus material for the direct communication mode pilot study was simple since it had to be verbal. Consequently, the only choices were oral and written. Although oral product descriptions are a relevant communication medium (e.g., sales presentations, radio advertising) written product communications are quite common for cars; moreover, it was felt that written product communication would be more interesting when contrasted with a more visual communication form to be used in the indirect communication mode experiment.

A great deal of material was collected from magazines (e.g., Car and Driver, Road and Track, Motor Trend, Automobile) and published pamphlets and brochures produced by Mazda, secured from a local Mazda dealer. The material was reviewed and passages extracted that described the car both in a more factual, mechanical nature and in a more emotional manner. However, one promotional brochure produced by Mazda appeared to do both very well. The final product description therefore, was based primarily on two pages from this promotional brochure. Two versions of the written product description were then created. For the high affective information level condition,

all of the emotional descriptors (e.g., boldly, dream, exciting, joys, passionate, pleasures) were left in the description and a few more were added (e.g., exhilaration, thrill, enthusiasm). Additionally, a sensory cue, the car's color (red), was added. These emotional descriptors and the sensory cue of color (i.e., red) were then stripped from the description for the low affective information level condition. Appendix C presents the written product description for the high affective information level condition and Appendix D presents the description for the low affective information level condition.

For the indirect communication mode, several forms of stimulus material were possible. Pictures, videotapes, models, and the actual cars themselves could be used. One of the goals of conducting two experiments was to examine the robustness of the theory in maximally different contexts. Pictures were not selected since they didn't appear to represent enough "distance" from written descriptions; often the two are presented together in product brochures. Moreover, there was a concern as to the ability of pictures to generate detectably different levels of affect in a laboratory environment. The actual cars, and models for that matter were deemed too difficult to control for sensory availability. However, a videotape appeared to present a good alternative since sensory cue availability can be easily controlled (e.g., color vs. black and white, sound vs. no sound), videotapes are common and people are familiar with videotaped material on cars due to television commercials, and videotapes can show the car in motion and in different, rich contextual settings that may be more likely to stimulate affective responses due to the higher levels of sensory cue availability.

Therefore, a local car dealer was approached, Holiday Ford/Mazda, for videotapes on the Mazda Miata. The manager of the dealership graciously consented to allow the use of two videotapes of Mazda products. One tape was a series of 30 second commercials for the Miata and the second was an "in-house" promotional tape that was used for training salespeople. Serendipitously, the series of commercials for the Mazda

Miata showed a red version of the car with the top down in several different contexts. Moreover, these commercials were new and had not yet been distributed. Consequently, previous exposure to the videotape material would not be a factor since it would be highly unlikely that any of the respondents would have seen the material on either videotape.

A videotape to be used as the stimulus was created from the series of new commercials and the "in-house" promotional training videotape by splicing together different scenes from the two videotapes. The tape lasted approximately 30 seconds and showed the Miata parked on a showroom floor, being driven on a winding country road, parked in front of a house, parked on a street, and being driven down a suburban street.

It was felt that a simple, yet potentially effective manipulation of the sensory cue availability might be possible by simply showing the videotape in black and white for the low level of affective information condition, and in color for the high level of affective information condition, holding all other characteristics of the videotape constant. Additionally, it was decided that the videotape would be shown without sound to minimize any distractions from the visual image of the car itself. To preliminarily test these notions, nine participants were shown the video and then responded to a series of questions asked by the researcher. Five of the respondents saw the videotape in color first, then black and white, the other four saw the tape in reverse order. Note that the same videotape was used, the color level was simply turned off on the television monitor.

Interestingly, all of the respondents who saw the tape in black and white first, indicated that they imagined the car being a certain color even though the color was not apparent in the video. Moreover, all four of these respondents stated that they imagined the color to be red; their favorite color for this type of car. If this is a general phenomenon, then the manipulation could be jeopardized by the imagination of the respondents. In other words, if respondents imagine the car to be a particular color,

especially their favorite color, then the lack of color on the monitor screen may not impinge on the affective response. However, eight out of the nine respondents indicated that the car was much more exciting in color than in black and white. Therefore, it was decided that the manipulation might still work in that the presence of color in the video may make the color more "alive" and "real" eliciting a stronger affective response.

The respondents also indicated that they experienced feelings of desire, excitement, anticipation, and "feeling good all over" while watching the videotape. Four respondents stated that they imagined themselves driving the car and the feelings they would have doing so. These results suggest that the video should generate detectable levels of affective responses. In contrast, one respondent stated that she didn't like that kind of car and really didn't get excited at all while watching the video. This suggested that the manipulation may not work for people who are predisposed negatively toward the car.

Consequently, it was decided that a measure of overall attitude toward the brand should be included in the pilot tests and statistically control for any variance attributable to it (if significant) so as not to obscure the experimental results. It was also decided that overall attitude toward the color red might introduce variance into the model and therefore a similar measure should be included. As a result, a pretest would be necessary to capture both of these measures as well as a measure of the control variable "expertise" hypothesized in the model.

## **The Instruments**

The pretest instrument for both pilot studies is presented in Appendix E. The first page provides instructions. The second page captures a measure of overall attitude toward the brand. The only relevant part contains the four questions regarding the Miata; the remaining identical questions for the Ford Probe, Honda Civic CRX Toyota

MR-2, and Chevrolet Corvette were included as filler so that the respondent would not be "tipped-off" as to the brand of interest for the experiment. The four simple seven-point scale items should capture an overall predisposition toward the brand, similar to Miniard, Bhatla, and Rose's (1990) measure of attitude toward the ad for non-claim aspects. This measure is particularly relevant since it attempts to measure a more holistic evaluation of everything about the ad except for the claims being made. Since the video and the written product descriptions were not designed to make specific direct claims about the product (in fact, there isn't any sound with the video), this measure should capture the respondents' overall attitude toward the brand itself. The four items included three items used in Miniard et al. (i.e., negative/positive, unfavorable/favorable, bad/good) and undesirable/desirable was also added to tap a more conative aspect of the attitude. The next page (page 3) of the instrument is similar in concept and measures the overall attitude towards the color (red).

The last two pages measure expertise. As developed in Chapter 3, expertise is comprised of three dimensions, knowledge, familiarity, and confidence. The familiarity measure consists of four seven-point scales measuring how often respondents shop or browse for cars (#41), how often they drive cars (#42), an overall self-judgment of their familiarity with cars (#43), and the amount of time they spend on looking at cars, reading about cars, and talking about cars (#52). Knowledge is measured by five seven-point scaled items. Four items are overall self-judgments including judgments of own levels of knowledge about cars (#44), ability to explain aspects about cars (#45), ability to evaluate and judge cars, and knowledge compared to an average person. A final item measured the respondents' level of agreement with the statement "I know a lot about cars." The confidence component was measured with four seven-point scales tapping respondents' level of comfort in relying on their knowledge (#47), how certain they are about their knowledge (#48), the extent to which they trust their knowledge (#49), and

their overall confidence in their knowledge.

Finally, a question asking for the gender was included so that the cells could be balanced on gender for both pilot tests. This pretest instrument was designed to be used for both pilot studies since it was not specific to a communication mode context.

The instruments used in the experimental manipulation are presented in Appendices F, G, H, and I. The first two instruments (Appendices F and G) are for the direct communication mode pilot study, while the last two (Appendices H and I) are for the indirect communication mode pilot study. Appendix F presents the instrument for the low level of affective information condition while Appendix G presents the instrument for the high level of affective information condition. The instruments are identical except that in the low affective information condition color was not provided in the description and therefore, the respondents' were asked if they imagined the car to be a certain color. If so, respondents were asked to provide a measure of their overall attitude towards that color. The high condition instrument simply measures their attitude toward the red color provided in the description.

The first page of the instrument for the low affective information condition of the direct communication mode pilot test (Appendix F) contains instructions for the respondents. Pages two through four capture the affective response to the description that the respondents will read. These are the eighteen most frequently circled affective descriptors identified in the first pretest.

The items employ a twenty point scale, based on empirical psychometric work done by Parducci (1982) and Lodge (1981). Parducci argues that respondents can accurately discriminate between choices using scales with many more points than the traditional seven or nine. Empirically, he investigated the psychometric properties of scales with different lengths and found support for a twenty-point scale. His results indicate that twenty-point rating scales reduce the contextual effects produced by the

number of categories used in the rating scale, the range of the stimuli, and the number of stimuli. Note that although the scales offer twenty points of discrimination, only eight points are labelled. This technique offers the respondent the opportunity to make distinctions as fine as they are capable of. The scales offer a compromise between overwhelming the respondent with many labels that require discriminations that may be too fine for respondents to make, versus the loss of information with scales that don't allow for respondents to make discriminations as fine as are possible. Moreover, the scale provides a zero response. This is critical since all of the affective descriptors used in the eighteen items are positive affective states; i.e., feeling states that most people enjoy experiencing. A zero response labelled "Not at all" allows the respondent to indicate that they did not experience that feeling state.

On the fifth page, respondents are requested to imagine that they have purchased the car and then list their feelings. The purpose of this step was to move the respondents from their simple affective response to the car in the description to developing a "connectedness" to the car and to promote a more experiential state in the laboratory. Moreover, it flows directly from the conceptual model; consumers will imagine how they will feel if they owned the product. Any feeling states listed in response to this question that were not included in the affective response measure might be worthy of investigation.

The next section (#20-#29) measures the affective expectation. Ten descriptors from the eighteen items used for the affective response were identified by 32 undergraduate students as relevant to feelings they might expect to have if they had just bought a brand new car and therefore were included in this measure. The respondents in this short exercise indicated that certain descriptors were not relevant. For example, expectation and anticipation would not be appropriate since this measure is supposed to measure the feelings associated with the expectation, not a measure of the level of

expectation or anticipation itself. Desire is inappropriate since respondents are supposedly already imagining that they already own the car.

In order to measure the overall intensity of affective response, two different measurement techniques were employed. Items #30-#32 ask respondents to indicate the strength of "emotional excitement", the vividness of these feelings, and how real the feelings seem. On page 10, items #45-#49 also capture this overall intensity through the use of simpler seven-point, semantic differential rating scales. This later measure can also indicate if the intensity of the affective response remained invariant during the course of completing the instrument.

Item #33 asks respondents to list their thoughts while reading the description and is one measure of the cognitive response. The other measure of the cognitive response is captured in items #37-#40, where the respondent is asked to judge certain more "rational" aspects of the car's performance characteristics (Dodds 1985). A third measure of the cognitive response is contained in items #41-#44. Although not previously developed in the operationalization of the hypotheses to be tested, it was decided that the importance of certain, more rational, aspects of the car might be less for respondents who had stronger affective responses and therefore assist in examining the relationship between the cognitive and affective responses.

A measure of recall was included (#34) to provide a separation between the thought listing task just completed and the thought listing task in item #35 which measures the cognitive expectation. Without a filler task, it is likely that the respondents might have difficulty separating the two tasks and be prone to repeat the list. Additionally, the response to this recall task can be used to test for differences in recall between groups. Differences in recall might suggest differences in levels of processing between the groups, a potential rival hypothesis.

Item #36 was included on the pretest as a way of gaining additional, more

qualitative insight into the cognitive responses. A measure of overall affect was added as a manipulation check (#50).

The measure of perceived quality expectation is captured in items #51-53. Using a twenty-point scale these items measure overall judgments of quality, satisfaction, and the level of value attached to the car. Unlike all of the other rating scales, the overall quality scale had to use labels indicating different levels of quality, as opposed to different levels of agreement/disagreement or strength of the response. The labels for different levels of agreement/disagreement items are common in the literature however, new labels would have to be developed for the quality items. Therefore, it was critical to use labels to preserve the psychometric properties assumed to exist in a rating scale. One of the most important assumptions is the assumption of equal intervals between the points on a scale. To preserve this psychometric property, the labels used for the quality scale (#51) were selected from a list of descriptors demonstrated by Lodge (1981) to be relatively equidistant on a linear scale. Note that it is tempting to interpret the midpoint of the scale at point #4, "neither good nor bad quality," however, Lodge's presentation suggests that respondents interpret "good" as midway between "bad" and "excellent."

Finally, items #54-#57 measure the respondent's overall attitude toward the car, item #58 asks respondents to identify any color that they imagined the car to be, and provides a measure the respondent's overall attitude toward the color identified.

Appendix G contains the instrument for the high affective information condition and is identical except for the previously noted difference concerning attitude toward the color. Appendices H and I present the instruments for the second pilot test, examining an indirect communication mode context. These instruments are identical to the instruments for the first pilot study, but instead of referring to "the description," all references are made "to the video."

As previously developed, a posttest instrument was deemed necessary to gather information that could provide insight into any processing differences between the groups in the direct communication mode context. Appendix J presents the posttest instrument for the direct communication mode pilot study. The first question is a recall item, whereas items #2-#11 actually amount to a short memory or recognition quiz. These items refer to statements made in the description and are either verbatim excerpts (true statements) or slightly modified statements to make them false (e.g., adding "not").

### **Procedures - Pilot Study #1**

Forty-seven undergraduate students completed the pretest instrument during a regularly scheduled class of an introductory marketing course. At the next class session forty of these students agreed to participate in an ostensibly unrelated study (the experiment) approximately one week later for extra credit. Twenty of these volunteers were randomly assigned to one of the two groups, high or low affective information, however a gender balance for both groups was maintained. The data were collected in two separate sessions, one session each for the low and high affective information conditions. Five males and five females participated in each session.

When the participants arrived they were checked in and asked to take a seat. After all of the participants had checked-in, the participants were informed that the study was about consumers' reactions to cars. The details of the procedures and instruction are presented in the "copy" used for the pilot test, provided in Appendix K. Respondents read the product description (Appendix C for the high affective information condition or Appendix D for the low affective information condition), the descriptions were collected, and then the respondents completed the experimental instrument. After everyone was finished, the experimental instrument was collected and the posttest instrument was distributed and completed. Finally, the respondents were debriefed.

## **Procedures - Pilot Study #2**

The procedures for the second pilot study (indirect communication mode context) were similar to the first; however, instead of reading a description respondents watched a videotape on a large 27 inch television monitor. The low affective information group watched the videotape in black and white while the high affective information group watched the videotape in color. Details of the procedures are provided in Appendix K which presents the "copy" used to conduct the pilot study.

Two sessions, one for each group, were conducted with 5 men and 5 women participating in each session for a total sample of twenty. Participants were debriefed after the sessions.

## **Measurement Assessment**

The data for both studies were collapsed to assess the reliability and validity of the measures since identical measures were used across both studies. If the measures are truly robust they should withstand the test of different contexts. Investigating the quality of the measures collapsed across both studies should be a more critical examination than within each study. Moreover, the sample size is doubled providing greater power for the analysis. First, the reliability of the dependent measures and control variables will be examined.

Table 3 presents the various measures, the number of items for each measure, the estimate of reliability as measured by Cronbach's alpha (Nunnally 1978), and a reference to item numbers on the instrument. In most instances the reliabilities are quite acceptable. The sole exception is for familiarity ( $\alpha=.67$ ). Item analysis revealed that the item assessing how often the respondents drive was causing the low reliability.

**TABLE 3**  
**SCALE RELIABILITIES BASED ON PILOT TESTS<sup>1</sup>**

<u>Scale</u>	<u>Items</u>	<u>Alpha</u>	<u>Items On Instrument</u>
<u>PRETEST INSTRUMENT</u>			
<b>Attitude Toward Brand</b>	<b>4</b>	<b>.94</b>	(5,6,7,8)
<b>Attitude Toward Color</b>	<b>4</b>	<b>.96</b>	(21,22,23,24)
Familiarity	4	.67	(41,42,43,52)
Knowledge	5	.95	(44-46,50,53)
Confidence	4	.94	(47,48,49,51)
<b>Expertise</b>	<b>13</b>	<b>.95</b>	(41-53)
<u>EXPERIMENT INSTRUMENT</u>			
<b>Affective Response</b>	<b>18</b>	<b>.97</b>	(1-18)
<b>Affective Expectation</b>	<b>10</b>	<b>.99</b>	(20-29)
Affect Intensity 1	3	.82	(30,31,32)
Affect Intensity 2	5	.91	(49-53)
<b>Cognitive Expectation</b>	<b>4</b>	<b>.95</b>	(37,38,39,40)
Cognitive Response	4	.76	(41,42,43,44)
<b>Perceived Quality</b>			
<b>Expectation</b>	<b>3</b>	<b>.94</b>	(46,47,48)
Attitude Toward Brand 2	4	.97	(54,55,56,57)
Attitude Toward Color 2	4	.96	(58a-58d) <sup>2</sup> (58-61)

<sup>1</sup>N=40, highlighted items are major constructs in the model.

<sup>2</sup>Items 58a-58d measured attitude toward the brand on the instrument for the low affective information condition. The same measure for the high affective information condition used items 58-61.

The inter-item correlation for this item was also not consistent with the others (see Table 4). If this item were removed, alpha would increase to .77, quite acceptable. There is conceptual support to remove this item. When it comes to cars in particular, how often one drives a car may not correlate at all with the person's familiarity with cars in general. This observation is probably even more true for students who may not have a car at school yet might consider themselves to be quite familiar with cars in general. Moreover, for students who drive cars often, there is no reason to believe that simply because they drive a car everyday they are any more familiar with a student who takes the bus. In summary, as indicated in the item analysis, there is little correlation between how often the participant drives and his or her familiarity with cars. The correlations for the four items of the familiarity measure are presented in Table 4.

Table 5 presents the various measures, the number of dimensions extracted and the variance explained via factor analysis using varimax rotation, and a reference to item numbers on the instrument. Extreme caution must be exercised in interpreting these results due to the small sample size (N=40) and the number of factors being analyzed. However, the main objective is to look for "outliers" so to speak. In other words, it is expected that all constructs will be unidimensional except expertise which is conceptualized as three dimensional (familiarity, knowledge, and confidence). Therefore, as long as the results indicate primarily one factor for all of the constructs except expertise, some support for these constructs is gained.

**TABLE 4****CORRELATION MATRIX FOR FAMILIARITY ITEMS BASED ON PILOT TESTS<sup>1</sup>**

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	Often Shop	Often Drive	Familiarity	Time Spent
(1) Often Shop	1.00			
(2) Often Drive	<b>.22</b>	1.00		
(3) Familiarity	.47	<b>.14</b>	1.00	
(4) Time Spent on Cars	.54	<b>.18</b>	.66	1.00

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<sup>1</sup>N=40.

**TABLE 5**  
**FACTOR ANALYSIS RESULTS BASED ON PILOT TESTS<sup>1</sup>**

<u>Scale</u>	<u>No. DIMs</u>	<u>Expl'd Var.</u>	<u>Items On Instrument</u>
<u>PRETEST INSTRUMENT</u>			
<b>Attitude Toward Brand</b>	<b>1</b>	<b>85%</b>	(5,6,7,8)
<b>Attitude Toward Color</b>	<b>1</b>	<b>90%</b>	(21,22,23,24)
Familiarity	1	55%	(41,42,43,52)
Knowledge	1	86%	(44-46,50,53)
Confidence	1	86%	(47,48,49,51)
<b>Expertise</b>	<b>2</b>	<b>77%</b>	(41-53)
<u>EXPERIMENT INSTRUMENT</u>			
<b>Affective Response</b>	<b>1</b>	<b>70%</b>	
	<b>2</b>	<b>77%</b>	(1-18)
<b>Affective Expectation</b>	<b>1</b>	<b>91%</b>	(20-29)
<b>Affect Intensity 1</b>	<b>1</b>	<b>74%</b>	(30,31,32)
Affect Intensity 2	1	73%	(49-53)
<b>Cognitive Expectation</b>	<b>1</b>	<b>89%</b>	(37,38,39,40)
Cognitive Response 2	1	62%	(41,42,43,44)
<b>Perceived Quality</b>			
<b>Expectation</b>	<b>1</b>	<b>89%</b>	(46,47,48)
Attitude Toward Brand 2	1	91%	(54,55,56,57)
Attitude Toward Color 2	1	89%	(58a-58d) <sup>2</sup> (58-61)

<sup>1</sup>N=40, highlighted items are major constructs in the model.

<sup>2</sup>Items 58a-58d measured attitude toward the brand on the instrument for the low affective information condition. The same measure for the high affective information condition used items 58-61.

Two constructs deviated from what was expected. First, expertise loaded on only two factors instead of three. All items in the expertise scale loaded on the first factor except for the questions concerning how often the respondent drives and how often the respondent shops for cars. Since the item on driving frequency had already been shown to cause problems with the reliability of the familiarity measure it was concluded that this item could also have been driving the second factor. Therefore, the scale was reanalyzed with that item removed which resulted in a single factor explaining 74% of the variance; still not the three dimensions expected. It was decided however, that the measure be included in the experiment as is, since the analysis was based on such a small sample. Moreover, it may be possible that for cars familiarity, knowledge and confidence are inextricably intertwined in that cars are complex to understand yet simple to operate. Therefore, shopping for a car may not be as difficult as it might appear if consumers rely on a simple affective heuristic to form judgments. As one respondent stated during the debriefing, "I don't know a lot about how cars work and stuff, but I know what I like." The participants' expertise may be one-dimensional; familiarity, knowledge, and confidence may be so closely related as to be indistinguishable from one another. The correlations between these constructs, with the item for how often respondents shop for cars removed, supports this contention as presented in Table 6. All of the correlations between the three constructs are high and within a narrow margin (.76, .80, .86).

The results for the affective response scale were also unexpected in that the varimax rotation extracted two factors instead of one. However, one factor did explain 70% of the variance. An examination of the rotated factor matrix (Table 7) did not reveal any obvious discriminations between the factors and no interpretation could be made of the results. It was deemed that these results may be spurious due to the small sample size. It was decided that the scale would not be modified for the experiment.

**TABLE 6**  
**CORRELATION MATRIX FOR EXPERTISE CONSTRUCT**  
**BASED ON PILOT TESTS<sup>1</sup>**

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	Familiarity	Knowledge	Confidence
Familiarity	1.00		
Knowledge	.80	1.00	
Confidence	.76	.86	1.00

---

<sup>1</sup>N=40.

**Table 7**  
**ROTATED FACTOR MATRIX FOR AFFECTIVE RESPONSE**  
**BASED ON PILOT TESTS**

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<u>Item</u>	<u>Factor 1</u>	<u>Factor 2</u>
Upbeat	.849	.254
Joy	.804	.251
Excitement	.800	.363
Pride	.782	.292
Pleasure	.752	.433
Happy	.748	.460
Good	.742	.476
Adventurous	.732	.551
Positive	.698	.596
Fun	.697	.571
Exciting	.668	.608
Desire	.611	.559
Satisfying	.300	.877
Interesting	.239	.876
Appealing	.426	.833
Expectation	.419	.753
Uplifting	.579	.657
Anticipation	.470	.483

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In sum, there is support for the reliability and preliminary support for the validity of the measures employed in the pilot studies. Now the substantive results associated with the manipulation are examined.

## **Analyses and Substantive Results - Pilot Study #1**

Due to the small sample size of this pilot study, it was never intended that traditional statistical inference tests of the hypotheses would be performed. On the contrary, as previously stated, the goal is to estimate the effect size to determine the appropriate sample size for the experiment. Consequently, the substantive data of primary concern are the means and the effect sizes.

The effect of the independent variable manipulation (level of affective information) in this direct communication context can be estimated by calculating an effect size,  $\eta$ , using the formula:  $\eta = \sqrt{SSB / (SSB + SSW)}$ , where SSB is the sums of squares for the groups (low and high affective information) and SSW is the sums of squares for the residual or error (Rosenthal and Rosnow 1984). To obtain the sums of squares, analysis of variance was performed with groups as the independent variable and affective response as the dependent variable. This analysis indicates whether or not the manipulation was successful. In other words, did the group that read the description laden with affective descriptors have a more positive affective response than the group that read the stripped-down version? The effect size for the manipulation is  $\eta = .14$ , a small to medium effect size according to Cohen (1977).

An examination of the means however, indicates that the effect is in the wrong direction with the mean affective response for the low affective information condition at 224.5 versus 210.8 for the high affective information condition. Since the manipulation did not work as intended further investigation of the effect size, including power analysis, is irrelevant.

The debriefing offers some insight into why these results might have occurred. Respondents in the high affective information condition indicated that they felt the affect-laden description was "one-sided" and tried to "sucker" them into liking the car without really providing much information. Respondents in the low affective information condition made no comments to that effect. Consequently, respondents in the high affective information condition responded affectively more negatively to the description itself.

Respondents knew that they were going to be asked to provide their reaction to the car in the description. Therefore, they may have read the description with an evaluation objective and consequently reacted more negatively when an emotional appeal was obviously evident. These results are interesting since they suggest that in this case an emotional appeal may not have been effective, in fact may have been counter to the objectives of the communication, since the reader had a goal of evaluation and since the communication was in a written form. Certainly, the small and restricted sample does not allow for any generalization, however certain steps can be taken to better identify this effect in the conduct of the experiment.

It was decided that the descriptions would be slightly modified to try to discount this effect. Both descriptions would be condensed and the use of affective descriptors in the description for the high affective information condition would be reduced. Moreover, a measure would be developed and included in the experiment to capture the respondents' attitude toward the description. If this same effect appears in the experiment this measure should allow for its identification.

Even though the manipulation was not successful, some analysis of the control variables is appropriate since their effects should be present regardless of the direction of the means. The effect size for the control variables, as measured by eta, was calculated by running a traditional analysis of covariance model with the two groups

(high and low affective information) as the independent variable and perceived quality expectation as the dependent variable; all control variables were included in the model. Again, a similar formula for eta was used:  $\eta = \sqrt{SSB/(SSB+SSW)}$ , where SSB is the sums of squares for the covariate and SSW is the sums of squares for the residual or error (Rosenthal and Rosnow 1984). This procedure yielded an effect size of  $\eta=.52$ , for expertise, and  $\eta=.55$  for attitude toward the brand, large effect sizes according to Cohen (1977). The effect size for attitude toward the color is  $\eta=.22$ , a medium effect size. Thus, it was decided that the measures for all three control variables should be included in the experiment.

Additional debriefing indicated that the respondents in both groups had no trouble imagining driving the car but some respondents indicated that they thought the situation was unrealistic since they could never afford the car. They agreed that it would have made a difference if they had been instructed to forget money and how they obtained the car and to simply accept that they now owned the car. It was decided that these instructions would be added to the instructions for the experiment.

Gender differences were examined via t-tests. Since expertise was measured prior to the random assignment to the different studies, and to different groups within each study, it is appropriate to look at differences across both pilot studies. Females considered themselves to be less familiar with cars, possess less knowledge of cars and less confidence in that knowledge, compared with males ( $t_{(1,38)}=2.9$ ,  $P<.01$ , mean expertise for females = 47.5 versus 61.0 for males). Females consistently rated themselves lower for all original 11 items tapping expertise compared with males.

For the direct context pilot study females had a more positive affective response than males ( $\bar{X}_{\text{Male}}=191.9$ ,  $\bar{X}_{\text{Female}}=243.4$ ,  $t_{(1,18)}=2.5$ ,  $p=.02$ ) as was suspected. These results provide additional support for controlling for differences due to gender in the experiment.

## **Analyses and Substantive Results - Second Pilot Test**

Similar analyses were performed on the data from the second pilot test. The effect size for the manipulation, i.e., the effect of the groups on respondents' affective response was  $\eta^2 = .31$ , a medium to large effect (Cohen 1977). An examination of the means indicates that the effect was in the right direction; the mean affective response for the low affective information condition was 201.9 versus 239.4 for the high affective information condition. Using Cohen's formula for  $f = \sqrt{(\eta^2 / (1 - \eta^2))}$ , the appropriate tables, and given the effect size of .31,  $\alpha = .05$ , and the number of degrees in the numerator of the F statistic ( $u = 1$ ), in order to achieve a power of .80, a sample size of 44 would be required.

Investigating the effects of the control variables in a similar manner, the effect sizes are  $\eta^2 = .02$  for expertise,  $\eta^2 = .17$  for attitude toward the brand, and  $\eta^2 = .20$  for attitude toward the color. While the effect sizes for attitude toward the brand and attitude toward the color are both reasonable and support their inclusion in the experiment, the effect size for expertise is extremely small. However, little is lost by including the measure and should it not be a significant factor in the experiment, it can simply be dropped from the analysis. Therefore, it was decided that all three control variables would be included in the instruments for the experiment.

Any differences due to gender were examined via t-tests. Although the mean affective response for females (233.7) was higher than males (207.6), the difference was not statistically significant ( $t_{(1,10)} = .94$ ,  $p = .36$ ).

## **Discussion**

As a result of the pilot tests support was found for the reliability and validity of the measures. However, these pilot tests also suggest several changes for the conducting the experiment.

First, the written product descriptions need to be modified to reduce the negative response to the description itself; the high affective information condition description can be "toned down," i.e., fewer affective descriptors used and both descriptions (high and low affective information conditions) can be shortened. Therefore, the descriptions should require less time and effort to read, reducing the opportunity to develop negative thoughts about the description itself.

The instructions should also be modified. The revised instructions should inform the participants to disregard money as a factor. Moreover, the respondents should be instructed to relax and enjoy their participation.

Certain modifications to current measures and new measures are also suggested by the pilot tests. The item assessing how often respondents drive a car should be dropped from the expertise measure. To further examine the pilot test results of negative responses to the description itself, versus a negative response to the product, a measure for attitude toward the description seems to be warranted and should be included on the posttest instrument.

## **SUMMARY**

This chapter presented the preexperimental work including two pretests and two pilot tests that were conducted. Measures were developed and examined for reliability and validity, a product was identified, manipulations were checked, and modifications necessary for the conduct of the experiment were determined.

## **CHAPTER 5**

# **Data Collection, Analyses, and Results For The Experimental Study**

This chapter presents the data collection procedures, analyses, and results for the two experiments that were conducted as part of this study. First, the instruments, procedures, analyses, and results for the experiment examining the direct communication mode context will be discussed followed by a similar discussion for the experiment examining the indirect communication mode context. Finally, a summary of the results across both studies is provided.

### **FIRST EXPERIMENT:**

#### **DIRECT COMMUNICATION CONTEXT**

The first experiment examined the influence of affective responses on quality judgments in a direct communication mode context, i.e., with written communication. The objectives of this experiment were to test written product descriptions to elicit

affective responses.

## **EXPERIMENTAL INSTRUMENTS**

The questionnaires used to collect the data were developed through pretesting explicated in the previous chapter. The three questionnaires, pretest, experimental (low and high affective information conditions), and posttest, are presented in Appendices L, M, N and O, respectively. The questionnaires are similar to the pretest instruments except for the changes discussed previously. The pretest instrument (Appendix L) measures respondents' attitude toward the brand (ATTB), attitude toward the color (ATTC), and expertise.

The experimental instrument, identified as Questionnaire Booklet #1 for the respondents, measures respondents' affective responses, cognitive responses, affective expectations, cognitive expectations, and perceived quality expectations. The experiment instrument was modified to allow respondents to code their own thoughts. Question #33 on page 8 (Appendix M for the low condition and Appendix N for the high affective information condition) demonstrates how the respondents were instructed to list their thoughts, one thought to a line. This procedure allows respondents to come back during the posttest procedure to code these thoughts as to direction and valence. That is, a thought could be directed toward the description itself or toward the car. Moreover, a thought may be positive, negative or neutral. The advantage of this procedure is the removal of the researcher from the assumed more privileged position of access to the respondent's mind and allows the respondent to communicate the direction and valence of the thought. Question #35, page 9, was also modified for this self-coding process. The question asking respondents to indicate why they might have these thoughts listed in question #35 was dropped since the pretests indicated that most respondents either didn't answer the question or wrote superficial responses such as "That's what came to

my mind."

The posttest instrument (Appendix O, identified as Questionnaire Booklet #2 for respondents) measures respondents' recognition of statements made in the description, respondents' attitude toward the description itself (ATTD) and provided respondents with procedures to code the thoughts listed in questions #33 and #35 in the experiment instrument.

## **EXPERIMENTAL PROCEDURES**

A sample of 128 students enrolled in introductory marketing classes at a large southeastern university participated in the experiment. The data were collected in the spring of 1991 over a two week period. Five sessions were required to implement the pretest instrument and seven sessions were conducted to collect the experimental data.

The pretest instrument was implemented as a class exercise in 5 different sections of the introductory marketing course. The respondents were told that the researchers were interested in learning about their opinions concerning different aspects of cars and that they should take their time and respond to each question carefully.

At an earlier class meeting, students were asked to sign up for an ostensibly unrelated study which would actually be the experimental manipulation. The respondents were then randomly assigned to either the high or low affective information condition, with the constraint that an equal number of males and females be assigned to each group. When all of the respondents appeared at a designated time approximately one week after completing the pretest instrument, they checked-in and instructions for the study were provided.

One of the difficulties in studying affect in a laboratory setting is creating an environment that allows for the affect to exist. It would seem that a relaxed atmosphere would be more conducive to affective responses. However, a laboratory environment by

its very nature, (i.e., at a university, typical classroom or laboratory layout and ambiance, completing a questionnaire is akin to completing an examination) would seem to suggest to participants, especially university students, that the exercise is a serious matter that will probably reflect on their intellect and academic prowess. For example, researchers reading instructions from a prepared document is very formal and would appear to suggest to respondents a calculated, scientific environment in which there is no room for silly emotions. On the other hand, creating an environment that is too lax may unwittingly introduce differences in the experimental procedures between groups. For example, the researcher could simply ad lib instructions as best as possible in a relaxed, "off-the-cuff" manner, however it is likely that the groups will get somewhat different instructions. Bearing this dilemma in mind, the instructions (Appendix P) were memorized and the researcher endeavored to present the instructions in a relaxed manner but stayed as close to the prepared script as possible.

One of two product descriptions, one for the low affective information condition (Appendix Q) and one for the high affective information condition (Appendix R) were distributed to the respondents. The low affective information description minimized the use of affective descriptors compared to the description for the high affective information condition. The respondents were instructed to read the description. After approximately one minute the descriptions were collected and the respondents were instructed to complete Questionnaire Booklet #1 first. Only when Questionnaire Booklet #1 was completed were they to move on to Questionnaire Booklet #2. When all respondents were finished they were debriefed and thanked for their participation before being dismissed. Each participant was awarded extra credit for participating.

Each questionnaire was examined for completeness and appropriateness; all of the questionnaires were deemed usable, resulting in 64 respondents per cell.

## DATA ANALYSIS

The data were analyzed using analysis of covariance, regression and LISREL-VII.

The procedure for data analysis is outlined below.

- (1) The reliability of the constructs was assessed.
- (2) Discriminant validity was assessed.
- (3) Nomological validity was examined.
- (4) The dimensionality of the scales was examined via factor analysis using Release 4 of SPSS.
- (5) A manipulation check was performed using SAS PROC ANOVA.
- (6) The significance of the covariates was examined via SAS PROC GLM (General Linear Model).
- (7) Analysis of covariance was performed with significant covariates using SAS PROC GLM to test relevant hypotheses.
- (8) Regression analysis was performed using SAS PROC GLM and PROC REG for other hypotheses.
- (9) Finally, the structural model was examined using LISREL-VII.

**Reliability of Measures.** The relevant dependent and control variables measured with more than two items, affective response, affective expectation, affective response intensity, affective expectation intensity, cognitive expectation, perceived quality expectation, the three hypothesized dimensions of expertise (familiarity, knowledge, and confidence), attitude toward the brand (ATTB), attitude toward the color (ATTC), and attitude toward the description (ATTD) were assessed for reliability as a first step in the analysis process (Churchill 1979). The cognitive response measure is a single item measure (the number of positive thoughts directed toward the car) and reliability cannot be assessed. Table 8 presents the scale reliabilities. Nunnally (1978) suggests that

alpha coefficients at .70 or higher are adequate for early stages of research. As shown in the table, the measures' reliabilities, as estimated by Cronbach's coefficient alpha measure of internal consistency, meet this criterion.

***Discriminant Validity.*** A measure must be unique and not merely a by-product of some other measure thus demonstrating discriminant validity. Scales that correlate at a high level may be measuring the same construct rather than tapping different constructs. The correlations between the primary variables measured in this study are presented in Table 9. These correlations are the result of data collapsed across the two conditions. Although differences are expected in terms of absolute magnitude of the responses, the correlations should be similar across both groups and can be aggregated to provide general information as to direction and magnitude. As the correlation coefficients suggest, most of the constructs appear to exhibit discriminant validity due to the absence of any high correlations. The highest correlation is between affective response and perceived quality expectation (.71).

It could be argued that the quality measure was simply a reflection of the affective response measure. However, the items used in the measures appear to exhibit face validity; excitement, pleasure, joy, uplifting, and upbeat seem to be quite distinct from quality, satisfaction, and value. It is important to note that the quality measure did not include any specific measure of an affective component, although all three items would likely contain some affective constituent just as they are likely to contain a cognitive constituent. Moreover, subjects with more positive affective responses also expect the product to deliver higher levels of reliability, durability, and dependability, and exhibit better workmanship as evidenced by the correlation between affective response and cognitive expectation ( $r=.43, p<.001$ ).

**TABLE 8**  
**SCALE RELIABILITIES**

<u>Scale</u>	<u>Items</u>	Alpha (N=128)	Questionnaire <u>Items</u>
<u>PRETEST INSTRUMENT</u>			
Attitude Toward Brand	4	.93	(5,6,7,8)
Attitude Toward Color	4	.93	(17,18,19,20)
Familiarity	3	.84	(33,34,43)
Knowledge	5	.96	(35-37,41,44)
Confidence	4	.94	(38,39,40,42)
Expertise	12	.97	(33-44)
<u>EXPERIMENT INSTRUMENT</u>			
Affective Response	18	.96	(1-18)
Affective Expectation	10	.97	(20-29)
Affective Response Intensity	3	.70	(30,31,32)
Affective Expectation Intensity	5	.89	(48-52)
Cognitive Expectation	4	.92	(37,38,39,40)
Perceived Quality			
Expectation	3	.81	(45,46,47)
Attitude Toward Brand 2	4	.93	(53,54,55,56)
Attitude Toward Color 2	4	.95	(57a-57d) <sup>a</sup> (57-60)
<u>POSTTEST INSTRUMENT</u>			
Attitude Toward the Description	8	.89	(12-19)

<sup>a</sup>Items 57a-57d measured attitude toward the brand on the instrument for the low affective information condition. The same measure for the high affective information condition used items 57-60.

**TABLE 9**  
**SCALE CORRELATIONS AMONG PRIMARY VARIABLES**

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Pearson Correlation Coefficients<sup>a</sup>

	(1)	(2)	(3)	(4)	(5)
(1) Affective Response	1.00				
(2) Cognitive Response	0.43	1.00			
(3) Affective Expectation	0.65	0.37	1.00		
(4) Cognitive Expectation	0.43	0.23 <sup>*</sup>	0.41	1.00	
(5) Perceived Quality Expectation	0.71	0.35	0.68	0.63	1.00

---

<sup>a</sup>All significant at  $p < .0001$  unless noted otherwise,  $N = 128$ .

<sup>\*</sup> $p = .009$ .

It should also be noted that the measures demonstrate high levels of internal consistency. Thus, the correlations between the constructs would not be attenuated due to measurement error as much as if the measures were not as reliable. Moreover, the theory suggests that the correlations between the constructs will be high. Nomologically, these correlations are an affirmation of the theoretical model.

Thus, affect appears to influence not only more holistic product evaluations but also what might be considered as specific manufacture and performance attributes (i.e., workmanship, dependability, durability, and reliability). To test this notion, a post hoc regression was performed with the cognitive expectation as the dependent variable and affective response as the independent variable. The results support this argument ( $F(1,127)=28.3, p<.0001, R^2=.18$ ). Consequently, it appears that affective responses have significant impact on both cognitive and holistic subjective judgments.

To further examine the discriminant validity between affective response and perceived quality expectations, a factor analysis using principal components analysis with varimax rotation, was performed on the 21 items. A correlation matrix of the items is presented in Table 10, and the results of the factor analysis is presented in Table 11. The results provide evidence for discriminant validity and also indicate why the correlation between affective response and perceived quality expectation is high. Examining the correlation table, it appears that the inter-item correlations for the affective response items (1-18) are higher than the correlations between these items and the items for the perceived quality expectation items (19-21). Moreover, the inter-item correlations for the perceived quality items are higher than the correlations between these items and the affective response items. Thus, some evidence of discriminant validity is provided.

**TABLE 10**  
**CORRELATIONS AMONG ITEMS FOR AFFECTIVE RESPONSE AND**  
**PERCEIVED QUALITY EXPECTATION VARIABLES**

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Pearson Correlation Coefficients\*

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
(1) Excitement	1.00																				
(2) Anticipation	0.68	1.00																			
(3) Pride	0.64	0.57	1.00																		
(4) Desire	0.67	0.71	0.62	1.00																	
(5) Joy	0.68	0.57	0.71	0.67	1.00																
(6) Pleasure	0.69	0.61	0.66	0.74	0.76	1.00															
(7) Expectation	0.67	0.66	0.49	0.63	0.50	0.64	1.00														
(8) Fun	0.58	0.52	0.53	0.69	0.57	0.71	0.54	1.00													
(9) Exciting	0.64	0.56	0.57	0.77	0.63	0.72	0.55	0.89	1.00												
(10) Interesting	0.47	0.48	0.47	0.53	0.44	0.56	0.45	0.65	0.63	1.00											
(11) Appealing	0.51	0.54	0.43	0.69	0.54	0.59	0.51	0.72	0.78	0.68	1.00										
(12) Satisfying	0.50	0.52	0.57	0.63	0.63	0.66	0.43	0.74	0.76	0.66	0.82	1.00									
(13) Uplifting	0.49	0.42	0.53	0.60	0.56	0.63	0.39	0.69	0.77	0.59	0.72	0.79	1.00								
(14) Upbeat	0.64	0.51	0.50	0.67	0.55	0.62	0.55	0.63	0.67	0.48	0.62	0.56	0.58	1.00							
(15) Happy	0.50	0.45	0.51	0.60	0.69	0.64	0.46	0.57	0.59	0.48	0.56	0.58	0.61	0.72	1.00						
(16) Adventurous	0.48	0.44	0.44	0.58	0.53	0.57	0.54	0.59	0.61	0.54	0.53	0.54	0.58	0.59	0.66	1.00					
(17) Positive	0.63	0.62	0.55	0.67	0.58	0.73	0.62	0.63	0.66	0.66	0.62	0.65	0.63	0.66	0.67	0.68	1.00				
(18) Good	0.63	0.62	0.60	0.70	0.67	0.95	0.62	0.71	0.70	0.65	0.66	0.68	0.65	0.68	0.77	0.65	0.87	1.00			
(19) Quality	0.44	0.48	0.47	0.59	0.50	0.52	0.35	0.39	0.47	0.31	0.51	0.45	0.41	0.42	0.47	0.33	0.45	0.49	1.00		
(20) Satisfaction	0.45	0.54	0.49	0.67	0.56	0.63	0.42	0.52	0.59	0.34	0.57	0.58	0.55	0.59	0.54	0.41	0.52	0.55	0.65	1.00	
(21) Value	0.49	0.59	0.49	0.65	0.61	0.62	0.45	0.54	0.58	0.40	0.58	0.62	0.55	0.57	0.57	0.47	0.52	0.58	0.69	0.92	1.00

\*All significant at  $p < .0001$  unless noted otherwise,  $N=128$ .

<sup>b</sup> $p < .009$ .

**TABLE 11**  
**ROTATED FACTOR MATRIX FOR AFFECTIVE RESPONSE**  
**AND PERCEIVED QUALITY EXPECTATION**

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<u>Item (N=128)</u>	<u>Factor 1</u>	<u>Factor 2</u>	<u>Factor 3</u>
Uplifting	.80		.33
Satisfying	.78		.39
Appealing	.77		.37
Fun	.76	.37	
Interesting	.75	.33	
Exciting	.75	.38	.32
Good	.62	.59	
Adventurous	.61	.46	
Happy	.53	.45	.34
Upbeat	.52	.50	.31
Excitement		.80	
Expectation		.79	
Anticipation		.71	.36
Pride		.63	.34
Pleasure	.47	.62	.38
Positive	.60	.61	
Joy	.36	.59	.48
Desire	.45	.58	.48
Satisfaction	.30		.84
Value	.32		.84
Quality			.78

---

The results of the factor analysis (Table 11) suggests that three factors are present, two for the affective response measure (factors 1 and 2) and one for the perceived quality expectation measure, again supporting the discriminant validity between the two constructs. The results also indicate however, that there is some overlap in the loading of the items on the constructs. Specifically, eleven of the eighteen affective response items load to some degree on the perceived quality expectation factor.

A more critical test of the discriminant validity between two constructs should demonstrate that the items in one scale correlate with the scale at a significantly higher level than the items correlate with another scale. A Williams' t-test (for nonindependent  $r$ 's, see Howell (1987), p.243) was performed on the average item to total correlation for the affective response items and the summated scale for the affective response measure ( $r_1$ ), and the average item to total correlation for the affective response items and the summated scale for perceived quality expectations ( $r_2$ ). The result was significant ( $r_1=.88$ ,  $r_2=.58$ ,  $t_{(125)}=4.71$ ,  $p<.01$ ) suggesting that the constructs are different since the affective response items correlate at a significantly higher level with the affective response construct (as measured by the summated scale) than they do with the perceived quality construct (as measured by the summated scale). Similar analyses were performed for other variables that correlated at a high level with similar results. The items for the affective response correlated higher with the affective response scale than with the affective expectation scale ( $t_{(125)}=5.27$ ,  $p<.01$ ). The items in the affective expectation scale correlated at a significantly higher level with the affective expectation summated scale than with the perceived quality expectation summated scale ( $t_{(125)}=8.24$ ,  $p<.01$ ). Finally, the items for the cognitive expectation scale correlated at a significantly higher level with the cognitive expectation summated scale than with the perceived quality expectation summated scale ( $t_{(125)}=8.84$ ,  $p<.01$ ).

**Nomological Validity.** To the extent that a measure behaves in a manner consistent with expectations relative to other measures, the measure is nomologically valid. As the theory suggests, the correlations between affective response and affective expectation and perceived quality expectation are high. To critically test the discriminant and nomological validity among the constructs expected to differ in their relationships with other constructs, a test for differences between correlations was performed using Williams' t-statistic (Howell 1987). For example, affective response should relate differently to cognitive expectation as opposed to affective expectation. It would be expected that the correlation between affective response and affective expectation would be significantly stronger. The pair of correlations were in the right direction and significantly different from one another ( $t_{(125)}=2.88, p<.01$ ). Similar analyses for other variable combinations were performed and in general support the discriminant and nomological validity among the variables. The one exception is the correlation between cognitive response and cognitive expectation ( $r=.23$ ). This low correlation may also be a methodological artifact. The cognitive response is measured by a count of the number of positive thoughts about the car that were identified in a thought listing task. The cognitive expectation includes responses on several rating scales asking the respondent to provide estimates of the performance of the car. Therefore, due to the different methods employed to capture each measure, a lower correlation would be expected.

Another examination of Table 9 reveals that all of the correlations between affective response, affective expectation, and perceived quality expectation are significant and in the expected direction (all positive). The correlations between cognitive response, cognitive expectation, and perceived quality expectation are also significant and in the expected direction (positive). Moreover, the correlation between affective response and affective expectation is stronger than the correlation between affective response and cognitive expectation. However, the correlation between cognitive response and cognitive

expectation is weaker than the correlation between cognitive response and affective expectation, contrary to the theory. This irregularity may be a methodological artifact since the cognitive response measure is simply the number of positive thoughts that respondents listed about the car (range was 0 to 9, with 96% listing between 0 and 5 positive thoughts), whereas the other measures are more continuous in nature with 20 point scales and multiple items. Consequently, the evidence suggests that the constructs, as measured, are nomologically valid with the possible exception of cognitive response.

***Dimensionality of the Constructs.*** The dimensionality of the constructs was examined next to be certain that the hypothesized unidimensional constructs were indeed unidimensional and to check the loadings of the hypothesized multidimensional constructs. The results of the factor analyses in Table 12 indicate that all of the scales are unidimensional with the exception of the scale for the affective response. Similar to the pilot test, affective response loaded on two factors as shown in the rotated factor matrix in Table 13; however, there is no consistency as to the loadings across the two studies. That is, different items loaded on different factors. Moreover, the support for the two dimensions is weak since the loadings indicate that most of the items load considerably on both factors, suggesting overlap and hence only a 7% increase in the explained variance by including the second factor. Finally, it is not obvious what these two dimensions represent. For example, why would exciting and excitement load on different factors? Given the concerns for the potential spuriousness of these results and the high reliability for the scale, in the subsequent analysis, affective response is treated as a unidimensional construct.

A more disturbing result was the unidimensionality for expertise. It was hypothesized that expertise would have three dimensions, familiarity, knowledge, and

confidence. However, the factor analysis indicates a unidimensional construct that explains 76% of the variance. Two possible explanations may appear plausible for this result. First, the unidimensionality may be a methodological artifact. Examining the pretest instrument (Appendix L), it becomes readily apparent that all of the items tapping the three dimensions used the same scale, were similar in appearance, and were all grouped together. Consequently, the opportunity for respondents to follow a more programmed response was enhanced. Secondly, the product type, cars, especially for undergraduate students may not elicit significant differences in these three dimensions. It is quite possible that 19-20 year old students would consider their familiarity with cars, knowledge about cars, and confidence in that knowledge as virtually the same since they lack a significant number of years experience shopping for cars, buying cars, and using cars over an extended period of time. Notwithstanding, the construct is treated unidimensionally in subsequent analysis.

**TABLE 12**  
**FACTOR ANALYSIS RESULTS**

<u>Scale (N=128)</u>	<u>No. DIMs</u>	<u>Expl'd Var.</u>	<u>Items On Instrument</u>
<u>PRETEST INSTRUMENT</u>			
Attitude Toward Brand	1	84%	(5,6,7,8)
Attitude Toward Color	1	84%	(21,22,23,24)
Expertise	1	76%	(41-53)
<u>EXPERIMENT INSTRUMENT</u>			
Affective Response	1	64%	
	2	70%	(1-18)
Affective Expectation	1	79%	(20-29)
Affective Response Intensity	1	65%	(30,31,32)
Affective Expectation Intensity	1	71%	(49-53)
Cognitive Expectation	1	81%	(37,38,39,40)
Perceived Quality			
Expectation	1	84%	(46,47,48)
Attitude Toward Brand 2	1	84%	(54,55,56,57)
Attitude Toward Color 2	1	88%	(57a-57d) <sup>a</sup>
			(57-60)
<u>POSTTEST INSTRUMENT</u>			
Attitude Toward the Description	1	61%	(12-19)

<sup>a</sup>Items 57a-57d measured attitude toward the brand on the instrument for the low affective information condition. The same measure for the high affective information condition used items 57-60.

**TABLE 13****ROTATED FACTOR MATRIX FOR AFFECTIVE RESPONSE**

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<u>Item (N=128)</u>	<u>Factor 1</u>	<u>Factor 2</u>
Uplifting	.837	
Satisfying	.835	.314
Appealing	.826	.303
Exciting	.782	.451
Fun	.771	.406
Interesting	.724	
Good	.633	.615
Adventurous	.591	.446
Happy	.578	.515
Excitement		.825
Anticipation		.780
Expectation		.774
Pleasure	.517	.703
Joy	.417	.703
Pride	.327	.701
Desire	.518	.690
Positive	.597	.603
Upbeat	.549	.561

---

**Manipulation Check.** To check the success of the manipulation, i.e., whether the respondents who read the low affective information description responded with lower affective responses, a one-way analysis of variance was run using SPSS (Release 4) with affective information level as the independent variable and the affective response as the dependent variable. The results, shown in Table 14 indicate that the manipulation was successful ( $F_{(1,126)}=5.0, p=.03$ ). However, the effect size for the manipulation was much less than expected ( $\eta^2=.20$ ) since the effect size estimates from the pilot tests were larger ( $\eta^2=.30$ ). This may be due to sampling error. An examination of the means shows that the manipulation occurred in the right direction (Table 14). These results suggest that in general, respondents who read the description with the higher level of affective information exhibited more positive affective responses compared to respondents who read the low affective information description.

**Affective Information Level Effects.** Hypothesis **H1(a)** posited that respondents in the high affective information level would have stronger affective responses compared to respondents in the low affective information level. To test this hypothesis, first a one-way analysis of covariance was performed. The covariates were first examined to determine whether they reduced the error variance enough to offset the degrees of freedom that would be used up; if not, the power of the analysis of variance statistical test is reduced. Therefore, SAS PROC GLM was used to assess the impact of the four control variables, expertise, attitude toward the brand (ATTB), attitude toward the color (ATTC), and attitude toward the description (ATTD).

**TABLE 14**  
**ANALYSIS OF VARIANCE RESULTS**  
**FOR MANIPULATION CHECK ON AFFECTIVE RESPONSE**

<u>Source</u>	<u>df</u>	<u>F-Value</u>	<u>p-Value</u>	<u>Eta</u>
Affective Information Level	1	5.004	.027	.20
Error	126			

<u>Level</u>	<u>Mean<sup>a</sup></u>	<u>Std.Dev.</u>	<u>N</u>
Low Affective Information	233.72	46.15	64
High Affective Information	253.31	52.37	64

<sup>a</sup>Note: The scale included 18 items with a range of 0 to 342.

The analytical procedure started with an analysis of variance model that included all of the covariates, the independent variable (affective information level), the dependent variable (affective response intensity), and all possible interactions between the independent variable and the covariates. If any of the interactions are significant then analysis of covariance is inappropriate since the level of affective information interacted with the covariate and the assumption of the homogeneity of the regression coefficients is violated. None of the interactions were significant, and, therefore, the use of the covariates were deemed appropriate and the interaction terms were dropped from the model. The results for the model without the interaction terms (Table 15) indicate that only two of the covariates helped the model (based on Type II unique sums-of-squares), attitude toward the brand and attitude toward the description. Expertise appears to have no relationship at all with the intensity of the affective response most likely due to a lack a variance in subjects' estimates of their expertise as suggested by the factor analysis results. A final model was then tested with only attitude toward the brand and attitude toward the description as covariates (Table 16). The tests for homogeneity of the regression coefficients were met (i.e., the interaction terms were not significant). Moreover, both covariate terms were significant ( $p < .01$ ) and the mean square error variance was reduced from 58.2 to 48.7 when the covariates were added to the model.

The results for the final model (Table 16) demonstrate that with the variance due to the covariates removed, the different levels of affective information had a weak effect on the intensity of the affective responses ( $P = .08$ ,  $\eta^2 = .15$ ).

**TABLE 15**  
**ANALYSIS OF COVARIANCE RESULTS**  
**FOR AFFECTIVE RESPONSE INTENSITY WITH ALL COVARIATES INCLUDED**

---

<u>Source</u>	<u>df</u>	<u>Type II SS</u>	<u>F-Value</u>	<u>p-Value</u>
ATTB	1	597.58	13.80	.001
ATTC	1	5.98	.14	.711
Expertise	1	5.29	.12	.727
ATTD	1	765.93	17.69	.001

---

**TABLE 16**  
**ANALYSIS OF COVARIANCE RESULTS**  
**FOR AFFECTIVE RESPONSE INTENSITY - FINAL MODEL**

<u>Source</u>	<u>df</u>	<u>Sum-of-Squares</u>	<u>F-Value</u>	<u>p-Value</u>	<u>Eta</u>
ATTB	1	1221.45	13.89	.001	.43
ATTD	1	798.32	18.53	.001	.36
Affective Info. Level	1	128.92	3.02	.084	.15
Error	124	5292.93			
		Adjusted			
<u>Affective Information Level</u>		<u>Mean</u>	<u>Std. Dev.</u>	<u>N</u>	
Low		44.44	7.87	64	
High		46.45	7.38	64	

To test **H1(b)** (a greater number of thoughts will be listed by respondents in the low affective information level compared to respondents in the high affective information level), a similar procedure was followed. Only one covariate, attitude toward the brand, was significant. Even with the variance removed for attitude toward the brand, there was no significant difference in the number of thoughts listed, on average, between the two groups ( $\bar{X}_{low}=4.6$ ,  $\bar{X}_{high}=4.5$ ,  $F(1,127)=0.13$ ,  $p=.72$ ). Therefore, **H1(b)** is not supported.

To test hypothesis **H1(d)** (respondents in the high affective information condition will have more intense affective expectations compared to respondents in the low affective information condition), analysis of covariance, similar to prior hypothesis tests was performed. Two covariates, attitude toward the brand and attitude toward the description, were significant and retained in the model. The results (Table 17) indicate that level of affective information had no significant effect on the intensity of respondents' affective expectations although the means were in the right direction. Thus, **H1(d)** is not supported.

Hypotheses **H1(c)**, **H1(e)**, and **H1(f)** hypothesized positive relationships between affective response and affective expectation, affective response and perceived quality expectation, and affective expectation and perceived quality expectation respectively. **H1(h)** hypothesized a positive relationship between cognitive response and perceived quality expectation, **H1(i)** posited a positive relationship between cognitive response and cognitive expectation, and **H1(j)** posited a positive relationship between cognitive expectation and perceived quality expectation. These hypotheses were tested using simple and multiple linear regression models, regressing (1) perceived quality expectations on attitude toward the brand (ATTB was the only significant control variable in preliminary regression runs), affective response, affective expectation, cognitive response, and cognitive expectation, (2) regressing affective expectation on affective response, and (3) regressing cognitive expectation on cognitive response.

**TABLE 17**  
**ANALYSIS OF COVARIANCE RESULTS**  
**FOR AFFECTIVE EXPECTATION INTENSITY - FINAL MODEL**

<u>Source</u>	<u>DF</u>	Sum of <u>Squares</u>	<u>F-Value</u>	<u>p-Value</u>	<u>Eta</u>
ATTB	1	524.96	9.69	.002	.27
ATTD	1	609.77	31.09	<.001	.45
Affective Info. Level	1	2.94	0.15	.70	.03
Error	124	2428.21			

	Adjusted <u>Mean</u>	<u>Std. Dev.</u>
<u>Affective Information Level</u>		
Low	27.88	5.58
High	28.18	5.05

The results (Table 18(A)) support the hypothesized positive relationship between affective response and perceived quality expectation (**H1(e)**) ( $t_{(1,127)}=4.66, p<.0001$ ). Thus, **H1(e)** is supported. **H1(f)**, the posited positive relationship between affective expectation and perceived quality expectation is also supported ( $t_{(1,127)}=4.2, p<.0001$ ). Hypothesis **H1(h)**, a positive relationship between cognitive response and perceived quality expectation is not supported ( $t_{(1,127)}=-0.48, p=.63$ ). **H1(j)** was supported ( $t_{(1,127)}=6.09, p<.0001$ ), suggesting a positive relationship between cognitive expectation and perceived quality expectation.

The results shown in Table 18(B) support **H1(c)**, the hypothesized positive relationship between affective response and affective expectation with 42% of the variance of the affective expectation explained by the affective response ( $t_{(1,127)}=9.5, p<.0001$ ). Note that since this is a one independent variable model, the variance explained ( $R^2$ ) is simply the square of the correlation coefficient. Thus, hypothesis **H1(c)** is supported. Results provided in Table 18(C) support **H1(i)** ( $t_{(1,127)}=2.65, p=.009$ ).

The nonsignificant result for the effect of the cognitive response on perceived quality expectations may be due to the way the variable was measured. Recall that the cognitive response is a fairly crude measure consisting of the number of positive thoughts that were listed about the car. Although respondents self-coded these thoughts, the measure is limited and may poorly reflect the actual cognitions that respondents were engaged in at the time. It is possible that the subjects were not that cognitively involved in the task, since the first measures were the affective measures; however, previous research testing the order of the measures for cognitive response and affective response showed no differences (Compeau and Monroe 1991). This measurement issue may also have contributed to the rather low level of variance explained for cognitive expectation by the cognitive response ( $R^2=.05$ ).

**TABLE 18**  
**REGRESSION RESULTS**

**(A) Dependent Variable: Perceived Quality Expectations**

<u>Independent Variable<sup>a</sup></u>	<u>Unstandardized Regression Coefficient</u>	<u>Standardized Regression Coefficient</u>	<u>t-Value</u>	<u>p-Value</u>
ATTB	.473	.205	3.81	<.0002
AR	.070	.318	4.66	<.0001
CR	-.150	-.026	-0.48	.6328
AE	.104	.274	4.20	<.0001
CE	.318	.334	6.09	<.0001

**(B) Dependent Variable: Affective Expectations**

<u>Independent Variable</u>	<u>Unstandardized Regression Coefficient</u>	<u>Standardized Regression Coefficient</u>	<u>t-Value</u>	<u>p-Value</u>	<u>R<sup>2</sup></u>
AR	.375	.646	9.5	<.001	.42

**(C) Dependent Variable: Cognitive Expectations**

<u>Independent Variable</u>	<u>Unstandardized Regression Coefficient</u>	<u>Standardized Regression Coefficient</u>	<u>t-Value</u>	<u>p-Value</u>	<u>R<sup>2</sup></u>
CR	1.39	.230	2.65	.009	.05

<sup>a</sup>Where:  
 ATTB = Attitude toward the brand  
 AR = Affective response  
 AE = Affective expectation  
 CR = Cognitive response  
 CE = Cognitive expectation

Hypotheses **H1(k)** and **H1(l)** proposed that more variance in perceived quality expectations should be explained when affective response is added to a model that contains only the cognitive response as an independent variable and when affective response and affective expectation are added to a model that contains only the cognitive response and cognitive expectation. The models were run using the "ENTER" command in SPSS Release 4 to control the order of entry of the independent variables. In both cases the change in  $R^2$  is significant (Table 19), providing support for hypothesis **H1(k)**. When affective response is added to the cognitive response only model,  $R^2$  increases from .12 to .50, explaining 38% more variance; the change in the  $R^2$  is significant ( $F_{\text{change}}=94.8, p<.0001$ ). Additionally, the mean square error is reduced from 108.3 to 62.1, suggesting again that by adding an affective component the model explains more variance. Similar results are seen when both affective terms (affective response and affective expectation) are added to a model with only the cognitive terms (cognitive response and cognitive expectation).  $R^2$  increases significantly from .45 to .68 explaining 23% more variance ( $F_{\text{change}}=45.5, p<.0001$ ). The error variance was reduced from 69.0 to 40.3 as well. Thus, **H1(k)** and **H1(l)** are supported.

The central thesis of this work is represented in hypothesis **H1(g)**, subjects in the high affective information group will have higher expectations of quality compared with subjects in the low affective information condition. This hypothesis was tested using analysis of covariance in a procedure similar to the other hypothesis tests. Two covariates were significant, attitude toward the brand and attitude toward the description, and were included in the final model. The results, Table 20, support hypothesis **H1(g)**; perceived quality expectations were higher on average for subjects in the high affective information condition compared with subjects in the low affective information condition.

**TABLE 19**  
**REGRESSION MODEL COMPARISONS**  
**FOR PERCEIVED QUALITY EXPECTATIONS**

<u>Variables in Model<sup>a</sup></u>	<u>F</u>	<u>R<sup>2</sup></u>	<u>R<sup>2</sup></u>	<u>F</u>	<u>Mean</u>
	<u>Model</u>	<u>R<sup>2</sup></u>	<u>Change</u>	<u>Change</u>	<u>Sqr. Error</u>
CR only	17.6 <sup>*</sup>	.12	NA	NA	108.3
CR, AR	62.8 <sup>*</sup>	.50	.38	94.79 <sup>*</sup>	62.1
CR, CE	50.3 <sup>*</sup>	.44	NA	NA	69.0
CR, CE, AR, AE	65.8 <sup>*</sup>	.68	.24	45.51 <sup>*</sup>	40.3

<sup>\*</sup>p<.0001

<sup>a</sup>Where:      AR = Affective response  
                  AE = Affective expectation  
                  CR = Cognitive response  
                  CE = Cognitive expectation

**TABLE 20**  
**ANALYSIS OF COVARIANCE RESULTS**  
**FOR PERCEIVED QUALITY EXPECTATIONS - FINAL MODEL**

---

<u>Source</u>	<u>DF</u>	Sum of <u>Squares</u>	<u>F-Value</u>	<u>p-Value</u>	<u>Eta</u>
ATTB	1	3940.3	56.53	<.001	.50
ATTD	1	2518.0	36.12	<.001	.40
Affective Info. Level	1	450.2	6.46	.01	.17
Error	124	8643.1			

<u>Affective Information Level</u>	Adjusted <u>Mean</u>	<u>Std. Dev.</u>
Low	39.09	11.25
High	42.58	10.68

---

**Regression Analysis.** A multiple linear regression model regressing perceived quality expectations on all of the control variables (ATTB, ATTC, ATTD) included with the independent variables (affective information level (a dummy variable), affective response, cognitive response, affective expectation, cognitive expectation) was examined first. An interaction term for expertise by affective response was included since expertise was hypothesized to moderate the affective response. As expected and consistent with the results of the analysis of covariance models, ATTC, ATTD, and expertise were not significant (both via a t-test on the regression coefficient and an F-test on Type II sum-of-squares) and were dropped from the model. There was no evidence of collinearity in the full model (e.g., the variance inflation factors were all less than 5.0, condition indices were all less than 30) and influence diagnostics (hat diagonal, Cook's D, Dffits, Dfbetas) did not suggest any observations be examined individually.

The reduced model also demonstrated no evidence of collinearity (variance inflation factors all less than 2.1, condition indices all less than 25). The results for the final reduced model (Table 21) illustrate that the model explains over 72% of the variance in the respondents' quality expectations. Two terms in the model were not significant, affective information level (dummy variable) and cognitive response. The measurement issues associated with the cognitive response have already been discussed and won't be repeated here. As was suspected, it appears that the manipulation did not influence all of the respondents' affective responses at the same level ( $t_{(1,127)}=1.5$ ,  $p=.15$ ); the effect size for affective information level is only .13 (unique contribution) as measured by eta. The lack of collinearity between the levels of affective information and the affective response also suggests that respondents' affective responses to a higher level of affective information were not consistently more positive at a significant level.

Consistent with the previous analyses, there is support for the influence of affective responses (**H1(e)**), affective expectations (**H1(f)**), and cognitive expectations

**(H1(h))** on perceived quality expectations but the results do not support the hypotheses positing an influence of cognitive response on perceived quality expectations **(H1(i))**.

**Causal Analysis.** The last step in the analysis is to examine the proposed causal model for overall fit and to more critically test relevant hypotheses since the model can incorporate and account for attenuated relationships due to measurement error. LISREL-VII is a computer program that examines linear structural relationships and estimates overall fit of the model and coefficients for the paths articulated in the model. Moreover, the LISREL model incorporates both a structural component and a measurement component. The measurement component models the relationships between the observed indicators and the latent constructs. The structural component models the causal linear relationships between the latent constructs. Hence, simultaneously the hypothesized model is assessed for both measurement properties and causal relationships.

The maximum likelihood (ML) method of estimating parameters was selected for this analysis over alternative methods (e.g., instrumental variables, two-stage least squares) since ML uses all available information in estimating parameters and also calculates standard errors for the estimates, allowing computation of t-values for testing hypotheses.

A covariance matrix is used for input since use of a correlation matrix does not provide as much information (i.e., information concerning means and covariances) and may result in inaccurate statistical tests (Bentler and Chou 1987). Moreover, the use of correlation matrices tends to cause the ML parameter estimates to be overstated (Babakus, Ferguson and Joreskog 1987).

**TABLE 21**  
**REGRESSION RESULTS - FINAL MODEL**  
**FOR PERCEIVED QUALITY EXPECTATIONS**

---

Overall Model Results

<u>Source</u>	<u>DF</u>	<u>Sum of Squares</u>	<u>Mean Square</u>	<u>F-Value</u>	<u>p-Value</u>
Model	6	11200.9	1866.8	51.92	<.0001
Error	127	4350.7	36.0		

R<sup>2</sup> = .72      Adjusted R<sup>2</sup> = .71

Parameter Estimates

<u>Independent Variable</u>	<u>Unstandardized Regression Coefficient</u>	<u>Standardized Regression Coefficient</u>	<u>t-Value</u>	<u>p-Value</u>
Affective information level	1.587	.072	1.45	.15
Attitude toward the brand	.494	.214	3.97	<.0001
Affective response	.066	.299	4.32	<.0001
Cognitive response	-.172	-.030	-.55	.58
Affective expectation	.105	.277	4.26	<.0001
Cognitive expectation	.320	.337	6.16	<.0001

---

As was proposed in Chapter 3, the model only examines the affective component. Therefore, the immediate interest is with the influence of affective responses on affective expectations and perceived quality expectations and the influence of affective expectations on perceived quality expectations. The cognitive component was not included in the model since the sample size is small for this type of analysis and since the cognitive component has been well researched.

Although the experiment implemented two levels of affective information to test for differences, a two group model is not appropriate for this analysis. Of present interest is the causal relationship between the constructs of the model and there is no theoretical justification as to why these causal relationships would differ across the two levels of affective information. Conceptually, it was hypothesized that the two groups (low versus high affective information level) would differ in terms of the means on affective responses (the manipulation) and cognitive responses (**H1(b)**). However, the influence of the affective responses on affective expectations and consequently on perceived quality expectations should be invariant across the two levels of affective information. That is, regardless of how positive the affective response is, it should still influence quality expectations in a similar manner. More specifically, if one has a less positive affective response then the perception of expected quality should be lower. Therefore, the data were aggregated across both groups for this analysis. However, to test this assumption a two-group LISREL model was run. A chi-square test for differences between the two models was not significant ( $\chi^2_{11}=10.6, p=.478$ ).

The following hypotheses were simultaneously tested with LISREL-VII.

**H1(c):** There is a positive relationship between affective responses and affective expectations.

**H1(e):** There is a positive relationship between affective responses and perceived quality expectations.

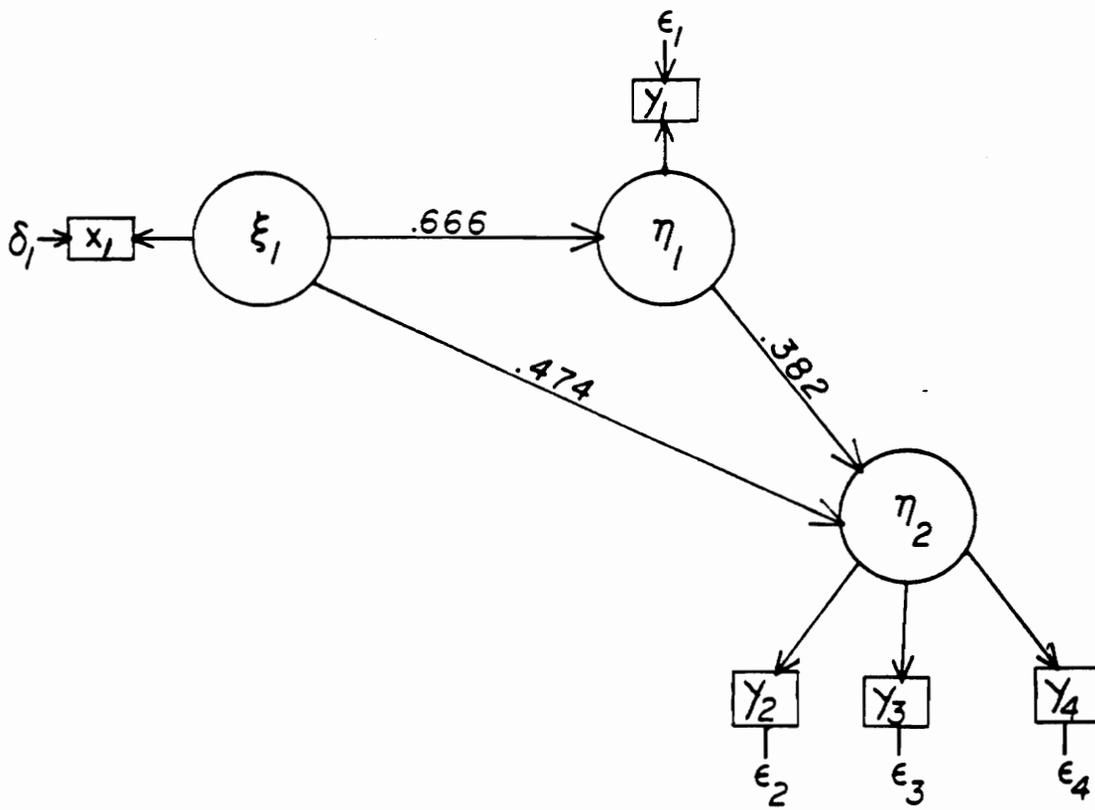
**H1(f):** There is a positive relationship between affective expectations and perceived quality expectations.

Certain problems such as the Chi-square statistic being sensitive to strong relationships among variables, complexity of models, sample sizes, and the use of many indicators for the latent constructs, are inherent with LISREL (Fornell 1983; Bearden, Sharma, and Teel 1982, Hayduk 1987). Problems specific to this analysis is the small sample size (N=128), the large number of indicators used for some constructs (e.g., 18 indicators were used for the latent construct affective response) and preliminary evidence of strong relationships among some of the variables.

One way of minimizing the impact of a large number of indicators on the overall fit of the model is to use a single, fallible indicator that incorporates the information provided by the separate indicators along with an estimate of the fallibility of the measure. Therefore, the scale of measurement for affective response (18 indicators) and affective expectation (10 indicators) was established by using aggregate scores and setting the factor loadings at 1.0. The measurement error terms were not set to zero implying perfect measures, but were instead set to  $(1-\alpha)$  times the variance of the indicator (MacKenzie and Lutz 1989) to incorporate measurement error. This process restricts the reliabilities of the latent constructs to the known reliabilities of their measures. These procedures are especially important given the small sample size. Testing a model with a sample of 128 where 28 paths for the measurement model must be estimated for only two latent constructs would negatively impact on the model fit assessment.

The proposed model is shown in Figure 3. There is one exogenous variable, affective response, and two endogenous variables, affective expectation and perceived quality expectation. Affective response was measured with 18 indicators but was entered into the model using a single, aggregate, fallible measure. Affective expectation was measured with ten items but entered into the model using a single, aggregate, fallible measure. Perceived quality expectations was also entered into the model using all three indicators used to measure the construct. The model does not specify correlated errors since there was no theoretical justification and doing so can artificially improve the fit of the model (Gerbing and Anderson 1984).

Before individual examination of path coefficients and hypothesis tests can be performed, the overall fit of the model must be assessed. Bentler (1980) and Bonnet and Bentler (1982) recommend that a model should be compared to a null model to assess its fit since the chi-square statistic is dependent on sample size and complexity of the model. They point out that this is even more critical when the sample size is small. However, there is some question as to exactly what represents a null model in any given instance (Hayduk 1987). Therefore, Hayduk (1987) recommends that it is preferable to seek competing models or create meaningful alternative models. This procedure is particularly well suited for two group analyses and nested models since differences in chi-square can be statistically tested for significance indicating whether one model fits better than another. Since a two group model was run and the chi-square was not significant, it is appropriate then to compare the results for fit of the model using all 128 respondents to estimate the fit for the two group model. The goodness-of-fit statistics indicate that the model provides a good representation of the relationships as articulated by the data. The chi-square statistic is sensitive to sample size but is a good indicator of the quality of the model fit if sample size is modest (less than 200) (Hayduk 1987).




---

$\xi_1$  = affective response  
 $\eta_1$  = affective expectation  
 $\eta_2$  = perceived quality expectations

**FIGURE 5: LISREL MODEL**

The chi square is not significant ( $\chi^2=5.57$ ,  $p=.234$ ) and the model appears to be able to recreate the sample covariance matrix well as suggested by the low root mean square residual (RMR) of 2.845. Since the measures were not standardized the RMR must be evaluated in relation to the observed variances and covariances presented in Table 22. The RMR for the two group model was 45.351 suggesting that the model produces better estimates for the variance/covariance matrix for the data collapsed across both groups. Note also that the ratio of chi-square to degrees of freedom is only 1.4, much lower than the 5 recommended as reasonable by Wheaton et al. (1977). Equivalent to Hoelter's "critical-N" formula which represents the size of the sample required to make the observed difference between  $\Sigma$  (sigma - the estimated covariance matrix) and S (the sample covariance matrix), the same model was run with the sample size specified as 200. This procedure checks if the observed differences are large enough to be detected by a reasonable sized sample (N=200). The chi-square with 4 degrees of freedom was 8.72 ( $p=.068$ ) still not significant indicating that with a sample size of 128 the observed differences were large enough to be detected. The goodness-of-fit index (GFI=.983) and adjusted goodness of fit index (AGFI=.937) also suggest that the model fits well (Joreskog and Sorbom 1983, 1986) and are comparable to the two group model (GFI=.985, AGFI=.938). An estimate of the total variance explained by the model is provided with the total coefficient of determination which is .58, compared to .587 for the two group model. The variance explained in the endogenous constructs ranged from .505 to .970; the variance explained for the exogenous construct is .97. The total coefficient of determination for the endogenous constructs was .998 and .970 for the exogenous constructs. The normalized residuals were all less than 2.0 indicating a good fit. Moreover, with 11 free parameters, a ratio of subjects to free parameters is 11.6:1, higher than the minimum of 5:1 suggested by Bagozzi and Yi (1988). The slope of the Q-plot was slightly greater than one suggesting a moderate to good fit.

**TABLE 22****COVARIANCE MATRIX AGGREGATED DATA ACROSS BOTH GROUPS**

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	Affective Response	Affective Expectation	<u>Perceived Quality</u>	<u>Quality Satisfaction</u>	<u>Expectation Value</u>
Affective Response	2532.724				
Affective Expectation	950.21	853.479			
Quality	98.432	52.612	11.935		
Satisfaction	143.368	83.419	9.560	18.133	
Value	151.348	82.444	10.380	16.885	18.738

---

Bagozzi and Yi (1988) and Fornell and Larcker (1981) recommend an examination of the estimates of item reliability (squared multiple correlations) and composite reliability. Table 23 summarizes the reliabilities for perceived quality expectations, along with parameter estimates, error variances, squared multiple correlations (item reliability), and composite reliability for perceived quality expectations. Affective response and affective expectation was not included in this table since the measurement model for these constructs was set a priori. All of the squared multiple correlations are above the .5 level recommended by Bagozzi and Yi (1988). The composite reliability is above the .60 level recommended by Bagozzi and Yi (1988). In sum, the model's fit is acceptable.

**TABLE 23**  
**ASSESSMENT OF MEASURES**

Constructs and Variables	Parameter Estimates <sup>1</sup>	Error Variances <sup>1</sup>	SMC <sup>2</sup>	Composite Reliability
<b>Perceived Quality Expectation</b>				
Y2-Quality	1.000 (-----) <sup>3</sup>	5.907 (.773)	.505	.998
Y3-Satisfaction	1.636 (.125)	2.002 (.479)	.890	
Y4-Value	1.710 (.128)	1.103 (.465)	.941	

<sup>1</sup>Standard error in parentheses.

<sup>2</sup>Squared Multiple Correlation.

<sup>3</sup>Fixed by scaling.

Since the model fit is acceptable the individual paths can be examined and tests of the hypotheses performed. The hypotheses were tested using ML estimates, the standard errors estimated by LISREL-VII, and the calculated t-values as shown in Table 24.

**H1(c):** There is a positive relationship between affective responses and affective expectations.

It was hypothesized that as subjects' affective responses became more positive, expectations of affective experiences would also become more positive. The maximum likelihood estimate for this relationship ( $\gamma_{11}=.387$ ) was significant with a t-value of 9.54 ( $p<.001$ ). Therefore, the results support **H1(c)**, a positive relationship between affective responses and affective expectations.

**H1(e):** There is a positive relationship between affective responses and perceived quality expectations.

It was hypothesized that as affective responses became more positive, expectations of quality would also increase. The maximum likelihood estimate ( $\gamma_{21} = .023$ ) was significant with a t-value of 5.145 ( $P<.001$ ) supporting **H1(e)**. The results thus support a positive relationship between affective responses and perceived quality expectations.

**H1(f):** There is a positive relationship between affective expectations and perceived quality expectations.

Finally, it was hypothesized that as respondents' affective expectations became more positive, expectations of product quality would also increase. The maximum likelihood estimate for this path ( $\beta_{21} = .033$ ) is significant with a t-value of 4.306 ( $p<.001$ ). The results support a positive relationship between affective expectations and perceived quality expectations (**H1(f)**).

**TABLE 24****PARAMETER ESTIMATES AND TESTS OF HYPOTHESES**

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<u>Hypothesis</u>	<u>LISREL Estimate</u>	<u>Standardized Estimate</u>	<u>Standard Error</u>	<u>t-value</u>	<u>p-value</u>
$\gamma_{11}$ - H1(c)	.387	.666	.041	9.538	<.001
$\gamma_{21}$ - H1(e)	.023	.474	.005	5.145	<.001
$\beta_{21}$ - H1(f)	.033	.382	.008	4.306	<.001

---

*Summary.* This section discussed the analyses and results for the first experiment that examined the conceptual model in a direct communication environment. The results of the hypothesis test are discussed in greater detail in Chapter 7. Next, the data analyses and results for the second experiment examining an indirect mode of communication are presented.

## **SECOND EXPERIMENT: INDIRECT COMMUNICATION CONTEXT**

The second experiment examined the influence of affective responses on quality judgments in an indirect communication mode context, i.e., with a visual communication medium. The objectives of this experiment were to test the formal hypotheses presented in Chapter 3 via visual communication.

### **EXPERIMENTAL INSTRUMENTS**

The questionnaires used to collect the data were exactly the same as used in the first experiment except the wording was changed to reflect the appropriate stimulus. For example, "watching the video" replaced "reading the description." The instruments were developed through pretesting explicated in the previous chapter. The three questionnaires, pretest, experimental (low and high affective information conditions), and posttest, are presented in Appendices S, T (low), U (high), and V, respectively. The questionnaires are similar to the pretest instruments except for the changes discussed previously.

## **EXPERIMENTAL PROCEDURES**

A sample of 138 students enrolled in introductory marketing classes at a large southeastern university participated in the experiment. The data were collected in the spring of 1991 over a two week period. Six sessions were required to implement the pretest instrument and eight sessions were conducted to collect the experimental data.

Similar to the first experiment, the pretest instrument was implemented as a class exercise in sections of the introductory marketing course. The instructions were the same; respondents were instructed that the researchers were interested in learning about their opinions concerning different aspects of cars and that they should take their time and respond to each question carefully. Also, at an earlier class session, students were asked to sign up for an ostensibly unrelated study which would actually be the experimental manipulation. The respondents were then randomly assigned to either the high or low affective information condition, with the constraint that an equal number of males and females be assigned to each group. When the respondents appeared at a designated time approximately one week after completing the pretest instrument, they were checked-in and asked to sit in only those seats at which a questionnaire booklet had been placed since these seats were in the best viewing position for the monitor. When all participants had arrived, instructions for the study were provided to the respondents. The instructions (Appendix W) were kept the same except the participants were asked to watch the video rather than read the description.

Half of the participants watched a videotape of the Mazda Miata in black and white (low affective information condition) and the other half watched the same video in color (high affective information condition). The respondents were instructed to watch the video. After the video was finished (approximately 40 seconds) the respondents were instructed to complete Questionnaire Booklet #1 first. Only when Questionnaire Booklet #1 was completed were they to move on to Questionnaire Booklet #2. When all

respondents were finished they were debriefed and thanked for their participation before being dismissed. Participants were awarded extra credit.

Each questionnaire was examined for completeness and appropriateness; two of the questionnaires were deemed unusable, resulting in 68 respondents per cell.

## **DATA ANALYSIS**

The data were analyzed using analysis of covariance, regression and LISREL-VII. The same procedure as used for the first experiment is outlined below.

- (1) Assessment of construct reliability.
- (2) Discriminant validity assessment.
- (3) Nomological validity assessment.
- (4) Scale dimensionality investigated via factor analysis.
- (5) Manipulation check performed.
- (6) Significance of covariates examined.
- (7) Analysis of covariance performed to test relevant hypotheses.
- (8) Regression analysis performed for other hypotheses.
- (9) Examination of the structural model.

**Reliability of Measures.** Table 25 presents the scale reliabilities and illustrates the strong similarity to the results from the first experiment (Table 8). The measures' reliabilities are acceptable since all are at or above the .70 minimum acceptable standard for internal reliability (Nunnally 1978).

**TABLE 25**  
**SCALE RELIABILITIES**

<u>Scale</u>	<u>Items</u>	<u>Alpha</u> <u>(N=136)</u>	<u>Questionnaire</u> <u>Items</u>
<u>PRETEST INSTRUMENT</u>			
Attitude Toward Brand	4	.94	(5,6,7,8)
Attitude Toward Color	4	.91	(17,18,19,20)
Familiarity	3	.82	(33,34,43)
Knowledge	5	.95	(35-37,41,44)
Confidence	4	.93	(38,39,40,42)
Expertise	12	.96	(33-44)
<u>EXPERIMENT INSTRUMENT</u>			
Affective Response	18	.96	(1-18)
Affective Expectation	10	.97	(20-29)
Affective Response Intensity	3	.74	(30,31,32)
Affective Expectation Intensity	5	.85	(48-52)
Cognitive Expectation	4	.92	(37,38,39,40)
Perceived Quality			
Expectation	3	.86	(45,46,47)
Attitude Toward Brand 2	4	.94	(53,54,55,56)
Attitude Toward Color 2	4	.96	(57a-57d) <sup>a</sup> (57-60)
<u>POSTTEST INSTRUMENT</u>			
Attitude Toward the Description	8	.88	(12-19)

\*Items 57a-57d measured attitude toward the brand on the instrument for the low affective information condition. The same measure for the high affective information condition used items 57-60.

**Discriminant Validity.** The correlations between the primary variables measured in this experiment are presented in Table 26 and are the result of data collapsed across the two conditions. Most constructs appear to exhibit discriminant validity however, the same four pairs of variables, affective response with perceived quality expectation, affective response with affective expectation, affective expectation and perceived quality expectation, and cognitive expectation and perceived quality expectation are correlated at levels above .45 and suggest that the measures may overlap. Again, the face validity of these constructs appears to be well founded, however to examine the discriminant validity between these constructs, Williams t-tests were performed similar to those conducted in the first experiment. The average item to total correlation for the affective response items and the summated affective response scale ( $r_1$ ) was compared with the average item to total correlation for the affective response items and the perceived quality expectation summated scale ( $r_2$ ). The difference was significant and in the right direction ( $r_1=.79$ ,  $r_2=.46$ ,  $t_{(133)}=6.43$ ,  $p<.01$ ). The test between affective response and affective expectation was significant and in the right direction ( $r_1=.79$ ,  $r_2=.50$ ,  $t_{(133)}=5.1$ ,  $p<.01$ ). Testing the discriminant validity for affective expectation and perceived quality expectation resulted in the correlations being significantly different and in the right direction as well ( $r_1=.88$ ,  $r_2=.58$ ,  $t_{(1,133)}=8.0$ ,  $p<.01$ ). The correlations for cognitive expectation and perceived quality expectation were also significantly different ( $r_1=.9$ ,  $r_2=.61$ ,  $t_{(133)}=9.6$ ,  $p<.01$ ). These results suggest support for discriminant validity in that the items in one scale correlate at a significantly higher level with that construct than the other construct.

**TABLE 26**  
**SCALE CORRELATIONS AMONG PRIMARY VARIABLES**

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Pearson Correlation Coefficients<sup>a</sup>

	(1)	(2)	(3)	(4)	(5)
(1) Affective Response	1.00				
(2) Cognitive Response	0.39	1.00			
(3) Affective Expectation	0.62	0.31 <sup>*</sup>	1.00		
(4) Cognitive Expectation	0.31 <sup>*</sup>	0.23 <sup>**</sup>	0.43	1.00	
(5) Perceived Quality Expectation	0.58	0.39	0.66	0.68	1.00

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<sup>a</sup>All significant at  $p < .0001$  except where noted,  $N = 136$ .

<sup>\*</sup> $p < .0002$ .

<sup>\*\*</sup>Not significant,  $p = .13$ .

To further examine the discriminant validity between affective response and perceived quality expectations, a factor analysis using principal components analysis with varimax rotation, was performed on the 21 items. A correlation matrix of the items is presented in Table 27, and the results of the factor analysis are presented in Table 28. The results provide evidence for discriminant validity and also indicate why the correlation between affective response and perceived quality expectation is high. Examining the correlation table, it appears that the inter-item correlations for the affective response items (1-18) are higher than the correlations between these items and the items for the perceived quality expectation items (19-21). Moreover, the inter-item correlations for the perceived quality items are higher than the correlations between these items and the affective response items. Thus, some evidence of discriminant validity is provided.

Similarly, the factor analysis results demonstrate three factors extracted, which can be interpreted as two dimensions for the affective response and the third factor representing perceived quality expectation. The results are more ambiguous than those from the first experiment in that there is considerable overlap in the loading of the items on the constructs. Specifically, "appealing" and "satisfying" load on the perceived quality expectation factor, although to a lesser extent compared with the three perceived quality expectation items. Referring to Table 11, factor analysis results from the first experiment, appealing and satisfying also load to a lesser extent on the perceived quality expectation scale, suggesting that the appeal and affective satisfaction associated with a product is closely related to overall quality perceptions.

**TABLE 27**  
**CORRELATIONS AMONG ITEMS FOR AFFECTIVE RESPONSE AND**  
**PERCEIVED QUALITY EXPECTATION VARIABLES**

	Pearson Correlation Coefficients*																						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)		
(1) Excitement	1.00																						
(2) Anticipation	0.68	1.00																					
(3) Pride	0.53	0.49	1.00																				
(4) Desire	0.66	0.53	0.53	1.00																			
(5) Joy	0.68	0.57	0.64	0.68	1.00																		
(6) Pleasure	0.69	0.55	0.57	0.71	0.83	1.00																	
(7) Expectation	0.60	0.68	0.56	0.57	0.62	0.63	1.00																
(8) Fun	0.70	0.60	0.50	0.69	0.66	0.70	0.63	1.00															
(9) Exciting	0.70	0.61	0.48	0.73	0.68	0.70	0.64	0.86	1.00														
(10) Interesting	0.52	0.45	0.39	0.63	0.59	0.58	0.51	0.73	0.77	1.00													
(11) Appealing	0.50	0.46	0.38	0.77	0.58	0.55	0.51	0.65	0.72	0.66	1.00												
(12) Satisfying	0.37	0.43	0.43	0.66	0.50	0.47	0.55	0.57	0.67	0.64	0.75	1.00											
(13) Uplifting	0.46	0.41	0.40	0.57	0.62	0.54	0.54	0.63	0.70	0.61	0.60	0.69	1.00										
(14) Upbeat	0.56	0.54	0.48	0.59	0.63	0.66	0.61	0.71	0.66	0.60	0.55	0.57	0.64	1.00									
(15) Happy	0.57	0.54	0.54	0.60	0.70	0.70	0.59	0.66	0.67	0.58	0.54	0.53	0.59	0.79	1.00								
(16) Adventurous	0.52	0.52	0.54	0.61	0.58	0.62	0.62	0.65	0.69	0.57	0.49	0.54	0.59	0.74	0.75	1.00							
(17) Positive	0.49	0.47	0.51	0.67	0.63	0.67	0.53	0.62	0.65	0.60	0.60	0.60	0.62	0.71	0.77	0.71	1.00						
(18) Good	0.50	0.51	0.47	0.65	0.64	0.62	0.54	0.63	0.67	0.62	0.61	0.64	0.66	0.74	0.77	0.69	0.88	1.00					
(19) Quality	0.26	0.22	0.30	0.47	0.27	0.27	0.36	0.37	0.44	0.46	0.54	0.55	0.43	0.31	0.31	0.35	0.39	0.38	1.00				
(20) Satisfaction	0.27	0.20	0.37	0.58	0.35	0.32	0.37	0.42	0.46	0.48	0.62	0.67	0.43	0.38	0.36	0.35	0.49	0.50	0.75	1.00			
(21) Value	0.36	0.29	0.41	0.62	0.45	0.36	0.45	0.45	0.51	0.51	0.69	0.68	0.53	0.46	0.44	0.43	0.51	0.54	0.76	0.86	1.00		

\*All significant at  $p < .0001$  unless noted otherwise,  $N = 136$ .

**TABLE 28**  
**ROTATED FACTOR MATRIX FOR AFFECTIVE RESPONSE**  
**AND PERCEIVED QUALITY EXPECTATION**

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<u>Item (N=128)</u>	<u>Factor 1</u>	<u>Factor 2</u>	<u>Factor 3</u>
Excitement	.85		
Anticipation	.78		
Pleasure	.70	.49	
Joy	.70	.46	
Expectation	.70	.33	
Fun	.65	.48	
Exciting	.63	.49	.39
Pride	.62		.39
Desire	.58	.38	.51
Good		.81	.32
Positive		.80	.31
Happy	.44	.76	
Upbeat	.42	.75	
Adventurous	.42	.71	
Uplifting	.31	.61	.40
Interesting	.42	.49	.45
Satisfaction			.89
Value			.87
Quality			.85
Satisfying		.46	.68
Appealing	.40	.37	.65

---

**Nomological Validity.** Examining Table 26 reveals that all of the correlations between affective response, affective expectation, and perceived quality expectation are significant and in the expected direction (all positive). The correlations between cognitive response, cognitive expectation, and perceived quality expectation are also significant and in the expected direction (positive). Moreover, the correlations between affective response and affective expectation are stronger than between affective response and cognitive expectation. However, similar to the first experiment, the correlation between cognitive response and cognitive expectation is lower than the correlation between cognitive response and affective expectation, contrary to what the theory would predict. As discussed previously, this anomaly may be due to the measurement of the cognitive response. Consequently, the evidence suggests that the constructs, as measured, are nomologically valid with the possible exception of the cognitive response measure.

Williams' t-statistic was used to further explore the discriminant and nomological validity among the constructs expected to differ in their relationships with other constructs. The correlation between affective response and affective expectation is significantly larger than the correlation between affective response and cognitive expectation as expected ( $t_{(135)}=4.12, p<.01$ ). Similar analyses for other variable combinations were performed and in general support the discriminant and nomological validity among the variables. The one exception was the correlation between cognitive response and cognitive expectation ( $p=.13$ ). As previously suggested, this low correlation may be a methodological artifact. The cognitive response is measured by a count of the number of positive thoughts about the car that were identified in a thought listing task. The cognitive expectation includes responses on several rating scales asking the respondent to provide estimates of the performance of the car. Due to the different methods employed to capture each measure, a lower correlation would be expected.

***Dimensionality of the Constructs.*** The results of the factor analyses in Table 29 indicate that all of the scales are unidimensional with the exception of the scale for affective response. Similar to the pilot test and the first experiment, affective response loaded on two factors as shown in the rotated factor matrix in Table 30; however, again there is no consistency as to the loadings across the three studies. That is, different items loaded on different factors. Moreover, most of the items load considerably on both factors, suggesting overlap and hence only a 7% increase in the explained variance by including the second factor. Finally, as in the other two studies, it is not readily apparent as to what these two dimensions represent and thus affective response is treated as a unidimensional construct. The factor analysis also indicates that expertise should be treated as a unidimensional construct rather than the three dimensional construct hypothesized, explaining 72% of the variance.

**TABLE 29**  
**FACTOR ANALYSIS RESULTS**

<u>Scale (N=136)</u>	<u>No.</u> <u>DIMs</u>	<u>Expl'd</u> <u>Var.</u>	<u>Items On</u> <u>Instrument</u>
<u>PRETEST INSTRUMENT</u>			
Attitude Toward Brand	1	86%	(5,6,7,8)
Attitude Toward Color	1	79%	(21,22,23,24)
Expertise	1	72%	(41-53)
<u>EXPERIMENT INSTRUMENT</u>			
Affective Response	1	63%	
	2	70%	(1-18)
Affective Expectation	1	77%	(20-29)
Affective Response Intensity	1	69%	(30,31,32)
Affective Expectation Intensity	1	64%	(49-53)
Cognitive Expectation	1	82%	(37,38,39,40)
Perceived Quality			
Expectation	1	86%	(46,47,48)
Attitude Toward Brand 2	1	85%	(54,55,56,57)
Attitude Toward Color 2	1	89%	(57a-57d) <sup>a</sup> (57-60)
<u>POSTTEST INSTRUMENT</u>			
Attitude Toward the Description	1	72%	(12-19)

<sup>a</sup>Items 57a-57d measured attitude toward the brand on the instrument for the low affective information condition. The same measure for the high affective information condition used items 57-60.

**TABLE 30**  
**ROTATED FACTOR MATRIX FOR AFFECTIVE RESPONSE**

<u>Item (N=136)</u>	<u>Factor 1</u>	<u>Factor 2</u>
Satisfying	.840	
Appealing	.790	
Uplifting	.765	
Good	.759	.404
Interesting	.741	.340
Positive	.728	.428
Exciting	.694	.552
Desire	.649	.522
Upbeat	.634	.534
Fun	.607	.606
Happy	.594	.590
Adventurous	.586	.548
Excitement		.819
Anticipation		.764
Pleasure	.438	.746
Joy	.449	.734
Pride		.713
Expectation	.382	.710

**Manipulation Check.** To check the success of the manipulation, i.e., whether the respondents who read the low affective information description responded with lower affective responses, a one-way analysis of variance was run using SPSS (Release 4) with affective information level as the independent variable and the affective response as the dependent variable. The results, shown in Table 31 indicate that the manipulation was successful ( $F_{(1,135)}=5.8, p=.017$ ). However, the effect size for the manipulation was identical to the first experiment using written affective communication, and again less than expected at .20, as measured by  $\eta^2$ . The means were in the right direction and indicates that the manipulation did work (Table 31). These results suggest that in general, respondents who watched the video in color exhibited more positive affective responses compared to respondents who watched the video in black and white.

**Affective Information Level Effects.** Hypothesis H1(a) posited that respondents in the high affective information level would have stronger affective responses compared to respondents in the low affective information level. To test this hypothesis, procedures identical to those used to test the hypothesis in the first experiment were employed. None of the interactions between the covariates (expertise, attitude toward the brand (ATTB), attitude toward the color (ATTC), and attitude toward the video (ATTV)) and the independent variable were significant and therefore the use of the covariates was deemed appropriate satisfying the assumption of homogeneity of the regression coefficient; the interaction terms were dropped from the model. The results for the model without the interaction terms (Table 32) indicate that only two of the covariates helped the model (based on Type II unique sums-of-squares), attitude toward the brand and attitude toward the color.

**TABLE 31**  
**ANALYSIS OF VARIANCE RESULTS**  
**FOR MANIPULATION CHECK ON AFFECTIVE RESPONSE**

<u>Source</u>	<u>df</u>	<u>F-Value</u>	<u>p-Value</u>	<u>Eta</u>
Affective Information Level	1	5.829	.017	.20
Error	134			

<u>Level</u>	<u>Mean<sup>a</sup></u>	<u>Std.Dev.</u>	<u>N</u>
Low Affective Information	232.60	49.06	68
High Affective Information	251.18	40.22	68

<sup>a</sup>Note: The scale included 18 items with a range of 0 to 342.

**TABLE 32**  
**ANALYSIS OF COVARIANCE RESULTS**  
**FOR AFFECTIVE RESPONSE INTENSITY WITH ALL COVARIATES INCLUDED**

---

<u>Source</u>	<u>df</u>	<u>Type II SS</u>	<u>F-Value</u>	<u>p-Value</u>
ATTB	1	890.89	17.89	.0001
ATTC	1	478.32	9.60	.002
Expertise	1	7.55	.15	.700
ATTV	1	98.10	1.97	.163

---

A final model was then tested with only attitude toward the brand and attitude toward the color as covariates (Table 33). The tests for homogeneity of the regression coefficients were met (i.e., the interaction terms were not significant). Moreover, both covariate terms were significant ( $p < .01$ ) and the mean square error variance was reduced from 63.3 to 49.9 when the covariates were added to the model.

The results for the final model (Table 33) indicate that with the variance due to the covariates removed, the different levels of affective information still had no effect on the intensity of the affective responses ( $P = .33$ ,  $\eta^2 = .07$ ). Thus, **H1(a)** is not supported.

To test **H1(b)** (a greater number of thoughts will be listed by respondents in the low affective information level compared to respondents in the high affective information level), a similar procedure was followed. None of the covariates were significant. There was a significant difference in the number of thoughts listed, on average, between the two groups of respondents ( $\bar{X}_{\text{LOW}} = 4.28$ ,  $\bar{X}_{\text{HIGH}} = 5.09$ ,  $F(1, 135) = 6.41$ ,  $p = .01$ ) however, in the opposite direction hypothesized. Respondents who saw the color video listed more thoughts on average than respondents who watched the video in black and white. Therefore, **H1(b)** is not supported.

**TABLE 33**  
**ANALYSIS OF COVARIANCE RESULTS**  
**FOR AFFECTIVE RESPONSE INTENSITY - FINAL MODEL**

---

<u>SOURCE</u>	<u>DF</u>	Sum-of <u>Squares</u>	<u>F-Value</u>	<u>p-Value</u>	<u>Eta</u>
ATTB	1	1291.94	25.89	.0001	.39
ATTC	1	610.88	12.24	.0006	.27
Affective Info. Level	1	47.06	0.94	.3332	.07
Error	132	6585.88			

<u>Affective Information Level</u>	Adjusted <u>Mean</u>	<u>Std. Dev.</u>	<u>N</u>
Low	43.34	7.69	64
High	44.31	8.22	64

---

To test hypothesis **H1(d)** (respondents in the high affective information condition will have more intense affective expectations compared with respondents in the low affective information condition) analysis of covariance was again performed. Two covariates were significant, attitude toward the brand and attitude toward the color, and were retained in the model. The results (Table 34) indicate that level of affective information had a significant effect on the intensity of respondents' affective expectations ( $F_{(1,135)}=5.52, p=.02$ ) and the means were in the right direction. Thus, **H1(d)** is supported.

Hypotheses **H1(c)**, **H1(e)**, and **H1(f)** hypothesized positive relationships between affective response and affective expectation, affective response and perceived quality expectation, and affective expectation and perceived quality expectation respectively. **H1(h)** hypothesized a positive relationship between cognitive response and perceived quality expectation, **H1(i)** posited a positive relationship between cognitive response and cognitive expectation, and **H1(j)** posited a positive relationship between cognitive expectation and perceived quality expectation. These hypotheses were tested using simple and multiple linear regression models, regressing (1) perceived quality expectations on attitude toward the brand (ATTB was the only significant control variable in preliminary regression runs), affective response, affective expectation, cognitive response, and cognitive expectation, (2) regressing affective expectation on affective response, and (3) regressing cognitive expectation on cognitive response.

**TABLE 34**

**ANALYSIS OF COVARIANCE RESULTS  
FOR AFFECTIVE EXPECTATION INTENSITY - FINAL MODEL**

<u>Source</u>	<u>DF</u>	<u>Sum of Squares</u>	<u>F-Value</u>	<u>p-Value</u>	<u>Eta</u>
ATTB	1	503.51	37.00	.0001	.45
ATTC	1	132.06	9.70	.0023	.23
Affective Info. Level	1	75.17	5.52	.0203	.17
Error	135	1796.53			

	<u>Adjusted</u>	
<u>Affective Information Level</u>	<u>Mean</u>	<u>Std. Dev.</u>
Low	27.25	4.63
High	28.90	3.83

The results (Table 35(A)) support the hypothesized positive relationship between affective response and perceived quality expectation (**H1(e)**) ( $t_{(1,130)}=2.33, p<.02$ ). Thus **H1(e)** is supported. **H1(f)**, the posited positive relationship between affective expectation and perceived quality expectation is also supported ( $t_{(1,130)}=3.6, p<.0005$ ). Unlike the first experiment, hypothesis **H1(h)**, a positive relationship between cognitive response and perceived quality expectation is supported ( $t_{(1,130)}=3.94, p<.0001$ ). **H1(j)** was supported ( $t_{(1,130)}=8.58, p<.0001$ ), suggesting a positive relationship between cognitive expectation and perceived quality expectation.

The results shown in Table 35(B) support **H1(c)**, the hypothesized positive relationship between affective response and affective expectation with 39% of the variance of the affective expectation explained by the affective response ( $T_{(1,130)}=9.22, p<.0001$ ). Thus, hypothesis **H1(c)** is supported. Contrary to the results from the first experiment, the results from this study do not support **H1(i)** ( $t_{(1,130)}=1.49, p=.14$ ) Table 35(C).

The last hypotheses, **H1(k)** and **H1(l)**, proposed that more variance in perceived quality expectations should be explained when affective response is added to a model that contains only the cognitive response as an independent variable and when affective response and affective expectation are added to a model that contains only the cognitive response and cognitive expectation. Similar to the first experiment, the models were run using the "ENTER" command in SPSS Release 4 to control the order of entry of the independent variables. In both cases the change in  $R^2$  is significant (Table 36), providing support for hypothesis **H1(k)**. When affective response is added to the cognitive response only model,  $R^2$  increases from .15 to .37, explaining 22% more variance; the change in the  $R^2$  is significant ( $F_{\text{change}}=45.7, p<.0001$ ). Additionally, the mean square error is reduced from 93.2 to 69.8, suggesting again that by adding an affective component the model explains more variance.

**TABLE 35**  
**REGRESSION RESULTS**

**(A) Dependent Variable: Perceived Quality Expectations**

<u>Independent Variable<sup>a</sup></u>	<u>Unstandardized Regression Coefficient</u>	<u>Standardized Regression Coefficient</u>	<u>T-Value</u>	<u>p-Value</u>
ATTB	.538	.266	5.28	<.0001
AR	.032	.139	2.33	.0212
CR	1.075	.191	3.94	<.0001
AE	.092	.221	3.60	<.0005
CE	.410	.428	8.58	<.0001

**(B) Dependent Variable: Affective Expectations**

<u>Independent Variable</u>	<u>Unstandardized Regression Coefficient</u>	<u>Standardized Regression Coefficient</u>	<u>T-Value</u>	<u>p-Value</u>	<u>R<sup>2</sup></u>
AR	.345	.623	9.22	<.0001	.39

**(C) Dependent Variable: Cognitive Expectations**

<u>Independent Variable</u>	<u>Unstandardized Regression Coefficient</u>	<u>Standardized Regression Coefficient</u>	<u>T-Value</u>	<u>p-Value</u>	<u>R<sup>2</sup></u>
CR	.749	.127	1.49	.14	.02

<sup>a</sup>Where:      ATTB = Attitude toward the brand  
                   AR = Affective response  
                   AE = Affective expectation  
                   CR = Cognitive response  
                   CE = Cognitive expectation

**TABLE 36**  
**REGRESSION MODEL COMPARISONS**  
**FOR PERCEIVED QUALITY EXPECTATIONS**

---

<u>Variables in Model<sup>a</sup></u>	<u>F</u> <u>Model</u>	<u>R<sup>2</sup></u>	<u>R<sup>2</sup></u> <u>Change</u>	<u>F</u> <u>Change</u>	<u>Mean</u> <u>Sqr. Error</u>
CR only	24.6*	.15	--	--	108.3
CR, AR	39.2*	.37	.22	45.68*	62.1
CR, CE	83.17*	.56	--	--	69.0
CR, CE, AR, AE	72.8*	.69	.13	28.29*	40.3

---

\*p<.0001

<sup>a</sup>Where:      AR = Affective response  
                  AE = Affective expectation  
                  CR = Cognitive response  
                  CE = Cognitive expectation

Similar results are seen when both affective terms (affective response and affective expectation) are added to a model with only the cognitive terms (cognitive response and cognitive expectation).  $R^2$  increases significantly from .56 to .69 explaining 13% more variance ( $F_{\text{change}}=28.3, p<.0001$ ). The error variance was reduced from 49.3 to 40.0 as well. Thus, **H1(k)** and **H1(l)** are supported.

The central thesis of this work is represented in hypothesis **H1(g)**, subjects in the high affective information group will have higher expectations of quality compared with subjects in the low affective information condition. This hypothesis was tested using analysis of covariance in a procedure similar to the other hypothesis tests. Three covariates were significant, attitude toward the brand (ATTB), attitude toward the description (ATTD), and attitude toward the color (ATTC), and were included in the model. However, the assumption of homogeneity of regression coefficients was invalid; that is, the interaction terms for all three covariates approached significance suggesting the assumption was violated (p-values were .07 - .15). Therefore, the hypothesis was tested in a model without the covariate terms. The results, Table 37, demonstrate a weak to moderate effect for hypothesis **H1(g)** ( $F_{(1,135)}=2.95, p=.09, \eta^2=.15$ ).

**Regression Analysis.** A multiple linear regression model regressing perceived quality expectations on all of the control variables (ATTB, ATTC, ATTD) included with the independent variables (affective information level (a dummy variable), affective response, cognitive response, affective expectation, cognitive expectation) was examined first. An interaction term for expertise by affective response was included since expertise was hypothesized to moderate the affective response. As expected and consistent with the results of the analysis of covariance models, ATTC, ATTD, and expertise were not significant (both via a t-test on the regression coefficient and an F-test on Type II sum-of-squares) and were dropped from the model.

**TABLE 37**  
**ANALYSIS OF COVARIANCE RESULTS**  
**FOR PERCEIVED QUALITY EXPECTATIONS - FINAL MODEL**

---

<u>Source</u>	<u>DF</u>	<u>Sum of Squares</u>	<u>F-Value</u>	<u>p-Value</u>	<u>Eta</u>
Affective Info. Level	1	318.1	2.95	.09	.17
Error	135	14444.9			

<u>Affective Information Level</u>	<u>Mean</u>	<u>Std. Dev.</u>
Low	38.66	11.10
High	41.72	9.61

---

There was no evidence of collinearity in the full model (e.g., the variance inflation factors were all less than 2.0, condition indices were all less than 25) and influence diagnostics (hat diagonal, Cook's D, Dffits, Dfbetas) did not suggest any observations be examined.

The reduced model also demonstrated no evidence of collinearity (variance inflation factors all less than 3, condition indices all less than 30) nor were there any high influence observations. The results for the final reduced model (Table 38) illustrate that the model explains over 74% of the variance in the respondents' quality expectations. One term in the model was not significant, affective information level (dummy variable). As was suspected, it appears that the manipulation did not influence all of the respondents' affective responses at the same level ( $t_{(1,129)} = .195, p = .85$ ).

Consistent with the previous analyses, there is support for the influence of affective responses (**H1(e)**), affective expectations (**H1(f)**), and cognitive expectations (**H1(h)**) on perceived quality expectations but the results also support the hypothesis positing an influence of cognitive response on perceived quality expectations (**H1(i)**) in contrast to the results of the first experiment.

**Causal Analysis.** The last step in the analysis is to examine the proposed causal model for overall fit and to more critically test relevant hypotheses since the model can incorporate and account for attenuated relationships due to measurement error. LISREL-VII was used in a procedure duplicating the causal modeling procedure used in the first experiment. The maximum likelihood (ML) method of estimating parameters was used and a covariance matrix input.

**TABLE 38**  
**REGRESSION RESULTS - FINAL MODEL**  
**FOR PERCEIVED QUALITY EXPECTATIONS**

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Overall Model Results

<u>Source</u>	<u>DF</u>	<u>Sum of Squares</u>	<u>Mean Square</u>	<u>F-Value</u>	<u>p-Value</u>
Model	6	10991.8	1832.0	62.67	.0001
Error	129	3771.2	29.2		

R<sup>2</sup> = .74      Adjusted R<sup>2</sup> = .73

Parameter Estimates

<u>Independent Variable</u>	<u>Unstandardized Regression Coefficient</u>	<u>Standardized Regression Coefficient</u>	<u>T-Value</u>	<u>p-Value</u>
Affective information level	.203	.010	0.20	p=.85
Attitude toward the brand	.537	.267	5.24	p<.0001
Affective response	.031	.137	2.29	p=.0236
Cognitive response	1.051	.187	3.51	p=.0006
Affective expectation	.092	.223	3.58	p=.0005
Cognitive expectation	.410	.429	8.54	p<.0001

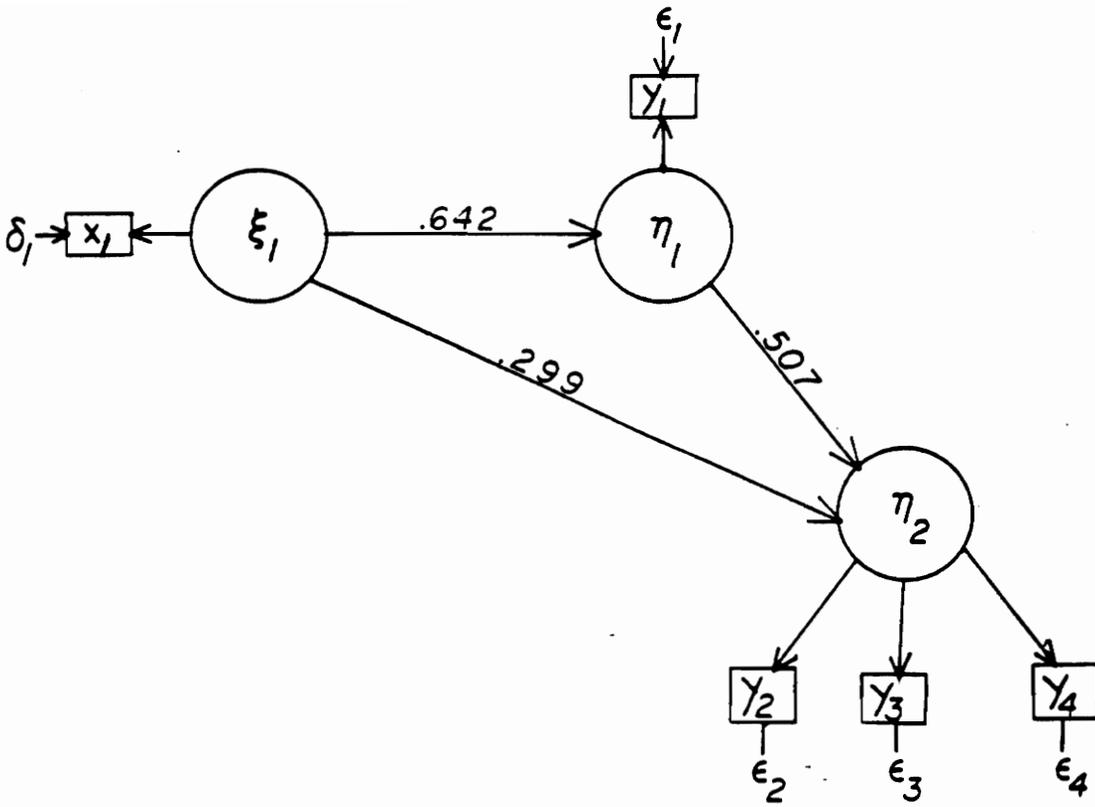
---

As was proposed, the model only examines the affective component. The data was aggregated across both conditions of this experiment for analysis. However, to test the assumption that the two groups (low and high affective information conditions) did not differ, a two-group LISREL model was run. A chi-square test for differences between the two models was not significant ( $\chi^2_{11}=19.28, p=.06$ ) however the results do suggest that while not significant, differences between the two models exist and the results should be interpreted carefully.

The following hypotheses were simultaneously tested with LISREL-VII.

- H1(c):** There is a positive relationship between affective responses and affective expectations.
- H1(e):** There is a positive relationship between affective responses and perceived quality expectations.
- H1(f):** There is a positive relationship between affective expectations and perceived quality expectations.

Again, problems specific to this analysis is the small sample size ( $N=136$ ), the large number of indicators used for some constructs (e.g., 18 indicators were used for the latent construct affective response) and preliminary evidence of strong relationships among some of the variables; therefore, similar procedures were used in entering the variables into the model. A single, fallible indicator was used for affective response and affective expectation using aggregate scores and setting the factor loadings at 1.0. The measurement error terms were not set to zero implying perfect measures, but were instead set to  $(1-\alpha)$  times the variance of the indicator (MacKenzie and Lutz 1989) to incorporate measurement error. The proposed model is shown in Figure 4 and is identical to the model tested in the first experiment.



$\xi_1$  = affective response  
 $\eta_1$  = affective expectation  
 $\eta_2$  = perceived quality expectations

**FIGURE 6: LISREL MODEL**

Before individual examination of path coefficients and hypotheses tests performed, the overall fit of the model must be assessed. Since a two group model was run and the chi-square was not significant, it is appropriate then to compare the results for fit of the model using all 136 respondents to the estimate of fit for the two group model. The goodness-of-fit statistics indicate that the model provides a good representation of the relationships as articulated by the data. The chi square is not significant ( $\chi^2=5.08$ ,  $p=.279$ ) and the model appears to be able to recreate the sample covariance matrix well as suggested by the low root mean square residual (RMR) of 2.358. Since the measures were not standardized the RMR must be evaluated in relation to the observed variances and covariances presented in Table 39. The RMR for the two group model was 45.351 suggesting that the model produces better estimates for the variance/covariance matrix for the data collapsed across both groups. Note also that the ratio of chi-square to degrees of freedom is only 1.3, much lower than the 5 recommended as reasonable by Wheaton et al. (1977). Equivalent to Hoelter's "critical-N" formula which represents the size of the sample required to make the observed difference between  $\Sigma$  (sigma - the estimated covariance matrix) and S (the sample covariance matrix), the same model was run however, the sample size was specified as 200. This procedure checks if the observed differences are large enough to be detected by a reasonable sized sample (N=200). The chi-square with 4 degrees of freedom was 7.49 ( $p=.112$ ) still not significant indicating that with a sample size of 136 the observed differences were large enough to be detected. The goodness-of-fit index (GFI=.985) and adjusted goodness of fit index (AGFI=.944) also suggest that the model fits well (Joreskog and Sorbom 1983, 1986) and compares favorably to the two group model (GFI=.935, AGFI=.908). An estimate of the total variance explained by the model is provided with the total coefficient of determination which is .47, compared to .55 for the two group model. The variance explained in the endogenous constructs was .41 for affective

expectation and .49 for perceived quality expectation; the variance explained for the exogenous construct, affective response was .97 (this value was set a priori). The total coefficient of determination are .998 and .970 for the exogenous constructs. The normalized residuals were all less than 2.1 indicating a good fit. Moreover, with 11 free parameters, a ratio of subjects to free parameters is 12.4:1, higher than the minimum of 5:1 suggested by Bagozzi and Yi (1988). The slope of the Q-plot was about one suggesting a moderate fit.

Bagozzi and Yi (1988) and Fornell and Larcker (1981) recommend an examination of the estimates of item reliability (squared multiple correlations) and composite reliability. Table 40 summarizes the reliabilities for perceived quality expectations, along with parameter estimates, error variances, squared multiple correlations (item reliability), and composite reliability for perceived quality expectations. Affective response and affective expectation was not included in this table since the measurement model for these constructs was set a priori. All of the squared multiple correlations are above the .5 level recommended by Bagozzi and Yi (1988). The composite reliability is above the .60 level recommended by Bagozzi and Yi (1988). In sum, the model's fit is acceptable.

**TABLE 39****COVARIANCE MATRIX FOR BOTH GROUPS COLLAPSED**

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	Affective Response	Affective Expectation	<u>Perceived Quality Expectation</u>		
			Quality	Satisfaction	Value
Affective Response	2084.321				
Affective Expectation	718.321	637.993			
Quality	70.583	46.659	10.973		
Satisfaction	99.536	66.027	10.146	16.725	
Value	107.139	62.411	9.672	13.578	14.866

---

**TABLE 40**  
**ASSESSMENT OF MEASURES**

Constructs and Variables	Parameter Estimates <sup>1</sup>	Error Variances <sup>1</sup>	SMC <sup>2</sup>	Composite Reliability
<b>Perceived Quality Expectation</b>				
Y2-Quality	1.000 (---) <sup>3</sup>	3.798 (.529)	.654	.997
Y3-Satisfaction	1.399 (.108)	2.676 (.546)	.840	
Y4-Value	1.354 (.101)	1.715 (.455)	.885	

<sup>1</sup>Standard error in parentheses.

<sup>2</sup>Squared Multiple Correlation.

<sup>3</sup>Fixed by scaling.

Since the model fit is acceptable the individual paths can be examined and tests of the hypotheses performed. The hypotheses were tested using ML estimates, the standard errors estimated by LISREL-VII, and the calculated t-values as shown in Table 41.

**H1(c):** There is a positive relationship between affective responses and affective expectations.

It was hypothesized that as subjects' affective responses became more positive, expectations of affective experiences would also become more positive. The maximum likelihood estimate for this relationship ( $\gamma_{11}=.355$ ) was significant with a t-value of 9.25 ( $p<.001$ ). Therefore, the results support **H1(c)**, a positive relationship between affective responses and affective expectations.

**H1(e):** There is a positive relationship between affective responses and perceived quality expectations.

It was hypothesized that as affective responses became more positive, expectations of quality would also increase. The maximum likelihood estimate ( $\gamma_{21}=.018$ ) was significant with a t-value of 3.43 ( $P<.001$ ) supporting **H1(e)**. The results thus support a positive relationship between affective responses and perceived quality expectations.

**H1(f):** There is a positive relationship between affective expectations and perceived quality expectations.

Finally, it was hypothesized that as respondents' affective expectations became more positive, expectations of product quality would also increase. The maximum likelihood estimate for this path ( $\beta_{21}=.055$ ) is significant with a t-value of 5.58 ( $p<.001$ ). The results support a positive relationship between affective expectations and perceived quality expectations (**H1(f)**).

**TABLE 41****PARAMETER ESTIMATES AND TESTS OF HYPOTHESES**

---

<u>Hypothesis</u>	<u>LISREL Estimate</u>	<u>Standardized Estimate</u>	<u>Standard Error</u>	<u>t-value</u>	<u>p-value</u>
$\gamma_{11}$ - H1(c)	.355	.642	.038	9.246	<.001
$\gamma_{21}$ - H1(e)	.018	.299	.005	3.427	<.001
$\beta_{21}$ - H1(f)	.055	.507	.010	5.578	<.001

---

*Summary.* This section discussed the analyses and results for the second experiment that examined the conceptual model in an indirect communication environment. The hypothesis tests are discussed in greater detail in Chapter 7.

## **SUMMARY OF RESULTS ACROSS BOTH EXPERIMENTS**

Table 42 presents a summary of results across both experiments including the hypothesis tested, the type of analysis, the test statistic, the level of significance, the effect size, and whether or not the hypothesis was supported. A more detailed interpretation of these results is presented in Chapter 7 along with a discussion of possible implications. A two-group LISREL model was also run to determine if the data from both experiments could be collapsed, thereby providing a much larger sample size, to allow the examination of the cognitive component as well as the affective component and to include more of the measurement model. However, the two-group analysis resulted in a significant chi-square statistic of  $\chi^2=154.1$ , with 28 degrees of freedom ( $p=.00$ ). Therefore, an aggregated analysis was not possible and the models must be interpreted independent of each other.

## **SUMMARY**

This chapter presented the analytic techniques used to examine the data and the results of these analyses. In sum, mixed support for the hypotheses was achieved. Of the 30 tests conducted, 22 tests across both experiments supported hypotheses H1(c), H1(e), H1(f), H1(k), H1(j), and H1(l). Six tests provided mixed support for hypotheses

H1(d), H1(g), H1(h), and H1(i) across the two experiments. Hypotheses H1(a) and H1(b) were not supported. Chapter 7 discusses the hypotheses and the interpretation of the results in more detail.

**TABLE 42**

**SUMMARY OF RESULTS FOR BOTH EXPERIMENTS**

<u>Hypothesis</u>	<u>Exp<sup>a</sup></u>	<u>Analysis<sup>b</sup></u>	<u>Test Statistic</u>	<u>P- Value</u>	<u>Effect Size<sup>c</sup></u>	<u>Result</u>
H1(a)	E1	ANCOVA	F=3.02	.08	.15	Supported
	E2	ANCOVA	F=0.94	.33	.07	Not Supported
H1(b)	E1	ANCOVA	F=0.13	.72	.03	Not Supported
	E2	ANCOVA	F=6.41	.01	.22	Not Supported <sup>d</sup>
H1(c)	E1	Regression	t=9.5	.01	.65	Supported
	E2	Regression	t=9.2	.01	.63	Supported
	E1	LISREL	t=9.5	.01	.67	Supported
	E2	LISREL	t=9.3	.01	.64	Supported
H1(d)	E1	ANCOVA	F=0.15	.70	.03	Not Supported
	E2	ANCOVA	F=5.52	.02	.17	Supported
H1(e)	E1	Regression	t=4.66	.01	.32	Supported
	E2	Regression	t=2.33	.02	.14	Supported
	E1	LISREL	t=5.1	.01	.47	Supported
	E2	LISREL	t=3.4	.01	.30	Supported
H1(f)	E1	Regression	t=4.2	.01	.27	Supported
	E2	Regression	t=3.6	.01	.22	Supported
	E1	LISREL	t=4.3	.01	.38	Supported
	E2	LISREL	t=5.6	.01	.51	Supported
H1(g)	E1	ANCOVA	F=6.46	.01	.17	Supported
	E2	ANCOVA	F=2.95	.09	.15	Supported
H1(h)	E1	Regression	t=-.48	.63	.03	Not Supported
	E2	Regression	t=3.94	.01	.19	Supported
H1(i)	E1	Regression	t=2.65	.01	.23	Supported
	E2	Regression	t=1.49	.14	.13	Not Supported
H1(j)	E1	Regression	t=6.09	.01	.33	Supported
	E2	Regression	t=8.58	.01	.43	Supported
H1(k)	E1	Regression	F=94.8	.01	.38 <sup>e</sup>	Supported
	E2	Regression	F=45.7	.01	.22 <sup>e</sup>	Supported
H1(l)	E1	Regression	F=45.5	.01	.24 <sup>e</sup>	Supported
	E2	Regression	F=28.3	.01	.13 <sup>e</sup>	Supported

<sup>a</sup>E1=experiment #1 results, E2=experiment #2 results.

<sup>b</sup>ANCOVA=analysis of covariance, LISREL=LISREL-VII.

<sup>c</sup>As measured by eta.

<sup>d</sup>Means in wrong direction.

<sup>e</sup>Represents the change in R<sup>2</sup>.

## **CHAPTER 6**

# **Existential Phenomenological Interviews: The Essence of Feelings in Shopping Experiences**

This chapter presents the interview and analysis procedures and results for six existential phenomenological in-depth interviews conducted as part of this study. First, a brief description of the participants and the process of selection is presented followed by details of the procedures used to conduct the interviews. Next, the specific procedures used to analyze the transcripts are discussed. To illustrate the methodology, a detailed presentation of the analysis and interpretation for two of the participants is presented, each as a unity of expressed meaning for that individual as interpreted by the author. In this same section, an individual structure of shopping experiences is developed for each of the two participants. Finally, a turn to the nomothetic is made once more to elucidate common themes and a more general statement of the phenomenon as a result of the analysis of all six participants. A general interpretation for shopping is presented and discussed.

The overall objective of the interviews was to gain a richer, deeper insight into the

feelings consumers experience during shopping. Moreover, the development of an understanding of the meaning of shopping, as expressed by the participants was an integral goal of the research. Existential phenomenology offers a perspective and methodology to accomplish these goals. As explained in-depth in Chapter 3, an existential phenomenological perspective centers on a person's experiences as they are lived in a social context. Thus, the experiences interrelate with the social context, each providing meaning for the whole. The perspective of the experiencing person (foreground) takes place in a particular social context (background) (Thompson, et al. 1989; Valle and King 1978); therefore, both the foreground and background are of importance since without one the other's meaning is altered.

As an alternative methodology to the experiments conducted, the interviews were not intended to provide results that could be widely generalized. On the contrary, the results were expected to provide an in-depth look at shopping experiences for a few people. Thus, the conclusions that can be drawn from this study are primarily idiographic; however, a general interpretation for shopping is developed based on the data. The interviews were conducted to answer two questions: "What do some consumers experience when they go shopping especially as they relate to feelings?" and "What do these feeling experiences mean to the consumer?"

## **THE PARTICIPANTS**

The goal of this study was to develop new ideas and provide some insight into the phenomenon of feelings in shopping experiences. A total of six participants were approached and agreed to be interviewed as part of a study that sought "to understand consumer shopping experiences." Participants were identified via social contacts. All of

the participants were casual acquaintances of the author or friends of people the author knew. The six participants were 30 - 50 years old, female, Caucasian, middle class, living in a traditional family environment with a husband and at least one child. All had worked at some time in their lives; however only one was currently employed in a full-time position. A descriptive summary of the participants is provided in Table 42. By selecting more mature respondents with families it was anticipated that the respondents would have a repertoire of experiences upon which to draw. Either males or females would be interesting to examine, however for this study females were chosen simply because they are often the primary shoppers for the family, and therefore, are likely to have more shopping experiences. All participants indicated that they had done considerable shopping for clothes, houses, furniture, appliances, gifts, things for the children (e.g., toys, clothes, sports equipment). Of the six interviews conducted, two were selected to be detailed in this presentation since they represent a bipolar snapshot of sorts; that is, one participant loves to shop and the other participant hates to shop. Moreover, there was such a contrast in these two interviews and so much depth to all of the six descriptions that it was decided that a prudent course of action would be to capitalize on this depth and focus on these two interviews for presentation purposes.

First, the procedures and methodology will be presented. Next, the individual interpretations associated with two participants, Emily and Elizabeth, are presented to illustrate the idiographic aspects of shopping experiences, that is, the meaning of shopping experiences at an individual level. A generalized interpretation of shopping experiences based on the six interviews is then presented and discussed. This interpretation is supported with excerpts from all six interviews.

**TABLE 43****DESCRIPTIVE SUMMARY OF THE PARTICIPANTS**

---

<u>Pseudonym</u>	<u>Approximate Age</u>	<u>Married/Single</u>	<u>Number of Children</u>	<u>Current Employment</u>
Pamela	40	Married	2	Part-time retail clerk at local department store.
Emily	42	Married	6	Housewife, although has previously worked in a medically related professional position.
Elizabeth	35	Married	3	Housewife. Has worked in retail prior to having children.
Susan	44	Married	1	Part-time retail clerk.
Carol	42	Married	1	Professional position in an administrative capacity.
Jill	38	Married	2	Housewife, was professionally employed until first child was born.

## INTERVIEW PROCEDURES

The interviews were conducted within an existential-phenomenological perspective. That is, the focus of the interviews was on the participants' experiences as the participants lived them. This approach seeks to describe experiences as they exist in some context (Thompson, Locander, and Pollio 1989). Thus, the interviews were conducted with that goal in mind and decisions about the process were made to facilitate rich, detailed descriptions of shopping experiences.

The interviews were conducted in the homes of the participants where the objects of the participants' shopping experiences could be retrieved as examples to stimulate recall of the feelings experienced when they were purchased. Moreover, the availability of these objects can trigger reminders of previous shopping experiences. The interviews were conducted by this author and all interviews were tape-recorded and transcribed verbatim. Few notes, if any, were taken during the interview so as not to distract the participants as they narrated their experiences. Each participant was given a pseudonym and any identifying information in the transcripts (e.g., name of husband or children, address) was changed to protect the anonymity of the participants. The length of the interviews ranged from one to two hours. Each was discontinued when the participant indicated that she had provided a thorough and complete description of as many shopping experiences as she could recall. Moreover, in most instances termination of the interview appeared self-evident to both the interviewer and the participant when the participant started to repeat herself.

Participants were told that the interviewer was trying to understand consumers' shopping experiences and then each interview was started with the request "Please describe as completely as possible a recent shopping experience." Participants were told that any shopping experience was appropriate to communicate and that they should

provide as much detail as possible. Follow-up questions probed initial remarks to encourage deeper and richer descriptions of the experience; however, every effort was made to allow the "story" to unfold naturally from the participant. For example, probes asked for more details, or for other descriptive pieces of information. Participants were not asked to provide explanations for their experiences; to do so would encourage participants to justify their actions and attempt to interpret their behavior. Thus, the use of "why" questions was avoided. The response to this type of question does not encourage the reflection on details of the experience but leads participants to psychologize about their actions. Moreover, "why" questions can be viewed by participants as requests for rationalizations for their actions inferring that somehow those actions have been prejudged and are out of the ordinary or unusual (Thompson, Locander, and Pollio 1989). The goal of the interview is to capture the lived experiences of the participants, not what they think about those experiences (Thompson, Locander, and Pollio 1989). This purely descriptive "as the participant lived it" approach to the conduct of the interviews is one major difference between an existential-phenomenological perspective and other qualitative approaches to gathering data. Another major difference lies in the method of analysis of the data.

## **ANALYSIS PROCEDURES**

The analysis actually started before the interviews were conducted. How researchers approach any study is to some extent dependent upon what the objective of the study is conceived to be and what is hoped to be accomplished by conducting the study. This is true regardless of the researcher's perspective, or the methodology employed. To explicitly recognize this actuality and attempt to deal with it, a process of

"bracketing" was engaged in for several weeks by the author (Colaizzi 1978; Thompson et al. 1989, 1990). The purpose of bracketing is not to "wash away" all prior thoughts and attitudes toward the phenomenon but to recognize and document these a priori notions and minimize their impact on the resultant interpretation. This process consisted of the author thoroughly interrogating his presuppositions by asking himself why he is involved with this phenomenon, how his personality might influence this selection and other decisions during the conduct of the study, how his predispositions as to research value might influence or bias how and what he investigates, and what are the hidden gains that he might acquire from the study and his decisions concerning the conduct of the study (Colaizzi 1978). By bracketing presuppositions and goals, the researcher moves that much closer to being able to perceive the participants' lived-worlds and the experiences that comprise that lived-world; however, one never actually gets there. After each interview the author went back to review notes taken during this bracketing process, thus reinforcing this bracketing process.

Each interview was examined as a complete set of data, separate from the data collected from the other interviews. Only after all interviews had been analyzed individually was any attempt made to look at common themes across the transcripts. The data from each interview is considered somewhat unrestrained since the conduct of the interview is based on a free-form, unstructured approach that allows the respondents' accounts of their experiences to unfold in a natural manner. Although, the fact that the interviewer is conducting research will restrain the data to some degree. Thus, each interview resulted in an autonomous, individualistic and somewhat unrestrained body of data as represented by the transcript. The procedure used to analyze each transcript closely follows Wertz's (1983) suggestions which in turn are based on Giorgi (1975). This section briefly outlines this procedure.

The starting point is the transcript, or the individual phenomenal description.

The first step was to develop an Individual Structure for the participant based on the transcript. The Individual Structure expresses the meaning of shopping via the researcher's analysis and interpretation of the data. This interpretation involves articulating not only the significance of the situations described by that participant, including some significations that may have been taken for granted or even hidden from the participant, but also the interrelationships among these meanings, i.e., an interpretation.

To accomplish this interpretation, the researcher immersed himself in the world of the description, dwelling on the details, and magnifying and amplifying situations. Between sixty and eighty hours was spent on the development of an Individual Structure. The process began with initially reading the description to acquire an overall feeling for it. Then the researcher reread the description making general notes. The description was read again several times, extracting relevant phrases and sentences each time; these excerpts were examined and significant statements identified. Rereading the description was often interspersed with going back and listening to the tape recording. During this process the meaning for each statement, each phrase, each sentence evolved from the text.

These steps were performed over and over again until a sense for the essence of the Individual Structure was achieved as interpreted by the researcher. During this immersion, each and every sentence was examined asking how each relates to the other and how each contributes to the whole. The author questioned and probed the description to allow it to "secret its sense" (Wertz 1983), asking for example, what this act means to the participant, how this detail fits in the context of the current situation and how it differs from the previous situation, where is the participant now, how did she get here, what does it mean to her to be there, and what is the specific context of this revelation. The author dwelled on each detail and identified its meaning. Overall, the

author became absorbed in the lived-world of the participant, suspending belief (i.e., simply adopting the experiences, not judging them), and yet had to remove himself from this world to attach meaning to the events. This process of moving from within the lived-world to outside the lived-world occurred throughout the development of the Individual Structure.

The turn from the events and objects themselves to their meaning was the focus of the reflection performed by the researcher. The meanings of the facts for the participant now take precedence over the facts themselves, delivering the researcher "to the situation precisely *as experienced, as behaved, or more generally, as meant* by the subject" (Wertz 1983, p.206, his emphasis).

To accomplish this task, specific activities of reflection were performed by the author as recommended by Wertz (1983). For example, the norms of the phenomenon implicit in the author's stance, or "existential baseline," was used to establish the difference of this phenomenon from other phenomena. A phenomenon does not exist on its own, but exists as something different from other phenomena. That is, phenomena are known in part by how they differ from other phenomena. Therefore, the author also reflected on his judgments of revelatory statements by articulating how he understood the phenomenon as it was revealed, how the phenomenon differs from other phenomena, and the relevance of the statements to his understanding. The researcher also reflected on the description to extract distinctions between different aspects of the description. The relations among the distinguished elements were then identified by asking questions such as "what has this to do with that, and that, and that; what has this to do with the whole; what place does it occupy and what contribution does it make?" (Wertz 1983, p.208).

Detailed notes were taken during this analysis and reflection, often performing the same steps over and over again to extract the essence of the experiences. During

this process the author moved between "separating" and "thematizing." At times it was necessary to separate events to understand their meaning and contribution. At other times it was necessary to take different aspects and examine what they had in common with other aspects of the description, looking for themes that are common to all the events in the description. Usually this meant pouring over the notes in detail, developing lists of characteristics of the different aspects as they were revealed and then unite them into a coherent theme.

Other techniques included imaginative variation, languaging, and verification. Imaginative variation is a process by which the researcher changes or even eliminates any of the aspects, relations or themes of the description to see if they result in changes to the structure. For example, if a participant says that she shops once a week, would the essence of the shopping experience change if she shopped everyday? By varying different aspects, the requisite elements of the experiences are determined as those that cannot be modified. Languaging involves the "labelling" of the previously identified elements, distinctions, relations, and themes. At this point, the author moved from the use of the participant's language to introduction of new terms and thus is now reflecting his interpretation. Verification assures that the interpretation is supported by the data. In a hermeneutical circle fashion, the author constantly returned to the data as the interpretation evolved to make certain that everything in the description is reflected in the interpretation and conversely that everything in the interpretation is supported by the description.

Finally, some movement from the ideographic to the nomothetic is possible by developing a general structure of the phenomenon, a statement of the phenomenon which can identify common themes across the interviews and encompass many relevant instances from each interview. A process similar to the process used to identify common themes within a participant's transcript is used to identify themes across the

participants. Notes from interviews are gleaned for common elements, relations, and themes and a general structure that accommodates these common meanings is developed.

## **INDIVIDUAL PHENOMENAL DESCRIPTION OF SHOPPING EXPERIENCES: EMILY**

Emily is about 40 years old. She doesn't work outside the home, but has six children for which to care. Her husband is a professional in the community and they live in a prominent section of a small university town. Emily was quite hesitant about whether she could help with the study since one of her first statements was "I hate shopping. I hate shopping." However, as the interview progressed she came to describe a wide variety of shopping experiences. The interview lasted approximately one and a half hours.

### **Excerpts of Emily's Shopping Experiences**

"I hate shopping. I hate shopping. I like to go out and do my own grocery shopping because I like to pick my meats and I like to check the bargains, and that kind of thing, and it gets me out of the house once a week. When I had all my kids home...you see I have six children...so when I had all the kids home and some of them weren't in school, grocery shopping was my "getting out of the house." And I enjoyed that. But as far as going out and clothes shopping, I don't if I can avoid it. It's a twice yearly, or maybe at the most a three times yearly drudgery that I hate because I have so many kids to drag along, and trying to pick out, and trying to get set, and fix the wardrobes and then will they wear it or won't they wear it, and trying to go through stores...I take my husband with me and he picks out my clothes for me...

"It's a terrible task to me. I don't enjoy it. I go to the same grocery store 99% of the time because I know where the things are in the aisle and I know what I'm looking for and I know what to expect. I don't do any of this checking the papers, and checking the bargains, and going from store to store, I find that more time consuming and irritating than to just go and pay a little extra

because...I can afford it...most of the time. So, you know, I don't know how I can help you. My sister used to always love to go shopping and so we would go and she would try on clothes and try on clothes and I found the whole thing terribly boring. I let my mother pick out my clothes for me because I just didn't care. So once I got married then I'd go and I'd let my husband pick out clothes for me...

"My husband is very dominant. He has very definite tastes. He decorated the house. I mean, with my approval. If it's something I didn't like I said so. But basically, he decorated the house and he picks out a lot of my clothes because he knows what he likes to see me in and I don't really care one way or the other, that much...

"Now my 20 year old daughter, who's a college student, it's a little more fun now, she and I can go out shopping and looking at things, and it's more like visiting. We're going through the stores and she's looking at stuff or I'm looking at stuff and how do you think this looks and that kind of thing. And then it's a little more enjoyable. But that's just going out and spending time together and while we're at it we're shopping through stores...it's not an actual...otherwise, I go shopping when I need something and so I make a trip to the store specifically because I need to buy that item, and I look at that item and maybe look at two or three other things because I'm there in the store. But otherwise I don't go shopping for pleasure because it's not pleasurable to me; it's a task...

"The piano over there was my Christmas present. My husband went shopping and found which piano stores had the best and then he was going to go ahead and get it and decided to wait and make sure that that was what I wanted. So he took me to the store for the final decision. That was a case where you know specifically what you want. You go to that one store. You go and you sit down and when you go to purchase a large item like that you have the salesman's, salesperson's full attention. You try the piano out, try this keyboard out. These are the features of this. This is the features of that. And price range is about the same and you know this kind of thing. You see that was exciting. Because I was after a specific item. So it was exciting and fun. Now I'm enjoying it. In fact that's what I was doing when you came. I was practicing the piano...

"Christmas shopping is becoming more and more difficult because basically we drive up to a Toys-R-U's and go through and pick out, I try to encourage the kids to make a list of what they're are interested in, and we go through the toy store and pick out stuff. Basically, we get gift certificates and make them pick out their own. Several years ago my 20 year old daughter, a few years ago, had expressed an interest in a particular outfit. And so I had gone into the store specifically looking for that outfit, and found it. I was able to purchase all the pieces and wrap it up and give that to her for Christmas and that was exciting. Again, I was shopping for a specific item for a specific reason. Christmas shopping we try to do as early as possible and as quickly as possible because I don't like fighting Christmas crowds and my husband doesn't like to fight Christmas crowds. When they have toys for Christmas, that's easy. When it gets to where they want clothes for Christmas and watches for Christmas and tapes and albums for Christmas and that kind of stuff, I have to let them pick them out themselves because their taste is different than mine. My husband and I don't Christmas shop for each other very much. Anything that he wants, that he feels he needs, he gets it - which doesn't leave me room to buy him anything

for Christmas...

"I don't buy for my sister. I couldn't please my sister if I tried. My sister sent these huge, funny hair bows for Christmas and I thank her very nicely and lay them in my drawer and occasionally the girls will wear them or they will just lay there until I get tired of them and throw them away or something. But my sister has no children and she and her husband collect antiques and she does all the arts and crafts that she could possibly want, so for me to do something artsy-craftsy and send to her, she could do it better herself and I don't know what size she wears or what her wardrobe looks like to go out and buy her a blouse or something. So we just don't exchange gifts; it becomes a hassle. I don't enjoy doing that; I don't like picking out things for other people...

"Every day before I would go to school, mother would pick out my clothes and do my hair. Every day! I got to college and I was lost, I didn't know how to get dressed to go to school. It was terrible. It was very traumatic. I make my kids pick out their own clothes. The older ones will say, "Mother, that outfit's awful." I say, "I don't care." I mean, if it's not something totally outrageous, I don't care. Let them pick it out for themselves. They know what they like and what they don't like. If the kids make fun of them they won't wear that outfit again. I make them do it themselves because to this day I will not pick out my own clothes. I make my husband go shopping with me. Because, I'll bring home an outfit and he will go "Yuch." Well fine, I just won't do it myself. I don't like to make those kinds of decisions. I guess maybe that's why I don't like shopping except for a specific thing. To just go and non-specific pick myself out a summer wardrobe, I will drag my husband along with me. Under those circumstances, shopping is totally frustrating. And so, I won't pick them out for them. If they've picked it out I can say "You picked it out. You said you wanted it. You wear it..."

### **Individual Structure of Shopping: Emily**

First the structure of shopping for Emily will be provided, followed by a discussion of this interpretation with excerpts from Emily's transcript to illustrate the fit between the interpretation and the description. Emily's structure of shopping is comprised of several interrelated components. For Emily, shopping is a **forced** activity performed in the presence of others, thereby rendering it a **social** activity, that involves **indeterminacy**. Purchase decisions, or choices, that must be made are **open expressions of oneself** and **easily criticized by others**. This structure of shopping then is comprised of four substructures:

- (1) shopping is a forced activity,
- (2) shopping is a social activity,
- (3) shopping involves making decisions in an uncertain environment, and
- (4) shopping is done to please others and hence, shopping decisions will be critically evaluated.

Although these interrelated components will be discussed in a linear fashion, it will soon become apparent that the components are inextricably intertwined and the discussion of one component usually requires the reference of at least one other component.

**Shopping is forced.** Shopping is a forced activity for Emily since she is deeply committed to a traditional role for a wife and mother; that is, one of her jobs she must do as a wife and mother is the shopping.

**"I cook. I clean. I take care of the kids."**

**"I go shopping when I need something...I make a trip to the store specifically because I need to buy that item...I don't go shopping for pleasure because it's not pleasurable to me. It's a task."**

**"To me that's (shopping) a waste of time. If I need to buy something I go to the store and I buy it...not that it's particularly pleasurable or unpleasurable one way or the other I guess. If I need it I go and I get it and I leave."**

Emily's sense of what her role is in the family dictates to some extent that shopping is part of her job and therefore something that should be done by her; hence her view of shopping as a task. Part of her role is also defined by how she perceives her husband's role in the family.

**"I don't dare make the kind of decision where permanent wallpaper in the house that you're going to have to look at every single day without my husband's approval. Because he is the one that will be irritated by it if it's not right. Whereas, I just overlook it and don't worry about it."**

**"Saturday we went shopping and we got a computer at Radio Shack. But he picked all that stuff out. He just takes me along for company."**

This sense of a wife and mother in a more subservient role produces apprehension for Emily when she goes shopping since she is acutely aware of her role as a "shopper," i.e., a wife and mother should be an expert shopper since that is her job, and her husband's role of evaluating and approving her purchase decisions. She must do the shopping yet she usually gets criticized for her efforts.

**"I feel bad if I go and spend \$400 - \$500 for clothes for kids for summer without him being there, without his approval."**

Emily views shopping as her job; it is done so that she may please others, not herself. However, she feels very inadequate to the task. She can't please her husband. Emily was frustrated when she spent days looking at wallpaper books only to select a pattern and have her husband totally reject immediately. She was frustrated when she picked out some CDs for her husband for Christmas only to have him return promptly to the store and exchange them. She can not please her sister. She never could please her mother. And now as her children get older she can not please them.

So, she does not buy for her sister, she lets her husband buy her clothes, she gives gift certificates to her children for Christmas. She has given up. She does not seek approval anymore, she is convinced that she can never achieve approval; she now just seeks to avoid disapproval. Thus, shopping is generally a negative experience for Emily. She must do the shopping, it is her job; shopping is done to please others; yet, she can not seem to please anyone when she shops. Thus, it is readily apparent that the forced nature of shopping is closely related to requirement that shopping decisions be made which will be critically evaluated. If she did not feel forced into shopping it is likely that she simply would not do it because it is generally a negative experience for her.

**Shopping is social.** Shopping is social for Emily because it involves interacting with people, sales people at a minimum, in a public setting. Moreover, other shoppers may be present, often constituting a crowd, which heightens the social interaction. Emily dislikes this social aspect of shopping. She does not like to deal with the crowds at Christmas-time. She also notes that she really doesn't care for social interaction.

**"I guess I'm not a real social animal...I just didn't feel like running up to the mall on a Saturday and hassling the crowds..."**

However, her husband's influence on even this aspect of her sense of own being is prominent.

**"My husband hates crowds. Hates being in stores with a bunch of people around like when sales and stuff are going on and so it's uncomfortable to go shopping with him."**

Emily prefers a more "restricted" social environment; an environment that does not involve many other people.

**"There was a very nice clothing store near where we lived in Willisburg. They came to my house, checked out my wardrobe, and opened her store an hour early on Saturday and she had been in an hour or a half hour before that picking stuff out for me. And for an hour, I just tried on clothes, the store all to myself with someone to wait on me and picked out clothes. That I enjoyed."**

Thus, having a store all to herself without the necessary social interaction with other shoppers allowed Emily to enjoy the shopping experience.

**Indeterminate decision environment and critical evaluation.** These two components are discussed together since they are so closely related it would not be as informative to discuss them separately. That is, a decision can only be critically evaluated if the decision is made in a uncertain environment. When Emily shops she must make choices in, for her, a very uncertain environment; she doesn't know what choice is best. Because shopping involves so many choices and decisions she fears the critical evaluation that always seems to follow. These choices reflect her personal preferences

which others can openly see and therefore criticize. For example, selecting the wallpaper for the new house, spending \$400 - \$500 on clothes for the kids, buying clothes for herself, and buying Christmas presents, are illustrative of how she is fearful of others critically evaluating her decisions.

**"...I picked up some country music CDs which he didn't like and after Christmas promptly returned and exchanges for something else. So I would've been just as well off getting him a certificate...ties, shirts, sweaters, I wouldn't begin to go out and pick out and purchase for him."**

Thus, Emily feels frustrated. The alternatives are many yet selecting the alternative that will please relevant others seems to elude her.

Emily prefers shopping alone versus shopping with her husband. She admits that taking her husband along is a way of getting prior approval, and thus she avoids the possible criticism; but, she also states that it is uncomfortable to go shopping with him because he is not very patient about the process.

It is interesting to note that there appears to be no distinction made between shopping for herself and shopping for others. The essence of the purchase decision is still evaluated by others. In other words, buying clothes for herself is similar to buying clothes for her husband since he will critically evaluate both purchase decisions. She rarely shops for herself; she shops for others. Hence, all purchase decisions will be evaluated by others, even purchase decisions that only involve items for her own use.

Emily's husband, sister, family, even the world in general does little to assist her with attempting to make shopping a more pleasant experience. The world is filled with people who will be critical of her purchase decisions. For example, when Emily was working once, a Christmas party was given and each employee was asked to buy a gift for no more than ten dollars. The gifts were anonymous, yet Emily was concerned about how her purchase decision would be evaluated by the recipient.

**"...and I went through the first store and I thought, well, okay, this won't be too bad, and you have your stupid bath salts that everybody gives, and the stupid soaps, and I saw a frame and I wanted to get the girl a picture frame**

**and then I decided, I really don't know how her house is decorated. Would she rather have wood, metal, something ornate, or something metal? But I didn't know her tastes well enough. And I ended up getting one of those dippy little Christmas things that everybody always gets. My present from there was a \$10 gift certificate and I thought that person was smarter than me, I can at least go buy what I want with it because they didn't know me very well."**

For Emily, the world consists of people who will evaluate her based on the purchases she makes. It is a threatening environment.

Not all shopping however, is distasteful for Emily. For example, Emily enjoys grocery shopping.

**"...grocery shopping was my getting out of the house and I enjoyed that."**

**"I don't mind grocery shopping. I kind of enjoy it...I like food...I enjoy that...I don't mind shopping if I'm shopping for a specific thing like groceries."**

Emily repeatedly refers to grocery shopping as a pleasant experience. For Emily, grocery shopping is not a very social activity, is determinate in nature, and is non-expressive of oneself. The process that Emily uses to prepare her shopping list, assures that the decisions involve little uncertainty.

**"I keep a list. When you use something up, put it on the list. And when I come home from shopping and they holler "You didn't buy any Cheerios," if they are not on the list I don't buy it. If you finish it off put it on the list and I'll replace it."**

Thus, grocery shopping is pleasant because she avoids the fear of critical evaluation. Moreover, grocery shopping is a familiar experience. It is done often and in the same environment and therefore involves a more determinate environment.

**"I go to the same grocery store 99% of the time because I know where the things are in the aisle and I know what I'm looking for and I know what to expect."**

Consequently, grocery shopping has none of the components of the structure that Emily has described as a negative shopping experience. Grocery shopping has little social contact (one only needs to interact with the checkout cashier), involves determinate decisions that can't be critically evaluated and are non-expressive since she

is only purchasing what has been requested. In fact she dismisses the idea of shopping at several different stores to get better bargains avoiding even greater levels of indeterminacy.

**"I don't do any of this checking the papers, and checking the bargains, and going from store to store. I find that more time consuming and irritating than to just go and pay a little extra because I can afford it...most of the time."**

Another pleasant shopping experience occurred when she went shopping with her older daughter.

**"Now my older daughter, it's a little more fun now. She and I can go shopping and looking at things and it's more like visiting. We're going through the stores and she's looking at stuff or I'm looking at stuff and how do you think this looks and that kind of thing. And then it's a little more enjoyable. But that's just going out and spending time together and while we're at it we're shopping through stores."**

When she was "visiting" with her daughter, she really wasn't shopping at all. Hence, it was enjoyable since it was not forced, and she didn't have to make any purchase decisions, unless she felt completely free in doing so and did not have to fear evaluation by others. Moreover, she suggests that her daughter is less likely to be critical.

Throughout her interview Emily consistently referred to shopping as enjoyable when she was shopping for something "specific."

**"...and we got the electric piano...That was a case where we knew specifically what we wanted...that was exciting because I was after a specific item."**

**"Several years ago my daughter expressed interest in a particular outfit. And so I had gone into the store specifically looking for that outfit and found it. I was able to purchase all the pieces and wrap it up and give it to her for Christmas and that was exciting. Again, I was shopping for a specific item for a specific reason."**

Emily describes shopping as more pleasant when shopping for something specific. However, she uses the term "specific" to refer to situations where there is little indeterminacy and no evaluation apprehension; that is, situations in which there is little

fear of criticism from purchase decisions since the purchase decision either has already been made or is limited to a few similar or safe alternatives. The outfit her daughter had already picked out, the electric piano that her husband had already investigated, the clothes that the shopkeeper had already pre-selected based on an examination of Emily's current wardrobe, and groceries are examples of positive shopping experiences for Emily. In all instances the choice had already been made or (e.g., piano, daughter's outfit, groceries) or the number of alternatives had been reduced to a few safe electives (e.g., clothes in the closed store). So, for Emily "shopping for something specific" means exactly that!

What is it about these shopping experiences that is different from the shopping experiences that Emily despises so much? It appears that three specific elements must be present for a shopping experience to be a positive experience for Emily. It must be relatively non-social, determinate (few alternatives and familiar surroundings), resulting in little chance of critical evaluation. Moreover, the less expressive of oneself the object of the purchase decision is, the better.

Hence, for Emily, shopping is primarily a negative experience based on these four interrelated components. It is an activity that is forced upon her, involves uncertainty, is highly social, and is fraught with the perils of critical evaluation by others. Note that her first words were "I hate shopping. I hate shopping." Throughout her description she identifies the reasons why she hates shopping by describing different shopping experiences as evidenced in the excerpts presented. Her hatred of shopping emanates from the specific context of anxiety and fear of critical evaluation.

At the very end of her interview, Emily relates one final example of a positive shopping experience that had occurred less than a week ago.

**"We went out to dinner a few weeks ago. My son had a girlfriend with him, and we had to wait 45 minutes for the table and so we went shopping because it was at the mall. I had seen a pair of boots that I was interested in. I had been walking in the mall with my 20 year old, visiting shopping,**

**and saw some boots and I wanted some boots to wear on Sundays, a pair of dress boots, the weather was bad at that point, and I got tired of wearing my nice black shoes and getting my feet all wet. We went down to the shoe store...he liked a different pair of boots than I did - so I'm a little bit tense. Okay, well we'll try them on. We'll see how they look. They didn't have my size. They only had my size in the pair that I liked so I was feeling pretty good about that. And he went over to a sale rack and they had a pair of shoes that he had been looking for, casually, not deliberately, seriously looking for, but kind of every time we're in the mall he'd look for a particular kind of shoe. They had that kind of shoe and like 40% off and so he got himself a pair of shoes. That was a very pleasurable shopping experience. The shoes happen to be on sale and I got exactly the kind I wanted and I'm pleased with that particular purchase and he got the shoes; when he buys something at the same time then I feel less guilty that I'm spending all this money on, you know \$75 pair of boots, or sixty-something, but...it wasn't even a specifically out...we were out to dinner and were killing time."**

This recent experience contains many of the elements previously discussed. The purchase decision was not forced. She did not have to buy anything; in fact, she did not "go shopping," she was killing time. However, once she pointed out the boots to her husband he selected a different pair, suggesting the pair she picked out were somehow not right, and had her try them on. She was relieved when they did not have her size and she could purchase the boots she had wanted to buy in the first place, and with her husband's approval. Therefore, she avoided the fear of criticism for her purchase decision by getting her husband's approval.

### **Attempts to Secure A Non-threatening Shopping Environment**

One major theme that emerges from Emily's description of her shopping experiences is her repeated attempts to secure a non-threatening shopping environment. Because Emily primarily views shopping as a threatening task in that she is forced to be a social being making decisions in an indeterminate environment that will be critically evaluated, she attempts to secure non-threatening shopping environments. She carefully organizes the grocery shopping task to minimize the indeterminacy of the environment and the decisions, and hence the fear of critical evaluation. She minimizes

the indeterminacy of the environment by always shopping at the same store. She knows the store and the people who work there. She minimizes the indeterminacy of the decisions by requiring her family to prepare the shopping list for her. Recall that if an item is not on the list she does not buy it. Through these efforts, Emily attempts to secure a non-threatening shopping experience since she minimizes the risk of critical evaluation of her purchase decisions. Emily has constantly lived with assaults on her self-worth. She can not please her mother, her sister, her children, or her husband. Shopping for her is certain to result in lowering her own self-worth. When she was a child her mother picked out all of her clothes for her. When she got married her husband took over that task. She stopped buying for her sister altogether. She has even resorted to gift certificates for her older children at Christmas.

When she goes clothes shopping for the kids, she "drags" her husband along for approval. She forces the children to pick out their own clothes so she will not be held responsible. When she shops for clothes for herself, again she takes her husband so he can guide her decisions. Recall that what she wears matters not to her, but matters a great deal to him. The only real pleasant clothes shopping experience she relates is when she had an entire store to herself and the owner had pre-selected clothes for her, thereby avoiding a lot of social interaction and minimizing the risk of critical evaluation.

She prefers to shop for something "specific." In this sense, again she is attempting to secure a non-threatening shopping environment by knowing ahead of time what to purchase (e.g., the outfit her daughter picked out, the piano her husband had picked out). Implicit in her description is a horizon of security based on someone else, primarily her husband, making decisions for her. This horizon appears to logically follow from her childhood experiences. When she was a child her mother picked out all her clothes for her.

**"Everyday before I would go to school, mother would pick out my clothes and do my hair. Everyday! I got to college and I was lost. I didn't know**

**how to get dressed to go to school. It was terrible. It was very traumatic...to this day I will not pick out my own clothes. I make my husband go shopping with me...I don't like to make those kind of decisions. I guess maybe that's why I don't like shopping except for a specific thing."**

Emily describes events that suggest that her mother was critical and domineering. Now that she is married, her husband appears to have assumed a similar posture. She lets her husband pick out her clothes, she indicates that she consistently needs his approval for many purchase decisions, and that he is critical of many of her choices. Therefore, Emily seeks to secure a non-threatening environment allowing others to make the decisions for her, reducing or eliminating indeterminacy, and eliminating the opportunity for critical evaluation. When her husband, or someone else, cannot make the decisions, her horizon of safety is penetrated and she is forced to make the decisions herself leaving herself open for criticism.

### **Commitment to Envisioned Role of Wife/Mother**

Emily has a strong commitment to a well-defined role of wife and mother. She takes seriously her role as a cook and housekeeper. Part of that role dictates that she must do the shopping. This raises conflict since she would prefer not to shop at all. Hence, she struggles because the task is forced upon her due to her commitment to her perceived role of mother and wife and yet she does not like to do it. The attempts to secure non-threatening shopping experiences would not exist without Emily's commitment to her defined role; she would simply avoid shopping.

### **Detrimentality of Others**

Emily expresses a sense of detrimentality of others through their opportunity to evaluate her purchase choices, and hence her own being. She fears that others will evaluate her negatively, similar to experiences she has had with shopping for her sister,

her husband, her kids, and herself. Moreover, although seemingly not, shopping for herself in actuality is shopping for others since she does not attempt to please herself but tries to please others. Hence, she struggles to remove this detrimentality by not making the purchase decision and avoiding social interaction when shopping. For example, letting her husband make the decisions or taking him along to guide her decisions, eliminating buying gifts for her sister, letting her kids pick out their own clothes, and for Christmas:

**"Basically, we get gift certificates and make them pick out their own (Christmas gifts)."**

Notice again that the detrimentality of others only makes sense in the context of Emily's perception of her role as a wife and mother and her attempts to secure a non-threatening shopping experience. Moreover, these attempts exist in the context of her envisioned role and her sense of detrimentality of others. In other words, these contexts are interrelated and cannot be separated. One context will lose its meaning and significance when it is not considered in light of the others.

## **Summary**

Because she is not a very social person, and because she expects only criticism for her shopping efforts, for Emily, shopping is a forced social activity, thrust upon her as a wife and mother requiring that she make purchase decisions in the face of this critical evaluation. Consequently, Emily experiences feelings of frustration, irritation, confusion, hatred, boredom, and guilt associated with shopping. Moreover, she finds it tiring and "a terrible task." The structure of her shopping experiences paints a picture which illustrates that a great deal of pressure that is put on Emily's purchase decisions. Consequently, the feelings she experiences are mostly negative. However, under specific circumstances, when she takes action to reduce or eliminate this pressure, her shopping

experiences are sprinkled with enjoyment, excitement, happiness, and pleasure.

## **INDIVIDUAL PHENOMENAL DESCRIPTION OF SHOPPING EXPERIENCES: ELIZABETH**

Elizabeth is about 35 years old. She doesn't work outside the home and has three children between the ages of seven and sixteen. Her husband is a professional in the community and they live a nice area of a small university town. Elizabeth was quite excited about the prospect of the interview when she was approached. She was anxious to talk about shopping. The interview lasted approximately seventy-five minutes.

### **Excerpts of Elizabeth's Shopping Experiences**

"Shopping is my favorite thing to do...

"I think the time I remember that stands out in my mind is when we first moved here and I got my dining room set, because we hadn't picked out furniture in a long, long time. It was something I had always wanted so it was exciting to pick it out. That was an exciting time. Having it delivered and having a real hutch and a real dining room set that matched for the first time ever. I think that was pleasurable. I smiled a lot when it was delivered. I polished it with Pledge and I put all my dishes in, looked at it a lot and took great pleasure in seeing it in my dining room...

"When we actually purchased it I had child-like feelings. You know how you get when...you know how kids get at Christmas-time and they're getting something that they know they want and they've wanted it for a long time; they're real excited about it. Kind of just giddy feelings. You feel all excited inside. I was anxious for it to come, to see it. I cleared out a space for it. I got the house ready for it. Just before it arrived I was excited...

"Buying the cherry tables for this living room, that was a very recent purchase. It was fun picking them out because they're so different from what I used to pick out. The style is completely different from what I used to like but since I've been doing this living room in a more formal...decorated in a formal way then they seem more appropriate. They're so elegant and stunning that it's kind of exciting to think that I could have something that nice and that pretty in my

living room. The tables are nice. I like the way they look, they go with the furniture in the room and that gives me satisfaction knowing that I have something that I've always dreamed of having, a nice room. One room that's really nice. I get enjoyment out of the tables just by looking at them. I dust them often and while I'm dusting them I enjoy the shiny smooth finish and I have a feeling of pride. Dusting these three pieces is fun but when I had the other tables in here dusting them was a chore. It took a few days for them to be delivered. I was very excited again, pleased. I felt good that they looked so nice in here. I dusted them. Put things on them. Well, actually I didn't have this stuff at the time, but I put other things on. Then we went shopping for different things to put on them. That was fun too...

"Seeing things that you like and want because you know that they'll look nice in your house. It's fun to just pick things out like that. But to actually buy them, purchase them, that's even more fun because you get to bring them home. I enjoy just going window shopping and trying clothes on and stuff and looking at different things even though I don't buy them because it's fun just doing it. But to actually get something you really want, purchase it, that's much more thrilling than looking at them...

"I think it's kind of soothing though. I think it takes my mind off other things and I love clothes. I've always have loved clothing. It's fun just to see what they have. See if there's anything I would buy. I do mostly window shopping. That's probably why I like to go grocery shopping so much because you have to buy groceries. And I can buy them right there. I don't just have to window shop and think about buying them some other time. I will buy a lot of impulse items in the grocery store. It used to be when the kids were younger I would buy children's books. I don't think I ever came home without a book for the kids. Berenstein Bears or Little Golden Books. And quite often now I'll come home with like a dog toy or a dog treat for George (the dog) and that's always impulse. I still come home with a magazine for my daughter or something for the boys...

"A long, long, long time ago, when I hadn't been married that long, we had absolutely nothing for furniture. And one year we got a large tax return we went and we bought a couch, and a chair, and an ottoman, and a table, and those pieces of furniture were the first nice, decent furniture we had ever owned because we had just had junk. That was a very big purchase that stands out in my mind, not so much in dollars and cents, but big in how I felt because we picked out the style we wanted. We picked out the fabric we wanted. We ordered it. It was a special order and we had to wait several weeks because it had to be made from scratch with the fabric we picked out. We had the whole living room cleared out ready for it when it came...

"I bought my first car when I was 19. One evening as we were driving, and I happened to see a bright yellow Mustang...Yellow of course has always been my favorite color. And I thought, "Oh wow. A yellow Mustang and a convertible too!" Well I had to try out that car. So I went down the very next day and they let me take it for a ride. And I told my father "I've got to have that car. I'm totally in love with it." I just loved everything about it. The interior, the exterior, everything. It wasn't too long after that though I met my husband and you know, it's strange, the car was nice but it just didn't have the same importance...

"I never went to college. Well, I started college once but only was there a couple of weeks. I don't have a regular job. I try to be a good mother and wife but kids are so difficult at times. I wish I had more patience. I really have never accomplished anything. I feel inferior in many ways. I don't have any friends. I don't belong to anything. I don't think people like me. I guess I'm not a likeable person. I've never had a good opinion of myself. I don't think I'm physically attractive enough. I'm uneducated. I'm not good at anything..."

"Sometimes it's hard to express your feelings, but giving someone something, like buying something for the kids, they say "Gee, she must love me because look at what she bought for me." I love shopping for other people, more than shopping for me. My immediate family is the most fun..."

"I love Christmas shopping. I remember one Christmas I got my husband a guitar. It was exciting buying it because it was something that I thought, he would really love it and be totally excited about it. It was exciting because I couldn't wait to see the look on my husband's face when he opened it and saw what it was. I had placed it under the tree the night before Christmas and when I pulled it out to give to him it was exciting just to see the look on his face..."

"I like to go shopping usually while the children are in school, by myself or with my husband. When there is something on my mind that I feel I need or want it's more fun, not necessarily for me but for the house or the children or my husband. Sometimes it's a good release or a good break from everyday monotonous routine just to go shopping. It breaks up the monotony of the regular day..."

"If I'm feeling kind of blue or just kind of bored or sad or just not "up," if I go shopping it tends to bring me up and make me feel better. I don't know why it does but it always has. I guess it gives me a feeling of warmth and satisfaction and a good feeling when I shop. I don't always go shopping if I'm down. But I feel better being out away from the house, and around people and different things to look at besides the inside of the house. I think that it's therapeutic. It's probably like some people who eat a quart of ice cream when they're blue. I'd feel better by just looking. I don't have to buy anything but it's better when I do. It can be just a little something, a trinket. Something small. I guess I'm just rewarding myself or pampering myself a little. I can remember not long ago, I don't know why but I was feeling kind of down in the dumps and I happened to be grocery shopping because I needed groceries and I bought myself a plant for myself. It was only a couple of dollars but for some reason it gave me a lot of pleasure, I bought that just for me. It's probably like taking the time to give yourself a nice long bubble bath in the tub, or to be able to take some time for yourself, that was just like doing something for myself I guess. Buying a little plant because I love plants and I got a lot of enjoyment out of buying it and I still enjoy it. I'm sure there are people that go jogging when they feel like that and it does the same thing..."

## **Individual Structure of Shopping: Elizabeth**

Elizabeth loves to shop. The structure of shopping for Elizabeth is comprised of several interrelated substructures. For Elizabeth, shopping is both **social** yet **solitary**. Shopping is **soothing and fulfilling** for Elizabeth, often performed as a reward because it conveys positive feelings. Shopping is a way for Elizabeth to **communicate her feelings** towards others. Finally, for Elizabeth, shopping **enhances self-value**. This structure of shopping then is comprised of four substructures:

- (1) shopping is social yet solitary,
- (2) shopping is soothing and fulfilling,
- (3) shopping is a way to communicate feelings, and
- (4) shopping enhances self-value.

Although these interrelated components exist as a unity, they will be discussed in a linear fashion for ease of presentation; however, the discussion of one substructure usually requires the reference of at least one other substructure.

**Shopping is both social and solitary.** Shopping is a solitary activity for Elizabeth. She rarely mentions any social aspect of shopping in her description of various shopping experiences. In fact, the only other person she mentions as a shopping companion is her husband, she usually goes shopping by herself while the kids are in school. She refers to salespeople only once, when she bought her first car, and then it was only a brief reference. Notice the insignificant role Elizabeth assigns to the people involved in the purchase of her first car.

**"I remember being in the owner's office and talking and doing all the paperwork, reading through the contract and signing everything. And I guess they were outside washing it and filling it up with gas..."**

She mentions other people who might be shopping in the stores or the crowds simply acknowledging that sometimes they get in the way.

**"There are times during the day that aren't as pleasant (to go grocery shopping), around five o'clock or noon then it's not as pleasant because it's so hectic. At five o'clock there's always a crowd. It's hard to push your cart down the aisle cause there's people everywhere with their carts. There's long lines at the checkout, you have to wait, wait, wait, wait, wait. It makes a pleasant experience difficult."**

Even in this instance of recognizing the presence of others, she describes them as simply an irritation that makes shopping difficult. Note however, the experience is still pleasant. Other people are not a major part of the significant landscape of shopping experiences for Elizabeth. For Elizabeth, these people are not a significance in the experience of shopping, but they do exist in the background.

Elizabeth is uncomfortable around strangers. She often feels lonely and alone. She states that she doesn't have any friends, she is not involved in any organizations. Thus, she tends to disregard the social aspect of shopping, but at times recognizes its existence.

**"But I feel better being out away from the house, and around people and different things to look at besides the inside of the house."**

So she admits that there are others present in the shopping landscape, but they do not seem to play a major role in her shopping experiences.

More importantly, the act of shopping is social for Elizabeth because she shops for things to connect her to her family. She combats her loneliness by "bringing" her family with her; she imagines others are with her by shopping for them. Thus, the social aspect of shopping for Elizabeth is often imagined. She compulsively buys things for other members of her family including her dog. Her favorite shopping occurs when she is shopping for others.

**"But what I like to look at just to window shop for is children's clothing. Because the kids always need clothes...I was looking at shirts and shorts for summer for my son...I'm always trying to find some that he'll like..."**

**"I love shopping for other people, more than shopping for me. My immediate family is the most fun...I just love buying things for him (her husband)... I don't think I go into a store when I don't look at the junior sized clothing for my daughter. I'm always seeing things she'd like, like jewelry or a purse or things that I've heard her mention. Guess jeans. Every time I go into Herr's I look to see if they have Guess jeans because it's her dream is to have a pair of Guess jeans because they are soooo expensive."**

Elizabeth makes shopping social by bringing with her people that she knows intimately and feels comfortable being around. In this way, she reduces her loneliness without having to interact with strangers which is uncomfortable for her.

Thus is the paradox of Elizabeth's shopping experiences. At the same time shopping is both solitary and social. Solitary because she usually does it alone, without much recognition nor interaction with others present in the shopping experience; social because she shops with members of her family metaphysically; they are with her as she shops for them, imagining how they will feel if she bought something for them.

**Shopping is soothing and fulfilling.** To speak of shopping as soothing and fulfilling, in essence, a form of contentment for Elizabeth, makes little sense if not placed within the context of shopping providing some positive benefit, in this case shopping provides Elizabeth with good feelings. She talks about going shopping when she is blue to bring her up, to make her feel better, and to reward or pamper herself.

Shopping is a release from Elizabeth's "regular" day. It allows her to pamper herself, reward herself, and thus she sees shopping as an indulgence. It is important to recognize however, that the basis for this perception of shopping as an indulgence comes from the positive feelings she gets when she shops. Shopping produces positive feelings; Elizabeth describes excitement, happiness, enjoyment, giddiness, pleasure, warmth, and satisfaction; she finds shopping soothing, fun, exciting, and even therapeutic and at times, thrilling. She says that shopping brings her up, makes her feel good, makes her feel better. She refers to "happy feelings," "excited" feelings, and "child-like feelings," the

giddy feelings kids experience at Christmas. She finds shopping "soothing" and enjoys it because it "takes my mind off other things."

Elizabeth feels better when she goes shopping. Shopping gives her positive feelings, allows her to forget most everything beyond the scope of the immediate shopping experience. Shopping takes her mind off of her troubles; it allows her to relive child-like feelings that she treasures; it makes her feel good about herself and her world.

Elizabeth consistently describes shopping as an activity that is rewarding; something that one would do by choice. Moreover, Elizabeth shops a lot and the primary contribution of shopping is the good feelings it gives her - soothing feelings, feelings of contentment and fulfillment. Shopping is one of the few acts that Elizabeth engages in that gives her positive feelings and therefore she views shopping as an essential part of her life. She notes that she doesn't do much, and what she does do is never done well. But shopping is something she does that provides her with a sense of accomplishment, whether it be shopping for herself or for others.

Shopping alone however, is not the only aspect of Elizabeth's consumer behavior that provides her with positive feelings and a sense of contentment. Elizabeth engages in a consumption ritual that heightens her feelings of fulfillment, accomplishment, and as will be illustrated in the next section, self-worth. After Elizabeth makes a purchase she engages in a ritual of examination, admiration, and pampering of the item; a sort of "wallowing" in the reality of the purchase. For example, note the ritual performed when she had her dining room set delivered.

**"I smiled a lot. I polished it with Pledge and I put all my dishes in, looked at it a lot and took great pleasure in seeing it in my dining room."**

And again when she bought new tables for her living room.

**"I felt good that they looked so nice in here. I dusted them. I got my things on them. Put things on them... I get enjoyment out of the tables too, just by looking at them. I dust them often and while I'm dusting them I enjoy the shiny smooth finish and I have a feeling of pride. Dusting these three pieces is fun but when I had the other tables in here, dusting them was a chore."**

Or when she purchased some furniture for her living room many years ago.

**"We had the whole living room cleared out ready for when it came. And I remember seeing them carrying it up the hill, up towards the house, it was**

**so exciting... We put it in different positions and get it just so. And sit on it and look at it. It was a real high to finally have nice living room furniture after never having it before."**

In each instance, Elizabeth describes a ritual of immediate consumption that reinforces the positive feelings from the purchase and heightens the fulfillment she gets from buying something.

She describes shopping for herself as pampering herself, rewarding herself; in other words, she is providing herself with a sense of fulfillment. Shopping for others provides her with this same sense of fulfillment by knowing she is doing something for someone she loves, namely providing them with something they want. In all other aspects of her life that she talks about she expresses little satisfaction, or fulfillment. She never went to college, doesn't have a job, is not a good mother, and isn't involved with any organizations. Thus, shopping appears to be the only activity that provides her with this fulfillment and consequently has become an integral part of her life. For Elizabeth shopping exists as "therapy," an essential form of fulfillment that she rarely gets outside of her shopping experiences. Moreover, possessing is an important part of the fulfillment, as evidenced by her consumption ritual. The consumption ritual acts as a reinforcement to heighten the effect of the therapy. This "therapy" however, takes on greater significance for Elizabeth when it is placed in the context of her self-value.

**Shopping enhances self-value.** Elizabeth expresses a low self-worth; she doesn't see herself as a worthy individual. She notes that she has never really done anything of any significance. Moreover, what she does do, she does not do well. Implicit in her words is a horizon of unworthiness.

**"I never went to college. Well, I started college once but only was there a couple of weeks. I don't have a regular job. I try to be a good mother and wife but kids are so difficult at times. I wish I had more patience. I really have never accomplished anything. I feel inferior in many ways. I don't have any friends. I don't belong to anything. I don't think people like me. I**

**guess I'm not a likeable person. I've never had a good opinion of myself. I don't think I'm physically attractive enough. I'm uneducated. I'm not good at anything."**

Elizabeth shops to enhance her self-worth, to penetrate this horizon of unworthiness.

The positive feelings she experiences while shopping exist in the context of her low self-worth. The feelings are positive because they "bring me up." This enhancement of self-worth occurs at several different levels.

First, the shopping environment itself enhances her self-worth. She surrounds herself with nice things such as new and expensive clothes and pretty furniture, all displayed in elegant surroundings.

**"I like to go out to the mall and go to Herr's. Their store is so elegant. They have chandeliers and everything looks so pretty. It makes me feel good just to be there."**

**"I looked at a skirt in the petite section that I liked, a cute summer skirt. I went into the Liz Claiborne, I always walk through the Liz Claiborne stuff. I've never bought any but...they had a lot of things on sale there but even their sale prices are too outrageous. Its ridiculous."**

Even when she knows she won't purchase anything she still likes to look, to surround herself with the pretty clothes. In this way, she feels better about herself since "pretty" people look at "pretty clothes."

The uniqueness, or "specialness" of the shopping process also contributes to the enhancement of self-worth. In other words, a special order will enhance her self-worth more than purchasing something from stock merely by its special order nature.

**"...we bought a couch, and a chair, and an ottoman, and a table, and those pieces of furniture were the first nice, decent furniture we had ever owned because we had just had junk. That was a very big purchase that stands out in my mind, not so much in dollars and cents, but big in how I felt because we picked out the style we wanted, we ordered it, it was a special order and we had to wait several weeks because it had to be made from scratch with the fabric we picked out."**

She even defined how "big" the purchase was in terms of how she felt. She felt special because someone had to make something specifically for her.

At a second level, she boosts her self-value by purchasing products that in her

eyes would be purchased by people who are more worthy than she.

**"They're (the cherry tables for the living room) so elegant and stunning that it's kind of exciting to think that I could have something that nice and that pretty in my living room."**

"To think that I could have something that nice and that pretty." She feels she is probably not worthy of these tables and yet by buying them she must be worth more than she thinks, thereby enhancing her self-worth. She further elaborates,

**"...that gives me satisfaction knowing that I have something that I've always dreamed of having, a nice room. One room that's really nice. I'm proud of the tables because they're pretty."**

Thus, the only thing better than surrounding herself with pretty things at the store is buying them so she can surround herself with pretty things at home. They serve as constant reminders of her self-worth. However, the reminders only work for a period of time.

**"We had tables in here before but weren't happy with them because they didn't look right with this furniture and they were kind of outdated. The style was outdated. The coffee table was really too big for this room and it wasn't the shape I wanted...I guess my tastes have changed; I wanted something different that looked better..."**

At a third level, shopping reinforces Elizabeth's self-worth by the simple logic that if she spends money on herself, then she must have worth. She calls this rewarding herself.

**"I guess I'm just rewarding myself or pampering myself a little...like doing something for myself..."**

Elizabeth doesn't think much of herself; buying something, anything, for herself is like a reward. Thus, she rewards herself to enhance her self-worth. Even the very act of shopping she views as a reward, a privilege.

**"Sometimes it's a good release or a good break from the everyday monotonous routine just to go shopping. It breaks up the monotony of the regular day."**

Concomitant with these first three levels is the reinforcement that the

consumption ritual provides. Once she has made a purchase, Elizabeth reinforces the purchase's contribution to her self-worth via the consumption ritual. By "wallowing" in the purchase, she heightens her self-contentment and fulfillment and feels better about herself. Recall how she admitted she really wasn't worthy of the new tables for her living room; she had seen tables like those in magazines and "better" people's houses, but she just couldn't believe that she had them. Elizabeth spent considerable time just admiring the tables.

At a fourth level, shopping for things for others enhances her self-worth.

**"Sometimes it's hard to express your feelings, but buying something like for the kids, they say, "Gee, she must really love me because look at what she bought for me."**

**"I love shopping for other people, more than shopping for me. My immediate family is the most fun."**

**"I don't think I go into a store when I don't look at the junior sized clothing for my daughter. I'm always seeing things that I think she'd like, like jewelry or a purse or things that I've heard her mention. Guess jeans. Every time I go into Herr's I look to see if they have Guess jeans because it's her dream to have a pair of guess jeans because they're sooo expensive."**

**"I remember one Christmas I got my husband a guitar. It was exciting buying it because it was something that I thought he would really love and be totally excited about. It was exciting because I couldn't wait to see the look on my husband's face when he opened it and saw what it was."**

Elizabeth's self-worth is enhanced by enhancing other's assessment of her worth. In other words, Elizabeth would feel she has more value if she felt that others thought she had more value. Buying things for other people enhances their image of Elizabeth's worth, and hence her own self-worth. She wants others to love her, to value her.

## **Shopping As A Substitute For Demonstrative Value**

Elizabeth recognizes that what she really wants is for others to affirm, authenticate, and demonstrate her worth through their actions and words, a major theme that emanates from the text. When she shops her family is with her in her mind;

she constantly shops for them. By shopping for them she hopes to elicit concrete demonstrations of her worth. Elizabeth wants them to become excited by what she has purchased, and then to tell her and show her how much she is worth to them. If she spends money on them, buys something they want, then her value to them may be expressed.

In her final comment of the interview she makes a point of trying to separate sentiment from monetary value, and self-worth derived from the actions of others from shopping as a substitute in order to enhance self-worth.

**"Certain things have sentiment behind them. I don't think the enjoyment goes away for things that you have sentiment for. My feelings, for example, for the diamond jewelry my husband gave me have changed...When I put them on I don't have that first initial excitement...when I first got them, the necklace I wore everyday no matter what I was wearing. And I do still love them. I do still have a great strong feeling for them but it's different. When I wore them before it made me feel special, proud, good because they were expensive and new. I'm walking around and I can just imagine people looking at the diamonds thinking, "Wow. Real diamonds." As the years have gone on some of the excitement of the newness and owning expensive jewelry has been lost, but more sentiment has taken its place. Now when I wear them I feel proud and special because my husband sacrificed to get these for me. It means that he must really love me to spend all that money on me. And because they are so nice and because they do mean a lot to me because of when and why it was given to me, it's something that I want to hand down to my daughter. I'd like her to have them someday. I mean I wouldn't think of handing down a little gold chain that I wear more often than the diamond necklace to her because it doesn't mean as much. It doesn't have as much value."**

Elizabeth has trouble separating monetary value from personal worth. She copes with inferior self-assessment by attempting to build self-worth via shopping. It matters not so much whether she buys, or for whom she buys; the mere act of shopping means she has worth. By spending money she demonstrates that she has value. By spending money on others she hopes to elicit demonstrations of her value. She simply seeks others to tell her she is important, that she makes a contribution, that she is loved and needed. For Elizabeth, shopping is one way to accomplish this goal.

## Summary

For Elizabeth, shopping is a paradox of solitary yet social activities that allows her to communicate her feelings toward others. Elizabeth shops primarily to enhance her self-worth via a sense of fulfillment from things she buys for herself and things she buys for others. Elizabeth experiences feelings of happiness, excitement, enjoyment, giddiness, pleasure, warmth, and satisfaction; she finds shopping soothing, fun, exciting, and even therapeutic and at times, thrilling. She says that shopping brings her up, makes her feel good, makes her feel better. It's therapeutic. The structure of her shopping experiences portrays a process of self-value affirmation and enhancement. Simply put, Elizabeth shops to feel better about herself, and the world around her, i.e., her lived-world.

## A THEMATIC DESCRIPTION OF SHOPPING

A detailed account of two participants' interviews has been provided that illustrates a diametric picture of shopping experiences. However, certain basic elements of the shopping experiences emerged from both descriptions such as the emotionality of shopping, the expressiveness of shopping, the interconnectedness between shopping and self-image, and how deeply shopping is immersed in both of the participant's lives. Thus, at an idiographic level the meaning of two of the participant's experiences in their respective life-worlds (i.e., the world as it is lived by the participant) has been articulated. In this section, common themes or patterns that emerged from the six interviews are presented in an overall description of shopping to express an idiographic interpretation. Interpretational analyses and excerpts from the other four participants, **PAmela**, **CArol**,

**S**usan, and **J**ill, hereinafter referred to by the first two letters of their names to identify excerpts, will be used in addition to the two participants already discussed in detail (i.e., **E**Mily and **E**Lizabeth) to illustrate and support the interpretation.

Four major interpretive themes emerged from the set of six interviews conducted:

1. Shopping is emotional.
2. Shopping is an expressive communicative act.
3. Shopping reflects on a self-image.
4. Shopping connects self, others, and world.

Although these themes are discussed separately, they are actually interrelated aspects of a more holistic view of shopping discussed in the final section.

## **Emotional**

All participants had no trouble recalling many different shopping experiences. There appeared to be a great wealth of experience upon which to draw. Most participants indicated that shopping was an everyday integral part of their lives, and yet their descriptions of shopping experiences were filled with emotional descriptions. Even their voices and faces suggested they were getting emotionally excited just describing the experience. Throughout the descriptions, emotions such as excitement, pleasure, frustration, love, hate, enjoyment, irritation, fun, depression, fear, apprehension, worry, fatigue, guilt, boredom, embarrassment, contentment, satisfaction, happiness, giddiness, anxiety, even thrill were mentioned as being experienced during shopping experiences.

**PA:** I get really excited... shopping in general makes me feel good... I'm thrilled when... shopping is a very pleasant experience... I became livid... I feel a great satisfaction... I was excited about that, jumping up and down... I hated that... It wasn't fun but frustrating...

SU: It was fun... It's a hassle... I love to shop... It's fun to shop... Now I get angry... It irritates me... I felt really excited... I wistfully looked at it... I loved it... I found it irritating... I get mad... I enjoy that shopping trip... It's interesting... I shopped without guilt...

CA: I really enjoyed that... It was very exciting... I felt very scared... It was pleasant... I found it frustrating... I couldn't believe that I was so excited that I couldn't sleep...

These emotions were felt before the actual shopping trip, while shopping, during the purchase, and after the purchase during consumption. Whether it is grocery shopping or buying a house, the respondents consistently sprinkled their descriptions with emotional terms, suggesting a pervasive presence of feeling states during buying and consumption behavior.

### **Expressive Communicative Act**

Shopping expresses aspects about oneself to others; in other words, you are what you buy. Clothes, cars, furniture, houses, food, decorations for the house, art work, and music were all mentioned as products that the participants acknowledged as communicating aspects about themselves to others.

PA: I saw the sweater and I thought "That would be perfect for the holidays. It's so festive. I could wear it to David's boss's party and to several other gatherings we have to go to." And I really liked it because it was a cardigan style and I thought it made me look thinner.

PA: I love to buy things for the house, to decorate because it's an expression of yourself.

JI: I just thought that the car was real sporty and that everyone would look at me and would think that I was young and beautiful.

EL: I think the new tables show people that my tastes have changed as I have gotten older. I think they're more sophisticated now.

JI: When I get to the checkout, I think that the cashier must think that I'm a healthy person because of all the fresh vegetables and fruit.

Shopping for oneself seems to communicate about oneself to others however, even more vividly, shopping for others appears to be a more open expression of oneself to others.

PA: I'll buy something for Rick and I'll say "This is really neat. He's going to love it." I bring it home and he goes, "Oh."

JL: When I went shopping for her I was very frustrated because she has so much I really didn't know what to get her that would really show her how much she meant to me as a friend. And she has such good taste I didn't want her to think that I was uneducated or something.

SU: He knew that I would love it so he bought it for me. He only buys things that he knows I'll like. He is too shy to just pick something out. He would feel bad if I didn't like it because he feels that he really doesn't have very good taste for women's clothes.

EL: I was so excited because I knew he would love it. He always looked so nice in suede and I just knew that he would look nice in it.

Shopping, as an expressive communicative act, can therefore be pleasing or displeasing depending on how one expects it will be evaluated by others, and how it is actually evaluated by others. Recall that Emily avoids shopping for others. She has given up shopping for her sister, her husband, and her older kids because she can't please them with her selections; that is, she knows that the purchases will be evaluated negatively. Similarly, but to a lesser degree, Pamela dislikes shopping for others. For Pamela, there just isn't as much pleasure in buying for others as buying for herself. For example, Pamela mentioned that she did not really enjoy buying for her kids or her husband as much as buying for herself. For example:

PA: I'm thrilled that I'm buying someone a present but not as thrilled as putting something new on my body. If I bought a Shop-Vac for David I don't know if I'd be very excited, maybe a little, but it's not something I would enjoy.

On the other hand, Elizabeth, Jill, and Carol enjoy shopping for others as much if not more than shopping for themselves.

EL: I love shopping for other people, more than shopping for me.

JJ: I think that many times it's more fun to look for something for my husband or my kids or my mother because if I pick out something they like it's fun just to see their reaction.

CA: Now I like to shop for clothes for Billy. I'd rather spend the money on him than on myself. It just fun to imagine how cute he's going to look dressed up like this or this. The holiday outfits are the best. What he's going to wear Christmas with all the family around and Thanksgiving.

The anticipation of how others will evaluate the purchase is an active part of the purchase experience. This evaluation by others, regardless of whether the item purchased is for oneself or another, is interconnected to self-evaluation, or one's self-image.

### **Reflection on Self-Image**

Because shopping can be so expressive, it reflects back on the buyer's self-image. When one buys for oneself or for others, others may evaluate the purchase decision and thus, if favorable can enhance self-image, and if unfavorable can detract from self-image. Consequently, a major theme that emerged from these interviews was that of self-image being determined in part by the penalties and rewards that significant others can exert with their purchase evaluation. Beyond the usually positive enhancement of self-image provided to Elizabeth by shopping, and the painful consequences of consistent negative evaluation of shopping choices for Emily, Pamela also illustrates the relationship between shopping and her own self-image.

PA: I get really excited when I shop for clothing for myself. It just makes me feel good about myself. I always feel good about myself when I purchase something, an item of clothing for myself, especially sweaters. Last year I saw a beautiful suit, a three piece suit, long jacket, matched, and I put it on and felt like a totally new woman. I really did. I felt young and vibrant. And that made me feel really good about myself.

For Carol, the process has changed since she was married and has started a family. Before she was married, she shopped primarily for clothes and new clothes seemed to enhance her self-image. After she married, her focus was still on clothes, but not for herself. Now she was concerned about how her young son would look and shopped for clothes for him.

CA: The first thing that comes to mind is the way I shop now and the way I shopped five years ago before I married, before I had Billy (her only son). There's a big difference. Back then when I would go shopping, it was more fun, it was more of a leisure activity, and I would tend to save up and buy something I really really wanted. When I go out to shop now its for something I have to have whereas before it was entertainment. I used to love to shop at Smerlind's and I would go in there and I would find a \$200 dress and I would work extra hours until I could afford it. And it was fun. It was fun to shop that way. I loved it. I liked the way I felt when I could wear a new outfit. Now I shop for bargains, not \$200 dresses. Actually when I go shopping now I get angry at the fact that clothes cost so much more for women than they do for men. I lived for clothes before I was married. I didn't buy furniture, I didn't buy groceries to a great extent when I was single. Now I like to look. I don't feel that I can be extravagant right now so it's not as much fun as it used to be. The difference then was you could shop without guilt because it was just you. But once you have a family you have to think about all the things that they need too and it's just not as much fun as it used to be. When you buy something for yourself you think that maybe you should've bought this for Billy or this for George (her husband).

Similarly, Jill expressed a concern over what people would think of her because of the way her house looked. She expressed that while they were remodeling the house all she could think of was how much better the house would look and therefore people who came to visit would think better of her. Thus, her self-image was enhanced because she thought others would think better of her.

Jl: I used to be kind of embarrassed the way the house was. It wasn't terrible or anything, but I thought people might think that this was the way I wanted it, not that I couldn't afford to change it. So once we got the money we decided to remodel and I'm very pleased with the way it turned out. Each day I would look at the progress and think "Now when my family visits they will know that I have better taste then the way it looked before" and I think that the house now better reflects that my husband is a professor and that I also am a professional. I feel good about the changes I made. It looks so much better and I feel better about myself when I just come into the living room or kitchen. They look totally different.

Thus, shopping reflects back on a person's self-image. For some, the fear of critical evaluation and its negative effect on self-image is so strong that shopping is avoided and only done when absolutely necessary. For others, buying presents or gifts for others enhances self-image. Self-image is also enhanced by rewarding oneself, by buying something for oneself.

### **Connects Self-Others-World**

These themes can now be embraced within a more coherent thematic umbrella. This emergent property exists at a more abstract level and provides a context within which the previously articulated themes coexist. The thematic umbrella or context in which these themes exist is that shopping is a relationship between self, others, and world. Because shopping is an expressive communicative act, because shopping reflects back on self-image, and because shopping is emotionally immersed in everyday life, shopping relates self to others, others to self, as these relationships exist in the life world of the person. Relating others to self and self to others occurs, for example when participants indicated that others influenced their purchase decisions. By incorporating values, opinions, attitudes, and preferences of others, one defines the relationship between them. For example, when Emily shops, her husband's negative reactions are a constant reminder of her inadequacy as a shopper (and perhaps as a person as well) and thus, defines her relationship with him as being deferent to his preferences. When Elizabeth shops, she mentally takes her family with her and thus demonstrates her relationship with her family as an important integral, and focal part of everything she does. When participants bought things for others, they consistently noted how the purchase reflected and communicated aspects of themselves. Shopping is so expressive that it connects oneself with significant others.

Shopping also relates self to world. Based on these interviews, shopping appears

to be an activity that in part defines one's place in the world. Recall Jill's concern about whether her house reflected her status in the community. Elizabeth knows her standing in the world, she believes she makes little if any contribution to the world. For Elizabeth, shopping allows her to improve her stature in the world. When she bought new tables for her living room she suddenly gained newfound status in the community because she had things that other members of the community, much higher up than she, owned. Carol spoke of how her status in the world had changed when she married and started a family. As a shopper, her role changed reflecting a newfound position in the world around her. Instead of a carefree, single attractive young shopper, she now viewed herself as a more serious shopper who has to concentrate on prices and appropriateness of the purchase.

Thus, shopping is an everyday lived experience that articulates a relationship between self-others-world. That is, shopping appears to define the participants' relationships with others and with the world in general, as they experience it.

## **SUMMARY**

This chapter presented the procedures used to interview the participants and analyze the resultant transcripts. Additionally, it presented an interpretation of the interviews as they relate to shopping experiences. Structural definitions of shopping for two of the participants were developed and major themes were identified and discussed. Finally, an overall thematic description of shopping was presented.

# **CHAPTER 7**

## **Conclusions**

This chapter presents an overview of the complete research project and then considers the conclusions that can be drawn from the experimental study and the existential phenomenological study. First, a brief review of the conceptual model will be presented followed by a discussion of the findings and conclusions from the experiments. The conceptual, methodological, and substantive contributions of the experiment are presented and the study's limitations and suggestions for future research are discussed. The findings from the in-depth existential phenomenological interviews are presented next with attention to contributions made by the study and its limitations. Suggestions for future research in this vein are also provided. The methodological and substantive contributions associated with the conduct of both studies are then discussed.

## STUDY OVERVIEW

The primary objective of this research was to better understand the feelings consumers experience in their purchase events. More specifically, one major focus was on how consumers arrive at affective responses and how those affective responses influence other purchase-related judgments. Thus, literature from research on affect, economics, and marketing was integrated to form a theoretical structure that embraces the role of feeling responses in buyer behavior. Resultant propositions were empirically tested in an experimental setting. A second major objective was to achieve a more in-depth look at consumer shopping experiences with particular focus on the feelings consumers experience. Toward this end, existential-phenomenological, in-depth interviews were conducted and analyzed.

The need for the examination of consumers' feelings is prominent in the literature. Researchers repeatedly call for research studying consumers' feelings (e.g., Gardner 1985; Peterson, Hoyer, and Wilson 1986; Zajonc 1980); however, progress has been slow. Constrained by the lack of a rich descriptive base and a broad theoretical umbrella, most of the research has adopted two-variable, cause-and-effect type models with little theoretical justification. Moreover, the consumer research on affect has been mono-paradigmatic in its approach to the phenomenon (i.e., use of laboratory and field experiments). To address these limitations of previous research, a broad, integrative theoretical model based on the economic theory of information (Stigler 1961) was developed and a portion of it empirically tested. Also, instead of only examining affect in an experimental setting, this study also explored feelings in the lived-world of consumers' shopping experiences via in-depth existential-phenomenological interviews, thus providing a contrasting paradigmatic and rich descriptive view of the phenomenon.

## THE EXPERIMENTAL STUDY

The overall objective of the experimental study was to test empirically relevant propositions concerning the influence of affective responses on consumers' evaluative judgments. Specifically, it was proposed that consumers receive and process information affectively just as they receive and process information in a more cognitive fashion. Therefore, an experiment was designed to manipulate the level of affective information provided to subjects to elicit different levels of affective responses. The primary thesis of the research was that the affective responses would influence subsequent product evaluations.

The major hypotheses focus on three elements of the study: (1) the manipulation of affective information, (2) the influence of affective responses on subjective product evaluations, and (3) the contribution of the affect construct to an overall explanation of consumers' subjective evaluations. Two pretests and two pilot studies were conducted to develop the stimulus material, measurement instruments, and procedures for the conduct of the experiment. Based on these pretests, a red sports car convertible ( a Mazda Miata MX-5) was selected as the product for the experiments. Two experiments were conducted to examine the model in two different communication contexts. The first experiment manipulated affective information via a direct (i.e., written) communication mode where affective states were elicited by verbally describing affective states in a direct manner, while the second experiment manipulated affective information via an indirect (i.e., visual) communication mode where affective states were elicited indirectly via sensory cues associated with the car itself.

Data was collected for both experiments using category rating scales that were developed during the pretesting. These scales were developed based on previous work done in magnitude scaling (Lodge 1981), and demonstrated acceptable levels of

reliability. Analysis of variance, regression, and covariance structural modeling (LISREL-VII) was used to analyze the data. Effect sizes were computed and used along with p-values and direction of the effect to assess support for the hypotheses.

## **Discussion - Experiment #1**

Table 43 presents a summary of the empirical findings for the first experiment where subjects read a written communication and then completed the instruments. The primary thesis of the research, **H1(g)**, was supported; that is, subjects who read a product description high in affective information indicated higher expectations for perceived product quality on average than subjects who read a product description low in affective information. The manipulation check indicated that the subjects in the high affective information condition did respond with more positive affective responses, however, the difference in the strength, or intensity, of these responses was only marginal (**H1(a)**). Additionally, the positive relationships between affective response and affective expectations (**H1(c)**), affective expectations and perceptions of expected quality (**H1(e)**), and affective responses and perceptions of expected quality (**H1(f)**) were all supported.

Thus, in general, the experiment supports the influence of affect on subjective evaluations. Moreover, when the affective components are added to regression models containing only cognitive components, the total variance explained is significantly increased (**H1(k)** and **H1(l)**) providing further support for the importance of the affective component in explaining buyers' subjective evaluations. The standardized path coefficients produced by the LISREL analysis indicates the relative strength of the relationship between the two variables (Hayduk 1987). These coefficients suggest that the impact of the subjects' affective response on their perceived quality expectation was significant.

TABLE 44

## SUMMARY OF RESULTS FOR FIRST EXPERIMENT - DIRECT COMMUNICATION

<u>Hypothesis and Description</u>	<u>Analysis Method<sup>a</sup></u>	<u>Test Statistic</u>	<u>P-Value</u>	<u>Effect Size<sup>b</sup></u>	<u>Result</u>
<b>H1(a)</b> Subjects in high affective information condition will have stronger affective responses.	ANCOVA	F=3.0	.08	.15	Supported
<b>H1(b)</b> A greater number of thoughts will be listed by subjects in the low affective information condition.	ANCOVA	F=0.1	.72	.03	Not Supported
<b>H1(c)</b> Positive relationship between affective response and affective expectations.	Regression LISREL	t=9.5 t=9.5	.01 .01	.65 .67	Supported Supported
<b>H1(d)</b> Subjects in high affective information condition will have more intense affective expectations.	ANCOVA	F=0.2	.70	.03	Not Supported
<b>H1(e)</b> Positive relationship between affective response and perceived quality expectations.	Regression LISREL	t=4.7 t=5.1	.01 .01	.32 .47	Supported Supported
<b>H1(f)</b> Positive relationship between affective expectation and perceived quality expectation.	Regression LISREL	t=4.2 t=4.3	.01 .01	.27 .38	Supported Supported
<b>H1(g)</b> Subjects in high affective information condition will have higher perceived quality expectations.	ANCOVA	F=6.5	.01	.17	Supported
<b>H1(h)</b> Positive relationship between cognitive response and perceived quality expectation.	Regression	t=-.5	.63	.03	Not Supported
<b>H1(i)</b> Positive relationship between cognitive response and cognitive expectation.	Regression	t=2.7	.01	.23	Supported
<b>H1(j)</b> Positive relationship between cognitive expectation and perceived quality expectation.	Regression	t=6.1	.01	.33	Supported
<b>H1(k)</b> R <sup>2</sup> for perceived quality expectations greater when affective response included in model.	Regression	F=94.8	.01	.38 <sup>c</sup>	Supported
<b>H1(l)</b> R <sup>2</sup> for perceived quality expectations greater when affective response and affective expectation included in model.	Regression	F=45.5	.01	.24 <sup>c</sup>	Supported

<sup>a</sup>ANCOVA=analysis of covariance, LISREL=LISREL-VII.

<sup>b</sup>As measured by eta.

<sup>c</sup>Represents the change in R<sup>2</sup>.

The evidence suggests that buyers' affective responses influence their subsequent product evaluations. Moreover, at least in the context of this study, written communication that is high in affective information (i.e., use of feeling state descriptors and sensory cues such as color) elicits positive affective responses which in turn generate positive affective expectations and finally result in higher expectations of perceived quality.

The hypothesized increase in the intensity of affective expectations for subjects in the high affective information condition versus subjects in the low affect information condition was not supported (**H1(d)**); there was no significant difference in the overall emotional intensity of the affective expectations. These results suggest that subjects indicated that they had stronger specific affective expectations without a concomitant increase in overall emotional intensity. In other words, subjects indicated that they would expect for example, more fun, more excitement, and more pleasure if they purchased this car, but the intensity of this expectation was no greater than for subjects who expected less fun, less excitement, less pleasure. In this instance it appears that the subjects could expect more or less positive affective experiences at the same level of intensity.

The results of the hypothesis tests dealing with the cognitive components were less conclusive. Subjects in the low affective information condition did not list significantly more thoughts than subjects in the high affective information condition (**H1(b)**) suggesting that they did not rely more on cognitive processing of the information to replace affective processing. Moreover, no significant relationship between the cognitive response and the perceived quality expectation was found (**H1(h)**). On the contrary, positive relationships between cognitive response and cognitive expectation (**H1(i)**) and between cognitive expectation and perceived quality expectation (**H1(j)**) were found. As mentioned in Chapter 5, the cognitive response measure is suspect as to its

validity and may have contributed to these results. Notwithstanding, it does not appear that subjects operated as though they had limited overall processing capacity and would therefore tend to process information either more affectively or more cognitively. Even though one group received more affective information than the other, it appears that their cognitive processing did not diminish compared to the group of subjects who received a lower level of cognitive information. The results suggest that processing information affectively does not reduce or impede the processing of information cognitively.

In sum, the results of Experiment #1 were generally consistent with the predictions emanating from the proposed model. Subjects who received higher levels of positive affective information expressed more positive affective responses to the product and more positive affective expectations for the product, and expected the product to be of higher overall quality.

## **Discussion - Experiment #2**

Table 44 presents a summary of the empirical results of Experiment #2. In the second experiment, subjects watched a videotape and then completed the instruments. The primary thesis of the research, **H1(g)**, was supported; that is, subjects who watched the videotape in color (i.e., high in affective information) indicated higher expectations for perceived product quality on average than subjects who read a product description low in affective information. The manipulation check indicated that the subjects in the high affective information condition did respond with more positive affective responses, but the intensity of these responses was not significantly different (**H1(a)**). Subjects in the low affective information condition of the indirect communication mode experiment (they watched the black and white video) indicated that they consistently imagined the car to be a particular color, but not just any color, they imagined the car to be their favorite

color. Only one subject did not imagine the car to be a particular color. Consequently, it is likely that via their imagination the effect from the manipulation of the sensory cues was attenuated and thus the influence of the affective responses on perceived quality expectations was also attenuated.

The positive relationships between affective response and affective expectations (**H1(c)**), affective expectations and perceptions of expected quality (**H1(e)**), and affective responses and perceptions of expected quality (**H1(f)**) were all supported.

Thus, in general, the experiment supports the influence of affect on subjective evaluations. Additionally, when the affective components are added to regression models containing only cognitive components, the total variance explained is significantly increased (**H1(k)** and **H1(l)**) providing further support for the importance of the affective component in explaining buyers' subjective evaluations. The standardized path coefficients produced by the LISREL analysis suggest that the impact of the subjects' affective response on their perceived quality expectation was significant. The evidence therefore suggests that buyers' affective responses influence their subsequent product evaluations. Moreover, in the context of this study, visual communication that is high in affective information (i.e., use of sensory cues such as color) elicits more positive affective responses which in turn generate more positive affective expectations and finally, result in higher expectations of perceived quality.

**TABLE 45**

**SUMMARY OF RESULTS FOR SECOND EXPERIMENT - INDIRECT COMMUNICATION**

<u>Hypothesis and Description</u>	<u>Analysis Method<sup>a</sup></u>	<u>Test Statistic</u>	<u>P-Value</u>	<u>Effect Size<sup>b</sup></u>	<u>Result</u>
<b>H1(a)</b> Subjects in high affective information condition will have stronger affective responses.	ANCOVA	F=0.9	.33	.07	Not Supported
<b>H1(b)</b> A greater number of thoughts will be listed by subjects in the low affective information condition.	ANCOVA	F=6.4	.01	.22	Not Supported <sup>c</sup>
<b>H1(c)</b> Positive relationship between affective response and affective expectations.	Regression LISREL	t=9.2 t=9.3	.01 .01	.63 .64	Supported Supported
<b>H1(d)</b> Subjects in high affective information condition will have more intense affective expectations.	ANCOVA	F=5.5	.02	.17	Supported
<b>H1(e)</b> Positive relationship between affective response and perceived quality expectations.	Regression LISREL	t=2.3 t=3.4	.02 .01	.14 .30	Supported Supported
<b>H1(f)</b> Positive relationship between affective expectation and perceived quality expectation.	Regression LISREL	t=3.6 t=5.6	.01 .01	.22 .51	Supported Supported
<b>H1(g)</b> Subjects in high affective information condition will have higher perceived quality expectations.	ANCOVA	F=3.0	.09	.15	Supported
<b>H1(h)</b> Positive relationship between cognitive response and perceived quality expectation.	Regression	t=3.9	.01	.19	Supported
<b>H1(i)</b> Positive relationship between cognitive response and cognitive expectation.	Regression	t=1.5	.14	.13	Not Supported
<b>H1(j)</b> Positive relationship between cognitive expectation and perceived quality expectation.	Regression	t=8.6	.01	.43	Supported
<b>H1(k)</b> R <sup>2</sup> for perceived quality expectations greater when affective response included in model.	Regression	F=45.7	.01	.22 <sup>d</sup>	Supported
<b>H1(l)</b> R <sup>2</sup> for perceived quality expectations greater when affective response and affective expectation included in model.	Regression	F=28.3	.01	.13 <sup>d</sup>	Supported

<sup>a</sup>ANCOVA=analysis of covariance, LISREL=LISREL-VII.

<sup>b</sup>As measured by eta.

<sup>c</sup>Means in wrong direction.

<sup>d</sup>Represents the change in R<sup>2</sup>.

The hypothesized increase in the intensity of affective expectations for subjects in the high affective information condition versus subjects in the low affect information condition was also supported (**H1(d)**); subjects who watched the video in color expressed that their affective expectations were more intense than the subjects who saw the identical video in black and white. In other words, subjects who watched the video in color indicated that they would expect for example, more fun, more excitement, and more pleasure if they purchased this car, and the intensity of this expectation was greater than for subjects who saw the video in black and white. In this instance it appears that the subjects expected different levels of positive affective experiences at different levels of intensity.

Again, the results of the hypothesis tests dealing with the cognitive components were more mixed. Subjects in the low affective information condition did not list significantly more thoughts than subjects in the high affective information condition (**H1(b)**). In fact, they listed significantly fewer thoughts suggesting that they relied less on cognitive processing of the information. Moreover, no significant relationship between the cognitive response and the cognitive expectation was found (**H1(f)**). Positive relationships between cognitive response and perceived quality expectation (**H1(h)**) and between cognitive expectation and perceived quality expectation (**H1(j)**) were found. As previously mentioned, the cognitive response measure is suspect as to its validity and may have contributed to these results. In this context, thought-listing may indeed be a weak measure of cognitive processing since it is likely that positive affective responses may increase the availability of mood congruent thoughts (Gardner 1985, 1987; Isen et al. 1978; Isen 1984; Lawson 1985). Thus, using thought listing as an indicator of cognitive processing, in the context of studying affect, may not be appropriate. The results suggest therefore, that processing information affectively does not reduce the processing of information cognitively; on the contrary, it may enhance it.

In sum, the results of Experiment #2 were generally consistent with the predictions made by the proposed model. Subjects who received higher levels of positive affective information via color sensory cues in a video, expressed more positive affective responses to the product and more positive affective expectations for the product, and expected the product to be of higher overall quality.

## General Discussion

Table 46 presents the empirical results for both studies. Evidence of support across both experiments was found for the positive relationships for the affective variables and the dependent variable, between affective response and affective expectations (**H1(c)**), between affective response and perceived quality expectations (**H1(e)**), and between affective expectation and perceived quality expectation (**H1(f)**). The primary thesis of the model, **H1(g)**: subjects in the high affective information condition had higher perceived quality expectations, on average, than subjects in the low affective information condition was supported by both experiments, although the level of significance was higher for the indirect (visual) communication mode experiment suggesting either that (1) the manipulation of visual affective information (i.e., sensory cues) was not as strong as the manipulation of written affective information, (2) affective responses were simply not as influential in a visual format, or (3) there was more "noise" in the direct communication mode experiment thereby reducing the power of the statistical test. The first explanation seems unlikely since the effect sizes for the manipulation checks for each experiment were identical ( $\eta^2=.20$ ). Although it appears to be more plausible that the affective responses influenced the perceived quality expectation to different degrees since the LISREL estimates (unstandardized) are different for each experiment, to critically test this explanation, a two-group LISREL model was analyzed. The chi-square statistic was not significant at 14.0, with 11 degrees of

freedom ( $p=.23$ ) suggesting that the models do not differ. Thus, the relationships among the variables are consistent across both communication modes. To examine the third explanation, the mean square error (MSE) for the analysis of variance for both experiments was compared. The MSE for the direct communication mode experiment was 70.1 whereas the MSE for the indirect communication mode experiment was 107.8, suggesting that the power of the statistical test for the indirect (visual) mode experiment was reduced.

The hypothesized positive relationship between cognitive expectation and perceived quality expectation (**H1(j)**) was also supported across both experiments; however, mixed support was found across the two experiments for **H1(h)**, the positive relationship between cognitive response and perceived quality expectation, and **H1(i)** - a positive relationship between cognitive response and cognitive expectation. Moreover, **H1(h)** was supported in the second experiment but not the first, whereas **H1(i)** was supported in the first experiment but not the second suggesting that varying conditions across the two experiments may have created spurious results. Additionally, there is some concern as to the validity of the cognitive response measure in this context.

**TABLE 46**

**SUMMARY OF RESULTS FOR BOTH EXPERIMENTS**

<u>Hypothesis</u>	<u>Exp<sup>a</sup></u>	<u>Analysis<sup>b</sup></u>	<u>Test Statistic</u>	<u>P- Value</u>	<u>Effect Size<sup>c</sup></u>	<u>Result</u>
H1(a)	E1	ANCOVA	F=3.0	.08	.15	Supported
	E2	ANCOVA	F=0.9	.33	.07	Not Supported
H1(b)	E1	ANCOVA	F=0.1	.72	.03	Not Supported
	E2	ANCOVA	F=6.4	.01	.22	Not Supported <sup>d</sup>
H1(c)	E1	Regression	t=9.5	.01	.65	Supported
	E2	Regression	t=9.2	.01	.63	Supported
	E1	LISREL	t=9.5	.01	.67	Supported
	E2	LISREL	t=9.3	.01	.64	Supported
H1(d)	E1	ANCOVA	F=0.2	.70	.03	Not Supported
	E2	ANCOVA	F=5.5	.02	.17	Supported
H1(e)	E1	Regression	t=4.7	.01	.32	Supported
	E2	Regression	t=2.3	.02	.14	Supported
	E1	LISREL	t=5.1	.01	.47	Supported
	E2	LISREL	t=3.4	.01	.30	Supported
H1(f)	E1	Regression	t=4.2	.01	.27	Supported
	E2	Regression	t=3.6	.01	.22	Supported
	E1	LISREL	t=4.3	.01	.38	Supported
	E2	LISREL	t=5.6	.01	.51	Supported
H1(g)	E1	ANCOVA	F=6.5	.01	.17	Supported
	E2	ANCOVA	F=3.0	.09	.15	Supported
H1(h)	E1	Regression	t=-.5	.63	.03	Not Supported
	E2	Regression	t=3.9	.01	.19	Supported
H1(i)	E1	Regression	t=2.7	.01	.23	Supported
	E2	Regression	t=1.5	.14	.13	Not Supported
H1(j)	E1	Regression	t=6.1	.01	.33	Supported
	E2	Regression	t=8.6	.01	.43	Supported
H1(k)	E1	Regression	F=94.8	.01	.38 <sup>e</sup>	Supported
	E2	Regression	F=45.7	.01	.22 <sup>e</sup>	Supported
H1(l)	E1	Regression	F=45.5	.01	.24 <sup>e</sup>	Supported
	E2	Regression	F=28.3	.01	.13 <sup>e</sup>	Supported

<sup>a</sup>E1=experiment #1 results, E2=experiment #2 results.

<sup>b</sup>ANCOVA=analysis of covariance, LISREL=LISREL-VII.

<sup>c</sup>As measured by eta.

<sup>d</sup>Means in wrong direction.

<sup>e</sup>Represents the change in R<sup>2</sup>.

No support from either experiment was found for **H1(b)** positing that subjects in the low affective information condition would list a greater number of thoughts than subjects in the high affective information condition. One explanation for this result is Isen's cognitive loop theory (Isen et al. 1978) where positive affective responses are thought to facilitate the generation of mood congruent thoughts; thus, a larger number of thoughts would be listed in the high affective information condition. This explanation is supported by results from the second experiment where a significantly higher average number of thoughts listed was found in the high affective information condition and also by the fact that in a later thought listing task asking respondents to list thoughts they might have if they purchased the car resulted in a significantly higher number of thoughts listed for the high affective information condition ( $t_{(1,134)}=2.7, p<.01$ ).

Significantly more variance was explained in both studies when affective components were added to models containing cognitive components only (**H1(k)** and **H1(l)**) highlighting the need to include affective measures in consumer research examining subjective evaluations. Regardless of the mode of communication, affective information appears to be an important facet in consumers' evaluations.

Mixed support was found across the two experiments for **H1(a)** - subjects in the high affective information condition would have stronger affective responses, on average, than subjects in the low affective information condition and **H1(d)** - subjects in the high affective information condition would have more intense affective expectations, on average, than subjects in the low affective information condition. A yet unanswered question is why the addition of color in a video can elicit stronger affective responses but affective descriptors in a written communication can not. One possible explanation was provided by the debriefing sessions. Several subjects in the high affective information condition of the written (direct) communication mode experiment indicated that they considered the description as "fluff." They also suggested that they thought the

description, since it was infused with affective descriptors, was not very informative and didn't tell as much about the car as they would like. Subjects in the low affective information condition however indicated that the description was informative even though they read essentially the same description, simply void of all the affective descriptors. Consequently, it is possible that the addition of the affective descriptors may have attenuated the intensity of the affective response due to a form of discounting by the subjects. The addition of color may not have had the same effect since it is not as obvious. In light of the small effect sizes for even the significant results however, it appears that the intensity of affective responses and expectations may not depend on the level of affective information presented to them. In other words, although subjects in the high affective information condition may have indicated that their individual affective responses were stronger (e.g., joy, pleasure, fun), their perception of their overall emotional excitement did not differ from subjects in the low affective information condition.

In sum, it is likely that affective responses are generated to some extent by the available level of affective information in both written and visual communication modes. The evidence also suggests that these affective responses have a significant impact on subjective product evaluations. Affect appears to influence not only more holistic product evaluations but also what might be considered as specific manufacture and performance attributes (i.e., workmanship, dependability, durability, and reliability). It also appears that consumers may develop affective expectations which influence subsequent product evaluations. Finally, support for the inclusion of affective components in research examining consumers' subjective evaluations was demonstrated in that the affective components contributed to a higher level of explained variance for these evaluations across both experiments.

## Contributions

This research was not conducted within a programmatic stream of research; to the contrary, this research sought to stretch beyond the current literature both conceptually and methodologically. Moreover, it endeavored to contribute to the substantive knowledge concerning consumers' feeling states. Consequently, its overall contribution can be assessed by examining its contribution to each of these domains.

**Conceptual Domain.** The concept of affect in consumer research has gained considerable attention in recent years; however it still does not yet appear as a central marketing construct as evidenced by its lack of inclusion in consumer behavior models and discussion in textbooks. Moreover, there is little agreement as to how to define affect. One contribution of this research is the five-dimensional definition of affect which allows for the discrimination of emotions, moods, attitudes, preferences, and evaluations. In other words, feeling states such as emotions, moods, and attitudes differ based on (1) whether the feeling state has an identifiable cause, (2) whether it has a focus, or object of reference, (3) the level of intensity, (4) the amount of cognitive effort involved, and (5) the duration of the feeling state. Conceptually separating these different feeling states based on their position within a five dimensional space still needs empirical investigation to establish its validity; however, the face validity of such a conceptualization seems compelling.

Although this research is an integration and synthesis of prior research efforts, it is notably distinct from this prior research in four important ways. First, the research developed a conceptual model integrating previous empirical results examining affect with the economic theory of information thereby providing a broad theoretical framework which can be used to guide future research efforts. Moreover, this cross-paradigmatic method integrating economics and social psychology yields a consolidated inter-

disciplinary approach to a single phenomenon that allows researchers from different vantage points to examine the same phenomenon.

Secondly, information was conceptualized as two-dimensional; that is, information can be processed both affectively and cognitively. This two-dimensional view of information has implications for all information processing-based theories of consumer behavior. For example, the evaluation step of most theories should include the evaluation of the "emotional" benefit from each alternative. As more is learned about how consumers process incoming stimuli affectively, theory will have to be modified to accommodate this affective component of information.

Thirdly, affect was included as a central construct in the model, on par with cognitive constructs (cf. Bettman 1979). Thus, conceptually, affect was treated as important to the overall consumer evaluative process as cognition. Moreover, affect is viewed as beneficial to the consumer. Affective information assists the consumer in the evaluation of alternatives. Affective choice may even be an effective heuristic for many consumers (Mittal 1988).

Finally, affect was conceptualized as a unidimensional construct that could not be adequately captured with a single overall like-dislike measure. Affect is considered as an amalgamation of many different but highly correlated feeling states relevant to the object of interest. This extension of the conceptualization of affect allows for measures to be more specific to the stimulus and reflect more subtle differences in the responses. The contribution of the measurement aspects of this conceptualization are discussed in the next section.

**Methodological Domain.** The major methodological contributions of these experiments are (1) the replication of the experiment in different communication environments, (2) the development of a measure for affective response that is specific to the product stimulus

and includes previously identified relevant feeling states, (3) the use of effect sizes in conjunction with traditional significance levels to assess support for hypotheses, and (4) the use of a more sophisticated analytical technique, structural modeling via LISREL-VII, in addition to the more established procedures such as analysis of covariance and regression.

The theory posited that affective responses can be elicited via affective information that is communicated to the audience. However, there are many different modes of communication from nonverbal body language to written communication and hence, a more robust test of the theory should examine more than one communication context. This study examined the theory in two different communication environments through the implementation of two complete experiments. One experiment examined the written (direct) communication mode and the other experiment examined the visual (indirect) communication mode. Thus, external validity of the theory, the ability to generalize observed effects, is enhanced when hypotheses are supported in two different contexts of examination. When mixed results occur, information about possible boundaries and limitations of the theory may be provided by comparing results between the two experiments. Moreover, a single study does not establish construct validity (Peter 1981). The conduct of two experiments enhances the ability to evaluate the validity of the constructs used in the research. Thus, the replication providing examinations of the theory in two different contexts enhances the confidence in the generalizability of the theory, the validity of the constructs, and tests the boundaries of the theory. In this research, both studies supported the validity of affective response, affective expectation, cognitive expectation, and perceived quality expectation constructs. The expertise and cognitive response constructs were found to be less convincing operationalizations across both studies. It also appears that the boundary of the theory extends at least to both visual and verbal forms of information; in both studies support

was found for the influence of affect on product quality judgements via affective information.

The development of the scale used to measure affective responses is a substantial departure from previous measurement procedures and had to be carefully constructed. Specifically, instead of measuring affect with a single like-dislike item (e.g., Anand, Holbrook, and Stephens 1988), more basic affective responses were measured. Affective descriptors were identified in pretests that were relevant to the stimulus. These descriptors were then used to capture the affective response. Tailoring the affect measure to the stimulus makes sense because it allows a more specific response appropriate to the stimulus to be expressed by the respondents.

The category rating scales were developed based on magnitude scaling work. Category labels were used that have been previously demonstrated to be reasonably equidistant in nature. Lodge (1981) used magnitude scaling in an empirical examination of different labels or adjectives. Subjects numerically evaluated each adjective as being a certain magnitude more or less supportive of statements compared to the adjective "so-so." From this list, labels were selected that were reasonably equidistant from one another. Hence, these scales represent an improvement over previous measures since the scales have previously been empirically demonstrated to satisfy the equal-interval assumption. This process provides greater confidence in the assumption of an equal-interval scale.

Twenty-point scales were introduced as a measurement alternative to the traditional 7 and 9-point scales. These 20-point scales were employed based on the work of Parducci (1982) who found that they reduce the contextual effects. Subjects did not indicate any problems in responding with the 20-point scales and the scales demonstrated high levels of reliability. The scales offer twenty points of discrimination with eight equal intervals labelled; this technique allows subjects to make distinctions as

fine as they are capable of.

The strict use of traditional significance tests to establish support for hypotheses is myopic in that traditional significance tests: (1) do not provide information concerning the strength of the relationship, (2) do not discount for large sample sizes where substantially insignificant relationships are statistically significant, and (3) promote an undiscerning fidelity to a traditional level of significance (i.e., .05). Moreover, the use of significance levels restricts the researcher's interpretation of the results. That is, results that demonstrate a significance level of .06 can only be interpreted in the context of why the results were not significant. It seems that an equally compelling approach might be to examine the strength of the relationship. Thus, this research avoided the use of simple cut-off values for significance, and instead the level of significance was examined in light of the sample size and the strength of the relationship (i.e., the size of the effect) to assess support for the hypotheses. Specifically, support for a hypotheses was not immediately rejected simply because the statistical test did not achieve a significance level of .05.

Finally, one weakness of traditional analysis of variance and regression techniques is their inability to effectively deal with measurement error. LISREL estimates the measurement error and adjusts the estimates of the causal relationships to account for this error. To the extent that measurement error exists in a study, LISREL estimates will be more accurate reflections of the actual relationships. Consequently, this study used LISREL to test the model and estimate the relationships between the variables in the model. It should be noted however, that the measurement model was never fully specified due to constraints imposed by the sample sizes. Nonetheless, the model could be evaluated and did assess and incorporate the measurement error for the dependent variable while the measurement error for the other variables was fixed a priori.

**Substantive Domain.** Although the focus of this research was more conceptual, the research did produce implications for the state of knowledge regarding affective responses in consumers' evaluations. These substantive contributions can be presented according to the different constituents of the research: researchers, managers, public policy makers, and consumers.

Most of the implications of this study for researchers have already been addressed in the conceptual and methodological contribution sections. Overall, a major contribution is the establishment of support for the inclusion of an "affective" component in future research. The strong relationships between affect, cognition, and overall judgements suggest that the affective "side" of consumers' evaluations should not be ignored. The results indicate that more behavior can be explained by including the affective component of the consumer decision making process. This research also suggests a new construct, affective expectations, may be important in the process of forming evaluative judgments and deserves further investigation.

For managers, the implications of this study appear to be already common knowledge based on anecdotal evidence. The notion that consumers react affectively to communications is a central theme for many advertising approaches. The conclusion supported in this study however advances this notion one step further and suggests that consumers' affective responses to the communication influence their evaluation of the product. That is, quality is emotional as well as cognitive. Moreover, these results also have implications for product design. The subjects in this study responded affectively to sensory cues associated with the product which in turn influenced their quality judgments. Product designers need to examine the affective responses different product characteristics elicit selecting those characteristics that communicate the appropriate affective response. Additionally, the design of products rich in sensory cues may elicit more affective responses and thus promote a less rational evaluation of the product,

whereas products less bold in sensory cues may tend to promote a more rational evaluation.

This study also suggests that the ability to elicit affective responses is somewhat dependent on the communication mode. For example, eliciting affective responses in a visual communication mode appears to be dependent on the availability of sensory cues. Although additional research is needed to support these findings, the results suggest that visual communication impacted on the intensity of the affective response whereas, written communication did not. Thus, advertisers might want to consider carefully choosing communication modes depending on their objectives for affect stimulation. It may be possible to promote more rational evaluation of a products' attributes compared to competitors' if sensory cues are minimized in the communication.

Another implication for managers is that an emotional appeal may be more effective when combined with a rational appeal. Subjects in the high affective information condition criticized the description as not providing enough information suggesting that a form of discounting of the message may have occurred due to its highly emotional nature. Moreover, how much the subjects liked the description did not differ from the low affective information group ( $t_{(1,126)}=1.0$ ,  $p=.3$ ), suggesting that although the high affective information description elicited more positive affective responses concerning the product, it did not cause the subjects to like the description more. These results also imply that an overall like/dislike measure is not methodologically equivalent to measuring affective responses. This result was also found to be the same with subjects' attitude toward the description ( $t_{(1,126)}=0.0$ ,  $p=1.0$ ), implying that the attitude toward the ad measure does not capture the entire affective response to the ad. This result did not occur in the indirect communication mode experiment. The mean of the subjects' attitude toward the video in the high affective information condition (32.9) was higher than the low affective information condition (31.0) ( $t_{(1,134)}=1.8$ ,  $p=.07$ ) and how

much they liked the video was also significantly higher ( $t_{(1,134)}=2.8, p<.01$ ). Consequently, subjects appeared to like the color version of the video better and demonstrated a more positive affective response compared to the subjects who saw the black and white version of the video; whereas, subjects did not like the description any better even though they demonstrated a more positive affective response. Therefore, there appears to be qualitative differences in eliciting affective responses depending on the communication mode.

Public policy makers should note that the results of this study suggest that the emotional contribution of a product is important to consumers and consequently represent value associated with the product. Thus, an important public policy issue is whether sellers can take advantage of consumers by adding "affective value" to the product. That is, the value that consumers may attach to products as the result of affective responses may be reflected in their willingness to pay higher prices for the product. The public policy issue is whether or not this "affective" form of value is of benefit to the consumer. If consumers genuinely value the affective responses the product and related communications elicit, are consumers harmed? For example, is it harmful to the consumer if a car manufacturer charged a higher price for a color that on average generates a more positive affective response even though the color had no associated cost difference? Additionally, if product judgments are affect-based to some extent, it would seem to be in the best interest of the consumer if sellers were to provide affective information to the consumer.

Consumers' affective responses to communications about a product influence their evaluations of that product. This impact of affect on evaluations is not necessarily a detriment to the evaluative process. In fact, it may help the consumer select the most appropriate alternative since the affective benefits from a product may be important to the consumer. However, just as consumers can be misled into thinking a product will be

able to deliver certain functional benefits of which it is not capable, consumers may also be misled into feeling that a product can deliver certain emotional benefits of which it is not capable. Therefore, consumers need to be educated as to the capability of different products to deliver different emotional benefits just as there are educated about the capacity of different products to deliver different functional benefits. For example, a car's color seems to be able to deliver long-term emotional benefits for some consumers. Therefore, these consumers need to know that purchasing a car with a color that is not affectively pleasing to them may result in a lower level of emotional benefits thereby reducing the overall assessment of the car's quality and possibly resulting in post-purchase disappointment.

## **Limitations**

The limitations of a study constrain the interpretation of its results. Therefore, a complete disclosure of any limitations is a necessary requirement to assessing a study's contribution. This section presents the limitations of the research which constrain the findings previously discussed. First, it should be noted that the conceptual model is a simplification of a complex process in which consumers engage to arrive at evaluative judgments. No claim is made that the model accurately represents this complex process; therefore, any evidence in support of the model should be tempered with that understanding. Beyond this conceptual limitation, there are also issues associated with measurement and validity.

**Measurement Issues.** As was previously noted, the measure for cognitive response seems particularly troublesome. Although widely used, in the context of studying affect, a count of the number of favorable thoughts as an indicator of cognitive response may not reflect the cognitive component that is of interest. Of interest in this case is what the

subjects' first thoughts were about the product in the sense of being positive or negative. Having subjects self-rate the direction of their feelings only does not tap the intensity or magnitude of their thoughts. Although a count would seem to imply a magnitude indicator, it does not account for the strength of any individual thought listed. An alternative approach may be to have judges "score" the thoughts as to magnitude as well as direction and calculate a composite score consisting of the sum of the magnitude ratings. Certainly, respondents could also be requested to provide an estimate of the strength of their statements.

**Validity Issues.** A major validity issue is the discriminant validity between affective response and perceived quality expectation. This issue affects not only the confidence in the measures of the constructs but also impinges on the internal validity of the study. The high correlations for affective response and perceived quality expectation across both studies ( $r=.71$  and  $r=.58$ ) suggest that the two measures may be tapping the same construct or dimensions of a common construct. That is, was the dependent variable, perceived quality expectation, inadvertently measured as part of the independent variable, affective response? The correlations are high in part however, because there is little measurement error which often attenuates the correlation between variables. For example, the reliability of the affective response measure is .97, suggesting that there is little measurement error. Consequently, the correlations reflect nearly perfect measures and do not reflect the usual level of "noise" that often weakens the correlational relationship between two variables. Therefore, a more appropriate examination of discriminant validity is to compare correlations within the study rather than to hold some external absolute standard as a measuring stick. Moreover, it was expected that holistic evaluations of product quality would be highly affect-based. As discussed in Chapter 5, support for discriminant validity was found; however, it appears that

evaluations and affect were closely related in this study and further refinement of the more holistic measure of perceived quality is appropriate.

Mono-operation bias occurs when single operations are used which underrepresent constructs and contain irrelevances and thus, lower construct validity (Cook and Campbell 1979). Each experiment in this research tested a different method of communicating affective information thereby enhancing construct validity. The two manipulations allow for the assessment of the variance in the behavior of the dependent variable due to the differences between these two communication methods. The results of these two studies indicate that the variance due to the two communication methods did not effect the reliability of the measures. Moreover, the effect of the affective information in both communication modes appeared to have the same effect on the dependent variable, perceived quality expectation.

Just as mono-operation bias is detrimental for the independent variables, dependent variables should also have multiple measures. In this research, all dependent variables were measured with at least three items so reliability of the scales could be assessed and assumptions of perfect or equally good indicators could be avoided (Churchill 1979). The multiple measures such as was used in this research enhance construct validity since the it is unlikely that a single measure can accurately capture the complexity of any construct.

Only one method of measurement, category rating scale, was used thereby limiting a more complete assessment of construct validity and creating the potential for mono-method bias (Cook and Campbell 1979). Thus, the degree to which the behavior of the construct is attributable to the method cannot be assessed. That is, the method may "bias" the measurements in an unknown direction and magnitude. Use of other measurement methods would allow an assessment of the influence of the method on the measurement of the variable.

The scales however, were capable of expressing finer discriminations by the subjects and were based on empirically supported equal-interval labels thereby enhancing construct validity via a potentially more accurate "mapping" of responses to the scale.

The advantages of the laboratory studies, greater control, random assignment of subjects to groups, higher levels of measurement precision, and an enhanced ability to manipulate independent variables, also limit the generalizability of the research. Although two studies were conducted examining two different modes of communication, the results are still specific to the product (i.e., cars), subject sample (i.e., students), and setting (laboratory). Moreover, the laboratory (i.e., classrooms) is not a conducive setting to make the tasks appear realistic to the subjects again limiting the generalizability of the results. Future research needs to vary the setting, the sample, and the product to provide confidence in the robustness of the theory and to establish its boundaries.

In particular, according to the conceptual model, products will vary in their ability to elicit affective responses. Certainly, lawn mowers would appear to generate less affective "involvement" than cars, or clothes. The development of an "affective involvement" scale seems to be an appropriate starting point for the assessment of different products' abilities to generate affective excitement. Yet, research on affect intensity suggests that individuals vary in their levels of affect intensity; that is, some people are just more emotional on average than others. A question remains as to whether college students, as a group, are more or less emotional, on average, than others. Finally, in the verbal communication mode, the artistic talent of individuals to create written communication that elicits affective responses is likely to vary. As a result, product descriptions for the same product may be able to elicit different levels of affective responses simply due to the writing style. This same variation applies to the visual communication mode, especially for videotaped material. The ability to create

images that might elicit affective responses is also likely to vary across individuals. Thus, other researchers may find larger or smaller effect sizes depending on their ability to elicit affective responses from the stimuli.

A base for the internal validity of the studies was provided by the use of two conditions and random assignment to groups however, the constraint of balancing the cells on gender did restrict this random assignment to some degree. Statistical conclusion validity was enhanced via the pilot test calculations of effect sizes and determine the number of subjects per cell that would be required to achieve an acceptable level of power. Unfortunately, the effect sizes achieved in the pilot tests were much larger than those achieved in the studies and the power of the statistical tests, and hence, the statistical conclusion validity, was reduced.

In sum, this study sought to test a theory. The overriding concern for internal validity guided the research choices made and thus, greater generalizability of the results was sacrificed for greater levels of control.

### **Suggestions for Future Research**

Although specific conclusions were drawn from this research there are many issues in need of further investigation. Beyond the simple replication of this research to examine the scope and boundaries of the theory by using different settings, products, and subjects, other suggestions for future research are provided in this section.

The complete conceptualization has not been fully tested. A major dependent variable, search behavior, was not examined in this research. The propositions concerning search behavior developed in Chapter 2 need to be operationalized and tested. Moreover, the evidence provided in this research suggests that there was not enough variance in the measure of expertise. Other products and subject samples should be used to generate a wider variance in expertise so that its role can be examined

more completely.

Further refinement of the more holistic quality expectation measure is needed. The discriminant validity between affect and evaluation will be problematic if indeed affect influences evaluation. Although not completely independent, careful construction of measures to reduce the overlap between the two constructs is needed. Currently, traditional measures of perceived quality tap only the more rational aspects of the product's reliability, durability, dependability, and the like. Additional research needs to explore different methods of capturing the overall quality evaluation of a product that fairly reflects both the affective and the cognitive components.

A larger sample study should be implemented to test the entire theory using a causal modeling approach. Due to sample requirements for LISREL estimates to be stable, a large sample would allow both the affective and cognitive components to be included in the structural model and more specific conclusions regarding the roles of the variables could be drawn.

Future extensions could examine the conditions under which affective responses or cognitive responses seem to take on a more significant role in consumers' evaluative and search processes. Within particular communication contexts, different verbal and sensory cues need to be tested to examine their effects on affective responses. For example, in a visual communication mode, it would be informative to know whether sound, color, or movement seemed to elicit more intense affective responses. The development of a measure to capture subjects' "affective involvement" may also be helpful. Finally, other communication contexts such as oral communication (e.g., radio) need to be examined.

## **THE IN-DEPTH INTERVIEWS**

The overall objective of the interviews was to gain richer and deeper insight into the feelings consumers experience during shopping than could be acquired via the experiment. Moreover, the development of an understanding of the meaning of shopping, as expressed by the participants was an integral goal of the research. As an alternative methodology to the experiments conducted, the interviews were intended to provide an in-depth look at shopping experiences for a few people. Thus, the conclusions that can be drawn from this study are primarily idiothetic. The interviews were conducted to answer two basic questions, "What do some consumers experience when they go shopping?" and "What do these experiences mean to the consumer?"

Six in-depth interviews were conducted over a six-month period to acquire the descriptive data about shopping experiences. Of the six interviews, two were selected to be detailed in this study although insights gathered necessarily reflect contributions from all six participants. The interviews were tape-recorded and verbatim transcripts prepared. The transcripts were studied in-depth and an interpretation of the emotional and behavioral characteristics of the experiences were developed. Common themes from these interpretations were identified across the six interviews. This section discusses the implications for this study as well as presenting its limitations and some suggestions for future research.

### **Discussion**

This study contributes to an understanding of shopping and the emotions or feelings experienced during shopping behavior by developing a structural description of important shopping experiences for these women. Recently, consumer research has

expanded its scope to include research focusing on the more experiential aspects of purchase and consumption behavior (Belk, Wallendorf, and Sherry 1989; Mick and DeMoss 1990; Thompson, Locander and Pollio 1989; Wallendorf and Arnould 1991). This study continues this focus on shopping experiences from a phenomenological perspective.

The primary finding is that shopping is a relationship between self, others, and world (i.e., environments such as social, political, economy); it is an expressive communication act that discloses self to others and at the same time reflects meaning about self back from objects and others. Concomitantly, the world acts to constrain this process. Shopping can be an emotional experience that appears to be highly influenced by significant others. The penalties and rewards of shopping are defined as much by others as much as they are defined by self. Moreover, the process of shopping appears to contribute as much to the meaning of shopping as does the result of shopping (i.e., the object purchased). For all of the participants, the response of others to the items purchased, whether for self or for others, and the act of shopping often conveyed more meaning than the ultimate purchase itself. In this way, the purchase object is merely a means to achieve a goal whether it be, for example, enhancing self-value or minimizing potential criticism.

This interpretation of shopping agrees with previous research. Schouten (1991) found that consumption activities are performed to develop and maintain a stable and harmonious self-concept. Similarly, this study found that self-worth may be enhanced or diminished by shopping. Mick and DeMoss (1990) examined self-gifts and conceptualized self-gifts as "(1) personally symbolic self-communication through (2) special indulgences that tend to be (3) premeditated and (4) highly context bound" (p.328). The notion of symbolic self-communication particularly is very similar to this study's finding of how shopping reflects on self-image. Note that self-image was

enhanced when purchasing for one's self. Indulgence also appeared in the context of this study when participants spoke of pampering themselves by going shopping. Note that the interpretation of shopping developed here refers to a relationship between self, others, and world highlighting the self-communication and context-bound characteristics discussed by Mick and DeMoss. Similarly, Mick and DeMoss (1990) note "It appears from these data that self-gifts may stir human emotions as thoroughly as do interpersonal gifts..." thus recognizing the pervasive presence of emotions in shopping experiences as was evident in this study as well.

Thus, the findings in this study that shopping is an emotionally expressive act of communication that reflects on self-image builds on previous findings by extending beyond specific instances of shopping, such as shopping for self-gifts, or consumption activities. This study examined a wide range of shopping and consumption experiences and identified common themes among them.

## **Limitations**

One limitation of the study is the unique position, attitude, and perspective that the researcher brings to the study. The interpretation of the data and the conclusions drawn reflect the author's bias toward a focus on the phenomenological combined with a social-psychological foundation for interpretation. Thus, researchers with different perspectives may arrive at different interpretations of the same data.

Since the interpretation is based on data from six participants, the generalizability of this interpretation is at issue. A key criterion for evaluating qualitative research is whether the reader can visualize the reflection presented by the researcher if the reader adopts the researcher's viewpoint (Giorgi 1975). Becker (1978) notes that the confidence one has in an essential structure of a phenomenon is based on the degree to which the structure "resonates" with the reader's own lived experiences and whether the

interpretation provides the reader with a better, holistic understanding of the phenomenon. Just as important however, the interpretation must make sense to the researcher and the reader, creating a confirming response that hints that the outcome was, in one sense, obvious.

The primary limitation of the data is its specificity to the participants rather than any severe limitation on the range of shopping experiences thus limiting generalizability. However, the study was designed to be focal in nature and never intended to be an exhaustive examination of shopping experiences. Thus, although the generalizability of the results of this research is limited by the characteristics of the sample, generalizability was never a primary goal of this research. The data appear to be robust in that many different types of emotional shopping experiences were discussed; happy, frustrating, fun, unpleasant, and thrilling are just a few of the myriad of shopping experiences that were described by the participants. Moreover, a wide variety of shopping experiences such as groceries, clothes, furniture, houses, music, decorations, and gifts were described.

## **Future Research**

Future research needs to extend this research by including participants that vary in gender, age, socioeconomic standing, geographic location, marital standing and form of household, and educational level. It is likely, for example, that a consumer's marital status would impact on the type of shopping performed and hence the shopping experience. Recall that one participant considered shopping to be a considerably different activity once she was married. Moreover, it is likely that consumers of different ages will have different experiences due to the ease of shopping, the types of products being purchased, and the level of shopping skill. For example, an elderly person may find shopping much more frustrating because of physical limitations. Additionally, other

researchers with different perspectives (e.g., ethnography, psychoanalysis) could contribute by examining the same phenomena with a different bag of tools.

It seems that it would be informative to also focus even further on a specific type of shopping experience such as shopping at a mall, shopping for gifts for spouses or children, but interviewing a wider variety of participants, thus gaining a more in-depth probe of one particular type of shopping experience across a greater number and variety of consumers. This research studied many different types of shopping experiences across a few homogeneous consumers, and thus, is limited in terms of developing interpretations that could show greater insight into specific shopping experiences. Finally, research that focuses on the emotional experiences of catalog shopping versus retail store shopping may also be instructive. None of the respondents in this study mentioned shopping through a catalog. Catalog shopping may have a completely different meaning to consumers.

## **SUMMARY**

The two diverse perspectives used in this study to gain an understanding of the feelings in consumers' shopping behavior allows the researcher to gain insights not possible with a mono-perspective approach. It is not being suggested however that the two perspectives must converge in any sense, but merely that looking at the phenomenon from two perspectives provides two different vantage points from which to grasp an understanding. It must also be stated that, disregarding much of the literature on the philosophy of science, no one perspective is "better" than the other, nor is one perspective more "valid" than the other. Both perspectives make unique contributions to knowledge. Although some readers may feel more comfortable with one approach versus the other, nonetheless, all readers should be able to perceive a contribution from each

perspective.

The experiments provided a test of a theoretical structure that was conceived a priori by the researcher and assumed to represent the nature of the phenomenon under investigation. The interviews allowed the nature of the phenomenon to come into the researcher's view as it is experienced by the participant. Thus, the interviews were intended to provide different knowledge concerning the same phenomenon. At a knowledge level, the experiments provided knowledge concerning the causes of feelings and the effects of feelings on one aspect of consumer decision making, product evaluations. The interviews provided knowledge regarding the feelings consumers experience, and their meaning.

The knowledge of the meaning of shopping experiences to consumers can enhance the interpretation of the experimental results, and the knowledge gained from the experiments can enhance the knowledge gained by the interviews. For example, from the interviews it was learned that shopping reflects on self-image. This knowledge might seem to have implications for the development of theory. Respondents may have responded in part based on how the car fit with their self-image. Since the car used in the experiments was a sports car convertible, it is likely that some respondents may have considered the car too frivolous for their self-image. Debriefing comments support this notion in that several respondents indicated that they would never buy such an impractical car. Thus, product evaluations responses may be more complex than simply emanating from simple cognitive and affective responses based on the product itself. Consumers may evaluate the impact of purchasing such a product on their self-image, how others will evaluate the purchase and them, and what will be communicated to others by the purchase and consumption of the product. This notion may then be used to extend the theoretical model developed to include a cognitive response based on self-image.

Now consider that the experiments suggest that consumers respond affectively to product information as well as the product itself. This knowledge indicates a limitation of the interviews in that none of the participants described any experiences in shopping based on product information only.

The two perspectives, collectively, have demonstrated an apparent pervasive existence of affect in shopping experiences regardless of the research approach. From the interviews it is found that shopping is a meaningful act that communicates about oneself to others and reflects communication back about how others perceive oneself. From the experiments, a causal relationship between affective responses and product evaluative judgments is empirically supported and it is concluded that affect influences product evaluations. Although the reader and the researcher may have reached some level of understanding from each of these contributions, the contribution of one does not necessarily have to enhance the contribution of the other. The original intent of the research was to examine the same phenomenon from two perspectives; however, as the studies progressed, it became obvious that the decisions made as part of the implementation of the research constrained and redefined the phenomenon. Thus, in a specific sense, the phenomena were different. The experiments looked at a specific form of affect, affective responses to written product descriptions and videotapes of the product, and a specific type of shopping experience, a product evaluations based on these product stimuli. The interviews, on the other hand, examined shopping experiences that occurred in a retail shopping environment as well as consumption experiences that occurred in and outside of the home. Consequently, it appears that the phenomenon was different for each study; however, they are both part of a wider phenomenon that could be referred to as "shopping."

In sum, the two studies represent different ways of approaching a phenomenon to gain a better understanding. Although each may enhance the knowledge contributed by

the other, in their own way each makes progress toward gaining a better understanding of the feelings consumers experience in their shopping and consumption activities. From this research, it was learned that affect is a complex experience that plays a major role in the shopping experiences of consumers. Consumers don't seem to always behave in a cognitive fashion; consumers' shopping experiences are filled with emotions that impact on the shopping process and, in turn, are impacted upon by the shopping process. Affective responses reflect complex interrelationships between the product, the context, the consumer, and significant others. Consequently, consumers may choose products for affective reasons that may not appear as obvious as the more cognitive reasons. These affective states appear to be used by consumers in the product evaluation process. Finally, the affective responses consumers experience deserve further research attention. If the resources that have been committed to research examining the more cognitive aspects of consumer behavior were to be applied to this more emotional side of consumers' experiences, the overall understanding of consumers' experiences might be greatly enhanced.

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# APPENDIX A

## PRETEST #1 INSTRUMENT

**Instructions:**

You are being asked to participate in a study in which your honest cooperation will be appreciated. Answer as you honestly feel. No identification of your person is being requested and your complete privacy and anonymity in regard to your responses are assured.

There are five pages. When you have finished, please go back and check to be certain that you have answered all questions, that all circles are dark, and that other information provided is legible.

This study seeks to identify products that consumers get emotionally excited about. Specifically, the level of emotions that a consumer experiences may differ from product to product.

For example, some people may get very excited emotionally about the prospect of purchasing a new car. Consequently, they may feel excitement, fun, pleasure, happiness, and contentment when they shop for a new car. Visiting a car dealer may be an activity that they enjoy immensely. While at the car dealer they may imagine how they would feel if they purchased different cars. A red sports car might suggest feelings of excitement and pleasure; a beige sedan might elicit feelings of boredom.

On the other hand, other consumers may treat the purchase of a new car as a chore that should be approached with a purchase selection process that insure the optimal choice, but might get very excited about looking at clothes.

You are being asked to provide information about you as a shopper and what happens to you when you shop for and purchase a wide variety of different products.

Are these instructions clear? If not, raise your hand and the researcher will answer any questions you may have.

## **Thank you for your participation.**

When the researcher informs you to do so, you may turn the page and answer the questions until you complete the entire questionnaire.

For each product listed on this page, imagine you are going out to shop for the item. Recall from previous shopping experiences how emotionally excited you were when shopping for that product, regardless of whether or not you purchased anything.

Using the scale below, indicate the degree to which you experience emotional excitement when you shop for the product by circling the number that most closely matches your previous experience.

	1	2	3	4	5	6	7			
	No	Little	Some	Moderate	Substantial	Considerable	Great			
	Emotional	Emotional	Emotional	Emotional	Emotional	Emotional	Emotional			
	Excitement	Excitement	Excitement	Excitement	Excitement	Excitement	Excitement			
1. New car.				1	2	3	4	5	6	7
2. Painting, print or poster for room in house or apartment.				1	2	3	4	5	6	7
3. CD or tape recording.				1	2	3	4	5	6	7
4. New sweater.				1	2	3	4	5	6	7
5. New dress (women) or suit (men).				1	2	3	4	5	6	7
6. Vacation package for spring break.				1	2	3	4	5	6	7
7. A movie at the theater.				1	2	3	4	5	6	7
8. A bottle of perfume/cologne.				1	2	3	4	5	6	7
9. Shampoo.				1	2	3	4	5	6	7
10. Ice Cream.				1	2	3	4	5	6	7
11. A new house or apartment.				1	2	3	4	5	6	7
12. Bottle of wine for special dinner.				1	2	3	4	5	6	7
13. New stereo equipment such as a CD player, speakers, or whole system.				1	2	3	4	5	6	7
14. Dinner at a restaurant.				1	2	3	4	5	6	7
15. New 27" color TV.				1	2	3	4	5	6	7
16. New swimsuit.				1	2	3	4	5	6	7
17. A new pair of dress shoes.				1	2	3	4	5	6	7
18. New furniture for the living room.				1	2	3	4	5	6	7
19. New skis, golf clubs, or other sports equipment.				1	2	3	4	5	6	7
Please identify: _____										

20. Please list any other products that get you emotionally excited when you go shopping for them.

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

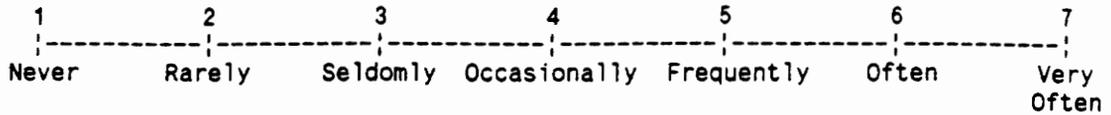
21. Taking into account all possible products, what single product makes you the most emotionally excited when you go shopping for it? In fact, you may get excited just thinking about shopping for it.

Product: \_\_\_\_\_

22. Please circle any and all of the words presented below that best describe how you feel while shopping for the product you identified in the last question.

- |            |             |              |            |              |
|------------|-------------|--------------|------------|--------------|
| pleasant   | agreeable   | exciting     | joy        | nice         |
| gratifying | interesting | delight      | upbeat     | appealing    |
| flattering | happy       | fun          | harmonious | contentment  |
| satisfying | good        | appreciation | uplifting  | love         |
| positive   | elation     | ecstasy      | warmth     | desire       |
| awe        | excitement  | surprise     | joy        | pleasure     |
| pride      | expectation | adventurous  | escape     | anticipation |

Using the scale presented below, how often do you shop for the following products, including browsing (looking, but not buying)?



Please circle the number that most closely matches your answer.

	1	2	3	4	5	6	7
23. Cars.							
24. Paintings, prints or posters.							
25. CD or tape recordings.							
26. Sweaters							
27. Dresses (women) or suits (men).							
28. Vacation packages.							
29. A movie at the theater.							
30. Perfume/cologne for yourself.							
31. Shampoo.							
32. Ice Cream.							
33. A new house or apartment.							
34. Wine							
35. Stereo equipment.							
36. Dinner at a restaurant.							
37. Color TV.							
38. Swimsuits.							
39. Shoes.							
40. Furniture.							

41. What product is the most fun to shop for?

Product: \_\_\_\_\_



## APPENDIX B

### PRETEST #2 INSTRUMENT

**Instructions:**

You are being asked to participate in a study in which your honest cooperation will be appreciated. Answer as you honestly feel. No identification of your person is being requested and your complete privacy and anonymity in regard to your responses are assured.

There are five pages. When you have finished, please go back and check to be certain that you have answered all questions, that all circles are dark, and that other information provided is legible.

This study seeks to identify products that consumers get emotionally excited about. Specifically, the level of emotions that a consumer experiences may differ from product to product.

For example, some people may get very excited emotionally about the prospect of purchasing new stereo equipment such as new speakers or a CD player. Consequently, they may feel excitement, fun, pleasure, happiness, and contentment when they shop for that new stereo. Visiting a stereo store may be an activity that they enjoy immensely. While at the store they may imagine how they would feel if they owned different stereo equipment.

On the other hand, other consumers may treat the purchase of new stereo equipment as a chore, but might get very excited about shopping for clothes.

You are being asked to provide information about you as a shopper and what happens to you when you shop for and purchase a wide variety of different products.

Are these instructions clear? If not, raise your hand and the researcher will answer any questions you may have.

**Thank you for your participation.**

When the researcher informs you to do so, you may turn the page and answer the questions until you complete the entire questionnaire.

For each product listed on this page, imagine you are going out to shop for the item. Recall from previous shopping experiences how emotionally excited you were when shopping for that product, regardless of whether or not you purchased anything.

Using the scale below, indicate the degree to which you experience emotional excitement when you shop for the product by circling the number that most closely matches your previous experience.

	1	2	3	4	5	6	7			
	No	Little	Some	Moderate	Substantial	Considerable	Great			
	Emotional	Emotional	Emotional	Emotional	Emotional	Emotional	Emotional			
	Excitement	Excitement	Excitement	Excitement	Excitement	Excitement	Excitement			
1. Ice cream.				1	2	3	4	5	6	7
2. Painting, print or poster for room in house or apartment.				1	2	3	4	5	6	7
3. CD or tape recording.				1	2	3	4	5	6	7
4. New sweater.				1	2	3	4	5	6	7
5. New dress (women) or suit (men).				1	2	3	4	5	6	7
6. Vacation package for spring break.				1	2	3	4	5	6	7
7. A movie at the theater.				1	2	3	4	5	6	7
8. A bottle of perfume/cologne.				1	2	3	4	5	6	7
9. Shampoo.				1	2	3	4	5	6	7
10. New car.				1	2	3	4	5	6	7
11. A new house or apartment.				1	2	3	4	5	6	7
12. Bottle of wine for special dinner.				1	2	3	4	5	6	7
13. New stereo equipment such as a CD player, speakers, or whole system.				1	2	3	4	5	6	7
14. Dinner at a restaurant.				1	2	3	4	5	6	7
15. New 27" color TV.				1	2	3	4	5	6	7
16. New swimsuit.				1	2	3	4	5	6	7
17. A new pair of dress shoes.				1	2	3	4	5	6	7
18. New furniture for the living room.				1	2	3	4	5	6	7
19. New skis, golf clubs, or other sports equipment				1	2	3	4	5	6	7
Please identify: _____										



Are there any models that you find more exciting than others? Please rate the level of emotional excitement for each of the following models using the scale below.

	1	2	3	4	5	6	7			
	No	Little	Some	Moderate	Substantial	Considerable	Great			
	Emotional	Emotional	Emotional	Emotional	Emotional	Emotional	Emotional			
	Excitement	Excitement	Excitement	Excitement	Excitement	Excitement	Excitement			
27. Four-door sedan.				1	2	3	4	5	6	7
28. Two-door hardtop/coupe.				1	2	3	4	5	6	7
29. Station wagon.				1	2	3	4	5	6	7
30. Mini-van.				1	2	3	4	5	6	7
31. 2-seater hardtop/GT sports car.				1	2	3	4	5	6	7
32. Convertible.				1	2	3	4	5	6	7
33. Roadster: 2-seater convertible sports car.				1	2	3	4	5	6	7

Please list any other models you can think of and rate them as well.

34. _____	1	2	3	4	5	6	7
35. _____	1	2	3	4	5	6	7
36. _____	1	2	3	4	5	6	7

37. Sex: 1-Male 2-Female (circle one)

38. Age: \_\_\_\_\_

39. Annual household family income (use parents unless an independent) (please check one):

- \_\_\_ Less than \$20,000
- \_\_\_ \$20,001 - \$40,000
- \_\_\_ \$40,001 - \$60,000
- \_\_\_ \$60,001 - \$80,000
- \_\_\_ \$80,001 - \$100,000
- \_\_\_ \$100,000 - \$150,000
- \_\_\_ More than \$150,000

**THANK YOU!**

## APPENDIX C

### PILOT STUDY #1

#### PRODUCT DESCRIPTION

#### HIGH AFFECTIVE INFORMATION CONDITION

A NEW DIMENSION IN  
MAZDA PRODUCT THINKING  
BRINGS YOU AN EXCITING  
NEW ROADSTER FOR THE '90s.

It began with seven Mazda designers and engineers, in a room far removed from the mainstream of automotive operations. That all were zealous sports car enthusiasts was significant- for their mission was to boldly envision an affordable, technically-advanced sports car for the '90s...give it shape and substance...then turn a dream into an exciting reality. This was a once-in-a-lifetime challenge for the Miata team- an extraordinary opportunity to redefine basic sports car concepts and bring new joys in driving to a new generation of enthusiasts.

Early on, mid-engine and front-drive concepts were developed and quickly dismissed-only a traditional front-engine/rear-drive configuration would "feel right" to sports car purists. Once the basic characteristics were painstakingly defined, a vast array of Mazda computer-aided design and manufacturing technology was unleashed to aid in design of components which could meet their highly demanding objectives. Out of a devotion to perfection by passionate sports car believers has come the definitive new roadster for the '90s- and a whole new exhilarating driving experience for you.

Experience what happens when creative minds at Mazda search beyond pure engineering to the human emotions a new Mazda will inspire- what you'll actually experience, how you'll feel in driving it. Mazda calls it "Kansei Engineering"- it's looking beyond mechanical specifications to the emotional satisfactions which will make a new Mazda Miata "feel just right" to you in very special ways. It is the challenge of the Miata development team to anticipate your desires- even those you didn't know you had- and to fulfill them in a vehicle Mazda hopes you'll fondly remember.

The Miata goal is to capture the magic and deeply emotional pleasures of sports car driving. And with a single-minded dedication, the creative minds at Mazda have wondrously fulfilled that purpose, opening a new dimension in the pure excitement and emotions of driving. The simple joy and pleasure of looking at a new red Miata is exceeded only by the extraordinary excitement, exhilaration, thrill and enthusiasm experienced by driving this car.

The Miata cockpit is where it all comes together to feel just right. You know it, from the moment you settle into the highbacked bucket seat. All the artful Miata engineering comes together here in an incredible sense of control. Drop your right hand from the wheel, and flicking the shifter through its short throws is a revelation in precise action. The "no-slip" metal accelerator pedal gives you a "direct feel" of power flow.

Wait till you drive a bright red Miata! You'll love it...Twist the key and you're rewarded with a pleasant burble...a feeling of directness between the throttle and real wheels...This car is alive. It breathes and flexes its muscles...a flat-out blast to drive..a real sense of excitement as the revs rise. The Miata feels just about perfect, delivering every bit of simple fun its voluptuous, organic shape promises.

# APPENDIX D

## PILOT STUDY #1

### PRODUCT DESCRIPTION

#### LOW AFFECTIVE INFORMATION CONDITION

## A NEW DIMENSION IN MAZDA PRODUCT THINKING BRINGS YOU A NEW ROADSTER FOR THE '90s.

It began with seven Mazda designers and engineers, in a room far removed from the mainstream of automotive operations. That all were knowledgeable about sports cars was significant- for their job was to design an affordable, technically-advanced sports car for the '90s...give it substance...then turn it into a reality. This was a significant challenge for the Miata team- an opportunity to redefine basic sports car concepts and bring sports car driving to a new generation of enthusiasts.

Early on, mid-engine and front-drive concepts were developed and quickly dismissed- only a traditional front-engine/rear-drive configuration would be acceptable to sports car purists. Once the basic characteristics were painstakingly defined, a vast array of Mazda computer-aided design and manufacturing technology was unleashed to aid in design of components which could meet their highly demanding objectives. Out of a goal for perfection has come the definitive new roadster for the '90s.

Experience what happens when minds at Mazda search beyond pure engineering. Mazda calls it "Kansei Engineering"- it's looking beyond mechanical specifications to satisfactions which will make a new Mazda Miata a special car. It is the challenge of the Miata development team to anticipate your needs- even those you didn't know you had- and to fulfill them.

The Miata goal is to capture sports car driving. And with a single-minded dedication, the creative minds at Mazda have fulfilled that purpose, opening a new dimension in driving.

The Miata cockpit is where it all comes together. You know it, from the moment you settle into the highbacked bucket seat. All the artful Miata engineering comes together here in an incredible sense of control. Drop your right hand from the wheel, and flicking the shifter through its short throws is a precise action. The "no-slip" metal accelerator pedal gives you power.

Wait till you drive the Miata! Twist the key and you hear the exhaust...the throttle and real wheels seem directly connected...This car works. The Miata is just about perfect, delivering the sports car type of driving that it promises.

## APPENDIX E

### PILOT STUDY PRETEST INSTRUMENT

**Instructions:**

You are being asked to participate in a study in which your honest cooperation will be appreciated. No identification of your person is being requested and your complete privacy and anonymity in regard to your responses are assured. However, we do ask that you provide the last four digits of your social security number so that we can identify participants to the instructor to award the extra credit points.

Please write in the last four digits of your social security number:

\_\_\_\_\_

The researcher will provide you with specific instructions. Please do not open this booklet until you are instructed to do so.

When you are told to do so, please open the booklet and answer all of the questions to the best of your ability. There are 6 pages. When you have finished, please go back and check to be certain that you have answered all questions, that all circles are dark, and that other information provided is legible.

Are these instructions clear? If not, raise your hand and the researcher will answer any questions you may have.

**Thank you for your participation.**

When the researcher informs you to do so, you may turn the page and answer the questions until you complete the entire questionnaire.

Please mark an X in a space over a number to show your opinion of each of the following cars.

**FORD PROBE LX**

- |    |                       |   |                     |
|----|-----------------------|---|---------------------|
| 1. | Extremely bad         | — 1 —   — 2 —   — 3 —   — 4 —   — 5 —   — 6 —   — 7 — | Extremely good      |
| 2. | Extremely negative    | — 1 —   — 2 —   — 3 —   — 4 —   — 5 —   — 6 —   — 7 — | Extremely positive  |
| 3. | Extremely unfavorable | — 1 —   — 2 —   — 3 —   — 4 —   — 5 —   — 6 —   — 7 — | Extremely favorable |
| 4. | Extremely undesirable | — 1 —   — 2 —   — 3 —   — 4 —   — 5 —   — 6 —   — 7 — | Extremely desirable |

**MAZDA MIATA MX-5**

- |    |                       |   |                     |
|----|-----------------------|---|---------------------|
| 5. | Extremely bad         | — 1 —   — 2 —   — 3 —   — 4 —   — 5 —   — 6 —   — 7 — | Extremely good      |
| 6. | Extremely negative    | — 1 —   — 2 —   — 3 —   — 4 —   — 5 —   — 6 —   — 7 — | Extremely positive  |
| 7. | Extremely unfavorable | — 1 —   — 2 —   — 3 —   — 4 —   — 5 —   — 6 —   — 7 — | Extremely favorable |
| 8. | Extremely undesirable | — 1 —   — 2 —   — 3 —   — 4 —   — 5 —   — 6 —   — 7 — | Extremely desirable |

**HONDA CIVIC CRX**

- |     |                       |   |                     |
|-----|-----------------------|---|---------------------|
| 9.  | Extremely bad         | — 1 —   — 2 —   — 3 —   — 4 —   — 5 —   — 6 —   — 7 — | Extremely good      |
| 10. | Extremely negative    | — 1 —   — 2 —   — 3 —   — 4 —   — 5 —   — 6 —   — 7 — | Extremely positive  |
| 11. | Extremely unfavorable | — 1 —   — 2 —   — 3 —   — 4 —   — 5 —   — 6 —   — 7 — | Extremely favorable |
| 12. | Extremely undesirable | — 1 —   — 2 —   — 3 —   — 4 —   — 5 —   — 6 —   — 7 — | Extremely desirable |

**CHEVROLET CORVETTE**

- |     |                       |   |                     |
|-----|-----------------------|---|---------------------|
| 13. | Extremely bad         | — 1 —   — 2 —   — 3 —   — 4 —   — 5 —   — 6 —   — 7 — | Extremely good      |
| 14. | Extremely negative    | — 1 —   — 2 —   — 3 —   — 4 —   — 5 —   — 6 —   — 7 — | Extremely positive  |
| 15. | Extremely unfavorable | — 1 —   — 2 —   — 3 —   — 4 —   — 5 —   — 6 —   — 7 — | Extremely favorable |
| 16. | Extremely undesirable | — 1 —   — 2 —   — 3 —   — 4 —   — 5 —   — 6 —   — 7 — | Extremely desirable |

**TOYOTA MR-2**

- |     |                       |   |                     |
|-----|-----------------------|---|---------------------|
| 17. | Extremely bad         | — 1 —   — 2 —   — 3 —   — 4 —   — 5 —   — 6 —   — 7 — | Extremely good      |
| 18. | Extremely negative    | — 1 —   — 2 —   — 3 —   — 4 —   — 5 —   — 6 —   — 7 — | Extremely positive  |
| 19. | Extremely unfavorable | — 1 —   — 2 —   — 3 —   — 4 —   — 5 —   — 6 —   — 7 — | Extremely favorable |
| 20. | Extremely undesirable | — 1 —   — 2 —   — 3 —   — 4 —   — 5 —   — 6 —   — 7 — | Extremely desirable |

Please mark an X in a space over a number to show your opinion of each of the following exterior car colors.

		RED								
21.	Extremely bad	1	2	3	4	5	6	7	Extremely good	
22.	Extremely negative	1	2	3	4	5	6	7	Extremely positive	
23.	Extremely unfavorable	1	2	3	4	5	6	7	Extremely favorable	
24.	Extremely undesirable	1	2	3	4	5	6	7	Extremely desirable	
		BLACK								
25.	Extremely bad	1	2	3	4	5	6	7	Extremely good	
26.	Extremely negative	1	2	3	4	5	6	7	Extremely positive	
27.	Extremely unfavorable	1	2	3	4	5	6	7	Extremely favorable	
28.	Extremely undesirable	1	2	3	4	5	6	7	Extremely desirable	
		DARK GREEN								
29.	Extremely bad	1	2	3	4	5	6	7	Extremely good	
30.	Extremely negative	1	2	3	4	5	6	7	Extremely positive	
31.	Extremely unfavorable	1	2	3	4	5	6	7	Extremely favorable	
32.	Extremely undesirable	1	2	3	4	5	6	7	Extremely desirable	
		YELLOW								
33.	Extremely bad	1	2	3	4	5	6	7	Extremely good	
34.	Extremely negative	1	2	3	4	5	6	7	Extremely positive	
35.	Extremely unfavorable	1	2	3	4	5	6	7	Extremely favorable	
36.	Extremely undesirable	1	2	3	4	5	6	7	Extremely desirable	
		WHITE								
37.	Extremely bad	1	2	3	4	5	6	7	Extremely good	
38.	Extremely negative	1	2	3	4	5	6	7	Extremely positive	
39.	Extremely unfavorable	1	2	3	4	5	6	7	Extremely favorable	
40.	Extremely undesirable	1	2	3	4	5	6	7	Extremely desirable	



48. How certain are you about your knowledge of cars?

1	2	3	4	5	6	7
-----	-----	-----	-----	-----	-----	-----
Completely Uncertain	Moderately Uncertain	Somewhat Uncertain	Neither Certain Nor Uncertain	Somewhat Certain	Moderately Certain	Completely Certain

Please indicate your level of agreement/disagreement with the following statements by circling the appropriate number.

49. I trust my knowledge about cars.

1	2	3	4	5	6	7
-----	-----	-----	-----	-----	-----	-----
Strongly Disagree	Moderately Disagree	Somewhat Disagree	Neither Agree Nor Disagree	Somewhat Agree	Moderately Agree	Strongly Agree

50. I have more knowledge about cars than the average person.

1	2	3	4	5	6	7
-----	-----	-----	-----	-----	-----	-----
Strongly Disagree	Moderately Disagree	Somewhat Disagree	Neither Agree Nor Disagree	Somewhat Agree	Moderately Agree	Strongly Agree

51. I am confident in my knowledge of cars.

1	2	3	4	5	6	7
-----	-----	-----	-----	-----	-----	-----
Strongly Disagree	Moderately Disagree	Somewhat Disagree	Neither Agree Nor Disagree	Somewhat Agree	Moderately Agree	Strongly Agree

52. I spend considerable time looking at, reading about, and talking about cars.

1	2	3	4	5	6	7
-----	-----	-----	-----	-----	-----	-----
Strongly Disagree	Moderately Disagree	Somewhat Disagree	Neither Agree Nor Disagree	Somewhat Agree	Moderately Agree	Strongly Agree

53. I know a lot about cars.

1	2	3	4	5	6	7
-----	-----	-----	-----	-----	-----	-----
Strongly Disagree	Moderately Disagree	Somewhat Disagree	Neither Agree Nor Disagree	Somewhat Agree	Moderately Agree	Strongly Agree

54. Sex: 1-Male 2-Female (circle one)

**THANK YOU!**

# APPENDIX F

## PILOT STUDY #1

### EXPERIMENTAL INSTRUMENT

#### LOW AFFECTIVE INFORMATION CONDITION

**Instructions:**

You are being asked to participate in a study in which your honest cooperation will be appreciated. No identification of your person is being requested and your complete privacy and anonymity in regard to your responses are assured. However, we do ask that you provide the last four digits of your social security number so that we can identify participants to the instructor to award the extra credit points.

Please write in the last four digits of your social security number:

\_\_\_\_\_

The researcher will provide you with specific instructions. Please do not open this booklet until you are instructed to do so.

When you are told to do so, please open the booklet and answer all of the questions to the best of your ability. There are 12 pages. When you have finished, please go back and check to be certain that you have answered all questions, that all circles are dark, and that other information provided is legible.

Are these instructions clear? If not, raise your hand and the researcher will answer any questions you may have.

**Thank you for your participation.**

When the researcher informs you to do so, you may turn the page and answer the questions until you complete the entire questionnaire.

Please circle the number that indicates the level to which you experienced the following feelings while reading about the car in the description:

**1. EXCITEMENT**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**2. ANTICIPATION**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**3. PRIDE**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**4. DESIRE**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**5. JOY**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**6. PLEASURE**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**7. EXPECTATION**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

Please circle the number that indicates the extent to which you feel the car is:

**8. FUN**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**9. EXCITING**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**10. INTERESTING**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**11. APPEALING**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**12. SATISFYING**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**13. UPLIFTING**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

Now please circle the number to indicate the extent to which the car in the description makes you feel:

**14. UPBEAT**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**15. HAPPY**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**16. ADVENTUROUS**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**17. POSITIVE**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**18. GOOD**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong



Still imagining that you have just purchased this car, please circle the number that indicates the level of feeling you expect to experience. Remember, you now own the car; please circle the number that indicates the extent to which you will feel:

**20. EXCITED**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all		Very weak		Moderately weak		Slightly weak		Neither weak nor strong		Slightly strong		Moderately strong		Very strong					

**21. PLEASANT**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all		Very weak		Moderately weak		Slightly weak		Neither weak nor strong		Slightly strong		Moderately strong		Very strong					

**22. PROUD**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all		Very weak		Moderately weak		Slightly weak		Neither weak nor strong		Slightly strong		Moderately strong		Very strong					

**23. JOYFUL**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all		Very weak		Moderately weak		Slightly weak		Neither weak nor strong		Slightly strong		Moderately strong		Very strong					

**24. UPBEAT**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all		Very weak		Moderately weak		Slightly weak		Neither weak nor strong		Slightly strong		Moderately strong		Very strong					

**25. HAPPY**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all		Very weak		Moderately weak		Slightly weak		Neither weak nor strong		Slightly strong		Moderately strong		Very strong					

**26. SATISFIED**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all		Very weak		Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong		Moderately strong			Very strong	

**27. GOOD**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all		Very weak		Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong		Moderately strong			Very strong	

**28. UPLIFTED**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all		Very weak		Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong		Moderately strong			Very strong	

**29. POSITIVE**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all		Very weak		Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong		Moderately strong			Very strong	

Continuing to imagine that you have just purchased this car, please circle the number that indicates your response to the following questions.

30. If we label all of these feelings collectively as "emotional excitement," overall, how strong is this emotional excitement?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all		Very weak		Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong		Moderately strong			Very strong	

31. How vivid are these feelings?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all		Very dull		Moderately dull			Slightly dull			Neither dull nor vivid			Slightly vivid		Moderately vivid			Very vivid	

32. Sometimes when you imagine a situation as you just did, the emotions and feelings are very real - close to what you would actually feel. Other times the feelings are not that real, almost nonexistent. How real do these feelings seem for you?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all		Very nonexistent		Moderately nonexistent			Slightly nonexistent			Neither nonexistent nor real			Slightly real		Moderately real			Very real	

33. Please list any thoughts you had while reading about the car in this description.

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34. Please list any features or attributes you can recall about the car.

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35. Please list any thoughts you might have if you had just purchased this car. That is, similar to before, imagine you have just purchased this car; what thoughts might run through your head?

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36. Why might you have these thoughts?

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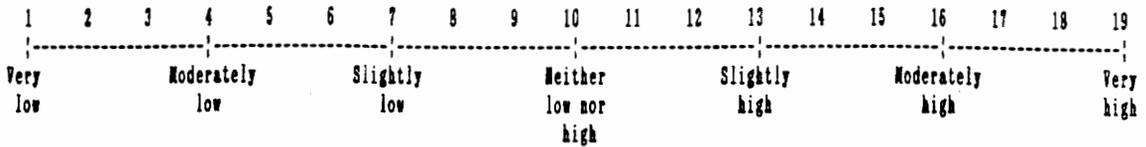
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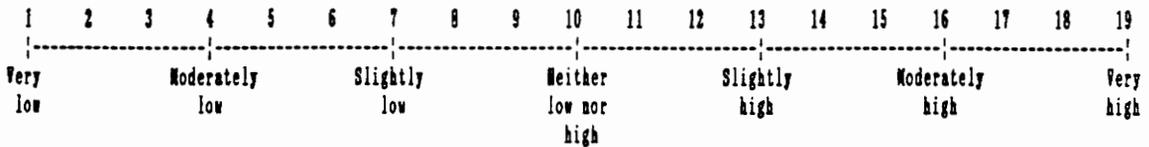
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Please circle the number that indicates your response to the following questions.

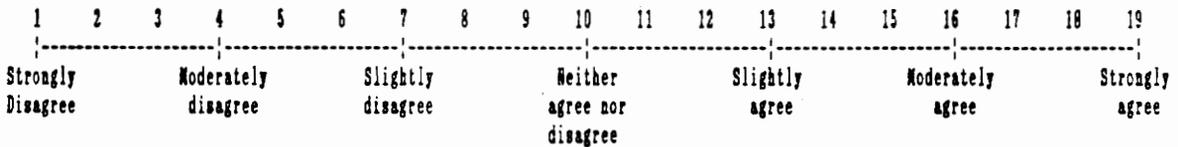
37. The likelihood that this car would be reliable is:



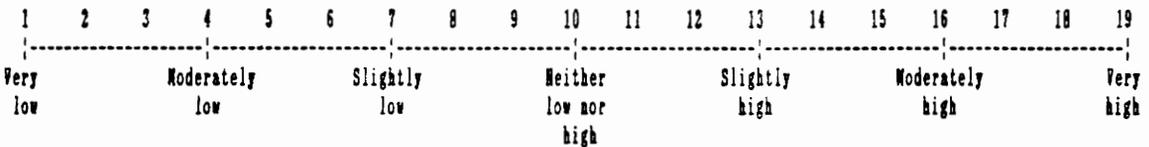
38. This workmanship of this car would be:



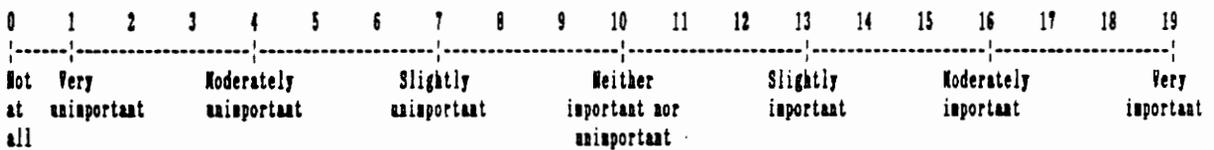
39. This car would seem to be durable.



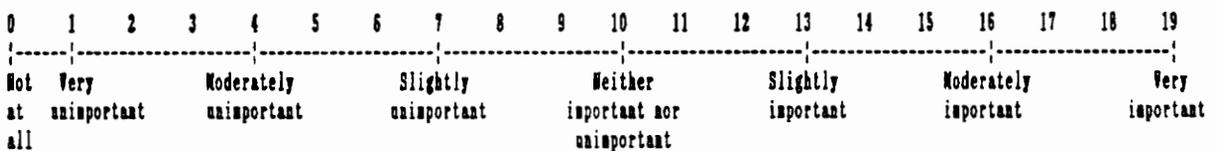
40. The likelihood that this car would be dependable is:



41. How important to you is this car's gas mileage?



42. How important to you is this car's ease of servicing?



43. How important to you is this car's warranty?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
Not at all		Very unimportant			Moderately unimportant			Slightly unimportant			Neither important nor unimportant			Slightly important			Moderately important			Very important

44. How important to you is this car's cargo space?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
Not at all		Very unimportant			Moderately unimportant			Slightly unimportant			Neither important nor unimportant			Slightly important			Moderately important			Very important

45. How much do you like this car?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Dislike very much		Moderately dislike			Slightly dislike			Neither like nor dislike			Slightly like			Moderately like			Like very much	

46. Overall, this car is of (circle one):

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
Bad quality		Neither good nor bad quality				Satisfactory quality			Good quality			Very good quality			First Rate quality			Excellent quality	

47. I would be satisfied with this car.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Strongly Disagree		Moderately disagree			Slightly disagree			Neither agree nor disagree			Slightly agree			Moderately agree			Strongly agree	

48. In general, I value this car.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Strongly Disagree		Moderately disagree			Slightly disagree			Neither agree nor disagree			Slightly agree			Moderately agree			Strongly agree	



## APPENDIX G

### PILOT STUDY #1

#### EXPERIMENTAL INSTRUMENT

#### HIGH AFFECTIVE INFORMATION CONDITION

**Instructions:**

You are being asked to participate in a study in which your honest cooperation will be appreciated. No identification of your person is being requested and your complete privacy and anonymity in regard to your responses are assured. However, we do ask that you provide the last four digits of your social security number so that we can identify participants to the instructor to award the extra credit points.

Please write in the last four digits of your social security number:

\_\_\_\_\_

The researcher will provide you with specific instructions. Please do not open this booklet until you are instructed to do so.

When you are told to do so, please open the booklet and answer all of the questions to the best of your ability. There are 12 pages. When you have finished, please go back and check to be certain that you have answered all questions, that all circles are dark, and that other information provided is legible.

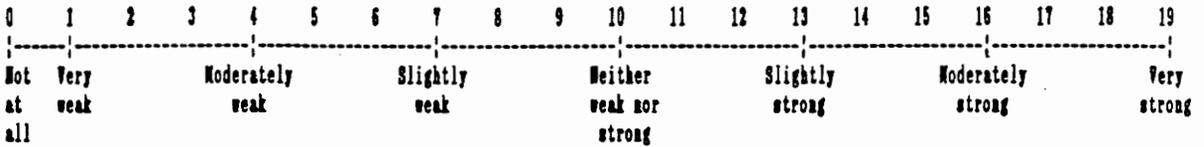
Are these instructions clear? If not, raise your hand and the researcher will answer any questions you may have.

**Thank you for your participation.**

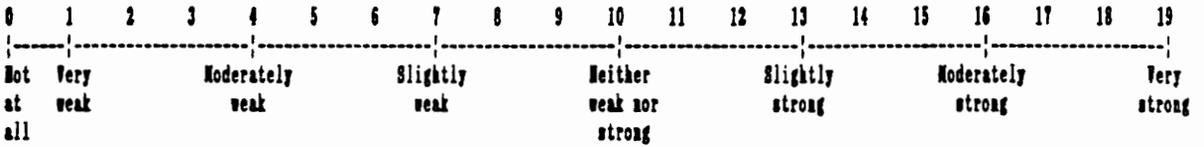
When the researcher informs you to do so, you may turn the page and answer the questions until you complete the entire questionnaire.

Please circle the number that indicates the level to which you experienced the following feelings while reading about the car in the description:

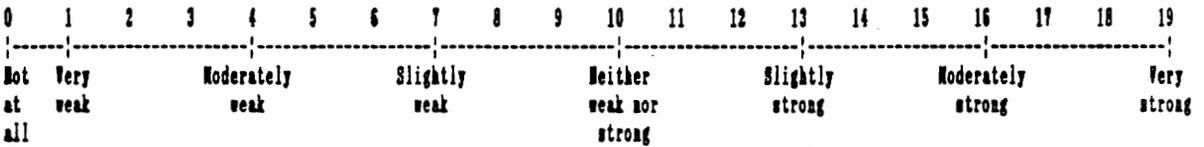
**1. EXCITEMENT**



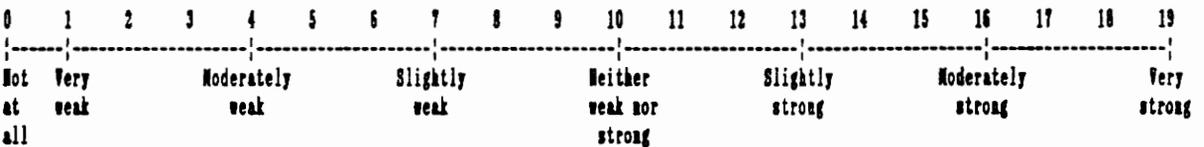
**2. ANTICIPATION**



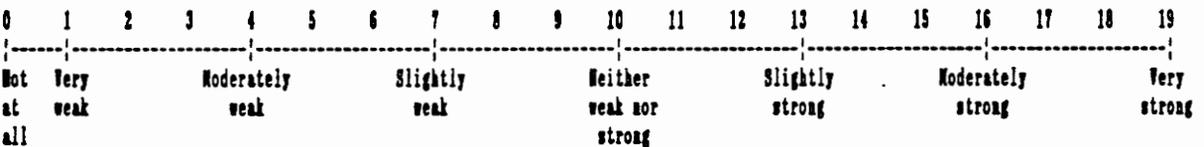
**3. PRIDE**



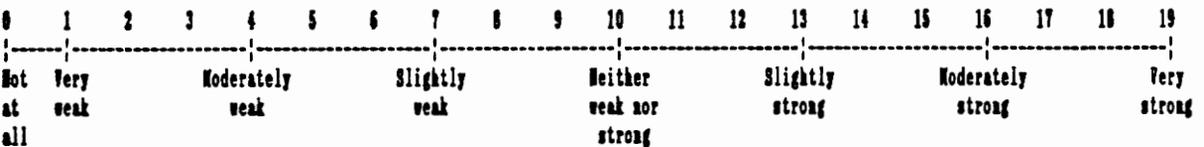
**4. DESIRE**



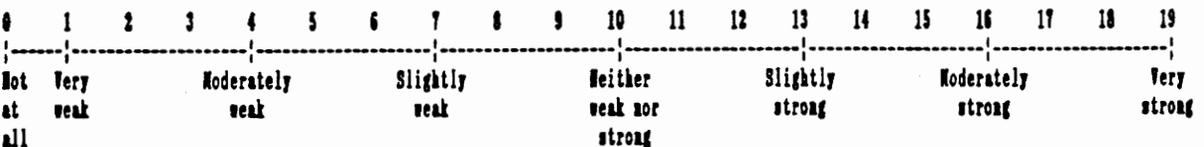
**5. JOY**



**6. PLEASURE**

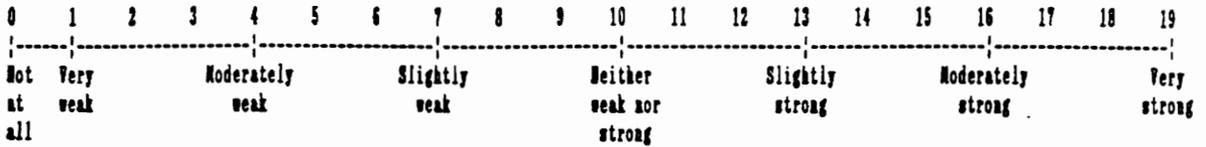


**7. EXPECTATION**

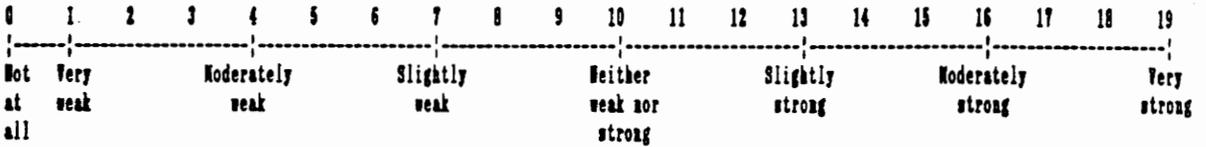


Please circle the number that indicates the extent to which you feel the car is:

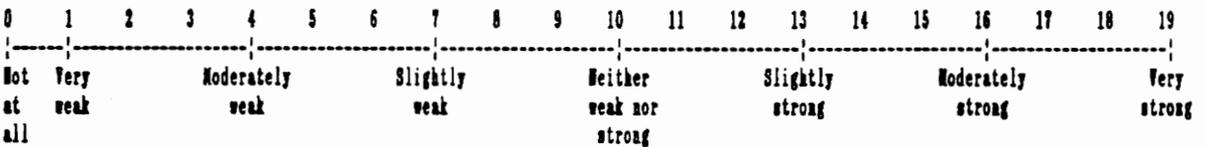
**8. FUN**



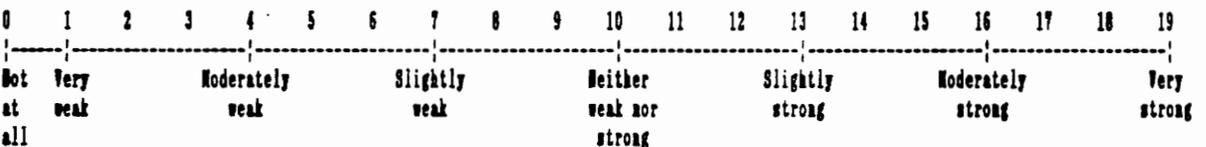
**9. EXCITING**



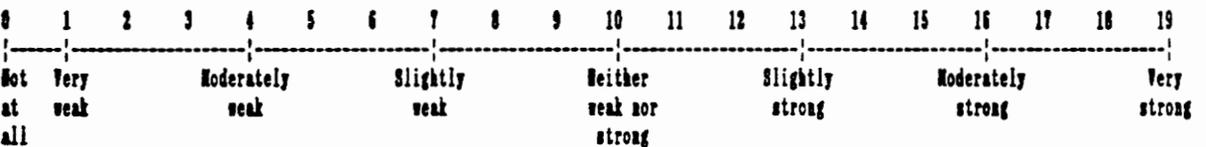
**10. INTERESTING**



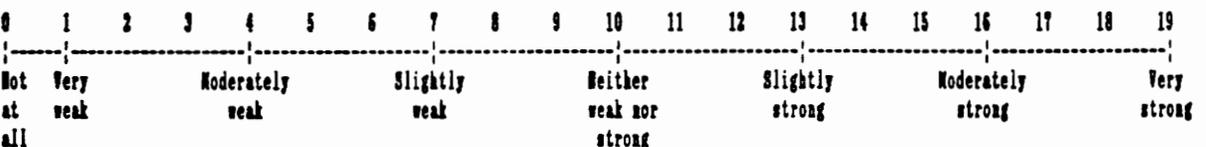
**11. APPEALING**



**12. SATISFYING**

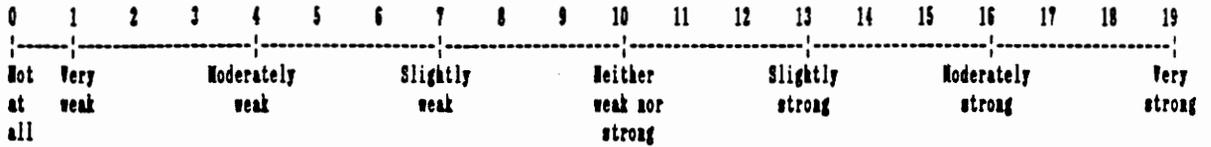


**13. UPLIFTING**

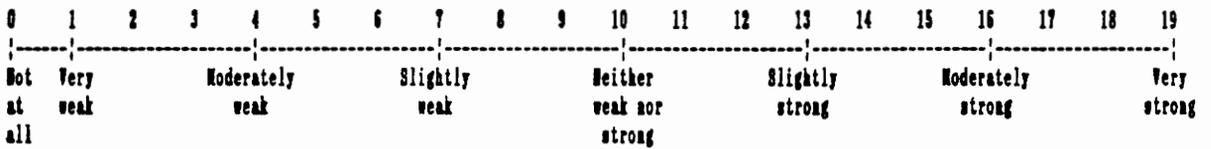


Now please circle the number to indicate the extent to which the car in the description makes you feel:

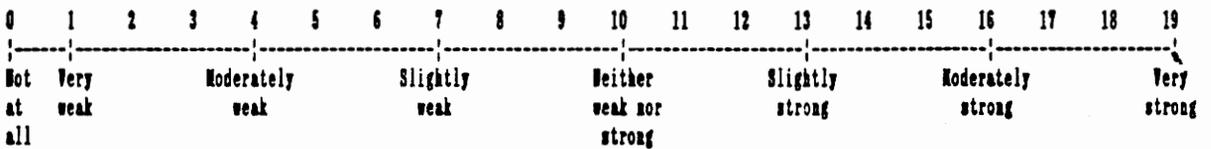
14. UPBEAT



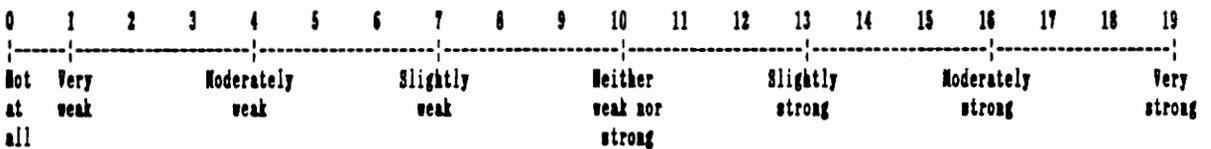
15. HAPPY



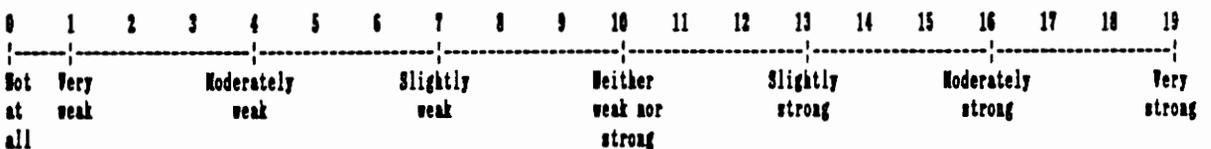
16. ADVENTUROUS



17. POSITIVE



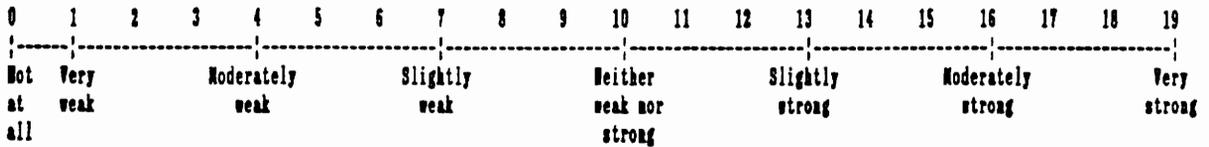
18. GOOD



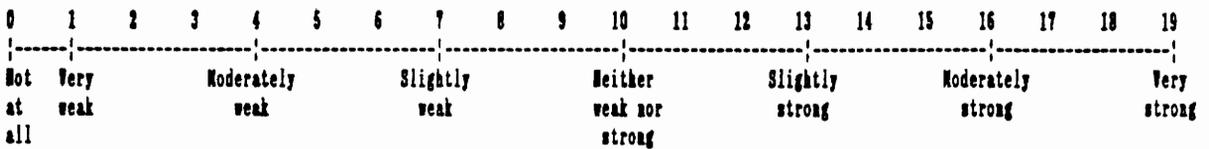


Still imagining that you have just purchased this car, please circle the number that indicates the level of feeling you expect to experience. Remember, you now own the car; please circle the number that indicates the extent to which you will feel:

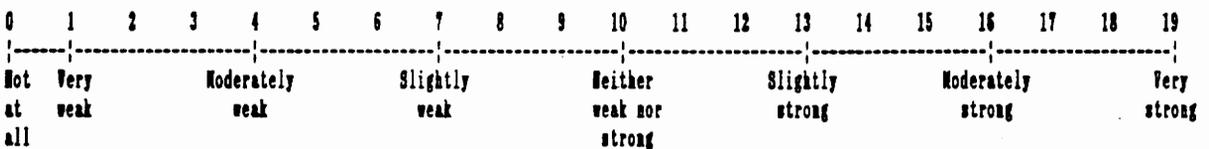
**20. EXCITED**



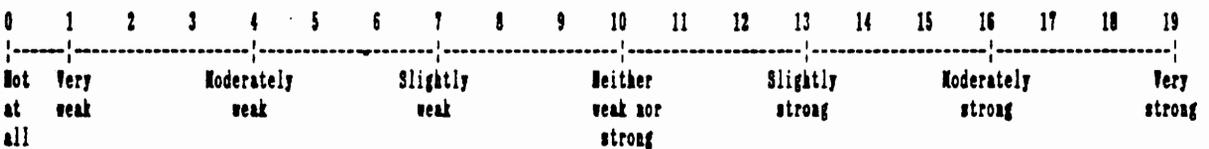
**21. PLEASANT**



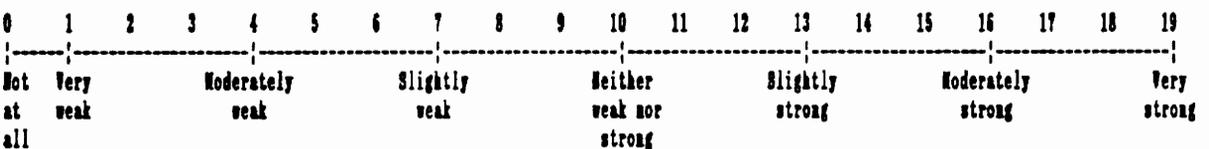
**22. PROUD**



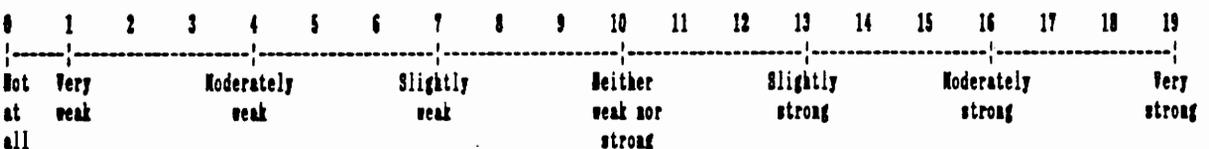
**23. JOYFUL**



**24. UPBEAT**



**25. HAPPY**



**26. SATISFIED**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**27. GOOD**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**28. UPLIFTED**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**29. POSITIVE**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

Continuing to imagine that you have just purchased this car, please circle the number that indicates your response to the following questions.

30. If we label all of these feelings collectively as "emotional excitement," overall, how strong is this emotional excitement?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

31. How vivid are these feelings?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very dull		Moderately dull				Slightly dull			Neither dull nor vivid			Slightly vivid			Moderately vivid			Very vivid

32. Sometimes when you imagine a situation as you just did, the emotions and feelings are very real - close to what you would actually feel. Other times the feelings are not that real, almost nonexistent. How real do these feelings seem for you?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very nonexistent		Moderately nonexistent				Slightly nonexistent			Neither nonexistent nor real			Slightly real			Moderately real			Very real

33. Please list any thoughts you had while reading about the car in this description.

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34. Please list any features or attributes you can recall about the car.

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35. Please list any thoughts you might have if you had just purchased this car. That is, similar to before, imagine you have just purchased this car; what thoughts might run through your head?

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36. Why might you have these thoughts?

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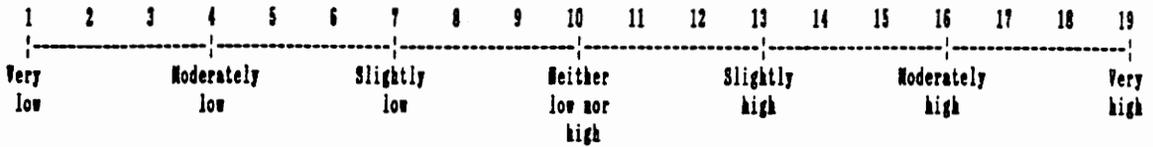
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Please circle the number that indicates your response to the following questions.

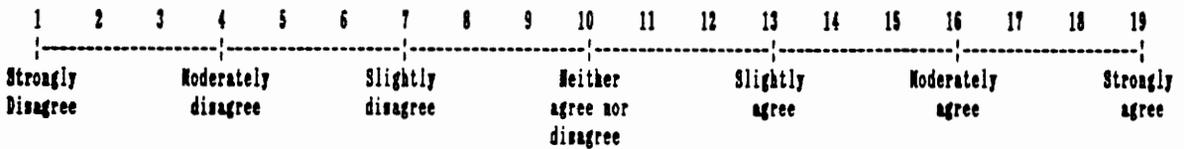
37. The likelihood that this car would be reliable is:



38. This workmanship of this car would be:



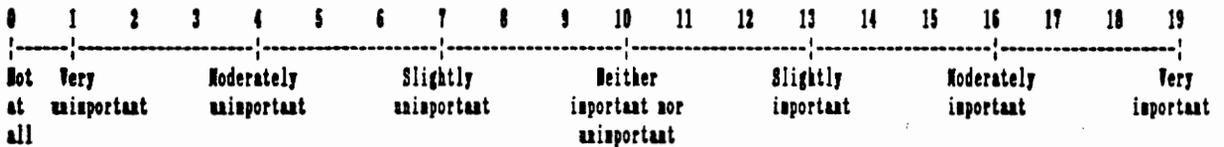
39. This car would seem to be durable.



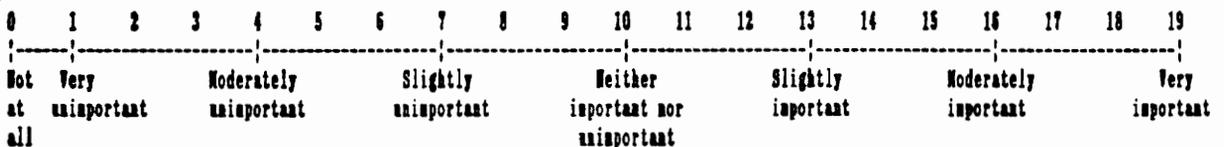
40. The likelihood that this car would be dependable is:



41. How important to you is this car's gas mileage?



42. How important to you is this car's ease of servicing?



43. How important to you is this car's warranty?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all		Very unimportant		Moderately unimportant		Slightly unimportant		Neither important nor unimportant			Slightly important		Moderately important		Very important				

44. How important to you is this car's cargo space?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all		Very unimportant		Moderately unimportant		Slightly unimportant		Neither important nor unimportant			Slightly important		Moderately important		Very important				

45. How much do you like this car?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Dislike very much		Moderately dislike		Slightly dislike		Neither like nor dislike			Slightly like		Moderately like		Like very much					

46. Overall, this car is of (circle one):

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Bad quality		Neither good nor bad quality		Satisfactory quality		Good quality		Very good quality		First Rate quality		Excellent quality						

47. I would be satisfied with this car.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Strongly Disagree		Moderately disagree		Slightly disagree		Neither agree nor disagree			Slightly agree		Moderately agree		Strongly agree					

48. In general, I value this car.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Strongly Disagree		Moderately disagree		Slightly disagree		Neither agree nor disagree			Slightly agree		Moderately agree		Strongly agree					

For the following questions, please mark an X in a space over a number to indicate your response. For example, if you were asked how much you liked something, and you liked it a lot you would place an X over the number 7 as follows:

Extreme dislike           |      |      |      |      |      |   X        Extreme like  
    1    2    3    4    5    6    7

Mark an X in the space over a number to indicate how intense your feelings would be if you had just purchased this car.

- 49. Extremely weak           |      |      |      |      |      |           Extremely intense
- 50. Extremely dull           |      |      |      |      |      |           Extremely vivid
- 51. Extremely barren           |      |      |      |      |      |           Extremely rich
- 52. Very unrealistic           |      |      |      |      |      |           Very real
- 53. Very fake           |      |      |      |      |      |           Very genuine

Please mark an X in a space over a number to show your opinion of this car.

- 54. Extremely bad           |      |      |      |      |      |           Extremely good
- 55. Extremely negative           |      |      |      |      |      |           Extremely positive
- 56. Extremely unfavorable           |      |      |      |      |      |           Extremely favorable
- 57. Extremely undesirable           |      |      |      |      |      |           Extremely desirable

Please mark an X in a space over a number to show your opinion of the car's red color.

- 58. Extremely bad           |      |      |      |      |      |           Extremely good
- 59. Extremely negative           |      |      |      |      |      |           Extremely positive
- 60. Extremely unfavorable           |      |      |      |      |      |           Extremely favorable
- 61. Extremely undesirable           |      |      |      |      |      |           Extremely desirable

**THANK YOU!**

# APPENDIX H

## PILOT STUDY #2

### EXPERIMENTAL INSTRUMENT

#### LOW AFFECTIVE INFORMATION CONDITION

**Instructions:**

You are being asked to participate in a study in which your honest cooperation will be appreciated. No identification of your person is being requested and your complete privacy and anonymity in regard to your responses are assured. However, we do ask that you provide the last four digits of your social security number so that we can identify participants to the instructor to award the extra credit points.

Please write in the last four digits of your social security number:

\_\_\_\_\_

The researcher will provide you with specific instructions. Please do not open this booklet until you are instructed to do so.

When you are told to do so, please open the booklet and answer all of the questions to the best of your ability. There are 12 pages. When you have finished, please go back and check to be certain that you have answered all questions, that all circles are dark, and that other information provided is legible.

Are these instructions clear? If not, raise your hand and the researcher will answer any questions you may have.

**Thank you for your participation.**

When the researcher informs you to do so, you may turn the page and answer the questions until you complete the entire questionnaire.

Please circle the number that indicates the level to which you experienced the following feelings while watching the car in the video:

**1. EXCITEMENT**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong		Moderately strong				Very strong	

**2. ANTICIPATION**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong		Moderately strong				Very strong	

**3. PRIDE**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong		Moderately strong				Very strong	

**4. DESIRE**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong		Moderately strong				Very strong	

**5. JOY**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong		Moderately strong				Very strong	

**6. PLEASURE**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong		Moderately strong				Very strong	

**7. EXPECTATION**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong		Moderately strong				Very strong	

Please circle the number that indicates the extent to which you feel the car is:

**8. FUN**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19					
Not at all				Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong		

**9. EXCITING**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19					
Not at all				Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong		

**10. INTERESTING**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19					
Not at all				Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong		

**11. APPEALING**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19					
Not at all				Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong		

**12. SATISFYING**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19					
Not at all				Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong		

**13. UPLIFTING**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19					
Not at all				Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong		

Now please circle the number to indicate the extent to which the car in the video makes you feel:

**14. UPBEAT**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**15. HAPPY**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**16. ADVENTUROUS**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**17. POSITIVE**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**18. GOOD**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong



Still imagining that you have just purchased this car, please circle the number that indicates the level of feeling you expect to experience. Remember, you now own the car; please circle the number that indicates the extent to which you will feel:

**20. EXCITED**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
-----																			
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**21. PLEASANT**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
-----																			
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**22. PROUD**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
-----																			
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**23. JOYFUL**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
-----																			
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**24. UPBEAT**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
-----																			
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**25. HAPPY**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
-----																			
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**26. SATISFIED**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**27. GOOD**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**28. UPLIFTED**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**29. POSITIVE**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

Continuing to imagine that you have just purchased this car, please circle the number that indicates your response to the following questions.

30. If we label all of these feelings collectively as "emotional excitement," overall, how strong is this emotional excitement?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
-----																			
Not	Very			Moderately			Slightly			Neither			Slightly			Moderately			Very
at	weak			weak			weak			weak nor			strong			strong			strong
all										strong									

31. How vivid are these feelings?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
-----																			
Not	Very			Moderately			Slightly			Neither			Slightly			Moderately			Very
at	dull			dull			dull			dull nor			vivid			vivid			vivid
all										vivid									

32. Sometimes when you imagine a situation as you just did, the emotions and feelings are very real - close to what you would actually feel. Other times the feelings are not that real, almost nonexistent. How real do these feelings seem for you?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
-----																			
Not	Very			Moderately			Slightly			Neither			Slightly			Moderately			Very
at	nonexistent			nonexistent			nonexistent			nonexistent			real			real			real
all										nor real									

33. Please list any thoughts you had while watching the car in this video.

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34. Please list any features or attributes you can recall about the car.

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35. Please list any thoughts you might have if you had just purchased this car. That is, similar to before, imagine you have just purchased this car; what thoughts might run through your head?

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36. Why might you have these thoughts?

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Please circle the number that indicates your response to the following questions.

37. The likelihood that this car would be reliable is:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19			
-----				-----				-----				-----									
Very low	Moderately low				Slightly low				Neither low nor high				Slightly high				Moderately high				Very high

38. This workmanship of this car would be:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19			
-----				-----				-----				-----									
Very low	Moderately low				Slightly low				Neither low nor high				Slightly high				Moderately high				Very high

39. This car would seem to be durable.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19									
-----				-----				-----				-----															
Strongly Disagree				Moderately disagree				Slightly disagree				Neither agree nor disagree				Slightly agree				Moderately agree				Strongly agree			

40. The likelihood that this car would be dependable is:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19			
-----				-----				-----				-----									
Very low	Moderately low				Slightly low				Neither low nor high				Slightly high				Moderately high				Very high

41. How important to you is this car's gas mileage?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19												
-----				-----				-----				-----																			
Not at all				Very unimportant				Moderately unimportant				Slightly unimportant				Neither important nor unimportant				Slightly important				Moderately important				Very important			

42. How important to you is this car's ease of servicing?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19												
-----				-----				-----				-----																			
Not at all				Very unimportant				Moderately unimportant				Slightly unimportant				Neither important nor unimportant				Slightly important				Moderately important				Very important			

43. How important to you is this car's warranty?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all		Very unimportant		Moderately unimportant			Slightly unimportant			Neither important nor unimportant			Slightly important		Moderately important			Very important	

44. How important to you is this car's cargo space?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all		Very unimportant		Moderately unimportant			Slightly unimportant			Neither important nor unimportant			Slightly important		Moderately important			Very important	

45. How much do you like this car?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Dislike very much		Moderately dislike			Slightly dislike			Neither like nor dislike			Slightly like		Moderately like			Like very much		

46. Overall, this car is of (circle one):

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Bad quality		Neither good nor bad quality				Satisfactory quality			Good quality		Very good quality			First Rate quality			Excellent quality	

47. I would be satisfied with this car.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Strongly Disagree		Moderately disagree			Slightly disagree			Neither agree nor disagree			Slightly agree		Moderately agree			Strongly agree		

48. In general, I value this car.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Strongly Disagree		Moderately disagree			Slightly disagree			Neither agree nor disagree			Slightly agree		Moderately agree			Strongly agree		

For the following questions, please mark an X in a space over a number to indicate your response. For example, if you were asked how much you liked something, and you liked it a lot you would place an X over the number 7 as follows:

Extreme dislike           |      |      |      |      |      |  X       Extreme like  
    1    2    3    4    5    6    7

Mark an X in the space over a number to indicate how intense your feelings would be if you had just purchased this car.

- 49. Extremely weak           |      |      |      |      |      |           Extremely intense  
    1    2    3    4    5    6    7
- 50. Extremely dull           |      |      |      |      |      |           Extremely vivid  
    1    2    3    4    5    6    7
- 51. Extremely barren           |      |      |      |      |      |           Extremely rich  
    1    2    3    4    5    6    7
- 52. Very unrealistic           |      |      |      |      |      |           Very real  
    1    2    3    4    5    6    7
- 53. Very fake           |      |      |      |      |      |           Very genuine  
    1    2    3    4    5    6    7

Please mark an X in a space over a number to show your opinion of this car.

- 54. Extremely bad           |      |      |      |      |      |           Extremely good  
    1    2    3    4    5    6    7
- 55. Extremely negative           |      |      |      |      |      |           Extremely positive  
    1    2    3    4    5    6    7
- 56. Extremely unfavorable           |      |      |      |      |      |           Extremely favorable  
    1    2    3    4    5    6    7
- 57. Extremely undesirable           |      |      |      |      |      |           Extremely desirable  
    1    2    3    4    5    6    7

58. Did you imagine this car as a particular color?      YES \_\_\_\_\_      NO \_\_\_\_\_

If so, what color? \_\_\_\_\_

If you did imagine a color, mark an X in a space over a number to show your opinion of the color you imagined, if not please skip these last 4 questions (58a-58d).

- a.    Extremely bad           |      |      |      |      |      |           Extremely good  
    1    2    3    4    5    6    7
- b.    Extremely negative           |      |      |      |      |      |           Extremely positive  
    1    2    3    4    5    6    7
- c.    Extremely unfavorable           |      |      |      |      |      |           Extremely favorable  
    1    2    3    4    5    6    7
- d.    Extremely undesirable           |      |      |      |      |      |           Extremely desirable  
    1    2    3    4    5    6    7

**THANK YOU!**

# APPENDIX I

## PILOT STUDY #2

### EXPERIMENTAL INSTRUMENT

#### HIGH AFFECTIVE INFORMATION CONDITION

You are being asked to participate in a study in which your honest cooperation will be appreciated. No identification of your person is being requested and your complete privacy and anonymity in regard to your responses are assured. However, we do ask that you provide the last four digits of your social security number so that we can identify participants to the instructor to award the extra credit points.

Please write in the last four digits of your social security number:

\_\_\_\_\_

The researcher will provide you with specific instructions. Please do not open this booklet until you are instructed to do so.

When you are told to do so, please open the booklet and answer all of the questions to the best of your ability. There are 12 pages. When you have finished, please go back and check to be certain that you have answered all questions, that all circles are dark, and that other information provided is legible.

Are these instructions clear? If not, raise your hand and the researcher will answer any questions you may have.

**Thank you for your participation.**

When the researcher informs you to do so, you may turn the page and answer the questions until you complete the entire questionnaire.

Please circle the number that indicates the level to which you experienced the following feelings while watching the car in the video:

**1. EXCITEMENT**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**2. ANTICIPATION**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**3. PRIDE**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**4. DESIRE**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**5. JOY**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**6. PLEASURE**

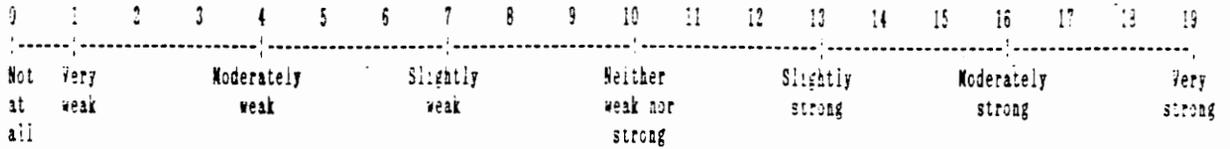
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**7. EXPECTATION**

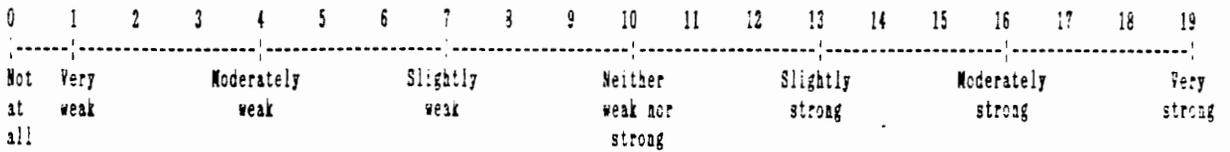
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

Please circle the number that indicates the extent to which you feel the car is:

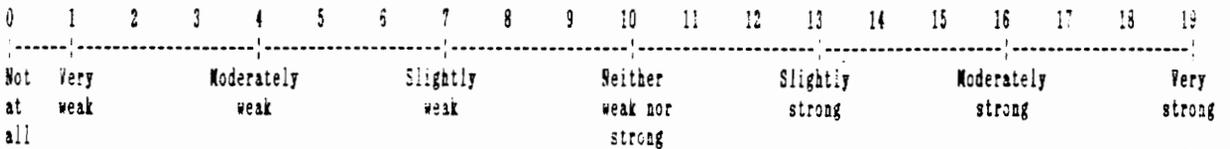
**8. FUN**



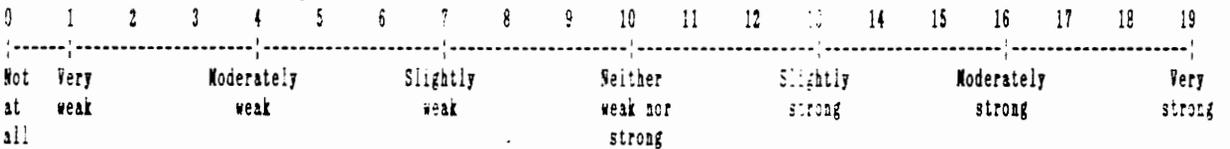
**9. EXCITING**



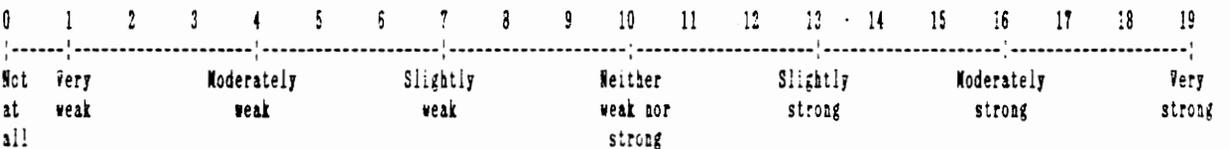
**10. INTERESTING**



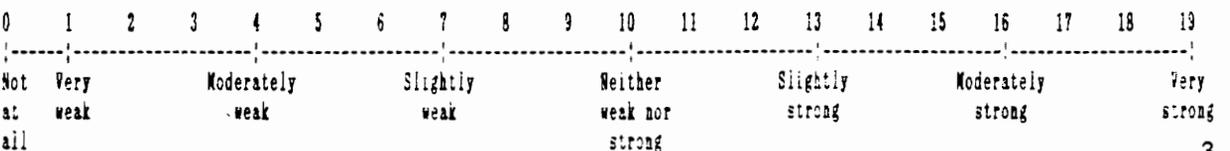
**11. APPEALING**



**12. SATISFYING**



**13. UPLIFTING**



3

Now please circle the number to indicate the extent to which the car in the video makes you feel:

**14. UPBEAT**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong		Very strong

**15. HAPPY**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong		Very strong

**16. ADVENTUROUS**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong		Very strong

**17. POSITIVE**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong		Very strong

**18. GOOD**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong		Very strong



Still imagining that you have just purchased this car, please circle the number that indicates the level of feeling you expect to experience. Remember, you now own the car; please circle the number that indicates the extent to which you will feel:

**20. EXCITED**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
-----																			
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**21. PLEASANT**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
-----																			
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**22. PROUD**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
-----																			
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**23. JOYFUL**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
-----																			
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**24. UPBEAT**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
-----																			
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**25. HAPPY**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
-----																			
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**26. SATISFIED**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**27. GOOD**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**28. UPLIFTED**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**29. POSITIVE**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

Continuing to imagine that you have just purchased this car, please circle the number that indicates your response to the following questions.

30. If we label all of these feelings collectively as "emotional excitement," overall, how strong is this emotional excitement?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not Very		Moderately			Slightly			Neither			Slightly			Moderately			Very		
at weak		weak			weak			weak nor			strong			strong			strong		
all								strong											

31. How vivid are these feelings?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not Very		Moderately			Slightly			Neither			Slightly			Moderately			Very		
at dull		dull			dull			dull nor			vivid			vivid			vivid		
all								vivid											

32. Sometimes when you imagine a situation as you just did, the emotions and feelings are very real - close to what you would actually feel. Other times the feelings are not that real, almost nonexistent. How real do these feelings seem for you?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not Very		Moderately			Slightly			Neither			Slightly			Moderately			Very		
at nonexistent		nonexistent			nonexistent			nonexistent			real			real			real		
all								nor real											

33. Please list any thoughts you had while watching the car in this video.

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34. Please list any features or attributes you can recall about the car.

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35. Please list any thoughts you might have if you had just purchased this car. That is, similar to before, imagine you have just purchased this car; what thoughts might run through your head?

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36. Why might you have these thoughts?

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Please circle the number that indicates your response to the following questions.

37. The likelihood that this car would be reliable is:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Very low			Moderately low			Slightly low			Neither low nor high			Slightly high			Moderately high			Very high

38. This workmanship of this car would be:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Very low			Moderately low			Slightly low			Neither low nor high			Slightly high			Moderately high			Very high

39. This car would seem to be durable.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Strongly Disagree			Moderately disagree			Slightly disagree			Neither agree nor disagree			Slightly agree			Moderately agree			Strongly agree

40. The likelihood that this car would be dependable is:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Very low			Moderately low			Slightly low			Neither low nor high			Slightly high			Moderately high			Very high

41. How important to you is this car's gas mileage?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very unimportant		Moderately unimportant			Slightly unimportant			Neither important nor unimportant			Slightly important			Moderately important			Very important	

42. How important to you is this car's ease of servicing?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very unimportant		Moderately unimportant			Slightly unimportant			Neither important nor unimportant			Slightly important			Moderately important			Very important	

43. How important to you is this car's warranty?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all		Very unimportant		Moderately unimportant		Slightly unimportant		Neither important nor unimportant			Slightly important		Moderately important		Very important				

44. How important to you is this car's cargo space?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all		Very unimportant		Moderately unimportant		Slightly unimportant		Neither important nor unimportant			Slightly important		Moderately important		Very important				

45. How much do you like this car?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Dislike very much		Moderately dislike		Slightly dislike		Neither like nor dislike			Slightly like		Moderately like		Like very much					

46. Overall, this car is of (circle one):

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Bad quality		Neither good nor bad quality			Satisfactory quality			Good quality		Very good quality		First Rate quality		Excellent quality				

47. I would be satisfied with this car.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Strongly Disagree		Moderately disagree		Slightly disagree		Neither agree nor disagree			Slightly agree		Moderately agree		Strongly agree					

48. In general, I value this car.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Strongly Disagree		Moderately disagree		Slightly disagree		Neither agree nor disagree			Slightly agree		Moderately agree		Strongly agree					

For the following questions, please mark an X in a space over a number to indicate your response. For example, if you were asked how much you liked something, and you liked it a lot you would place an X over the number 7 as follows:

Extreme dislike	<table border="0"> <tr> <td style="border-right: 1px solid black; width: 20px; text-align: center;">1</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">2</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">3</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">4</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">5</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">6</td> <td style="width: 20px; text-align: center;">7</td> </tr> </table>	1	2	3	4	5	6	7	Extreme like
1	2	3	4	5	6	7			

Mark an X in the space over a number to indicate how intense your feelings would be if you had just purchased this car.

- |                      |  |   |   |   |   |   |   |   |                   |
|----------------------|--|---|---|---|---|---|---|---|-------------------|
| 49. Extremely weak   | <table border="0"> <tr> <td style="border-right: 1px solid black; width: 20px; text-align: center;">1</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">2</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">3</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">4</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">5</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">6</td> <td style="width: 20px; text-align: center;">7</td> </tr> </table> | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Extremely intense |
| 1                    | 2  | 3 | 4 | 5 | 6 | 7 |   |   |                   |
| 50. Extremely dull   | <table border="0"> <tr> <td style="border-right: 1px solid black; width: 20px; text-align: center;">1</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">2</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">3</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">4</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">5</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">6</td> <td style="width: 20px; text-align: center;">7</td> </tr> </table> | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Extremely vivid   |
| 1                    | 2  | 3 | 4 | 5 | 6 | 7 |   |   |                   |
| 51. Extremely barren | <table border="0"> <tr> <td style="border-right: 1px solid black; width: 20px; text-align: center;">1</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">2</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">3</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">4</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">5</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">6</td> <td style="width: 20px; text-align: center;">7</td> </tr> </table> | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Extremely rich    |
| 1                    | 2  | 3 | 4 | 5 | 6 | 7 |   |   |                   |
| 52. Very unrealistic | <table border="0"> <tr> <td style="border-right: 1px solid black; width: 20px; text-align: center;">1</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">2</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">3</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">4</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">5</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">6</td> <td style="width: 20px; text-align: center;">7</td> </tr> </table> | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very real         |
| 1                    | 2  | 3 | 4 | 5 | 6 | 7 |   |   |                   |
| 53. Very fake        | <table border="0"> <tr> <td style="border-right: 1px solid black; width: 20px; text-align: center;">1</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">2</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">3</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">4</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">5</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">6</td> <td style="width: 20px; text-align: center;">7</td> </tr> </table> | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very genuine      |
| 1                    | 2  | 3 | 4 | 5 | 6 | 7 |   |   |                   |

Please mark an X in a space over a number to show your opinion of this car.

- |                           |  |   |   |   |   |   |   |   |                     |
|---------------------------|--|---|---|---|---|---|---|---|---------------------|
| 54. Extremely bad         | <table border="0"> <tr> <td style="border-right: 1px solid black; width: 20px; text-align: center;">1</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">2</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">3</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">4</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">5</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">6</td> <td style="width: 20px; text-align: center;">7</td> </tr> </table> | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Extremely good      |
| 1                         | 2  | 3 | 4 | 5 | 6 | 7 |   |   |                     |
| 55. Extremely negative    | <table border="0"> <tr> <td style="border-right: 1px solid black; width: 20px; text-align: center;">1</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">2</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">3</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">4</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">5</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">6</td> <td style="width: 20px; text-align: center;">7</td> </tr> </table> | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Extremely positive  |
| 1                         | 2  | 3 | 4 | 5 | 6 | 7 |   |   |                     |
| 56. Extremely unfavorable | <table border="0"> <tr> <td style="border-right: 1px solid black; width: 20px; text-align: center;">1</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">2</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">3</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">4</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">5</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">6</td> <td style="width: 20px; text-align: center;">7</td> </tr> </table> | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Extremely favorable |
| 1                         | 2  | 3 | 4 | 5 | 6 | 7 |   |   |                     |
| 57. Extremely undesirable | <table border="0"> <tr> <td style="border-right: 1px solid black; width: 20px; text-align: center;">1</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">2</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">3</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">4</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">5</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">6</td> <td style="width: 20px; text-align: center;">7</td> </tr> </table> | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Extremely desirable |
| 1                         | 2  | 3 | 4 | 5 | 6 | 7 |   |   |                     |

Please mark an X in a space over a number to show your opinion of the car's red color.

- |                           |  |   |   |   |   |   |   |   |                     |
|---------------------------|--|---|---|---|---|---|---|---|---------------------|
| 58. Extremely bad         | <table border="0"> <tr> <td style="border-right: 1px solid black; width: 20px; text-align: center;">1</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">2</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">3</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">4</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">5</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">6</td> <td style="width: 20px; text-align: center;">7</td> </tr> </table> | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Extremely good      |
| 1                         | 2  | 3 | 4 | 5 | 6 | 7 |   |   |                     |
| 59. Extremely negative    | <table border="0"> <tr> <td style="border-right: 1px solid black; width: 20px; text-align: center;">1</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">2</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">3</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">4</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">5</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">6</td> <td style="width: 20px; text-align: center;">7</td> </tr> </table> | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Extremely positive  |
| 1                         | 2  | 3 | 4 | 5 | 6 | 7 |   |   |                     |
| 60. Extremely unfavorable | <table border="0"> <tr> <td style="border-right: 1px solid black; width: 20px; text-align: center;">1</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">2</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">3</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">4</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">5</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">6</td> <td style="width: 20px; text-align: center;">7</td> </tr> </table> | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Extremely favorable |
| 1                         | 2  | 3 | 4 | 5 | 6 | 7 |   |   |                     |
| 61. Extremely undesirable | <table border="0"> <tr> <td style="border-right: 1px solid black; width: 20px; text-align: center;">1</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">2</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">3</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">4</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">5</td> <td style="border-right: 1px solid black; width: 20px; text-align: center;">6</td> <td style="width: 20px; text-align: center;">7</td> </tr> </table> | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Extremely desirable |
| 1                         | 2  | 3 | 4 | 5 | 6 | 7 |   |   |                     |

**THANK YOU!**

## APPENDIX J

### PILOT STUDY

### POST-TEST INSTRUMENT

**Instructions:**

Please fill out this second questionnaire. Your honest cooperation will be appreciated. No identification of your person is being requested and your complete privacy and anonymity in regard to your responses are assured. However, we do ask that you provide the last four digits of your social security number so that we can identify participants to the instructor to award the extra credit points.

Please write in the last four digits of your social security number:

\_\_\_\_\_

The researcher will provide you with specific instructions. Please do not open this booklet until you are instructed to do so.

When you are told to do so, please open the booklet and answer all of the questions to the best of your ability. When you have finished, please go back and check to be certain that you have answered all questions, that all circles are dark, and that other information provided is legible.

Are these instructions clear? If not, raise your hand and the researcher will answer any questions you may have.

**Thank you for your participation.**

When the researcher informs you to do so, you may turn the page and answer the questions until you complete the entire questionnaire.



Please use the following scale to indicate your belief of the truthfulness of the following statements based on the information provided in the description.



Please circle the number that matches your belief of the truthfulness of the following statements.

- |  |   |   |   |   |   |
|--|---|---|---|---|---|
| 2. The Miata is a roadster.                                    | 1 | 2 | 3 | 4 | 5 |
| 3. All the Miata's designers and engineers knew sports cars.   | 1 | 2 | 3 | 4 | 5 |
| 4. The Miata is <u>not</u> a sports car.                       | 1 | 2 | 3 | 4 | 5 |
| 5. The Miata has front-wheel drive.                            | 1 | 2 | 3 | 4 | 5 |
| 6. The Miata has highbacked bucket seats.                      | 1 | 2 | 3 | 4 | 5 |
| 7. The Miata has a long-throw shifter.                         | 1 | 2 | 3 | 4 | 5 |
| 8. The throttle and rear wheels seem to be directly connected. | 1 | 2 | 3 | 4 | 5 |
| 9. The accelerator pedal is rubber.                            | 1 | 2 | 3 | 4 | 5 |
| 10. The Miata is affordable.                                   | 1 | 2 | 3 | 4 | 5 |
| 11. The Miata is technically-advanced.                         | 1 | 2 | 3 | 4 | 5 |

**THANK YOU!**

# APPENDIX K

## PILOT STUDY

### INSTRUCTIONS AND PROCEDURES

Instructions and Procedures for Experiment  
Indirect Affective Communication Mode  
(Video)

1. Pass out questionnaire booklets before respondents arrive at locations near the monitor.
2. Cue up the video-tape and test.
3. When all respondents have arrived, instruct participants to read only the first page and not to start until told to do so.
4. When all participants have read the first page, instruct:

Please be certain to record the last four digits of your social security number so you can get the extra credit that will be awarded for your participation in this study.

This study looks at buyers' reactions to cars. This should be fun so just relax.

I am now going to show you a short video-tape showing a Mazda Miata in a series of short takes to give you the chance to look at the car in different settings and to get a feel for the car. There will be no sound because we are not interested in your reactions to a commercial but simply your reactions to the car itself.

Therefore, when you watch this video, please focus on the car and your reactions to it.

Imagine that you will own this car. Forget about the money for the time being. How do you react to this car?

5. Play the video. When it has finished instruct:

Now we want to provide us with your reaction to this car. Please respond as honestly, accurately, and as candidly as you can. We are very interested in your actual responses; therefore, please take your time. But, don't dwell on questions. Your first response is probably your best response so read the question and record your response. If the question asks you to list items list as many as you can, but when you find yourself sitting for more than 15-30 seconds and you can't think of any more, go on to the next question. Remember, there are no right or wrong answers, only your personal reactions. If at any time you have any questions, please raise your hand. After you have completed the questionnaire please check that you have answered all the questions but do not change any of your answers. Answer the questions in the order they are presented, do not go back. Please check booklet #1 to certain that it has all 12 pages. Also check Booklet #2 to see if it has all 4 pages. Please turn to page 2 of Questionnaire Booklet #1 and complete the questionnaire booklet as completely as possible. After you have completed and checked Questionnaire Booklet #1 go to Questionnaire Booklet #2. After you have completed and checked Questionnaire Booklet #2 please turn the questionnaires over and look up.

6. When participants have completed the questionnaires, collect them. Check to be certain each booklet has the last 4 digits of SS# recorded. Instruct upon leaving: Thank you for your participation.
7. If debriefing the group, ask the following questions:
  1. What do you think the study was about?
  2. What was your response to the description itself?
  3. Did you imagine yourself driving the car? Where?
  4. Did the description change your mind about the car?
  5. How emotionally excited did you get reading and thinking about the car?

Instructions and Procedures for Experiment  
Direct Affective Communication Mode  
(Written Product Description)

1. Pass out questionnaire booklets before respondents arrive.

2. When all respondents have arrived, instruct:

Please read the top page of Questionnaire Booklet #1.

Please be certain to record the last four digits of your social security number so you can get the extra credit that will be awarded for your participation in this study.

This study looks at buyers' reactions to cars. This should be fun so just relax. I will now pass out something that tells you a little bit about the Mazda Miata. Please read this so we can get your reactions to this car. Imagine that you will own this car. Forget about the money for the time being. How do you react to this car?

Allow respondents 3-4 minutes to read the stimulus.

3. Collect the stimulus material.

4. Instruct participants:

Now we want to provide us with your reactions to this car. Please respond as honestly, accurately, and as candidly as you can. We are very interested in your actual responses; therefore, please take your time. But, don't dwell on questions. Your first response is probably your best response so read the question and record your response. If the question asks you to list items list as many as you can, but when you find yourself sitting for more than 15-30 seconds and you can't think of any more, go on to the next question. Remember, there are no right or wrong answers, only your personal reactions. After you have completed the questionnaire please check that you have answered all the questions but do not change any of your answers. Answer the questions in the order they are presented, do not go back. If you run out of space for a question please raise your hand and I will provide you with additional paper. Please check Booklet #1 to be certain that it contains all 12 pages. Also check Booklet #2 to be certain that it has all 5 pages. If at any time you have any questions, please raise your hand. Please turn to page 2 of Questionnaire Booklet #1 and complete the questionnaire booklet as completely as possible. When you are finished with Questionnaire Booklet #1 and you have checked it, go on to Questionnaire Booklet #2. When you have completed and checked Questionnaire Booklet #2 please turn the questionnaires over and look up.

6. When participants have completed the questionnaires, collect them. Check to be certain each booklet has the last 4 digits of SS# recorded. Instruct upon leaving: Thank you for your participation.
7. If debriefing the group, ask the following questions:
  1. What do you think the study was about?
  2. What was your response to the description itself?
  3. Did you imagine yourself driving the car? Where?
  4. Did the description change your mind about the car?
  5. How emotionally excited did you get reading and thinking about the car?

# APPENDIX L

## EXPERIMENT #1

### PRETEST INSTRUMENT

**Instructions:**

You are being asked to participate in a study in which your honest cooperation will be appreciated. No identification of your person is being requested and your complete privacy and anonymity in regard to your responses are assured. However, we do ask that you provide the last four digits of your social security number so that we can identify participants to the instructor to award the extra credit points.

Please write in the last four digits of your social security number:

\_\_\_\_\_

The researcher will provide you with specific instructions. Please do not open this booklet until you are instructed to do so.

When you are told to do so, please open the booklet and answer all of the questions to the best of your ability. There are 6 pages. When you have finished, please go back and check to be certain that you have answered all questions, that all circles are dark, and that other information provided is legible.

Are these instructions clear? If not, raise your hand and the researcher will answer any questions you may have.

**Thank you for your participation.**

When the researcher informs you to do so, you may turn the page and answer the questions until you complete the entire questionnaire.

For the following questions, please mark an X in a space over a number to indicate your response. For example, if you were asked how much you liked something, and you liked it a lot you would place an X over the number 7 as follows:

Extreme dislike      1 | 2 | 3 | 4 | 5 | 6 | 7 | X      Extreme like

Please mark an X in a space over a number to show your opinion of each of the following cars.

**FORD PROBE LX**

- |    |                       |                           |                     |
|----|-----------------------|---------------------------|---------------------|
| 1. | Extremely bad         | 1   2   3   4   5   6   7 | Extremely good      |
| 2. | Extremely negative    | 1   2   3   4   5   6   7 | Extremely positive  |
| 3. | Extremely unfavorable | 1   2   3   4   5   6   7 | Extremely favorable |
| 4. | Extremely undesirable | 1   2   3   4   5   6   7 | Extremely desirable |

**MAZDA MIATA MX-5**

- |    |                       |                           |                     |
|----|-----------------------|---------------------------|---------------------|
| 5. | Extremely bad         | 1   2   3   4   5   6   7 | Extremely good      |
| 6. | Extremely negative    | 1   2   3   4   5   6   7 | Extremely positive  |
| 7. | Extremely unfavorable | 1   2   3   4   5   6   7 | Extremely favorable |
| 8. | Extremely undesirable | 1   2   3   4   5   6   7 | Extremely desirable |

**HONDA CIVIC CRX**

- |     |                       |                           |                     |
|-----|-----------------------|---------------------------|---------------------|
| 9.  | Extremely bad         | 1   2   3   4   5   6   7 | Extremely good      |
| 10. | Extremely negative    | 1   2   3   4   5   6   7 | Extremely positive  |
| 11. | Extremely unfavorable | 1   2   3   4   5   6   7 | Extremely favorable |
| 12. | Extremely undesirable | 1   2   3   4   5   6   7 | Extremely desirable |

**CHEVROLET CORVETTE**

- |     |                       |                           |                     |
|-----|-----------------------|---------------------------|---------------------|
| 13. | Extremely bad         | 1   2   3   4   5   6   7 | Extremely good      |
| 14. | Extremely negative    | 1   2   3   4   5   6   7 | Extremely positive  |
| 15. | Extremely unfavorable | 1   2   3   4   5   6   7 | Extremely favorable |
| 16. | Extremely undesirable | 1   2   3   4   5   6   7 | Extremely desirable |

Please mark an X in a space over a number to show your opinion of each of the following exterior car colors.

**RED**

- |     |                       |                           |                     |
|-----|-----------------------|---------------------------|---------------------|
| 17. | Extremely bad         | 1   2   3   4   5   6   7 | Extremely good      |
| 18. | Extremely negative    | 1   2   3   4   5   6   7 | Extremely positive  |
| 19. | Extremely unfavorable | 1   2   3   4   5   6   7 | Extremely favorable |
| 20. | Extremely undesirable | 1   2   3   4   5   6   7 | Extremely desirable |

**BLACK**

- |     |                       |                           |                     |
|-----|-----------------------|---------------------------|---------------------|
| 21. | Extremely bad         | 1   2   3   4   5   6   7 | Extremely good      |
| 22. | Extremely negative    | 1   2   3   4   5   6   7 | Extremely positive  |
| 23. | Extremely unfavorable | 1   2   3   4   5   6   7 | Extremely favorable |
| 24. | Extremely undesirable | 1   2   3   4   5   6   7 | Extremely desirable |

**DARK GREEN**

- |     |                       |                           |                     |
|-----|-----------------------|---------------------------|---------------------|
| 25. | Extremely bad         | 1   2   3   4   5   6   7 | Extremely good      |
| 26. | Extremely negative    | 1   2   3   4   5   6   7 | Extremely positive  |
| 27. | Extremely unfavorable | 1   2   3   4   5   6   7 | Extremely favorable |
| 28. | Extremely undesirable | 1   2   3   4   5   6   7 | Extremely desirable |

**YELLOW**

- |     |                       |                           |                     |
|-----|-----------------------|---------------------------|---------------------|
| 29. | Extremely bad         | 1   2   3   4   5   6   7 | Extremely good      |
| 30. | Extremely negative    | 1   2   3   4   5   6   7 | Extremely positive  |
| 31. | Extremely unfavorable | 1   2   3   4   5   6   7 | Extremely favorable |
| 32. | Extremely undesirable | 1   2   3   4   5   6   7 | Extremely desirable |

Please circle the number that best matches your response.

33. Regarding cars in general, I shop or browse for cars:

1	2	3	4	5	6	7
-----						
Rarely	Seldomly	Once in A While	Occasionally	Sometimes	Often	Very Often

34. Regarding cars in general, I am:

1	2	3	4	5	6	7
-----						
Completely Unfamiliar	Moderately Unfamiliar	Somewhat Unfamiliar	Neither Familiar Nor Unfamiliar	Somewhat Familiar	Moderately Familiar	Completely Familiar

35. I consider my overall knowledge about cars to be:

1	2	3	4	5	6	7
-----						
Poor	So-so	Satisfactory	Good	Very Good	First Rate	Excellent

36. My ability to explain to others certain aspects about cars is:

1	2	3	4	5	6	7
-----						
Poor	So-so	Satisfactory	Good	Very Good	First Rate	Excellent

37. My ability to evaluate cars is:

1	2	3	4	5	6	7
-----						
Poor	So-so	Satisfactory	Good	Very Good	First Rate	Excellent

38. How comfortable would you feel in relying on only what you know right now if you were buying a car?

1	2	3	4	5	6	7
-----						
Completely Uncomfortable	Moderately Uncomfortable	Somewhat Uncomfortable	Neither Comfortable nor Uncomfortable	Somewhat Comfortable	Moderately Comfortable	Completely Comfortable

39. How certain are you about your ability to judge cars?

1	2	3	4	5	6	7
-----						
Completely Uncertain	Moderately Uncertain	Somewhat Uncertain	Neither Certain Nor Uncertain	Somewhat Certain	Moderately Certain	Completely Certain

Please indicate your level of agreement/disagreement with the following statements by circling the appropriate number.

40. I trust my ability to judge cars.

1	2	3	4	5	6	7
Strongly Disagree	Moderately Disagree	Somewhat Disagree	Neither Agree Nor Disagree	Somewhat Agree	Moderately Agree	Strongly Agree

41. I have more knowledge about cars than the average person.

1	2	3	4	5	6	7
Strongly Disagree	Moderately Disagree	Somewhat Disagree	Neither Agree Nor Disagree	Somewhat Agree	Moderately Agree	Strongly Agree

42. I am confident when comparing cars.

1	2	3	4	5	6	7
Strongly Disagree	Moderately Disagree	Somewhat Disagree	Neither Agree Nor Disagree	Somewhat Agree	Moderately Agree	Strongly Agree

43. I spend considerable time looking at, reading about, and talking about cars.

1	2	3	4	5	6	7
Strongly Disagree	Moderately Disagree	Somewhat Disagree	Neither Agree Nor Disagree	Somewhat Agree	Moderately Agree	Strongly Agree

44. I know a lot about cars.

1	2	3	4	5	6	7
Strongly Disagree	Moderately Disagree	Somewhat Disagree	Neither Agree Nor Disagree	Somewhat Agree	Moderately Agree	Strongly Agree

45. Sex: 1-Male 2-Female (circle one)

**THANK YOU!**

## APPENDIX M

### EXPERIMENT #1

#### EXPERIMENTAL INSTRUMENT

#### LOW AFFECTIVE INFORMATION CONDITION



## QUESTIONNAIRE BOOKLET #1



### Instructions:

You are being asked to participate in a study in which your honest cooperation will be appreciated. No identification of your person is being requested and your complete privacy and anonymity in regard to your responses are assured. However, we do ask that you provide the last four digits of your social security number so that we can identify participants to the instructor to award the extra credit points.

Please write in the last four digits of your social security number:

\_\_\_\_\_

The researcher will provide you with specific instructions. Please do not open this booklet until you are instructed to do so.

When you are told to do so, please open the booklet and answer all of the questions to the best of your ability. Please answer the questions in the order they are presented. Do not go back and add to or change your original responses. There are 12 pages. When you have finished, please go back and check to be certain that you have answered all questions, that all circles are dark, and that other information provided is legible.

When you are completely finished with this questionnaire booklet, #1, please go to questionnaire booklet #2.

Are these instructions clear? If not, raise your hand and the researcher will answer any questions you may have.

## Thank you for your participation.

When the researcher informs you to do so, you may turn the page and answer the questions until you complete the entire questionnaire.

Please circle the number that indicates the level to which you experienced the following feelings while reading about the car in the description:

**1. EXCITEMENT**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**2. ANTICIPATION**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**3. PRIDE**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**4. DESIRE**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**5. JOY**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**6. PLEASURE**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**7. EXPECTATION**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

Please circle the number that indicates the extent to which you feel the car is:

**8. FUN**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**9. EXCITING**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**10. INTERESTING**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**11. APPEALING**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**12. SATISFYING**

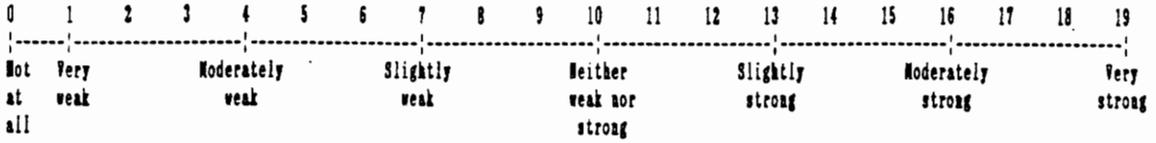
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**13. UPLIFTING**

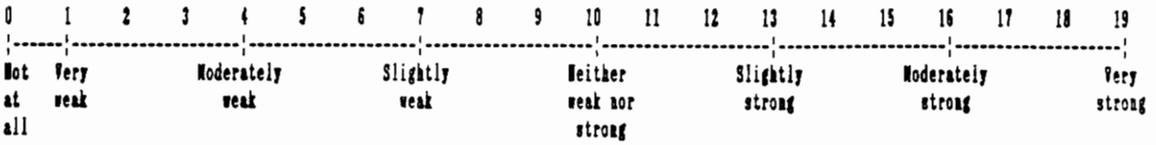
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

Now please circle the number to indicate the extent to which the car in the description makes you feel:

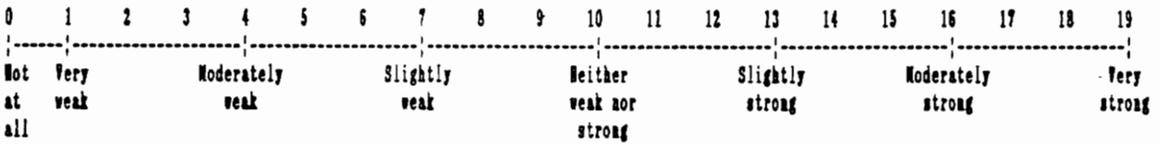
14. UPBEAT



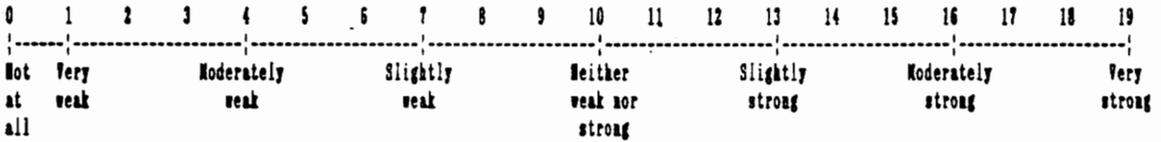
15. HAPPY



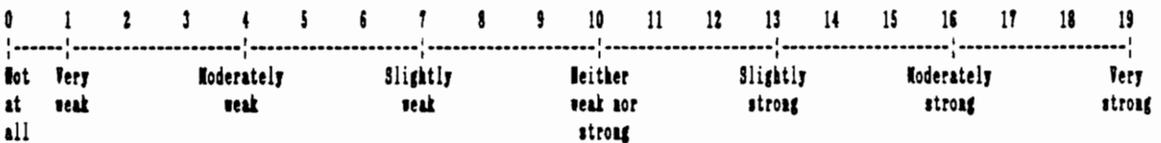
16. ADVENTUROUS



17. POSITIVE



18. GOOD





Still imagining that you have just purchased this car, please circle the number that indicates the level of feeling you expect to experience. Remember, you now own the car; please circle the number that indicates the extent to which you will feel:

**20. EXCITED**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**21. PLEASANT**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**22. PROUD**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**23. JOYFUL**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**24. UPBEAT**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**25. HAPPY**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**26. SATISFIED**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**27. GOOD**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**28. UPLIFTED**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**29. POSITIVE**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

Continuing to imagine that you have just purchased this car, please circle the number that indicates your response to the following questions.

30. If we label all of these feelings collectively as "emotional excitement," overall, how strong is this emotional excitement?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

31. How vivid are these feelings?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very dull		Moderately dull				Slightly dull			Neither dull nor vivid			Slightly vivid			Moderately vivid			Very vivid

32. Sometimes when you imagine a situation as you just did, the emotions and feelings are very real - close to what you would actually feel. Other times the feelings are not that real, almost nonexistent. How real do these feelings seem for you?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very nonexistent		Moderately nonexistent				Slightly nonexistent			Neither nonexistent nor real			Slightly real			Moderately real			Very real

33. Please list any thoughts you had while reading about the car in this description. List only one thought per line.

- 1) \_\_\_\_\_
- 2) \_\_\_\_\_
- 3) \_\_\_\_\_
- 4) \_\_\_\_\_
- 5) \_\_\_\_\_
- 6) \_\_\_\_\_
- 7) \_\_\_\_\_
- 8) \_\_\_\_\_
- 9) \_\_\_\_\_
- 10) \_\_\_\_\_
- 11) \_\_\_\_\_

34. Please list any features or attributes you can recall about the car.

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35. Please list any thoughts you might have if you had just purchased this car. That is, similar to before, imagine you have just purchased this car; what thoughts might run through your head? List only one thought per line.

1) \_\_\_\_\_

2) \_\_\_\_\_

3) \_\_\_\_\_

4) \_\_\_\_\_

5) \_\_\_\_\_

6) \_\_\_\_\_

7) \_\_\_\_\_

8) \_\_\_\_\_

9) \_\_\_\_\_

10) \_\_\_\_\_

11) \_\_\_\_\_

Please circle the number that indicates your response to the following questions.

37. The likelihood that this car would be reliable is:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Very low		Moderately low			Slightly low			Neither low nor high			Slightly high			Moderately high			Very high	

38. This workmanship of this car would be:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Very low		Moderately low			Slightly low			Neither low nor high			Slightly high			Moderately high			Very high	

39. This car would be durable.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Strongly Disagree		Moderately disagree			Slightly disagree			Neither agree nor disagree			Slightly agree			Moderately agree			Strongly agree	

40. The likelihood that this car would be dependable is:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Very low		Moderately low			Slightly low			Neither low nor high			Slightly high			Moderately high			Very high	

41. How important to you is this car's gas mileage?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very unimportant		Moderately unimportant			Slightly unimportant			Neither important nor unimportant			Slightly important			Moderately important			Very important	

42. How important to you is this car's acceleration?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very unimportant		Moderately unimportant			Slightly unimportant			Neither important nor unimportant			Slightly important			Moderately important			Very important	

43. How important to you is this car's warranty?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all		Very unimportant		Moderately unimportant		Slightly unimportant		Neither important nor unimportant			Slightly important		Moderately important		Very important				

44. How much do you like this car?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Dislike very much		Moderately dislike		Slightly dislike		Neither like nor dislike			Slightly like		Moderately like		Like very much					

45. Overall, this car is of (circle one):

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Bad quality		Neither good nor bad quality		Satisfactory quality		Good quality		Very good quality		First Rate quality		Excellent quality						

46. I would be satisfied with this car.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Strongly Disagree		Moderately disagree		Slightly disagree		Neither agree nor disagree			Slightly agree		Moderately agree		Strongly agree					

47. In general, I value this car.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Strongly Disagree		Moderately disagree		Slightly disagree		Neither agree nor disagree			Slightly agree		Moderately agree		Strongly agree					



## APPENDIX N

### EXPERIMENT #1

#### EXPERIMENTAL INSTRUMENT

#### HIGH AFFECTIVE INFORMATION CONDITION



## QUESTIONNAIRE BOOKLET #1



### Instructions:

You are being asked to participate in a study in which your honest cooperation will be appreciated. No identification of your person is being requested and your complete privacy and anonymity in regard to your responses are assured. However, we do ask that you provide the last four digits of your social security number so that we can identify participants to the instructor to award the extra credit points.

Please write in the last four digits of your social security number:

\_\_\_\_\_

The researcher will provide you with specific instructions. Please do not open this booklet until you are instructed to do so.

When you are told to do so, please open the booklet and answer all of the questions to the best of your ability. Please answer the questions in the order they are presented. Do not go back and add to or change your original responses. There are 12 pages. When you have finished, please go back and check to be certain that you have answered all questions, that all circles are dark, and that other information provided is legible.

When you are completely finished with this questionnaire booklet, #1, please go to questionnaire booklet #2.

Are these instructions clear? If not, raise your hand and the researcher will answer any questions you may have.

## Thank you for your participation.

When the researcher informs you to do so, you may turn the page and answer the questions until you complete the entire questionnaire.

Please circle the number that indicates the level to which you experienced the following feelings while reading about the car in the description:

**1. EXCITEMENT**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Noderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Noderately strong			Very strong

**2. ANTICIPATION**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Noderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Noderately strong			Very strong

**3. PRIDE**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Noderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Noderately strong			Very strong

**4. DESIRE**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Noderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Noderately strong			Very strong

**5. JOY**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Noderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Noderately strong			Very strong

**6. PLEASURE**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Noderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Noderately strong			Very strong

**7. EXPECTATION**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Noderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Noderately strong			Very strong

Please circle the number that indicates the extent to which you feel the car is:

**8. FUN**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**9. EXCITING**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**10. INTERESTING**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**11. APPEALING**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**12. SATISFYING**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

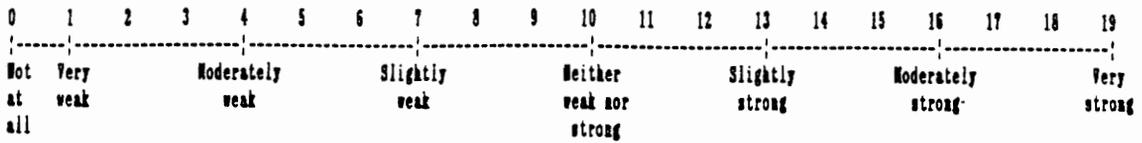
**13. UPLIFTING**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

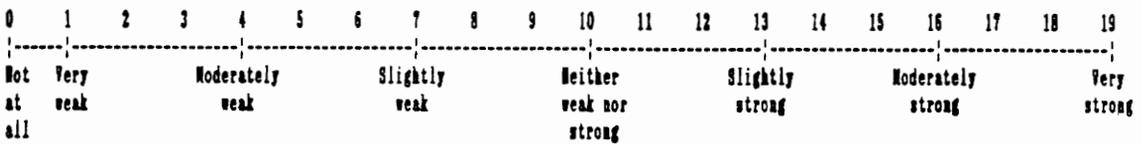
3

Now please circle the number to indicate the extent to which the car in the description makes you feel:

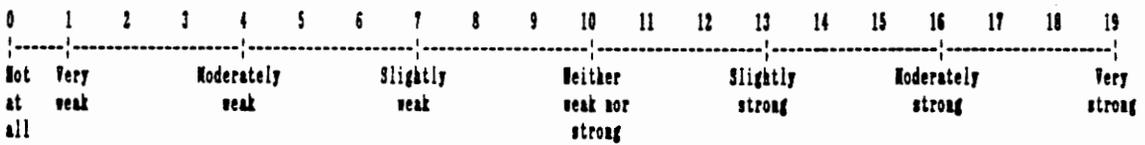
**14. UPBEAT**



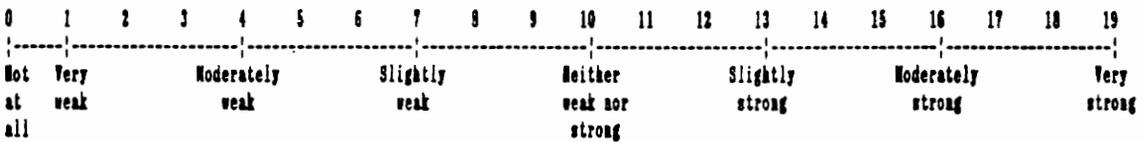
**15. HAPPY**



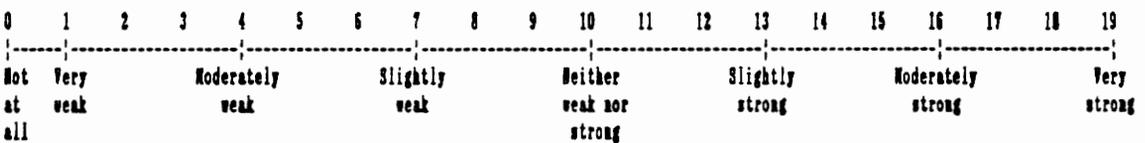
**16. ADVENTUROUS**



**17. POSITIVE**



**18. GOOD**





Still imagining that you have just purchased this car, please circle the number that indicates the level of feeling you expect to experience. Remember, you now own the car; please circle the number that indicates the extent to which you will feel:

**20. EXCITED**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**21. PLEASANT**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**22. PROUD**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**23. JOYFUL**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**24. UPBEAT**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**25. HAPPY**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**26. SATISFIED**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Noderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Noderately strong			Very strong

**27. GOOD**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Noderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Noderately strong			Very strong

**28. UPLIFTED**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Noderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Noderately strong			Very strong

**29. POSITIVE**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Noderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Noderately strong			Very strong

Continuing to imagine that you have just purchased this car, please circle the number that indicates your response to the following questions.

30. If we label all of these feelings collectively as "emotional excitement," overall, how strong is this emotional excitement?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all		Very weak		Moderately weak			Slightly weak			Neither weak nor strong		Slightly strong		Moderately strong			Very strong		

31. How vivid are these feelings?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all		Very dull		Moderately dull			Slightly dull			Neither dull nor vivid		Slightly vivid		Moderately vivid			Very vivid		

32. Sometimes when you imagine a situation as you just did, the emotions and feelings are very real - close to what you would actually feel. Other times the feelings are not that real, almost nonexistent. How real do these feelings seem for you?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all		Very nonexistent		Moderately nonexistent			Slightly nonexistent			Neither nonexistent nor real		Slightly real		Moderately real			Very real		

33. Please list any thoughts you had while reading about the car in this description. List only one thought per line.

- 1) \_\_\_\_\_
- 2) \_\_\_\_\_
- 3) \_\_\_\_\_
- 4) \_\_\_\_\_
- 5) \_\_\_\_\_
- 6) \_\_\_\_\_
- 7) \_\_\_\_\_
- 8) \_\_\_\_\_
- 9) \_\_\_\_\_
- 10) \_\_\_\_\_
- 11) \_\_\_\_\_

34. Please list any features or attributes you can recall about the car.

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35. Please list any thoughts you might have if you had just purchased this car. That is, similar to before, imagine you have just purchased this car; what thoughts might run through your head? List only one thought per line.

1) \_\_\_\_\_

2) \_\_\_\_\_

3) \_\_\_\_\_

4) \_\_\_\_\_

5) \_\_\_\_\_

6) \_\_\_\_\_

7) \_\_\_\_\_

8) \_\_\_\_\_

9) \_\_\_\_\_

10) \_\_\_\_\_

11) \_\_\_\_\_

Please circle the number that indicates your response to the following questions.

37. The likelihood that this car would be reliable is:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Very low		Moderately low			Slightly low			Neither low nor high			Slightly high			Moderately high			Very high	

38. This workmanship of this car would be:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Very low		Moderately low			Slightly low			Neither low nor high			Slightly high			Moderately high			Very high	

39. This car would be durable.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Strongly Disagree		Moderately disagree			Slightly disagree			Neither agree nor disagree			Slightly agree			Moderately agree			Strongly agree	

40. The likelihood that this car would be dependable is:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Very low		Moderately low			Slightly low			Neither low nor high			Slightly high			Moderately high			Very high	

41. How important to you is this car's gas mileage?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very unimportant		Moderately unimportant			Slightly unimportant			Neither important nor unimportant			Slightly important			Moderately important			Very important	

42. How important to you is this car's acceleration?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very unimportant		Moderately unimportant			Slightly unimportant			Neither important nor unimportant			Slightly important			Moderately important			Very important	

43. How important to you is this car's warranty?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all		Very unimportant		Moderately unimportant		Slightly unimportant		Neither important nor unimportant			Slightly important		Moderately important		Very important				

44. How much do you like this car?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Dislike very much		Moderately dislike		Slightly dislike		Neither like nor dislike			Slightly like		Moderately like		Like very much					

45. Overall, this car is of (circle one):

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Bad quality		Neither good nor bad quality			Satisfactory quality			Good quality		Very good quality			First Rate quality		Excellent quality			

46. I would be satisfied with this car.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Strongly Disagree		Moderately disagree		Slightly disagree		Neither agree nor disagree			Slightly agree		Moderately agree		Strongly agree					

47. In general, I value this car.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Strongly Disagree		Moderately disagree		Slightly disagree		Neither agree nor disagree			Slightly agree		Moderately agree		Strongly agree					

For the following questions, please mark an X in a space over a number to indicate your response. For example, if you were asked how much you liked something, and you liked it a lot you would place an X over the number 7 as follows:

Extreme dislike	<table border="0"> <tr> <td style="border-bottom: 1px solid black; width: 20px;"></td> <td style="border-bottom: 1px solid black; width: 20px; text-align: center;">X</td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> <td></td> </tr> </table>								X	1	2	3	4	5	6	7		Extreme like
							X											
1	2	3	4	5	6	7												

Mark an X in the space over a number to indicate how intense your feelings would be if you had just purchased this car.

- |                      |  |   |   |   |   |   |  |  |  |   |   |   |   |   |   |   |  |                      |
|----------------------|--|---|---|---|---|---|--|--|--|---|---|---|---|---|---|---|--|----------------------|
| 48. Extremely weak   | <table border="0"> <tr> <td style="border-bottom: 1px solid black; width: 20px;"></td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> <td></td> </tr> </table> |   |   |   |   |   |  |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |  | Extremely<br>intense |
|                      |  |   |   |   |   |   |  |  |  |   |   |   |   |   |   |   |  |                      |
| 1                    | 2  | 3 | 4 | 5 | 6 | 7 |  |  |  |   |   |   |   |   |   |   |  |                      |
| 49. Extremely dull   | <table border="0"> <tr> <td style="border-bottom: 1px solid black; width: 20px;"></td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> <td></td> </tr> </table> |   |   |   |   |   |  |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |  | Extremely<br>vivid   |
|                      |  |   |   |   |   |   |  |  |  |   |   |   |   |   |   |   |  |                      |
| 1                    | 2  | 3 | 4 | 5 | 6 | 7 |  |  |  |   |   |   |   |   |   |   |  |                      |
| 50. Extremely barren | <table border="0"> <tr> <td style="border-bottom: 1px solid black; width: 20px;"></td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> <td></td> </tr> </table> |   |   |   |   |   |  |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |  | Extremely<br>rich    |
|                      |  |   |   |   |   |   |  |  |  |   |   |   |   |   |   |   |  |                      |
| 1                    | 2  | 3 | 4 | 5 | 6 | 7 |  |  |  |   |   |   |   |   |   |   |  |                      |
| 51. Very unrealistic | <table border="0"> <tr> <td style="border-bottom: 1px solid black; width: 20px;"></td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> <td></td> </tr> </table> |   |   |   |   |   |  |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |  | Very<br>real         |
|                      |  |   |   |   |   |   |  |  |  |   |   |   |   |   |   |   |  |                      |
| 1                    | 2  | 3 | 4 | 5 | 6 | 7 |  |  |  |   |   |   |   |   |   |   |  |                      |
| 52. Very fake        | <table border="0"> <tr> <td style="border-bottom: 1px solid black; width: 20px;"></td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> <td></td> </tr> </table> |   |   |   |   |   |  |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |  | Very<br>genuine      |
|                      |  |   |   |   |   |   |  |  |  |   |   |   |   |   |   |   |  |                      |
| 1                    | 2  | 3 | 4 | 5 | 6 | 7 |  |  |  |   |   |   |   |   |   |   |  |                      |

Please mark an X in a space over a number to show your opinion of this car.

- |                           |  |   |   |   |   |   |  |  |  |   |   |   |   |   |   |   |  |                         |
|---------------------------|--|---|---|---|---|---|--|--|--|---|---|---|---|---|---|---|--|-------------------------|
| 53. Extremely bad         | <table border="0"> <tr> <td style="border-bottom: 1px solid black; width: 20px;"></td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> <td></td> </tr> </table> |   |   |   |   |   |  |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |  | Extremely<br>good       |
|                           |  |   |   |   |   |   |  |  |  |   |   |   |   |   |   |   |  |                         |
| 1                         | 2  | 3 | 4 | 5 | 6 | 7 |  |  |  |   |   |   |   |   |   |   |  |                         |
| 54. Extremely negative    | <table border="0"> <tr> <td style="border-bottom: 1px solid black; width: 20px;"></td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> <td></td> </tr> </table> |   |   |   |   |   |  |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |  | Extremely<br>positive   |
|                           |  |   |   |   |   |   |  |  |  |   |   |   |   |   |   |   |  |                         |
| 1                         | 2  | 3 | 4 | 5 | 6 | 7 |  |  |  |   |   |   |   |   |   |   |  |                         |
| 55. Extremely unfavorable | <table border="0"> <tr> <td style="border-bottom: 1px solid black; width: 20px;"></td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> <td></td> </tr> </table> |   |   |   |   |   |  |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |  | Extremely<br>favorable  |
|                           |  |   |   |   |   |   |  |  |  |   |   |   |   |   |   |   |  |                         |
| 1                         | 2  | 3 | 4 | 5 | 6 | 7 |  |  |  |   |   |   |   |   |   |   |  |                         |
| 56. Extremely undesirable | <table border="0"> <tr> <td style="border-bottom: 1px solid black; width: 20px;"></td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> <td></td> </tr> </table> |   |   |   |   |   |  |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |  | Extremely<br>desireable |
|                           |  |   |   |   |   |   |  |  |  |   |   |   |   |   |   |   |  |                         |
| 1                         | 2  | 3 | 4 | 5 | 6 | 7 |  |  |  |   |   |   |   |   |   |   |  |                         |

Please mark an X in a space over a number to show your opinion of the car's red color.

- |                           |  |   |   |   |   |   |  |  |  |   |   |   |   |   |   |   |  |                         |
|---------------------------|--|---|---|---|---|---|--|--|--|---|---|---|---|---|---|---|--|-------------------------|
| 57. Extremely bad         | <table border="0"> <tr> <td style="border-bottom: 1px solid black; width: 20px;"></td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> <td></td> </tr> </table> |   |   |   |   |   |  |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |  | Extremely<br>good       |
|                           |  |   |   |   |   |   |  |  |  |   |   |   |   |   |   |   |  |                         |
| 1                         | 2  | 3 | 4 | 5 | 6 | 7 |  |  |  |   |   |   |   |   |   |   |  |                         |
| 58. Extremely negative    | <table border="0"> <tr> <td style="border-bottom: 1px solid black; width: 20px;"></td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> <td></td> </tr> </table> |   |   |   |   |   |  |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |  | Extremely<br>positive   |
|                           |  |   |   |   |   |   |  |  |  |   |   |   |   |   |   |   |  |                         |
| 1                         | 2  | 3 | 4 | 5 | 6 | 7 |  |  |  |   |   |   |   |   |   |   |  |                         |
| 59. Extremely unfavorable | <table border="0"> <tr> <td style="border-bottom: 1px solid black; width: 20px;"></td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> <td></td> </tr> </table> |   |   |   |   |   |  |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |  | Extremely<br>favorable  |
|                           |  |   |   |   |   |   |  |  |  |   |   |   |   |   |   |   |  |                         |
| 1                         | 2  | 3 | 4 | 5 | 6 | 7 |  |  |  |   |   |   |   |   |   |   |  |                         |
| 60. Extremely undesirable | <table border="0"> <tr> <td style="border-bottom: 1px solid black; width: 20px;"></td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> <td></td> </tr> </table> |   |   |   |   |   |  |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |  | Extremely<br>desireable |
|                           |  |   |   |   |   |   |  |  |  |   |   |   |   |   |   |   |  |                         |
| 1                         | 2  | 3 | 4 | 5 | 6 | 7 |  |  |  |   |   |   |   |   |   |   |  |                         |

**THANK YOU!**

## APPENDIX O

### EXPERIMENT #1

### POST-TEST INSTRUMENT



## QUESTIONNAIRE BOOKLET #2



### Instructions:

Please fill out this second questionnaire. Your honest cooperation will be appreciated. No identification of your person is being requested and your complete privacy and anonymity in regard to your responses are assured. However, we do ask that you provide the last four digits of your social security number so that we can identify participants to the instructor to award the extra credit points.

Please write in the last four digits of your social security number:

\_\_\_\_\_

Please open the booklet and answer all of the questions to the best of your ability. When you have finished, please go back and check to be certain that you have answered all questions, that all circles are dark, and that other information provided is legible.

When you are completely finished please turn over both questionnaire booklets and look up so the researcher will know when everyone is finished.

Are these instructions clear? If not, raise your hand and the researcher will answer any questions you may have.

## Thank you for your participation.

You may turn the page and answer the questions until you complete the entire questionnaire.

Please use the following scale to indicate your belief of the truthfulness of the following statements based on the information provided in the description.



Please circle the number that matches your belief of the truthfulness of the following statements.

- |  |   |   |   |   |   |
|--|---|---|---|---|---|
| 1. The Miata is a roadster.                                    | 1 | 2 | 3 | 4 | 5 |
| 2. All the Miata's designers and engineers knew sports cars.   | 1 | 2 | 3 | 4 | 5 |
| 3. The Miata is <u>not</u> a sports car.                       | 1 | 2 | 3 | 4 | 5 |
| 4. The Miata has front-wheel drive.                            | 1 | 2 | 3 | 4 | 5 |
| 5. The Miata has highbacked bucket seats.                      | 1 | 2 | 3 | 4 | 5 |
| 6. The Miata has a long-throw shifter.                         | 1 | 2 | 3 | 4 | 5 |
| 7. The throttle and rear wheels seem to be directly connected. | 1 | 2 | 3 | 4 | 5 |
| 8. The accelerator pedal is rubber.                            | 1 | 2 | 3 | 4 | 5 |
| 9. The Miata is affordable.                                    | 1 | 2 | 3 | 4 | 5 |
| 10. The Miata is technically-advanced.                         | 1 | 2 | 3 | 4 | 5 |

Please turn the page and continue.

For the following questions, please mark an X in a space over a number to indicate your response. For example, if you were asked how loud a sound was, and you thought the sound was very loud, you would place an X over the number 7 as follows:

Soft           |      |      |      |      |      |   X        Loud  
                 1        2        3        4        5        6        7

Mark an X in the space over a number to indicate your responses to the description you just read.

12.            **Bad**                 |      |      |      |      |      |                 **Good**  
                                 1        2        3        4        5        6        7
13.    **Unbelievable**         |      |      |      |      |      |                 **Believable**  
                                 1        2        3        4        5        6        7
14.            **Unreliable**         |      |      |      |      |      |                 **Reliable**  
                                 1        2        3        4        5        6        7
15.    **Untrustworthy**         |      |      |      |      |      |                 **Trustworthy**  
                                 1        2        3        4        5        6        7
16.            **Negative**                 |      |      |      |      |      |                 **Positive**  
                                 1        2        3        4        5        6        7
17.            **Unfavorable**         |      |      |      |      |      |                 **Favorable**  
                                 1        2        3        4        5        6        7
18.            **Useless**                 |      |      |      |      |      |                 **Useful**  
                                 1        2        3        4        5        6        7

19. How much did you like this description?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Dislike			Moderately			Slightly			Neither			Slightly			Moderately			Like
very			dislike			dislike			like nor			like			like			very
such									dislike									such

Please turn the page and continue.

3

We now request that you return to questionnaire booklet #1 to categorize your responses to two of the questions you answered.

Please open questionnaire booklet #1 to page 8 and go to question #33. In this question you listed thoughts you had while reading the description. Using the space provided below, please rate each thought as FAVORABLE, NEUTRAL, or UNFAVORABLE by circling the appropriate word.

- |               |         |             |               |         |             |
|---------------|---------|-------------|---------------|---------|-------------|
| 1) FAVORABLE  | NEUTRAL | UNFAVORABLE | 2) FAVORABLE  | NEUTRAL | UNFAVORABLE |
| 3) FAVORABLE  | NEUTRAL | UNFAVORABLE | 4) FAVORABLE  | NEUTRAL | UNFAVORABLE |
| 5) FAVORABLE  | NEUTRAL | UNFAVORABLE | 6) FAVORABLE  | NEUTRAL | UNFAVORABLE |
| 7) FAVORABLE  | NEUTRAL | UNFAVORABLE | 8) FAVORABLE  | NEUTRAL | UNFAVORABLE |
| 9) FAVORABLE  | NEUTRAL | UNFAVORABLE | 10) FAVORABLE | NEUTRAL | UNFAVORABLE |
| 11) FAVORABLE | NEUTRAL | UNFAVORABLE |               |         |             |

Now rate each thought as either being directed toward the product or toward the description itself. In other words, judge whether the thought listed is primarily a thought about the car, or a thought about the description itself. For example, the thought "I thought the car would look nice." should be rated as a thought directed toward the car and CAR should be circled next to the thought number. On the other hand, the thought "I didn't believe the car was inexpensive." should be rated as a thought directed toward the description itself and DESCRIPTION should be circled.

- |         |             |         |             |        |             |
|---------|-------------|---------|-------------|--------|-------------|
| 1) CAR  | DESCRIPTION | 2) CAR  | DESCRIPTION | 3) CAR | DESCRIPTION |
| 4) CAR  | DESCRIPTION | 5) CAR  | DESCRIPTION | 6) CAR | DESCRIPTION |
| 7) CAR  | DESCRIPTION | 8) CAR  | DESCRIPTION | 9) CAR | DESCRIPTION |
| 10) CAR | DESCRIPTION | 11) CAR | DESCRIPTION |        |             |

Please go to page 9 - question #35. Using the same procedure as before and the space provided below, please rate each thought as FAVORABLE, NEUTRAL, or UNFAVORABLE by circling the appropriate word.

- |               |         |             |               |         |             |
|---------------|---------|-------------|---------------|---------|-------------|
| 1) FAVORABLE  | NEUTRAL | UNFAVORABLE | 2) FAVORABLE  | NEUTRAL | UNFAVORABLE |
| 3) FAVORABLE  | NEUTRAL | UNFAVORABLE | 4) FAVORABLE  | NEUTRAL | UNFAVORABLE |
| 5) FAVORABLE  | NEUTRAL | UNFAVORABLE | 6) FAVORABLE  | NEUTRAL | UNFAVORABLE |
| 7) FAVORABLE  | NEUTRAL | UNFAVORABLE | 8) FAVORABLE  | NEUTRAL | UNFAVORABLE |
| 9) FAVORABLE  | NEUTRAL | UNFAVORABLE | 10) FAVORABLE | NEUTRAL | UNFAVORABLE |
| 11) FAVORABLE | NEUTRAL | UNFAVORABLE |               |         |             |

# APPENDIX P

## EXPERIMENT #1

### INSTRUCTIONS AND PROCEDURES

**Instructions and Procedures for Experiment  
Direct Affective Communication Mode  
(Written Product Description)**

1. Pass out questionnaire booklets before respondents arrive.
2. When all respondents have arrived, instruct:

Please read the top page of Questionnaire Booklet #1.

Please be certain to record the last four digits of your social security number so you can get the extra credit that will be awarded for your participation in this study.

This study looks at buyers' reactions to cars. This should be fun so just relax. I will now pass out something that tells you a little bit about the Mazda Miata. Please read this so we can get your reactions to this car. Imagine that you will own this car. Forget about the money for the time being. How do you react to this car?

Allow respondents 3-4 minutes to read the stimulus.

3. Collect the stimulus material.
4. Instruct participants:

Now we want to provide us with your reactions to this car. Please respond as honestly, accurately, and as candidly as you can. We are very interested in your actual responses; therefore, please take your time. But, don't dwell on questions. Your first response is probably your best response so read the question and record your response. If the question asks you to list items list as many as you can, but when you find yourself sitting for more than 15-30 seconds and you can't think of any more, go on to the next question. Remember, there are no right or wrong answers, only your personal reactions. After you have completed the questionnaire please check that you have answered all the questions but do not change any of your answers. Answer the questions in the order they are presented, do not go back. If you run out of space for a question please raise your hand and I will provide you with additional paper. Please check Booklet #1 to be certain that it contains all 12 pages. Also check Booklet #2 to be certain that it has all 5 pages. If at any time you have any questions, please raise your hand. Please turn to page 2 of Questionnaire Booklet #1 and complete the questionnaire booklet as completely as possible. When you are finished with Questionnaire Booklet #1 and you have checked it, go on to Questionnaire Booklet #2. When you have completed and checked Questionnaire Booklet #2 please turn the questionnaires over and look up.

6. When participants have completed the questionnaires, collect them. Check to be certain each booklet has the last 4 digits of SS# recorded. Instruct upon leaving: Thank you for your participation.
7. If debriefing the group, ask the following questions:
  1. What do you think the study was about?
  2. What was your response to the description itself?
  3. Did you imagine yourself driving the car? Where?
  4. Did the description change your mind about the car?
  5. How emotionally excited did you get reading and thinking about the car?

## APPENDIX Q

### EXPERIMENT #1

#### PRODUCT DESCRIPTION

#### LOW AFFECTIVE INFORMATION CONDITION

## A New Roadster For The '90s.

It began with seven Mazda designers and engineers; all were knowledgeable about sports cars. Their job was to design an affordable, technically-advanced sports car for the '90s. This was a significant challenge - an opportunity to redefine basic sports car concepts and bring sports car driving to a new generation of enthusiasts.

Early on, mid-engine and front-drive concepts were developed and quickly dismissed - only a traditional front-engine/rear-drive configuration would be acceptable to sports car purists. Once the basic characteristics were painstakingly defined, a vast array of Mazda computer-aided design and manufacturing technology was unleashed to aid in design of components which could meet their highly demanding objectives.

Experience what happens when the minds at Mazda search beyond pure engineering. Mazda calls it "Kansei Engineering" - it's looking beyond mechanical specifications to satisfactions. It is the challenge of the Miata development team to anticipate your needs - even those you didn't know you had - and to fulfill them.

The Miata goal is to capture sports car driving. And with a single-minded dedication, Mazda has fulfilled that purpose, opening a new dimension in driving.

The Miata cockpit is where it all comes together. All the Miata engineering comes together in the high-backed bucket seat in a sense of control. Flick the shifter through its short throws; notice the precise action. The "no-slip" metal accelerator pedal gives you power.

Wait till you drive the Miata! Twist the key and you hear the exhaust...the throttle and rear wheels seem directly connected...This car works. The Miata is just about perfect, delivering the sports car type of driving that it promises.

## APPENDIX R

### EXPERIMENT #1

#### PRODUCT DESCRIPTION

#### HIGH AFFECTIVE INFORMATION CONDITION

## An Exiting New Roadster For The '90s.

It began with seven Mazda designers and engineers; all were zealous sports car enthusiasts. Their mission was to boldly envision an affordable, technically-advanced sports car for the '90s and turn this dream into an exciting reality. This was an extraordinary opportunity to redefine basic sports car concepts and bring the joys of sports car driving to a new generation of enthusiasts.

Early on, mid-engine and front-drive concepts were developed and quickly dismissed - only a traditional front-engine/rear-drive configuration would "feel right" to sports car purists. Once the basic characteristics were painstakingly defined, a vast array of Mazda computer-aided design and manufacturing technology was unleashed to aid in design of components which could meet their highly demanding objectives. These passionate sports car believers have created a new roadster for the '90s, and a whole new exhilarating driving experience.

Experience what happens when creative minds at Mazda search beyond pure engineering to the human emotions a new Mazda will inspire - what you'll actually experience, how you'll feel driving it. Mazda calls it "Kansei Engineering" - looking beyond mechanical specifications to the emotional satisfactions which will make a new Mazda Miata "feel just right" to you in very special ways. It is the challenge of the Miata development team to anticipate your desires - even those you didn't know you had - and to fulfill them in a vehicle Mazda hopes you'll fondly remember.

The Miata goal is to capture the magic and deeply emotional pleasures of sports car driving. And with a single-minded dedication, the creative minds at Mazda have wondrously fulfilled that purpose, opening a new dimension in the pure excitement and emotions of driving. The simple joy and pleasure of looking at the Miata is exceeded only by the extraordinary excitement, exhilaration, thrill and enthusiasm experienced by driving this car.

The Miata cockpit is where it all comes together to feel just right. From the moment you settle into the highbacked bucket seat, all the artful Miata engineering comes together here in an incredible sense of control. Drop your right hand from the wheel, and flicking the shifter through its short throws is a revelation in precise action. The "no-slip" metal accelerator pedal gives you a "direct feel" of power flow.

Wait till you drive the Miata! You'll love it. Twist the key and you're rewarded with a pleasant burble...a feeling of directness between the throttle and real wheels...This car is alive. It breathes and flexes its muscles...a flat-out blast to drive...a real sense of excitement as the revs rise. The Miata feels just about perfect, delivering every bit of fun its voluptuous, seductive shape promises.

## APPENDIX S

### EXPERIMENT #2 PRETEST INSTRUMENT

**Instructions:**

You are being asked to participate in a study in which your honest cooperation will be appreciated. No identification of your person is being requested and your complete privacy and anonymity in regard to your responses are assured. However, we do ask that you provide the last four digits of your social security number so that we can identify participants to the instructor to award the extra credit points.

Please write in the last four digits of your social security number:

\_\_\_\_\_

The researcher will provide you with specific instructions. Please do not open this booklet until you are instructed to do so.

When you are told to do so, please open the booklet and answer all of the questions to the best of your ability. There are 6 pages. When you have finished, please go back and check to be certain that you have answered all questions, that all circles are dark, and that other information provided is legible.

Are these instructions clear? If not, raise your hand and the researcher will answer any questions you may have.

**Thank you for your participation.**

When the researcher informs you to do so, you may turn the page and answer the questions until you complete the entire questionnaire.



Please mark an X in a space over a number to show your opinion of each of the following exterior car colors.

**RED**

- |     |                       |                           |                     |
|-----|-----------------------|---------------------------|---------------------|
| 17. | Extremely bad         | 1   2   3   4   5   6   7 | Extremely good      |
| 18. | Extremely negative    | 1   2   3   4   5   6   7 | Extremely positive  |
| 19. | Extremely unfavorable | 1   2   3   4   5   6   7 | Extremely favorable |
| 20. | Extremely undesirable | 1   2   3   4   5   6   7 | Extremely desirable |

**BLACK**

- |     |                       |                           |                     |
|-----|-----------------------|---------------------------|---------------------|
| 21. | Extremely bad         | 1   2   3   4   5   6   7 | Extremely good      |
| 22. | Extremely negative    | 1   2   3   4   5   6   7 | Extremely positive  |
| 23. | Extremely unfavorable | 1   2   3   4   5   6   7 | Extremely favorable |
| 24. | Extremely undesirable | 1   2   3   4   5   6   7 | Extremely desirable |

**DARK GREEN**

- |     |                       |                           |                     |
|-----|-----------------------|---------------------------|---------------------|
| 25. | Extremely bad         | 1   2   3   4   5   6   7 | Extremely good      |
| 26. | Extremely negative    | 1   2   3   4   5   6   7 | Extremely positive  |
| 27. | Extremely unfavorable | 1   2   3   4   5   6   7 | Extremely favorable |
| 28. | Extremely undesirable | 1   2   3   4   5   6   7 | Extremely desirable |

**YELLOW**

- |     |                       |                           |                     |
|-----|-----------------------|---------------------------|---------------------|
| 29. | Extremely bad         | 1   2   3   4   5   6   7 | Extremely good      |
| 30. | Extremely negative    | 1   2   3   4   5   6   7 | Extremely positive  |
| 31. | Extremely unfavorable | 1   2   3   4   5   6   7 | Extremely favorable |
| 32. | Extremely undesirable | 1   2   3   4   5   6   7 | Extremely desirable |

Please circle the number that best matches your response.

33. Regarding cars in general, I shop or browse for cars:

1	2	3	4	5	6	7
Rarely	Seldomly	Once in A While	Occasionally	Sometimes	Often	Very Often

34. Regarding cars in general, I am:

1	2	3	4	5	6	7
Completely Unfamiliar	Moderately Unfamiliar	Somewhat Unfamiliar	Neither Familiar Nor Unfamiliar	Somewhat Familiar	Moderately Familiar	Completely Familiar

35. I consider my overall knowledge about cars to be:

1	2	3	4	5	6	7
Poor	So-so	Satisfactory	Good	Very Good	First Rate	Excellent

36. My ability to explain to others certain aspects about cars is:

1	2	3	4	5	6	7
Poor	So-so	Satisfactory	Good	Very Good	First Rate	Excellent

37. My ability to evaluate cars is:

1	2	3	4	5	6	7
Poor	So-so	Satisfactory	Good	Very Good	First Rate	Excellent

38. How comfortable would you feel in relying on only what you know right now if you were buying a car?

1	2	3	4	5	6	7
Completely Uncomfortable	Moderately Uncomfortable	Somewhat Uncomfortable	Neither Comfortable nor Uncomfortable	Somewhat Comfortable	Moderately Comfortable	Completely Comfortable

39. How certain are you about your ability to judge cars?

1	2	3	4	5	6	7
Completely Uncertain	Moderately Uncertain	Somewhat Uncertain	Neither Certain Nor Uncertain	Somewhat Certain	Moderately Certain	Completely Certain



APPENDIX T

EXPERIMENT #2

EXPERIMENTAL INSTRUMENT

LOW AFFECTIVE  
INFORMATION CONDITION



## QUESTIONNAIRE BOOKLET #1



### Instructions:

You are being asked to participate in a study in which your honest cooperation will be appreciated. No identification of your person is being requested and your complete privacy and anonymity in regard to your responses are assured. However, we do ask that you provide the last four digits of your social security number so that we can identify participants to the instructor to award the extra credit points.

Please write in the last four digits of your social security number:

\_\_\_\_\_

The researcher will provide you with specific instructions. Please do not open this booklet until you are instructed to do so.

When you are told to do so, please open the booklet and answer all of the questions to the best of your ability. Please answer the questions in the order they are presented. Do not go back and add to or change your original responses. There are 12 pages. When you have finished, please go back and check to be certain that you have answered all questions, that all circles are dark, and that other information provided is legible.

When you are completely finished with this questionnaire booklet, #1, please go to questionnaire booklet #2.

Are these instructions clear? If not, raise your hand and the researcher will answer any questions you may have.

## Thank you for your participation.

When the researcher informs you to do so, you may turn the page and answer the questions until you complete the entire questionnaire.

1

Please circle the number that indicates the level to which you experienced the following feelings while watching the car in the video:

**1. EXCITEMENT**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**2. ANTICIPATION**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**3. PRIDE**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**4. DESIRE**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**5. JOY**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**6. PLEASURE**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**7. EXPECTATION**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

Please circle the number that indicates the extent to which you feel the car is:

**8. FUN**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**9. EXCITING**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**10. INTERESTING**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**11. APPEALING**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**12. SATISFYING**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**13. UPLIFTING**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

Now please circle the number to indicate the extent to which the car in the video makes you feel:

14. UPBEAT

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

15. HAPPY

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

16. ADVENTUROUS

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

17. POSITIVE

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

18. GOOD

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong



Still imagining that you have just purchased this car, please circle the number that indicates the level of feeling you expect to experience. Remember, you now own the car; please circle the number that indicates the extent to which you will feel:

**20. EXCITED**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak		Neither weak nor strong				Slightly strong		Moderately strong				Very strong

**21. PLEASANT**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak		Neither weak nor strong				Slightly strong		Moderately strong				Very strong

**22. PROUD**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak		Neither weak nor strong				Slightly strong		Moderately strong				Very strong

**23. JOYFUL**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak		Neither weak nor strong				Slightly strong		Moderately strong				Very strong

**24. UPBEAT**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak		Neither weak nor strong				Slightly strong		Moderately strong				Very strong

**25. HAPPY**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak		Neither weak nor strong				Slightly strong		Moderately strong				Very strong

**26. SATISFIED**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**27. GOOD**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**28. UPLIFTED**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**29. POSITIVE**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

Continuing to imagine that you have just purchased this car, please circle the number that indicates your response to the following questions.

30. If we label all of these feelings collectively as "emotional excitement," overall, how strong is this emotional excitement?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all		Very weak		Moderately weak		Slightly weak		Neither weak nor strong		Slightly strong		Moderately strong		Very strong					

31. How vivid are these feelings?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all		Very dull		Moderately dull		Slightly dull		Neither dull nor vivid		Slightly vivid		Moderately vivid		Very vivid					

32. Sometimes when you imagine a situation as you just did, the emotions and feelings are very real - close to what you would actually feel. Other times the feelings are not that real, almost nonexistent. How real do these feelings seem for you?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all		Very nonexistent		Moderately nonexistent		Slightly nonexistent		Neither nonexistent nor real		Slightly real		Moderately real		Very real					

33. Please list any thoughts you had while watching the car in the video. List only one thought per line.

- 1) \_\_\_\_\_
- 2) \_\_\_\_\_
- 3) \_\_\_\_\_
- 4) \_\_\_\_\_
- 5) \_\_\_\_\_
- 6) \_\_\_\_\_
- 7) \_\_\_\_\_
- 8) \_\_\_\_\_
- 9) \_\_\_\_\_
- 10) \_\_\_\_\_
- 11) \_\_\_\_\_

34. Please list any features or attributes you can recall about the car.

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35. Please list any thoughts you might have if you had just purchased this car. That is, similar to before, imagine you have just purchased this car; what thoughts might run through your head? List only one thought per line.

1) \_\_\_\_\_

2) \_\_\_\_\_

3) \_\_\_\_\_

4) \_\_\_\_\_

5) \_\_\_\_\_

6) \_\_\_\_\_

7) \_\_\_\_\_

8) \_\_\_\_\_

9) \_\_\_\_\_

10) \_\_\_\_\_

11) \_\_\_\_\_

Please circle the number that indicates your response to the following questions.

37. The likelihood that this car would be reliable is:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Very low			Moderately low			Slightly low			Neither low nor high			Slightly high			Moderately high			Very high

38. This workmanship of this car would be:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Very low			Moderately low			Slightly low			Neither low nor high			Slightly high			Moderately high			Very high

39. This car would be durable.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Strongly Disagree			Moderately disagree			Slightly disagree			Neither agree nor disagree			Slightly agree			Moderately agree			Strongly agree

40. The likelihood that this car would be dependable is:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Very low			Moderately low			Slightly low			Neither low nor high			Slightly high			Moderately high			Very high

41. How important to you is this car's gas mileage?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very unimportant		Moderately unimportant			Slightly unimportant			Neither important nor unimportant			Slightly important			Moderately important			Very important	

42. How important to you is this car's acceleration?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very unimportant		Moderately unimportant			Slightly unimportant			Neither important nor unimportant			Slightly important			Moderately important			Very important	

43. How important to you is this car's warranty?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all		Very unimportant		Moderately unimportant			Slightly unimportant			Neither important nor unimportant			Slightly important		Moderately important			Very important	

44. How much do you like this car?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Dislike very much		Moderately dislike			Slightly dislike			Neither like nor dislike			Slightly like		Moderately like			Like very much		

45. Overall, this car is of (circle one):

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Bad quality		Neither good nor bad quality				Satisfactory quality			Good quality		Very good quality		First Rate quality			Excellent quality		

46. I would be satisfied with this car.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Strongly Disagree		Moderately disagree			Slightly disagree			Neither agree nor disagree			Slightly agree		Moderately agree			Strongly agree		

47. In general, I value this car.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Strongly Disagree		Moderately disagree			Slightly disagree			Neither agree nor disagree			Slightly agree		Moderately agree			Strongly agree		

For the following questions, please mark an X in a space over a number to indicate your response. For example, if you were asked how much you liked something, and you liked it a lot you would place an X over the number 7 as follows:

Extreme dislike	<table border="0" style="margin: auto;"> <tr> <td style="border-bottom: 1px solid black; width: 20px;"></td> <td style="border-bottom: 1px solid black; width: 20px; text-align: center;">X</td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> </tr> </table>							X	1	2	3	4	5	6	7	Extreme like
						X										
1	2	3	4	5	6	7										

Mark an X in the space over a number to indicate how intense your feelings would be if you had just purchased this car.

- |                      |   |   |   |   |   |   |  |  |   |   |   |   |   |   |   |                   |
|----------------------|---|---|---|---|---|---|--|--|---|---|---|---|---|---|---|-------------------|
| 48. Extremely weak   | <table border="0" style="margin: auto;"> <tr> <td style="border-bottom: 1px solid black; width: 20px;"></td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> </tr> </table> |   |   |   |   |   |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Extremely intense |
|                      |   |   |   |   |   |   |  |  |   |   |   |   |   |   |   |                   |
| 1                    | 2   | 3 | 4 | 5 | 6 | 7 |  |  |   |   |   |   |   |   |   |                   |
| 49. Extremely dull   | <table border="0" style="margin: auto;"> <tr> <td style="border-bottom: 1px solid black; width: 20px;"></td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> </tr> </table> |   |   |   |   |   |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Extremely vivid   |
|                      |   |   |   |   |   |   |  |  |   |   |   |   |   |   |   |                   |
| 1                    | 2   | 3 | 4 | 5 | 6 | 7 |  |  |   |   |   |   |   |   |   |                   |
| 50. Extremely barren | <table border="0" style="margin: auto;"> <tr> <td style="border-bottom: 1px solid black; width: 20px;"></td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> </tr> </table> |   |   |   |   |   |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Extremely rich    |
|                      |   |   |   |   |   |   |  |  |   |   |   |   |   |   |   |                   |
| 1                    | 2   | 3 | 4 | 5 | 6 | 7 |  |  |   |   |   |   |   |   |   |                   |
| 51. Very unrealistic | <table border="0" style="margin: auto;"> <tr> <td style="border-bottom: 1px solid black; width: 20px;"></td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> </tr> </table> |   |   |   |   |   |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very real         |
|                      |   |   |   |   |   |   |  |  |   |   |   |   |   |   |   |                   |
| 1                    | 2   | 3 | 4 | 5 | 6 | 7 |  |  |   |   |   |   |   |   |   |                   |
| 52. Very fake        | <table border="0" style="margin: auto;"> <tr> <td style="border-bottom: 1px solid black; width: 20px;"></td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> </tr> </table> |   |   |   |   |   |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very genuine      |
|                      |   |   |   |   |   |   |  |  |   |   |   |   |   |   |   |                   |
| 1                    | 2   | 3 | 4 | 5 | 6 | 7 |  |  |   |   |   |   |   |   |   |                   |

Please mark an X in a space over a number to show your opinion of this car.

- |                           |   |   |   |   |   |   |  |  |   |   |   |   |   |   |   |                     |
|---------------------------|---|---|---|---|---|---|--|--|---|---|---|---|---|---|---|---------------------|
| 53. Extremely bad         | <table border="0" style="margin: auto;"> <tr> <td style="border-bottom: 1px solid black; width: 20px;"></td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> </tr> </table> |   |   |   |   |   |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Extremely good      |
|                           |   |   |   |   |   |   |  |  |   |   |   |   |   |   |   |                     |
| 1                         | 2   | 3 | 4 | 5 | 6 | 7 |  |  |   |   |   |   |   |   |   |                     |
| 54. Extremely negative    | <table border="0" style="margin: auto;"> <tr> <td style="border-bottom: 1px solid black; width: 20px;"></td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> </tr> </table> |   |   |   |   |   |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Extremely positive  |
|                           |   |   |   |   |   |   |  |  |   |   |   |   |   |   |   |                     |
| 1                         | 2   | 3 | 4 | 5 | 6 | 7 |  |  |   |   |   |   |   |   |   |                     |
| 55. Extremely unfavorable | <table border="0" style="margin: auto;"> <tr> <td style="border-bottom: 1px solid black; width: 20px;"></td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> </tr> </table> |   |   |   |   |   |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Extremely favorable |
|                           |   |   |   |   |   |   |  |  |   |   |   |   |   |   |   |                     |
| 1                         | 2   | 3 | 4 | 5 | 6 | 7 |  |  |   |   |   |   |   |   |   |                     |
| 56. Extremely undesirable | <table border="0" style="margin: auto;"> <tr> <td style="border-bottom: 1px solid black; width: 20px;"></td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> </tr> </table> |   |   |   |   |   |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Extremely desirable |
|                           |   |   |   |   |   |   |  |  |   |   |   |   |   |   |   |                     |
| 1                         | 2   | 3 | 4 | 5 | 6 | 7 |  |  |   |   |   |   |   |   |   |                     |
57. Did you imagine this car as a particular color?    YES \_\_\_\_\_    NO \_\_\_\_\_

If so, what color? \_\_\_\_\_

If you did imagine a color, mark an X in a space over a number to show your opinion of the color you imagined, if not please skip these last 4 questions (57a-57d).

- |                          |   |   |   |   |   |   |  |  |   |   |   |   |   |   |   |                     |
|--------------------------|---|---|---|---|---|---|--|--|---|---|---|---|---|---|---|---------------------|
| a. Extremely bad         | <table border="0" style="margin: auto;"> <tr> <td style="border-bottom: 1px solid black; width: 20px;"></td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> </tr> </table> |   |   |   |   |   |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Extremely good      |
|                          |   |   |   |   |   |   |  |  |   |   |   |   |   |   |   |                     |
| 1                        | 2   | 3 | 4 | 5 | 6 | 7 |  |  |   |   |   |   |   |   |   |                     |
| b. Extremely negative    | <table border="0" style="margin: auto;"> <tr> <td style="border-bottom: 1px solid black; width: 20px;"></td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> </tr> </table> |   |   |   |   |   |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Extremely positive  |
|                          |   |   |   |   |   |   |  |  |   |   |   |   |   |   |   |                     |
| 1                        | 2   | 3 | 4 | 5 | 6 | 7 |  |  |   |   |   |   |   |   |   |                     |
| c. Extremely unfavorable | <table border="0" style="margin: auto;"> <tr> <td style="border-bottom: 1px solid black; width: 20px;"></td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> </tr> </table> |   |   |   |   |   |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Extremely favorable |
|                          |   |   |   |   |   |   |  |  |   |   |   |   |   |   |   |                     |
| 1                        | 2   | 3 | 4 | 5 | 6 | 7 |  |  |   |   |   |   |   |   |   |                     |
| d. Extremely undesirable | <table border="0" style="margin: auto;"> <tr> <td style="border-bottom: 1px solid black; width: 20px;"></td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> </tr> </table> |   |   |   |   |   |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Extremely desirable |
|                          |   |   |   |   |   |   |  |  |   |   |   |   |   |   |   |                     |
| 1                        | 2   | 3 | 4 | 5 | 6 | 7 |  |  |   |   |   |   |   |   |   |                     |

**THANK YOU!**

# APPENDIX U

## EXPERIMENT #2

### EXPERIMENTAL INSTRUMENT

#### HIGH AFFECTIVE INFORMATION CONDITION

[REDACTED]

## QUESTIONNAIRE BOOKLET #1

[REDACTED]

**Instructions:**

You are being asked to participate in a study in which your honest cooperation will be appreciated. No identification of your person is being requested and your complete privacy and anonymity in regard to your responses are assured. However, we do ask that you provide the last four digits of your social security number so that we can identify participants to the instructor to award the extra credit points.

Please write in the last four digits of your social security number:

\_\_\_\_\_

The researcher will provide you with specific instructions. Please do not open this booklet until you are instructed to do so.

When you are told to do so, please open the booklet and answer all of the questions to the best of your ability. Please answer the questions in the order they are presented. Do not go back and add to or change your original responses. There are 12 pages. When you have finished, please go back and check to be certain that you have answered all questions, that all circles are dark, and that other information provided is legible.

When you are completely finished with this questionnaire booklet, #1, please go to questionnaire booklet #2.

Are these instructions clear? If not, raise your hand and the researcher will answer any questions you may have.

## Thank you for your participation.

When the researcher informs you to do so, you may turn the page and answer the questions until you complete the entire questionnaire.

Please circle the number that indicates the level to which you experienced the following feelings while watching the car in the video:

**1. EXCITEMENT**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**2. ANTICIPATION**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**3. PRIDE**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**4. DESIRE**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**5. JOY**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**6. PLEASURE**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**7. EXPECTATION**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

Please circle the number that indicates the extent to which you feel the car is:

**8. FUN**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**9. EXCITING**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**10. INTERESTING**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**11. APPEALING**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**12. SATISFYING**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**13. UPLIFTING**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

Now please circle the number to indicate the extent to which the car in the video makes you feel:

14. UPBEAT

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

15. HAPPY

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

16. ADVENTUROUS

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

17. POSITIVE

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

18. GOOD

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong



Still imagining that you have just purchased this car, please circle the number that indicates the level of feeling you expect to experience. Remember, you now own the car; please circle the number that indicates the extent to which you will feel:

**20. EXCITED**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak		Neither weak nor strong				Slightly strong		Moderately strong				Very strong

**21. PLEASANT**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak		Neither weak nor strong				Slightly strong		Moderately strong				Very strong

**22. PROUD**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak		Neither weak nor strong				Slightly strong		Moderately strong				Very strong

**23. JOYFUL**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak		Neither weak nor strong				Slightly strong		Moderately strong				Very strong

**24. UPBEAT**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak		Neither weak nor strong				Slightly strong		Moderately strong				Very strong

**25. HAPPY**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak		Neither weak nor strong				Slightly strong		Moderately strong				Very strong

**26. SATISFIED**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**27. GOOD**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**28. UPLIFTED**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

**29. POSITIVE**

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak			Moderately weak			Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

Continuing to imagine that you have just purchased this car, please circle the number that indicates your response to the following questions.

30. If we label all of these feelings collectively as "emotional excitement," overall, how strong is this emotional excitement?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very weak		Moderately weak				Slightly weak			Neither weak nor strong			Slightly strong			Moderately strong			Very strong

31. How vivid are these feelings?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very dull		Moderately dull				Slightly dull			Neither dull nor vivid			Slightly vivid			Moderately vivid			Very vivid

32. Sometimes when you imagine a situation as you just did, the emotions and feelings are very real - close to what you would actually feel. Other times the feelings are not that real, almost nonexistent. How real do these feelings seem for you?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all	Very nonexistent		Moderately nonexistent				Slightly nonexistent			Neither nonexistent nor real			Slightly real			Moderately real			Very real

33. Please list any thoughts you had while watching the car in the video. List only one thought per line.

- 1) \_\_\_\_\_
- 2) \_\_\_\_\_
- 3) \_\_\_\_\_
- 4) \_\_\_\_\_
- 5) \_\_\_\_\_
- 6) \_\_\_\_\_
- 7) \_\_\_\_\_
- 8) \_\_\_\_\_
- 9) \_\_\_\_\_
- 10) \_\_\_\_\_
- 11) \_\_\_\_\_

34. Please list any features or attributes you can recall about the car.

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35. Please list any thoughts you might have if you had just purchased this car. That is, similar to before, imagine you have just purchased this car; what thoughts might run through your head? List only one thought per line.

1) \_\_\_\_\_

2) \_\_\_\_\_

3) \_\_\_\_\_

4) \_\_\_\_\_

5) \_\_\_\_\_

6) \_\_\_\_\_

7) \_\_\_\_\_

8) \_\_\_\_\_

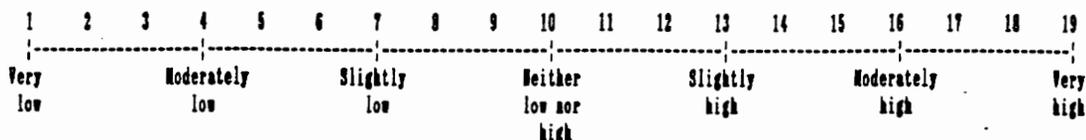
9) \_\_\_\_\_

10) \_\_\_\_\_

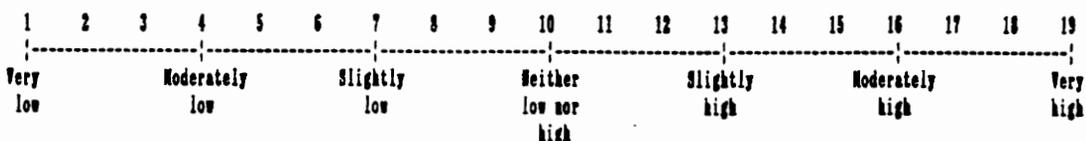
11) \_\_\_\_\_

Please circle the number that indicates your response to the following questions.

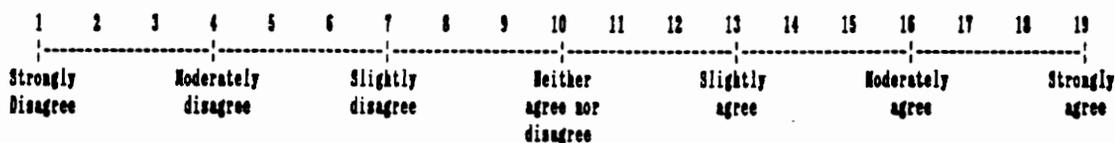
37. The likelihood that this car would be reliable is:



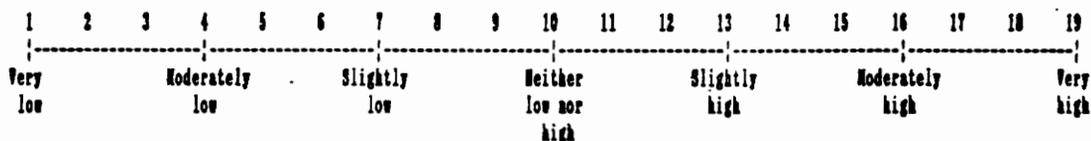
38. This workmanship of this car would be:



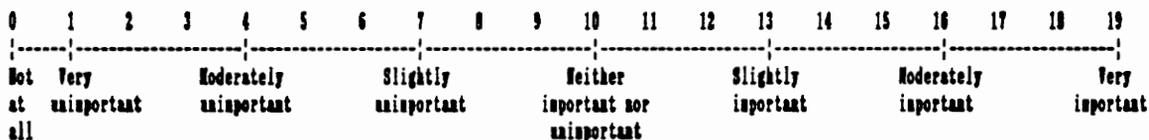
39. This car would be durable.



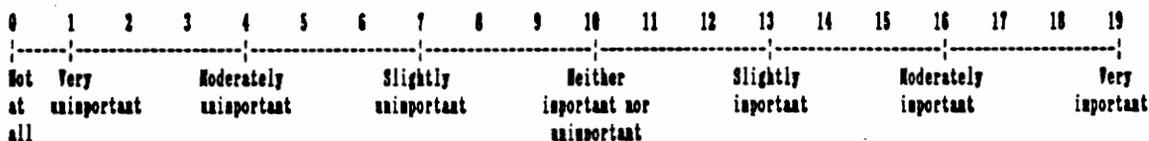
40. The likelihood that this car would be dependable is:



41. How important to you is this car's gas mileage?



42. How important to you is this car's acceleration?



43. How important to you is this car's warranty?

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Not at all		Very unimportant		Moderately unimportant		Slightly unimportant		Neither important nor unimportant		Slightly important		Moderately important		Very important					

44. How much do you like this car?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Dislike very much		Moderately dislike		Slightly dislike		Neither like nor dislike		Slightly like		Moderately like		Like very much						

45. Overall, this car is of (circle one):

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Bad quality		Neither good nor bad quality		Satisfactory quality		Good quality		Very good quality		First Rate quality		Excellent quality						

46. I would be satisfied with this car.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Strongly Disagree		Moderately disagree		Slightly disagree		Neither agree nor disagree		Slightly agree		Moderately agree		Strongly agree						

47. In general, I value this car.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Strongly Disagree		Moderately disagree		Slightly disagree		Neither agree nor disagree		Slightly agree		Moderately agree		Strongly agree						

For the following questions, please mark an X in a space over a number to indicate your response. For example, if you were asked how much you liked something, and you liked it a lot you would place an X over the number 7 as follows:

Extreme dislike	<table border="0"> <tr> <td style="border-bottom: 1px solid black; width: 20px;"></td> <td style="border-bottom: 1px solid black; width: 20px; text-align: center;">X</td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> </tr> </table>							X	1	2	3	4	5	6	7	Extreme like
						X										
1	2	3	4	5	6	7										

Mark an X in the space over a number to indicate how intense your feelings would be if you had just purchased this car.

- |                         |   |   |   |   |   |   |  |  |   |   |   |   |   |   |   |                      |
|-------------------------|---|---|---|---|---|---|--|--|---|---|---|---|---|---|---|----------------------|
| 48. Extremely<br>weak   | <table border="0"> <tr> <td style="border-bottom: 1px solid black; width: 20px;"></td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> </tr> </table> |   |   |   |   |   |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Extremely<br>intense |
|                         |   |   |   |   |   |   |  |  |   |   |   |   |   |   |   |                      |
| 1                       | 2   | 3 | 4 | 5 | 6 | 7 |  |  |   |   |   |   |   |   |   |                      |
| 49. Extremely<br>dull   | <table border="0"> <tr> <td style="border-bottom: 1px solid black; width: 20px;"></td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> </tr> </table> |   |   |   |   |   |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Extremely<br>vivid   |
|                         |   |   |   |   |   |   |  |  |   |   |   |   |   |   |   |                      |
| 1                       | 2   | 3 | 4 | 5 | 6 | 7 |  |  |   |   |   |   |   |   |   |                      |
| 50. Extremely<br>barren | <table border="0"> <tr> <td style="border-bottom: 1px solid black; width: 20px;"></td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> </tr> </table> |   |   |   |   |   |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Extremely<br>rich    |
|                         |   |   |   |   |   |   |  |  |   |   |   |   |   |   |   |                      |
| 1                       | 2   | 3 | 4 | 5 | 6 | 7 |  |  |   |   |   |   |   |   |   |                      |
| 51. Very<br>unrealistic | <table border="0"> <tr> <td style="border-bottom: 1px solid black; width: 20px;"></td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> </tr> </table> |   |   |   |   |   |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very<br>real         |
|                         |   |   |   |   |   |   |  |  |   |   |   |   |   |   |   |                      |
| 1                       | 2   | 3 | 4 | 5 | 6 | 7 |  |  |   |   |   |   |   |   |   |                      |
| 52. Very<br>fake        | <table border="0"> <tr> <td style="border-bottom: 1px solid black; width: 20px;"></td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> </tr> </table> |   |   |   |   |   |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very<br>genuine      |
|                         |   |   |   |   |   |   |  |  |   |   |   |   |   |   |   |                      |
| 1                       | 2   | 3 | 4 | 5 | 6 | 7 |  |  |   |   |   |   |   |   |   |                      |

Please mark an X in a space over a number to show your opinion of this car.

- |                               |   |   |   |   |   |   |  |  |   |   |   |   |   |   |   |                         |
|-------------------------------|---|---|---|---|---|---|--|--|---|---|---|---|---|---|---|-------------------------|
| 53. Extremely<br>bad          | <table border="0"> <tr> <td style="border-bottom: 1px solid black; width: 20px;"></td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> </tr> </table> |   |   |   |   |   |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Extremely<br>good       |
|                               |   |   |   |   |   |   |  |  |   |   |   |   |   |   |   |                         |
| 1                             | 2   | 3 | 4 | 5 | 6 | 7 |  |  |   |   |   |   |   |   |   |                         |
| 54. Extremely<br>negative     | <table border="0"> <tr> <td style="border-bottom: 1px solid black; width: 20px;"></td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> </tr> </table> |   |   |   |   |   |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Extremely<br>positive   |
|                               |   |   |   |   |   |   |  |  |   |   |   |   |   |   |   |                         |
| 1                             | 2   | 3 | 4 | 5 | 6 | 7 |  |  |   |   |   |   |   |   |   |                         |
| 55. Extremely<br>unfavorable  | <table border="0"> <tr> <td style="border-bottom: 1px solid black; width: 20px;"></td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> </tr> </table> |   |   |   |   |   |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Extremely<br>favorable  |
|                               |   |   |   |   |   |   |  |  |   |   |   |   |   |   |   |                         |
| 1                             | 2   | 3 | 4 | 5 | 6 | 7 |  |  |   |   |   |   |   |   |   |                         |
| 56. Extremely<br>undesireable | <table border="0"> <tr> <td style="border-bottom: 1px solid black; width: 20px;"></td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> </tr> </table> |   |   |   |   |   |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Extremely<br>desireable |
|                               |   |   |   |   |   |   |  |  |   |   |   |   |   |   |   |                         |
| 1                             | 2   | 3 | 4 | 5 | 6 | 7 |  |  |   |   |   |   |   |   |   |                         |

Please mark an X in a space over a number to show your opinion of the car's red color.

- |                               |   |   |   |   |   |   |  |  |   |   |   |   |   |   |   |                         |
|-------------------------------|---|---|---|---|---|---|--|--|---|---|---|---|---|---|---|-------------------------|
| 57. Extremely<br>bad          | <table border="0"> <tr> <td style="border-bottom: 1px solid black; width: 20px;"></td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> </tr> </table> |   |   |   |   |   |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Extremely<br>good       |
|                               |   |   |   |   |   |   |  |  |   |   |   |   |   |   |   |                         |
| 1                             | 2   | 3 | 4 | 5 | 6 | 7 |  |  |   |   |   |   |   |   |   |                         |
| 58. Extremely<br>negative     | <table border="0"> <tr> <td style="border-bottom: 1px solid black; width: 20px;"></td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> </tr> </table> |   |   |   |   |   |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Extremely<br>positive   |
|                               |   |   |   |   |   |   |  |  |   |   |   |   |   |   |   |                         |
| 1                             | 2   | 3 | 4 | 5 | 6 | 7 |  |  |   |   |   |   |   |   |   |                         |
| 59. Extremely<br>unfavorable  | <table border="0"> <tr> <td style="border-bottom: 1px solid black; width: 20px;"></td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> </tr> </table> |   |   |   |   |   |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Extremely<br>favorable  |
|                               |   |   |   |   |   |   |  |  |   |   |   |   |   |   |   |                         |
| 1                             | 2   | 3 | 4 | 5 | 6 | 7 |  |  |   |   |   |   |   |   |   |                         |
| 60. Extremely<br>undesireable | <table border="0"> <tr> <td style="border-bottom: 1px solid black; width: 20px;"></td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> </tr> </table> |   |   |   |   |   |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Extremely<br>desireable |
|                               |   |   |   |   |   |   |  |  |   |   |   |   |   |   |   |                         |
| 1                             | 2   | 3 | 4 | 5 | 6 | 7 |  |  |   |   |   |   |   |   |   |                         |

**THANK YOU!**

# APPENDIX V

## EXPERIMENT #2

### POST-TEST INSTRUMENT



## QUESTIONNAIRE BOOKLET #2



### Instructions:

Please fill out this second questionnaire. Your honest cooperation will be appreciated. No identification of your person is being requested and your complete privacy and anonymity in regard to your responses are assured. However, we do ask that you provide the last four digits of your social security number so that we can identify participants to the instructor to award the extra credit points.

Please write in the last four digits of your social security number:

\_\_\_\_\_

Please open the booklet and answer all of the questions to the best of your ability. When you have finished, please go back and check to be certain that you have answered all questions, that all circles are dark, and that other information provided is legible.

When you are completely finished please turn over both questionnaire booklets and look up so the researcher will know when everyone is finished.

Are these instructions clear? If not, raise your hand and the researcher will answer any questions you may have.

## Thank you for your participation.

You may turn the page and answer the questions until you complete the entire questionnaire.



We now request that you return to questionnaire booklet #1 to categorize your responses to two of the questions you answered.

Please open questionnaire booklet #1 to page 8 and go to question #33. In this question you listed thoughts you had while watching the video. Using the space provided below, please rate each thought as FAVORABLE, NEUTRAL, or UNFAVORABLE by circling the appropriate word.

- |               |         |             |               |         |             |
|---------------|---------|-------------|---------------|---------|-------------|
| 1) FAVORABLE  | NEUTRAL | UNFAVORABLE | 2) FAVORABLE  | NEUTRAL | UNFAVORABLE |
| 3) FAVORABLE  | NEUTRAL | UNFAVORABLE | 4) FAVORABLE  | NEUTRAL | UNFAVORABLE |
| 5) FAVORABLE  | NEUTRAL | UNFAVORABLE | 6) FAVORABLE  | NEUTRAL | UNFAVORABLE |
| 7) FAVORABLE  | NEUTRAL | UNFAVORABLE | 8) FAVORABLE  | NEUTRAL | UNFAVORABLE |
| 9) FAVORABLE  | NEUTRAL | UNFAVORABLE | 10) FAVORABLE | NEUTRAL | UNFAVORABLE |
| 11) FAVORABLE | NEUTRAL | UNFAVORABLE |               |         |             |

Now rate each thought as either being directed toward the product or toward the video itself. In other words, judge whether the thought listed is primarily a thought about the car, or a thought about the video itself. For example, the thought "The car looked sporty." should be rated as a thought directed toward the car and CAR should be circled next to the thought number. On the other hand, the thought "I didn't like the way the car was always shown with a woman driving it." should be rated as a thought directed toward the video itself and VIDEO should be circled.

- |        |       |         |       |         |       |        |       |
|--------|-------|---------|-------|---------|-------|--------|-------|
| 1) CAR | VIDEO | 2) CAR  | VIDEO | 3) CAR  | VIDEO | 4) CAR | VIDEO |
| 5) CAR | VIDEO | 6) CAR  | VIDEO | 7) CAR  | VIDEO | 8) CAR | VIDEO |
| 9) CAR | VIDEO | 10) CAR | VIDEO | 11) CAR | VIDEO |        |       |

Please go to page 9 - question #35. Using the same procedure as before and the space provided below, please rate each thought as FAVORABLE, NEUTRAL, or UNFAVORABLE by circling the appropriate word.

- |               |         |             |               |         |             |
|---------------|---------|-------------|---------------|---------|-------------|
| 1) FAVORABLE  | NEUTRAL | UNFAVORABLE | 2) FAVORABLE  | NEUTRAL | UNFAVORABLE |
| 3) FAVORABLE  | NEUTRAL | UNFAVORABLE | 4) FAVORABLE  | NEUTRAL | UNFAVORABLE |
| 5) FAVORABLE  | NEUTRAL | UNFAVORABLE | 6) FAVORABLE  | NEUTRAL | UNFAVORABLE |
| 7) FAVORABLE  | NEUTRAL | UNFAVORABLE | 8) FAVORABLE  | NEUTRAL | UNFAVORABLE |
| 9) FAVORABLE  | NEUTRAL | UNFAVORABLE | 10) FAVORABLE | NEUTRAL | UNFAVORABLE |
| 11) FAVORABLE | NEUTRAL | UNFAVORABLE |               |         |             |

Using the same procedure as before and the space provided below, now please rate each thought as directed toward the car or the video.

- |         |       |         |       |        |       |
|---------|-------|---------|-------|--------|-------|
| 1) CAR  | VIDEO | 2) CAR  | VIDEO | 3) CAR | VIDEO |
| 4) CAR  | VIDEO | 5) CAR  | VIDEO | 6) CAR | VIDEO |
| 7) CAR  | VIDEO | 8) CAR  | VIDEO | 9) CAR | VIDEO |
| 10) CAR | VIDEO | 11) CAR | VIDEO |        |       |

**THANK YOU!**

# APPENDIX W

## EXPERIMENT #2

### INSTRUCTIONS AND PROCEDURES

Instructions and Procedures for Experiment  
Indirect Affective Communication Mode  
(Video)

1. Cue up the video and test. Pass out questionnaire booklets before respondents arrive.
2. When all respondents have arrived, instruct participants to read only the first page and not to start until told to do so.
3. When all participants have read the first page, instruct:

Please be certain to record the last four digits of your social security number so you can get the extra credit that will be awarded for your participation in this study.

This study looks at buyers' reactions to cars. This should be fun so just relax.

I am now going to show you a short video-tape showing a Mazda Miata in a series of short takes to give you the chance to look at the car in different settings and to get a feel for the car. There will be no sound because we are not interested in your reactions to a commercial but simply your reactions to the car itself.

Therefore, when you watch this video, focus on the car and your reactions to it. Imagine that you will own this car. Forget about the money for the time being. How do you react to this car?

4. Play the video. When it has finished instruct:

Now we want to provide us with your reaction to this car. Please respond as honestly, accurately, and as candidly as you can. We are very interested in your actual responses; therefore, please take your time. But, don't dwell on questions. Your first response is probably your best response so read the question and record your response. If the question asks you to list items list as many as you can, but when you find yourself sitting for more than 15-30 seconds and you can't think of any more, go on to the next question. Remember, there are no right or wrong answers, only your personal reactions. If at any time you have any questions, please raise your hand. After you have completed the questionnaire please check that you have answered all the questions but do not change any of your answers. Answer the questions in the order they are presented, do not go back. Please check booklet #1 to certain that it has all 12 pages. Also check Booklet #2 to see if it has all 4 pages. Please turn to page 2 of Questionnaire Booklet #1 and complete the questionnaire booklet as completely as possible. After you have completed and checked Questionnaire Booklet #1 go to Questionnaire Booklet #2. After you have completed and checked Questionnaire Booklet #2 please turn the questionnaires over and look up.

5. When participants have completed the questionnaires, collect them. Check to be certain each booklet has the last 4 digits of SS# recorded. Instruct upon leaving: Thank you for your participation.

6. If debriefing the group, ask the following questions:

1. What do you think the study was about?
2. What was your response to the video itself?
3. Did you imagine yourself driving the car? Where?
4. Did the description change your mind about the car?
5. How emotionally excited did you get watching the video?

## APPENDIX X

### VITA

## LARRY D. COMPEAU

### OFFICE ADDRESS

Department of Marketing  
Clarkson University  
Potsdam, NY 13699-5795  
Telephone: 315-268-6605

### HOME ADDRESS

11 Rushton Drive  
Canton, NY 13617  
Telephone: 315-386-8369

## EDUCATION

### Academic Degrees

- 1991                      Doctor of Philosophy  
Virginia Polytechnic Institute and State University  
Concentration: Marketing, GPA: 3.97/4.0  
Minor: Statistics, GPA: 3.80/4.0
- 1976                      Master of Science  
Clarkson University  
Major: Management and Marketing  
Concentration: Management Science  
GPA: 3.7/4.0
- 1974                      Bachelor of Science  
Clarkson University  
Major: Double-majored in Management and Economics  
Notes: American Association of University Professors' Award,  
Presidential and Dean's honors

## RESEARCH INTERESTS

1. *Pricing*: The behavioral and strategic effects of comparative price advertising on consumers' judgments, evaluations, perceptions, and purchase intentions. Economics of information.
2. *Consumer Behavior*: Stimulus-driven and category-driven affective responses influence on buyers' judgments, evaluations, and perceptions.
3. *Measurement and Scaling*: Application of rescaling techniques to investigate and improve psychometric properties and to extract relevant dimensions of measures.

## TEACHING INTERESTS

Pricing Strategy, Product Management, Marketing Policy and Strategy, Consumer Behavior, Marketing Research, Applied Statistics, and Quantitative Techniques.

## DISSERTATION RESEARCH

"The Influence of Affect on Product Evaluations and Search Behavior:  
An Integration of Affect and the Economics of Information"

Within an economic perspective, researchers have recently relaxed constraints such as the assumption of perfect information in order to examine the effects of consumers' use of "signals," (e.g., price and advertising intensity) on judgments of product quality. Recent work in the psychological study of affect suggests that affective responses to sensory stimuli can influence subjective judgments. This dissertation integrates the traditional economic theory of information with recent developments in the psychological study of affect; a model is developed which extends previous thinking by proposing cues other than price and advertising intensity that may be used by consumers as signals of quality. Specifically, it is proposed that for products where judgments of quality are difficult to make prior to purchase, sensory cues associated with the product may elicit affective responses that will influence evaluative judgments about the product. The implication is that sellers can "signal" quality with seemingly uninformative cues. The proposed model was tested in a laboratory experiment and generally supported. Additionally, in-depth interviews were conducted to gain deeper understanding of the phenomenology of emotions in consumers' shopping experiences.

Chair: Kent B. Monroe

## PUBLICATIONS

### Published Refereed Presentations

Compeau, Larry D. and George R. Franke (1990), "Isolating and Quantifying the Intensity Dimension of Category Rating Scales," in *Proceedings, Summer Educators' Conference*, A. Parasuraman and William Bearden, eds., Chicago, IL: American Marketing Association.

This paper won Best Student Paper Award in the Research Methodology track.

Compeau, Larry D. and Dhruv Grewal (1990), "Comparative Price Advertising: A Methodological Review and Critique," in *Proceedings, Summer Educators' Conference*, A. Parasuraman and William Bearden, eds., Chicago, IL: American Marketing Association.

## Unpublished Presentations

Compeau, Larry D. and Kent B. Monroe (1991), "The Influence of Stimulus-Driven Affective Responses in Consumers' Product Evaluations and Search Behavior," Winter Educators' Conference, Orlando, FL: American Marketing Association.

Monroe, Kent B., Dhruv Grewal, and Larry D. Compeau (1991), "Reference Prices: The Concept, Its Historical Meanings, Theoretical Justifications and Current Research Issues," Annual Conference, Chicago, IL: Association for Consumer Research.

## Invited Article

Compeau, Larry D. (1984), "A Microcomputer-based Computer Science Program," *Microcomputer Applications in Administration and Instruction*, San Francisco, CA: Jossey-Bass, 51-60.

## RESEARCH IN PROGRESS

Compeau, Larry D. (1991), "Consumers' Evaluative Judgments: A Conceptual Integration of Affect and Cognition." A conceptual working paper. A model is developed that integrates affect and cognition based on the complexity of the mode of processing.

Compeau, Larry D. and Kent B. Monroe (1991), "Stimulus-Driven Affective Responses in Consumers' Subjective Evaluative Judgments." An empirical working paper that examines the role of stimulus-driven affective responses in consumers' judgments. Two experiments are complete and written, a third experiment has been conducted and the analysis is in progress.

Grewal, Dhruv and Larry D. Compeau (1991), "Comparative Price Advertising: Informative or Deceptive?" Based upon a review of the literature, the issue as to whether comparative price advertisements inform or deceive is addressed. Specific conceptual, methodological and substantive conclusions are drawn from an extensive review of the literature. Third revision under review at *Journal of Public Policy and Marketing*.

## **PROFESSIONAL EXPERIENCE**

### **Academic**

**August 1990 - August 1991**

Virginia Polytechnic Institute and State University  
Department of Marketing, Blacksburg, VA 24061  
Instructor: Marketing Management, Strategic Marketing  
Overall Teaching Evaluations: 4.2 - 4.6 (5 = Excellent)

**August 1987 - August 1990**

Virginia Polytechnic Institute and State University  
Department of Marketing, Blacksburg, VA 24061  
Part-time Instructor: Marketing Management, Product and Price Management  
Overall Teaching Evaluations: 4.3 - 4.6 (5 = Excellent)

**August 1981 - August 1987**

State University of New York, North Country Community College  
Saranac Lake, New York 12983  
Associate Professor and Director of Computer Science  
Courses Taught: Marketing Management, Business Organization and Management,  
Business Law, Programming Methodology, Data Structures, Advanced  
Programming, Discrete Mathematics, ForTran, Structured Programming in  
Pascal, Systems Analysis and Design, BASIC Programming, Computer  
Applications, Data Processing.

**August 1980 - August 1981**

State University of New York, Canton College  
Assistant Professor of Business Administration  
Courses Taught: Information Systems, Introduction to Computers, Business  
Organization and Management, Personnel Management

### **Industry**

**June 1984 - August 1987**

Just Plain Software, Ltd.  
Lake Placid, New York 12946  
Position: Vice President and Director of Marketing

**August 1980 - August 1987**

Computer Resource Technologies (CRT)  
126 1/2 Lake Street  
Saranac Lake, New York 12983  
Position: President and CEO

January 1978 - August 1980

N.Y.S. Assoc. for Retarded Children

P.O. Box 235

Hermon, New York 13652

Position: Director of Administration and Finance

July 1975 - January 1978

Seaway Industries

Hermon, New York 13652

Positions: Controller, Industrial Engineer

July 1973 - February 1974

N.Y.S. Dept. of Transportation

Position: Economics Researcher

### **GRANTS AND PROPOSALS**

"An Organizational Form for a State Employee Assistance Program in Rural Areas," 1981, awarded by The New York State Joint Labor-Management Committee on the Work Environment and Productivity.

### **HONORS AND AWARDS**

American Marketing Association Doctoral Consortium Fellow, 1990.

Alpha Mu Alpha, Virginia Tech, 1990.

Beta Gamma Sigma, Virginia Tech, 1989.

Pamplin Scholarship, Department of Marketing, Virginia Tech, 1988-89.

Presidential Fellow, Virginia Tech, 1987-88.

American Assoc. of University Professors Award, Clarkson University, 1974.

Trustees' Scholar, Clarkson University, 1973-75.

### **PROFESSIONAL ACTIVITIES**

#### **Professional Affiliations**

- American Marketing Association
- Association for Consumer Research
- Academy of Marketing Science
- The Institute of Management Sciences

## **Continuing Professional Development**

Annual Conference, Association for Consumer Research, Chicago, IL,<sup>†</sup> October, 1991.

Winter Educators' Conference, American Marketing Association, Orlando, FL, February 1991.

Doctoral Consortium, American Marketing Association, Gainesville, FL. August, 1990.

Summer Educators' Conference, American Marketing Association, Washington, D.C., August 1990.

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