

**The Development of Dispositional Measures
of Self-Congruity and Functional Congruity**

by

C. B. Claiborne

Dissertation submitted to the Faculty of the Virginia Polytechnic
Institute and State University in partial fulfillment of the
requirements for the degree of

DOCTOR OF PHILOSOPHY

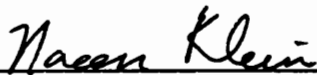
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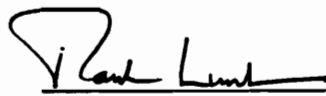
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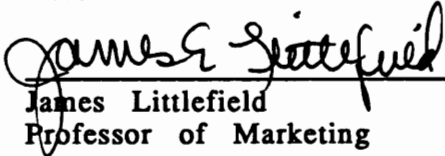
M. Joseph Sirgy, Chairman
Professor of Marketing



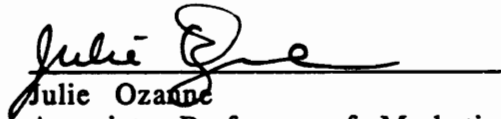
Noreen Klein
Associate Professor of Marketing



Robert Lickliter
Associate Professor of Psychology



James Littlefield
Professor of Marketing



Julie Ozanne
Associate Professor of Marketing

August 1992

Blacksburg, Virginia

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C. B. Claiborne

(Abstract)

This research addresses the question, can dispositional complements to situational self-congruity and situational functional congruity be identified? Self-image congruence research, which establishes a background for the situational impact of image and function-laden information, is reviewed. A theoretical rationale for developing dispositional measures is based on the interactionist paradigm in personality psychology combined with self-congruity theory and Blake and Mouton's orientation to tasks vs. people.

It was hypothesized that the dispositional measures of self-congruity and functional congruity would moderate the relationship between situational self-congruity and functional congruity and the adoption of a brand of credit card. Results supporting this hypothesis would provide evidence of the nomological validity of the dispositional measures.

A 2 x 2 x 2 x 2 factorial experimental design involving situational self-congruity, situational functional congruity, dispositional self-congruity and dispositional functional congruity was operationalized with ads for the Sierra Club credit card providing image and/or function-laden cues. Manipulation checks in the form of situational evaluations and behavioral measures in the form of credit card adoption were ascertained.

Pretests were conducted to generate and refine items for the dispositional scale and to initially assess reliability and validity. Subsequently, a main study was conducted involving 320 students from two universities.

The results show that the dispositional measures are highly reliable. Dispositional measures were also shown to have discriminant validity, however, the tests of nomological validity indicated that these measures may not be valid. This study emphasizes the importance of considering the coaction of situational and dispositional factors in understanding behavior. Limitations of the study, future research, and managerial implications of the findings are discussed.

ACKNOWLEDGEMENTS

I would like to thank the members of my Dissertation Committee: Julie Ozanne, Noreen Klein, Bob Lickliter, Jim Littlefield, and Joe Sirgy for their encouragement, questions, criticisms, comments, and corrections. To Joe Sirgy, the Dissertation Chairman, I offer my especial thanks and gratitude. This dissertation could not have been done without him. Not only is the basis of the work the self-congruity research stream which he established, but the dissertation process could not have been completed without his tireless efforts to clarify and refine the output.

I would also like to acknowledge my gratitude to my family who offered their unwavering support and bore indirectly much of the burden of the dissertation. To Doris, my wife, thank you for being positive when I could find little to be optimistic about.

Finally, thank you to everyone who proof-read, coded questionnaires, discussed measures, and offered help when help was needed. Thank you: Don, Donna, Ann, Bonnie, Trina, Lora, Allison, Diana, Lois, Ruth, John, and Corrie.

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PREFACE

Several terms used in this work have specialized meanings based on their usage in previous literature. The major terms, congruity, dispositions, situations, and behavior, as they are used here, are introduced as a preface to the text.

Congruity

Congruity is described by the incidence of agreement, harmony, coincidence, and correspondence.

Product image/self-image congruity (self-image congruity) represents the match between a self-perception and an image of the typical user of a product (a product image is considered an objectification of qualities of the typical user).

Self-image congruity requires the construction of a image of the self as user of the product, and an evaluation of the discrepancy between that image and an image of the typical user of the product.

Functional congruity compares the functional aspects of the product with how that product might ideally function.

Dispositions

A disposition is a consistency of thoughts, feelings, and actions across time and context (Ajzen, 1988). Attitudes and personality both reflect underlying stable dispositions.

Attitudes are learned dispositions to respond in a consistently favorable or unfavorable manner with respect to a given object (Fishbein and Ajzen, 1975).

Personality is defined as a stable set of tendencies and characteristics that determine those commonalities and differences in people's psychological behavior (thoughts, feelings, and actions), that have continuity in time, and that may not be easily understood as the sole result of the social and biological pressures of the moment (Maddi, 1989).

Self-congruity and functional congruity dispositions are tendencies which are similar to personality. Dispositional self-congruity (DSC) is the tendency to be more "image-oriented". A person who is high in DSC values the psychosocial expressions of the consequences of consumption experiences. Dispositional functional congruity (DFC) is the tendency to be more "results-oriented". A person who is high in DFC values the functional consequences of consumption experiences.

Situations

Situations are points in space and time (Belk, 1975), behavioral settings (Barker, 1968), or psychologically covert events (Sarason, 1977). Although objectively defined situations have some impact in explaining behavior, situations characterized by personal reactions to environmental differences are potentially more important from a behavioral standpoint.

Psychologically covert events describe situations characterized in terms of personal reactions. Psychological situations are shaped from the manner in which cognitive inputs are processed. Psychological situations are internal subjective judgements based on reactions to external stimuli rather than the objective stimuli themselves.

Self-congruity and functional congruity, in this sense, may also be defined as situational variables. They represent two distinct psychological situations or states, reflecting how a person thinks rather than what he thinks. Self-congruity (SC) refers to a situation evoking a cognitive matching process which compares a product image and a self-image. Functional congruity (FC) refers to a situation in which a more detailed, attribute based, comparative evaluative process is evoked. The strength of these situations may be characterized by the strength of the resultant evaluations.

Behavior

Behavior is defined here in its broader sense, so that behavioral intentions are also considered. Any specific behavior is viewed as part of a latent behavioral construct. Weighing oneself regularly is a specific act which is indicative of

the latent behavior of dieting. Similarly, a resultant behavior, like preferring a product or brand, is composed of specific acts such as: wanting and getting more information about the product/brand, favorably comparing this product/brand to other similar products/brands, selecting this product/brand, acquiring the product/brand, using the product/brand, recommending the product/brand, encouraging its selection, and supporting the product/brand.

CHAPTER ONE

Introduction

"Oddly, when we attempt to articulate our feelings in the face of nature we forget which came first: natural experience or the products of civilization. Often in our experiences of nature and in our attempts to derive meaning from them we have a strong and unfortunate tendency to put the cart before the horse."

Steven J. Meyers, Lime Creek Odyssey, p.27)

"Behavior can only be understood from the viewpoint of the person doing the behaving . . . each person responds to his own personal reality, it is pointless to define stimuli from an objective viewpoint."

(Seymore Epstein, in Personality: Basic Aspects and Current Research, edited by Ervin Staub, p. 83)

"In its widest possible sense, however, a man's Me is the sum total of all that he can call his, not only his body, and his psychic powers, but his clothes and his house, his wife and children, his ancestors and friends, his reputation and works, his lands and horses, and yacht and bank account."

(William James, Psychology: The Briefer Course, p.177)

The quotes above relate to two ways of seeing ourselves and the objects around us. Research on the self-concept has addressed how we see ourselves compared to the objects around us. Two dominant streams of research that relate to the self-concept emphasize either the self as an object of knowledge, or the subjective

experiences of the self as knower. Each of these has been used by their protagonists to explain behavior. Consumer behavior has relied mostly on the self as an object of knowledge to understand and explain the motivations underlying marketplace actions. However, our actions are influenced by both the subjective evaluations of how we see ourselves in certain situations, and the more stable tendencies that we experience as our true selves. This research seeks to establish a link between situational evaluations involving the self and dispositional tendencies which represent the self.

A model of the interaction between situations and persons is used to represent the relationship between these two aspects of the self-concept. This interaction model is introduced following a description of the two perspectives from which the self is viewed, the situational self and the dispositional self. Then, the concept of an individual consumption style is proposed to increase the relevance of the self-concept to consumer behavior.

Two Views of the Role of the Self-Concept In Explaining Behavior

The Self as Object of Knowledge: The Situational Self

The self can be thought of as both the experiencer and the object of the experience. Epstein (1980) points out, "that behavior can only be understood from the perceptions of the person doing the behaving." However, according to Meyers (1989), experiences are often intertwined with the "products of civilization." In such cases, the self as experiencer is lost in the knowledge of the experience. If

I say, I have brown eyes and black hair, I describe myself, as someone else might, as an object of knowledge. James (1907) suggests that perceptions of the person center around an "extended self" based not only on physical characteristics, but on a multiplicity of possessions. When I say, that I own a contemporary house or designer clothes, I am also describing myself as an object of knowledge. The self as object of knowledge is the basis for self-judgments and self-evaluations. This occurs because the possessions through which I define myself may have relative "goodness," that is, positive or negative status.

Stephen Meyers (1989) would have us place the horse before the cart and look to the "natural experience," that is, to look to our more phenomenological selves to find meaning, rather than to the "products of civilization." In consumer research, this is not easily accomplished. The "cart," which Meyers refers to, represents the products and services we use, which are extensions of ourselves. The "horse," represents our natural experience, our phenomenological selves.

Self-evaluations and self-perceptions have also been used to predict behavior. For example, positive self-evaluations, seeing the self as "happy" or "having friends," were found to predict non-delinquency in youth while negative self-evaluations, seeing the self as "depressed" or "not getting along," better predicted delinquency (Oysterman and Markus, 1990).

Predictions of behavior based on self-evaluations of an extended self have been prevalent in consumer research on the self-concept (Sirgy, 1982). These self-evaluations are based on the self-image which is the individual's concepts about his abilities, status, roles, and aspirations (Allport, 1943). Self-image evaluations are activated by, or related to, specific products or services. The primary element in understanding or explaining consumer behavior has been the determination of which "cart," that is, which images associated with products or services activate self-evaluation. Given a certain set of conditions a consumer is motivated to act to maintain her self-image. Given a different set of conditions she is motivated to enhance her self-image. Even for the same product, motivations might be different on different occasions. For example, a restaurant chosen because it has the right image for a first date might not be chosen for a weekday lunch. These self-evaluations may be viewed as a function of the situation. There is, however, a consistent aspect of the self that does not vary with the situation. This self is the experiencer rather than the object of the experiencer. The self as experiencer has had a different role in understanding behavior.

The Self as Experiencer: The Dispositional Self

The phenomenological perspective of the self as experiencer views the self, not as object of knowledge, but as organizer of the experience. The self actively influences the experiences that an individual seeks out and determines how the individual interprets those experiences. Lecky (1945) refers to the organized conceptual

system which allows the individual to experience a unified scheme of values which are consistent with one another as the individual's personality. A phenomenologist would not try to predict behavior based on personality, but rather question what conceptual system would lead to the observed behaviors in order to preserve its unity.

Most efforts in consumer behavior to use personality in predicting behavior have not taken this phenomenological view. The majority of efforts to use personality in predicting consumer behavior have also proven to be "equivocal" (Kassarjian and Sheffet, 1991). Personality-behavior relationships have been weak for a number of reasons. Primary among these are the use of personality inventories designed for clinical application and the use of behavioral measures, such as auto ownership, which vary considerably, even for those exhibiting the trait. An indirect or moderating role for personality may prove more viable. The situation-personality interaction paradigm is an exemplar of this approach.

Situation-Person Interactions

Behavior depends on both the person and the situation. As pervasive as this understanding is, rarely do consumer behavior studies take both of these variables into account (Punj and Stewart, 1983; Belk, 1975b). In studies where consumer situations are predictors, personality differences are either ignored or controlled through the randomized selection of subjects. In studies where personality is the predictor, the situation is usually manipulated. Unfortunately, manipulation of the situation tends to emphasize

situational importance, thereby impacting the significance of the personality variable (Snyder and Ickes 1976). For example, in a classic study of helping behavior, personality was found to be a significant variable when no time pressure was imposed, but a nonsignificant variable when subjects were manipulated to hurry (Darley and Batson, 1973). Since the situation may determine if personality characteristics are exhibited, nondominant situations are more likely to prove useful in identifying significant personality predictors of behavior.

An interactionist perspective assumes that individuals also exert some influence over their environment by "shopping" for situations (Endler and Mangusson, 1976). That is, certain personality types are more likely to select particular situations which fit their dispositions. A "complementarity" between personality variables and situational variables is implied. If a situation can be defined which causes differences in behavioral response, then a type of person can be defined who is more sensitive to that situation. Similarly, if a personality type can be defined who exhibits certain behavioral traits, then situations can be defined where those traits are more likely to be exhibited. Each person variable has a complementary situational variable (see Figure 1-1).

For example, self-monitoring (Snyder and Ickes, 1976) is a person variable widely used in social psychology. A high self-monitor actively attempts to construct a pattern of social behavior appropriate to the context. A self-monitoring situation is one high in

interpersonal cues to what is socially appropriate. An interaction is characterized by high self-monitors being more likely to "seek out" situations which contain cues for appropriate behavior. For example, high self-monitors are more likely to view ads with "image" appeals as favorable, whereas, low self-monitors tend to view ads with "quality" appeals as more favorable (Snyder and DeBono, 1985).

Other person variables interact with their situational counterparts in a similar manner. Private self-consciousness is the tendency to direct attention to inner feelings and thoughts (Carver and Scheier, 1978). Individuals high in private self-consciousness have a heightened awareness of themselves as social objects. Private self-consciousness situations are strong in evaluative cues about a person's being. Self-consciousness responses might be evoked by a situation like the presence of a mirror, in contrast to the use of "image" ads to evoke self-monitoring responses. Both self-monitoring and private self-consciousness are general person variables which could apply to a number of areas of a person's life.

Other person variables are more specific to activities within limited areas of our lives. The tendency to be altruistic is more observable in a religious domain (Darley and Batson, 1973). The tendency to be aggressive is more observable in an athletic domain (Bem, 1974). Within the domain of work, the tendency for a manager to plan, control, value order, and place output before process has been labeled as a "production orientation" (Blake and Mouton, 1981). That is, regardless of the managerial response called

for, some people tend to want to control and structure the decision making process related to managing people. Production-oriented managers tend to see every situation primarily in terms of goals, objectives and outcomes. In essence, they select and redefine the situation to suit their disposition.

The analogy of focusing on certain tendencies in specific life domains can be extended to the consumption domain. The consumption domain refers to the area of our lives in which we acquire, use, or dispose of products or services.

Individual Style and the Consumption Domain

People exhibit consistencies in behavior in various aspects of their life. Such consistencies are attributed to "individual style." An individual style is made up of personal characteristics which are referred to here as "tendencies." The tendency to evaluate a product's image and the tendency to evaluate the product's functioning are two personal characteristics of interest in this study. "Tendencies," in turn, may be comprised of "traits." Traits are combinations of actions, thoughts, and feelings which show consistency across situations (Maddi, 1989). Traits are lower-level responses than tendencies. In fact, several traits may be combined to form what is referred to here as a tendency. Tendencies combine to form an individual style. An individual consumption style is defined here in terms of the combination of the tendency to value one's image and the tendency to value a product's functioning (see Figure 1-2 for some consumer styles based on these tendencies.)

The variables identified above may be thought of in terms of a two-factor classification scheme (image and functioning). A two-factor classification scheme uses two orthogonal variables to form a grid of possible relationships. In two factor classification, a high standing on one variable does not necessarily imply low standing on another variable. Blake and Mouton (1981) in their managerial grid compared production oriented managers to people oriented managers. According to Blake and Mouton, the team manager is high in both orientation to production and orientation to people. A two-factor classification may be applied to any pair of variables if these variables are considered orthogonal to each other. For example, self-monitoring and private self-consciousness may be classified in terms of a two-factor scheme. A comparison between the attention to how others perceive me and an attention to my own inner thoughts and feelings would result. Although the focus is different for each of these variables, they are not opposite. It is possible to be both high in self-monitoring and high in private self-consciousness. Such a two-factor classification is suggested here for the consumer variables which describe an individuals orientation to "image" and to "function." These variables describe individual styles in the consumption domain.

Development of an underlying individual style has been recommended as an approach to incorporating personality variables into consumer research (Crosby and Grossbart, 1984). This approach is developed in Chapter 3.

Conclusion

Most studies of individual differences and consumer behavior have looked for a relationship between personality and behavior, and have found very low correlations. Problems have stemmed from the wholesale borrowing of personality measures, or the modification of these measures without observing their original context. Other problems arise due to the limited applicability of the domain of the personality construct. Extroversion, for example, is best measured in social settings. The relating of brand choices to extroversion requires examining the interaction between extroversion and the social setting to predict behavior. This may explain why previous research found little predictive validity in personality constructs. A more fruitful approach might be: 1) to define individual difference traits in terms of consumption behaviors (as compared to other social behaviors) which are normally associated with brands and brand choice, and 2) to treat individual difference traits as moderators of situation-behavior relationships more than as a predictors of behavior. The two approaches suggested here have been incorporated in this dissertation.

Chapter Two reviews the past work in self-image congruence research, the situation/disposition debate, and looks at individual differences across the consumption domain based on Blake and Mouton's Managerial Grid Model. Chapter Three proposes some theoretical relationships between self-congruity, functional congruity, consumer dispositions, and behavior. Chapter Four

outlines a method to test several theoretical propositions. First, a historical perspective of product image/self-image research is presented.

CHAPTER TWO

Literature Review

Introduction

The goal of this chapter is to position the current study within the paradigm of self-image congruence research in consumer behavior. In order to do this, the previous literature in self-concept is reviewed to establish the different definitions of the self that have been used to explain behavior. Self-congruity theory (Sirgy, 1986) is introduced as a viable model in the prediction of consumer behavior. Five trends in the development of Self-congruity theory are identified: (1) the relative predictiveness of product image/self-image congruity models, (2) the mediating effects of self-concept motives, (3) moderators between consumer product image/self-image congruity models and other models which predict consumer behavior, (4) moderators within product image/self-image congruity models, and (5) product image/self-image congruity as a mediating link between other social psychological predictors and consumer behavior.

The second part of the literature review develops the theme of a dispositional modifier of the self-congruity/behavior relationship. Dispositional measures are defined in terms of the distinction between personality and attitude. The controversy about situational versus dispositional impact on behavior is reviewed.

The chapter concludes with a rationale for the development of dispositional measures of self-congruity and functional congruity,

and a set of theoretical propositions for an interaction model of the congruity/consumer behavior relationships.

Definitions of Self-Concept

One of the problems of self-image congruence research is the plethora of definitions of self-concept stemming from the variety of ways the self is viewed in the psychological literature. For example, James, 1890 defined the self-concept as all that we call our own, and with whom or with which we share a bond of identity. James' definition implies a global self-concept. Other traditional definitions of the self-concept also focus on a unitary self (Allport, 1943; Cooley, 1902; Mead, 1934; Sullivan, 1953; and Lecky, 1945). However, the recent psychological literature in self-concept points to the possibility of multiple selves. That is, the self is a collection of masks each tied to a particular set of social circumstances (Marcus and Nurius, 1986). The self-concept is diverse and multifaceted. Each self-concept domain represents the individual's persistent hopes and fears and indicates what can be realized in certain situations.

Most self-concept researchers in consumer behavior recognize that there is no single conception of self and therefore use a pluralistic view of the self-concept to compare multiple models of the self, rather than a global self. Furthermore, consumer researchers working in the area of the self-concept focus on self-image and not on self-attitude, self-evaluation, self-esteem or other clinical phenomena as most psychologists do. They use the self-concept as a

cognitive frame of reference. That is, the self-concept is a standard of comparison that is evoked in consumer's evaluation of products and services. The focus is on how the self-concept impacts consumers' attitudes and behavior pertaining to products and services, not how the self-concept is affected. The self-concept is used as a means to explain and model consumer attitude/behavior rather than as an end state.

Consumer researchers have traditionally used four aspects of self-concept in explaining and predicting attitude/behavior. These are the actual self-image, how consumers see themselves; the ideal self-image, how consumers would like to see themselves; the social self-image, how consumers believe they are seen; and the ideal social self-image, how consumers would like to be seen by others (Sirgy and Danes, 1982). In that vein, consumer research addresses how each of these types of self-concept is used as a cognitive reference in evaluating product symbolic cues. Product symbolic cues refer to stereotypic images of users of a product (e.g. sexy, classy, fashionable, and young). Consumer's attitude/behavior toward a product is thus influenced by the matching of the product image with any one or more of the self-concept types (actual, ideal, social, and ideal social). This matching process is referred to as self-image congruence. Thus, there are four types of self-image congruence models: actual self-congruity, ideal self-congruity, social self-congruity, ideal social self-congruity. The actual self-congruity model describes how the match between a consumer's actual self-

image and a product image influences attitudes toward the product. Similarity, ideal self-congruity, social self-congruity, and ideal social self-congruity models predict consumer attitude/behavior relative to these respective forms of self-image.

Self-Congruity Theory

Self-congruity theory (Sirgy and Danes, 1982; Sirgy, 1982; Sirgy, 1986; Sirgy and Samli, 1985; Ericksen and Sirgy, 1989) argues that the relationship between self-image congruence and consumer attitude/behavior can be explained in terms of self-evaluation. The consumer who is evaluating a product is not evaluating the product per se, but s/he is evaluating her/himself as user of the product. That is, the consumer projects an image of how s/he would "look" using the product. The determination of how s/he would look using the product is made in reference to the stereotypical image of the generalized product user. Hence, the traditional notion of a symbolic purchase can be explained in terms of a perception of one's self through the actual (or anticipatory) use of the product. It is this perceived self-image which is the object of evaluation, not the product per se. For example, the consumer thinks, "how would I look driving a sports car like this car?" "I may look like I am, young, sexy, and attractive." This perceived self-image is "suggested" by the product image, i.e. the stereotypical image of the generalized product user. In this case, the suggestion is that the typical person who drives this sports car is "young, sexy, and attractive." The perceived self-image is then evaluated in relation to how the consumer sees

herself/himself¹ along the image dimensions of youth, sexiness, and attractiveness. The consumer may see and like to see herself/himself as young, sexy, and attractive. If so, this situation is characterized as positive self-congruity (or as a high actual/ideal self-congruity situation). If s/he sees herself/himself as not young, sexy, and attractive but would like to be, the situation is characterized as positive self-incongruity (the reference product image is positive but incongruous with the actual self-image; see Figure 1-3 for a complete description of possible conditions).

Self-congruity theory explains the effect of self-image congruence on consumer attitude/behavior through the mediating effects of self-concept motives (self-esteem, social approval, self-consistency, and social consistency).² In the positive self-congruity condition, the consumer is expected to feel highly motivated toward the acquisition of the product, mainly due to its self-esteem (or social approval) and self-consistency (or social consistency) enhancement effects. That is, the consumer may feel that acquiring the product may increase his/her self-esteem (or social approval), as well as, satisfy the need for self-consistency (or social consistency). Consumers predictably act to purchase products in high self-congruity situations. The positive self-incongruity and the negative

¹ The relevant self-image evoked may be the actual, ideal, social or ideal social self.

² The need for self-esteem is defined as the tendency to realize an ideal image of oneself. The need for social approval is defined as the tendency to realize an ideal image of oneself as determined by significant others. The need for self-consistency is defined as the tendency to engage in behavior that is consistent with how one sees oneself. The need for social consistency is defined as the tendency to engage in behavior that is consistent with how one believes significant others see him.

self-congruity conditions may produce a conflict between the satisfaction of self-esteem (social approval) and self-consistency (or social consistency); hence only an average (50/50) probability of purchase is predicted under these conditions. In the negative self-incongruity condition, the consumer is expected to have a negative attitude toward the product. Consumers act predictably to not purchase products because they do not satisfy both self-esteem (or social approval) and self-consistency (or social consistency) needs. Hence, self-congruity theory explains the mediating motivational states of self-image congruence and consumer attitude/behavior. It does this through the concepts of self-esteem, social approval, self-consistency, and social consistency motivation (See Figure 1-4).

Self-congruity theory argues that actual self-congruity affects consumer attitude/behavior through the activation and operation of the self-consistency motive, that is, consumers who view themselves as "classy" will prefer products with a classy image to the degree that they are motivated by self-consistency. Ideal self-congruity affects consumer attitude/behavior through the mediation of the self-esteem motive. Consumers who would like to see themselves as "classy" prefer products with a classy image to the degree that they are motivated by self-esteem. In the public domain, social consistency and social approval play similar motivational roles (Sirgy, Johar and Claiborne, 1991, see Figure 2-2). With these definitions, we now turn to a review of self-concept and self-image congruence research.

Self-Concept Research In Consumer Behavior

Self-concept research in consumer behavior may be viewed in terms of three groups of studies. The initial studies sought to demonstrate the existence of a relationship between a product image and some form of the self-image (Dolich, 1969; Dornoff and Tatham, 1972; Grubb and Hupp, 1968; Grubb and Stern, 1971; Hughes and Guerrero, 1971; Martin and Bellizzi, 1982; and Ross, 1971). A second group of studies examined the predictiveness of product image/self-image congruity on consumer behavior (Belch and Landon, 1977; Bellenger, Steinberg and Stanton, 1976, Ericksen and Sirgy, 1989; Landon, 1974; Sirgy, 1985b; and Sirgy, Johar, Samli and Claiborne, 1991). More recently studies have considered the specific type of product image/self-image congruity evoked, the self-concept motives involved, and the moderating variables which affect consumer behavior (Sirgy and Johar, 1985; Sirgy, Johar and Wood, 1986; Sirgy, 1985b; Sirgy and Johar, 1985; Varvoglis and Sirgy, 1984). The impact of these three areas of research on the conceptual development of the field is discussed in the following sections.

Existence of the Relationship Between Product Images Of Preferred Brands and Self-Images

Empirical studies in self-congruity and consumer behavior began in the mid 1960's. The early studies sought to evaluate the product image/self-image relationship by testing whether the self-image of a brand or product user differed from an image of the stereotypical brand or product user. The notion that products have

personalities which interact with buyers personalities can be traced back to Martineau's treatise on motivation in advertising (Martineau, 1957). The why of this relationship was later expanded when Levy suggested that humans have a basic need for symbolization which is as primary as eating or moving (Levy, 1959). In Levy's estimation, it is this symbolizing function which is being utilized when we examine the product image/self-image relationship. In other words, individual consumer actions represent a complex of symbolic notions. The consumer acts to possess objects that reflect or symbolize his or her self. In terms of self-congruity theory, consumers prefer to acquire products that reflect their personalities or self-concepts because doing so enhances their unmet needs for self-esteem, social approval, self-consistency, and social consistency.

All studies that examined the product image/self-image relationship supported the existence of a relationship (see Table 2-1). The self-image was related to preferred brands, a competing brand, the first brand choice, the most and least preferred brands, and the image of a best friend. The effect sizes, however, are inconsistent. In one case, an uncorrected effect size (η) was as large as .91 ($F=730$, $df=1,160$).

Part of this variation may be due to the statistical methods and reporting standards of that period. Nevertheless, it is safe to conclude that there is sufficient empirical evidence across studies to support the existence of a relationship between the self-image and product image of preferred brands. Furthermore, the relationship

extends to different settings and products: retail stores, automobile brands, clothing, and consumer products such as cigarettes. In addition, various groups have been used as subjects suggesting that the results apply generally across people, i.e. men and women, students and adults. However, the predominance of female students as subjects does raise some questions. It is possible, because of socialization, that the frame of reference may be different for males and females when evaluating some products (Landon, 1974). When the reference image evoked by male and female groups is different, then a comparison of product image and self-image across those groups may not be meaningful. Suppose the stereotypic image of the Mazda Miata driver is bold, energetic, and carefree for females, and debonair, polished, outgoing for males. Both groups could report a high degree of congruity or no congruity. However, these scores could not be compared since the reference image evoked is different for the two groups. Methodological concerns of this nature have led to greater specification of the product, brand, and use situation when evaluating product images (Ericksen and Sirgy, 1989). Issues of socialization in the development of symbolic references still remain to be addressed, however. While the comparability of relationships across groups is to be questioned, the predictiveness of the self-congruity relationship on consumer behavior is viable regardless of group differences.

The Relative Predictiveness of Self-Image Congruence Models

A second group of empirical studies examines the correlation between product image/self-image congruity and consumer behaviors (see Table 2-2). The behaviors predicted are preference and liking, purchase intention, and store loyalty. Effect sizes for these predictions range from .21 to .39 and average (weighted by sample size) $r = .29$. A comparison of variances in these studies indicates that the findings are homogeneous and can be considered from the same group ($t = .40$, $p = .71$). Research to date therefore indicates a moderate effect size for the relationship between product image/self-image congruity and consumption behavior.

A number of questions still remain about this relationship, in particular whether the relationship is linear or non-linear, whether it is stable over time, and what are its causal direction and mediating variables.

The question of linearity may be hypothesized as an issue of extremes, causing the nature of the relationship between self-image congruence and consumer attitude/behavior to be nonlinear. More specifically, one can argue that self-congruity effects may be most visible in the polar extremes. That is, consumers may evaluate a product positively if the product is clearly perceived to have an image that is congruent with one or more of the self-concept types. Conversely, a product may be negatively evaluated if the product is clearly perceived to have an image that is incongruent with a particular type of self-concept. The differential effects of highly congruent or incongruent states could diminish rapidly giving way to

floor and ceiling effects. One may investigate the possibility of a S-shaped relationship between self-image congruence and consumer attitude/behavior.

The stability of product image/self-image congruity and consumer behaviors is also an issue. One may focus on the possibility of how the effects of self-image congruence on consumer attitude/behavior may be moderated by time. One can hypothesize that self-image congruence may play a role in the early stages of the consumer decision cycle. However, with greater familiarity and information processing (which occurs with the passage of time), the role of self-image congruence in influencing consumer attitude/behavior decreases. This may be due to the effect that consumers may process more concrete and functionally-related cues as they become more interested and familiar with the product.

Another issue which needs empirical investigation is the causal direction of the self-image congruence to consumer attitude/behavior relationship. It may be assumed that self-image congruence may cause the formation and/or change of consumers attitudes and behaviors. However, the reverse cause is equally plausible. That is, subjects may make self-attributions or self-perceptions based on having preferred or acquired certain products. They could develop a self-image to insure consistency with their behaviors. In other words, self-concept may change as a function of behavior.

The Mediating Effects of Self-Concept Motives

A third, and more current area of research looks more specifically at the mediating effects of self-esteem and self-consistency within the product image/self-image congruity - consumer behavior relationship. The interpretation of an exposure to a product is not a veridical object perception. Rather, what is stimulated is a person perception - an evoked self-image as user of the product (Sirgy, 1986). The comparison of the evoked self-image with a reference image of the generalized product user leads to either a state of self-congruity or self-incongruity (see Figure 2-1). The relationship between self-congruity and attitude/behavior is mediated by self-consistency and/or self-esteem motivation. Self-consistency motivation refers to the individual's need to act in ways that are consistent with his self-concept. Actions to the contrary would cause dissonance, which is psychologically discomforting. Self-inconsistency threatens the individual's beliefs about himself (Epstein, 1983). The self-esteem motive refers to an individual's need to act in ways that are instrumental in achieving goals that maintain and/or increase positive self-regard (Rogers and Dymond, 1954). In the public domain parallel concepts of social consistency motivation and social approval motivation mediate social self-congruity and ideal social self-congruity, respectively (see Figure 2-2). Social consistency is the tendency to insure that one's beliefs, attitudes, and/or behaviors will not violate one's social self-image or social identity (Baumeister, 1982). Social approval refers to the motivational tendency to insure that one's beliefs, attitudes, and/or

behaviors will not violate one's ideal social self-image of the social norms. The self-congruity/behavior relationship is enhanced or attenuated to the degree that the self-concept motivation is operant. That is, an individual who experiences actual self-congruity will be motivated to approach or avoid a product to the degree that he is motivated by the need for self-consistency. Similarly, the other types of self-image congruence may be mediated by the corresponding self-concept motivation.

In support of this model, Sirgy (1985a) found positive/negative self-congruity/incongruity measures to be related to preference ($F=11.9$, $\eta^2=.106$), intention ($F=10.64$, $\eta^2=.10$), and with the sum of preference and intention ($F=13.09$, $\eta^2=.11$). Comparative tests were performed using regression models with self-concept motivation variables added to the self-image congruence variables (Sirgy, Johar and Claiborne, 1991). The results clearly provide support for the mediation hypothesis. The R^2 increments are high and significant when the self-concept motivation variables are added to the self-image congruence ($R^2=.130$ to $.414$, $p < .01$). Reversing the tests by adding the self-congruity variables to the self-concept motivation variables produced low and non-significant regression variables ($R^2=.001$ and $.013$, $p > .01$).

An interesting issue for future research is the role of belief strength associating product image and self-image in various self-congruity conditions. Belief strength may play different roles. For example, given a strong product image and weak self-image, the

mediating effect of self-esteem is postulated to have a stronger impact on attitude/behavior than the mediating effect of self-consistency. Conversely, given a weak product image and strong self-image, the mediating effect of self-consistency is surmised to have a stronger impact than self-esteem (Sirgy, 1986). Future research may empirically investigate the hypothesized effects of belief strength in product image and self-image constructs.

Moderators of the Self-Image Congruence/Attitude Relationship

Two kinds of moderators are of interest, moderators within self-congruity models and moderators between self-congruity and functional congruity models. Moderators within are moderators that serve to qualify the differential predictiveness of the actual self-congruity, ideal self-congruity, social self-congruity, and ideal social self-congruity models. Moderators between are moderators that serve to qualify the differential predictiveness of self-image congruence models in relation to functional congruence or other models of consumer behavior.

Moderators Between Self-Image Congruence and Functional Congruence Type Models: Self-image congruence models are based on a matching between the value expressive attributes of a product and consumer self-concept perceptions. Functional congruence models, on the other hand, are based on the perceived utilitarian aspects of the product in reference to some ideal aspects. Functional congruence models most often occur as multiattribute attitude models (see Wilkie and Pessemier, 1973 and Lutz, 1981 for

comprehensive literature reviews). The research literature suggests that the predictiveness of both self-image congruence and functional congruence models may be qualified by a number of moderating variables. Fourteen different moderating variables have been considered in consumer self-concept research (see Table 2-3). Several of these variables are related to social visibility: social consumption, personally revealing products, and product conspicuousness. Social visibility is more likely to affect self-image congruence than functional congruence because of the strong link to the social self (Dolich, 1969; Martin and Bellizzi, 1982; Ross, 1971; Sirgy, 1980; Sirgy, 1985a; Sirgy, Johar and Wood, 1986). A preference for products high in value-expressiveness is therefore more likely to be affected by product conspicuousness.

Other variables considered in relationship to self-congruity and functional congruity are product differentiation, involvement, conspicuousness, and common usage (Sirgy and Johar, 1989a). Each of these moderators exerts a greater effect on either self-congruity or functional congruity and thus strengthens the predictiveness of that construct. More specifically, it was hypothesized and empirically demonstrated that self-congruity is more predictive of attitude/behavior under conditions of high (rather than low) product conspicuousness, and under conditions of low (rather than high) common usage. Common usage is defined as the degree to which a product is commonly, versus scarcely, used by the general population. Functional congruity, as expected, was found to be more

predictive of attitude/behavior under conditions of high product involvement and differentiation.

Although the relationship between product image/self-image congruence and attitude/behavior has been demonstrated, the fundamental relationship between self-image congruence and functional congruence is still unspecified. In particular, some proximal-distal juxtaposition may operate in consumers' minds. Recent studies have found multiattribute models more predictive of behavior for some products which were previously thought to be more value-expressive, and therefore more symbolic (Sirgy and Johar, 1989b; Sirgy, Johar, Samli and Claiborne, 1991). Therefore the specific nature of the relationship between self-congruity models and functional congruity models has been brought into question. Self-congruity may operate antecedently to multiattribute processing, serving as a basis for subsequent functional matching (Sirgy, Johar, Samli and Claiborne, 1991).

Moderators Within Self-Image Congruence Models: A number of studies have examined moderators within self-image congruence models (Ross, 1971; Sirgy, 1987; and Varvoglis, 1987). For example, Ross (1971) hypothesized that the predictiveness of public (for example, social and ideal social self-congruity) versus private (e.g. actual and ideal self-congruity models) self-concept models is a function of product conspicuousness. More specifically, private self models (actual and ideal) should predict brand preferences for less conspicuous brands better than for more conspicuous brands.

Conversely, public self models (social and ideal social) should predict preference for conspicuous rather than inconspicuous brands. Results have not been highly supportive of these hypotheses, however.

Sirgy (1987) hypothesized that response mode moderates consistency versus esteem-type of self-image congruence models. More specifically, it was hypothesized that esteem-type models (ideal and ideal social) are more predictive of attitude than behavior; and conversely consistency-type models (actual and social) are more predictive of behavior than attitude. Results have been supportive of the hypotheses.

Varvoglis (1987) examined the moderating effects of advertising versus retail setting. He hypothesized that evaluating a product through an ad may evoke ideal or ideal social congruity type of processing; whereas, a retail setting may evoke actual or social congruity processing. His results were moderately supportive of these hypothesis.

In this research stream, many questions remain unanswered, questions such as: are groups of product owners likely to use different standards (actual, ideal, social, and/or ideal social) than groups who have only seen ads for the product? Are men and women likely to relate to certain products or brands using different types of self-images?

Self-Image Congruence as a Mediating Link: A group of studies (e.g. Sirgy and Samli, 1989; Ericksen and Sirgy, 1989) treated self-

congruity as a mediating variable for relationships between individual difference variables and consumer behavior. For example, Ericksen and Sirgy (1989) hypothesized and empirically demonstrated that achievement motivation of working women and their clothing behavior at work is mediated by self-image congruence. More specifically, they show that achievement motivated women tend to experience greater self-image congruence with "professional outfits" than non-achievement motivated women.

Similarly, in a store patronage study, Sirgy and Samli (1989), hypothesized and demonstrated that social class and patronage of "upscale and downscale stores" is mediated by self-image congruence. More specifically, high social class consumers tend to experience greater self-image congruence with upscale (rather than downscale) stores, and hence patronize more upscale than downscale stores.

Further research may concentrate on exploring the mediating effects of self-image congruence on individual difference variables such as self-monitoring, self-esteem, age, and gender to name a few.

Conclusion

In summary, the last 25 years of self-concept and self-image congruence research has seen a conceptual progression from considering issues of the viability of a relationship between a self-image and product image, to the definition of distinctive self-images, to the exploration of variables which moderate and mediate the self-congruity, attitude/behavior relationship. In recent work, this

foundation has been expanded to the development of a formal theory of self-congruity based on self-esteem, self-consistency, social approval and social consistency motivations. Current efforts are attempting to integrate self-congruity and multiattribute attitude models of consumer behavior. Many conceptual and methodological opportunities for further research exist in this area which suggest the potential for a relatively untapped program for future self-image congruence research. The remainder of this chapter focuses on the literature underlying the theoretical development of a dispositional measure of self-image congruity. Congruity as a process is discussed. Dispositional measures are defined in terms of a consistency of behavior. Situational vs. dispositional relationships to behavior are discussed. Finally, theoretical propositions are developed to reflect how the interaction between situational self-congruity and dispositional self-congruity predicts consumer behavior.

Situations, Dispositions, and Behavior

Introduction

Dispositional measures have a long history in social psychology stemming back to early personality and attitude research. Both personality and attitude research have sought to elucidate behaviors which depend on individual differences. Such behaviors are referred to as dispositional. A disposition can be defined as a consistency of thoughts, feelings, and actions across time and context (Ajzen, 1988). Attitudes have been defined as: learned dispositions to respond in a consistently favorable or unfavorable manner with respect to a given

object (Fishbein and Ajzen, 1975). Personality is defined as a stable set of tendencies and characteristics that determine those commonalities and differences in people's psychological behavior (thoughts, feelings, and actions), that have continuity in time, and that may not be easily understood as the sole result of the social and biological pressures of the moment (Maddi, 1989). Attitudes and personalities both reflect underlying stable dispositions. Self-congruity and functional congruity are dispositional tendencies which are evaluative in nature and in that regard they are similar to attitudes. Self-congruity and functional congruity are greatly influenced by the situation. In fact, it is proposed that the choice of a self-image or functional processing mode is partially governed by the situational cues present. And in addition, part of the congruity-behavior relationship is influenced by the stable tendencies of the individual, his personality. Hence, the focus of the current work is on developing "personality type" measures of product image/self-image congruity as a complement to the situational measures currently used. Recent developments in social psychology have lead to the pre-eminence of an interactionist view of situation and personality relationships. That perspective is taken here to propose a moderation of the congruity-behavior relationship by disposition.

Research covering the situation-disposition interaction, and situation-trait consistency are discussed below. First, however, attitude and personality paradigms are contrasted in terms of general and specific behaviors. The importance of multiple indirect

measures of global dispositions is presented, and the distinction between abstract and concrete psychological situations is proposed. The goal of this section is to present support for the development of a dispositional scale which measures behaviors in the consumption domain. Concomitantly, support is developed for a theoretical interaction model which relates congruity, disposition, and behavior.

Dispositions as General Behavior and Specific Behavior

Both personality and attitudes are latent dispositional constructs. These dispositions may be observed indirectly through self-report measures, but are most apparent when manifested in specific behaviors. In the case of attitudes, responses are of an evaluative nature and are directed at a given object (product, advertisement) or target (person, institution, policy, or event). Personality traits, by contrast, are not necessarily evaluative (Ajzen, 1988). They describe response tendencies in a given domain, such as the tendency to behave in a socially responsible manner, to be extroverted, to be self-confident, etc. Responses that reflect an underlying trait do not focus on any external target. Instead, they focus on the individual. Traits are commonly used to differentiate between individuals and to classify them into personality types. Although traits and attitudes are both assumed to be relatively enduring dispositions, attitudes are typically viewed as more malleable than personality traits. Evaluations can change rapidly as events unfold or new information becomes available. Personality is often

viewed as a system of traits. The configuration of personality traits that characterizes an individual is consistent across situations, and defiant to change over time.

In the late 1960's a crisis overtook both attitude and personality research. Mounting evidence had led to the conclusion that the ability to predict specific behaviors from global attitudes or global personality traits had not been demonstrated. The best research resulted in personality-behavior correlations of about $r=.30$, and attitude-behavior correlations of $r=.40$. The state of attitude research was summarized in the following statement:

Taken as a whole, these studies suggest that it is considerably more likely that attitudes will be unrelated or only slightly related to overt behaviors than that attitudes will be closely related to actions. Product moment correlation coefficients relating the two kinds of responses are rarely above .30, and often are near zero (Wicker, 1969, p.65).

In the personality domain Mischel (1968) drew a similar conclusion. He coined the term personality coefficient in referring to the weak relationships:

. . . the correlation between .20 and .30 which is found persistently when virtually any personality dimension inferred from a questionnaire is related almost any conceivable external criterion involving responses sampled in a different medium-that is, not by another questionnaire.

These issues are reframed when we consider to what extent we can expect behavior to be situationally specific and to what extent we can expect broad generalities in behavior. It has been proposed that a single item of behavior has too narrow a range of generality and too great a degree of error of measurement to produce more than modest correlations with other trait measures (Epstein and O'Brien, 1985). To expect any psychological variable to correlate with a criterion behavior on the order of .50 is to deny the complexity of human behavior. Epstein's solution to improving the low predictive ability of dispositional measures is to use multiple measures of behavior taken across situations and across time as indicators of the disposition. This idea was later referred to as "aggregating" (Ajzen, 1988). We might think in terms of aggregating specific behaviors to form indicators of general behavior. Attitudes and traits which may be largely unrelated to specific actions, may be closely related to general behaviors based on multiple-act indices of behavioral trends. Multiple measures can better explain this concept through examples of the assessment of attitude and personality.

The Assessment of General Attitude and Personality Traits Through Multiple-Act Indices³

Direct assessment of attitude or personality using single item global measures is simplest and, perhaps, most common method. Examples of direct assessment are:

³ This section follows closely the format used by [Ajzen, 1988 #61] in describing direct and indirect assessment methods.

We should use products which protect and nurture the environment.

agree : ___ : ___ : ___ : ___ : ___ : ___ : ___ : disagree;

I feel strongly about the preservation of wildlife. The Defenders of the Wildlife Card should further this cause.

agree : ___ : ___ : ___ : ___ : ___ : ___ : ___ : disagree.

These statements assess attitudes toward the environment and toward an environmental credit card, respectively. Such global statements include many subordinate attitudes which may conflict with specific actions. For example, products which protect the environment may be perceived as costing more, or difficult to find. Therefore, agreement with the attitude statement may not translate into using or recommending the products.

Direct measures of global personality traits might also describe the trait in terms of its constituent behaviors and ask for a general assessment of the match to the respondents personality. For example:

- A. Extraverts are typically outgoing, sociable, energetic, confident, talkative, and enthusiastic. Generally confident and relaxed in social situations, this type of person rarely has trouble making conversation with others.
- B. Introverts are typically somewhat more shy, timid, reserved, quiet, distant, and retiring. Often this type of person is relatively awkward or ill at ease in social situations, and consequently is not nearly as adept at making good conversation.

Which description above is a better description of the way you most often are?

- A. _____
- B. _____

Although these descriptions define extraversion and introversion in terms of multiple facets, they do not include specific behaviors across many life domains (like the consumption domain). Inferences must be made as to how an extrovert, for example, would act as a consumer. It is not surprising that there is little correlation between global personality traits (extraversion or introversion) and specific consumption behaviors (choosing, supporting, promoting, etc.). Even more specific dispositional traits, which have been used to explain consumer behaviors, such as self-monitoring, are not measured in the consumption domain. It is not surprising that these traits have demonstrated a low predictive power relative to consumption behaviors.

While single-item, global type measures of attitude and personality have proven reliable in some cases, in others they have proven unreliable. Even well-designed single-item measures can be unreliable due to misinterpretation or other mistakes in responding. Multiple-item measures give the opportunity to assess personality or attitude in a number of instances, thus compensating for interpretation and measurement errors. An example of a previous single-item measure as a multiple-item measure might be:

Using the Defenders of Wildlife Credit Card is

good : __ : __ : __ : __ : __ : __ : __ : bad;
 foolish : __ : __ : __ : __ : __ : __ : __ : wise;
 risky : __ : __ : __ : __ : __ : __ : __ : secure;

shortsighted : ___ : ___ : ___ : ___ : ___ : ___ : ___ : farsighted;
 unsafe : ___ : ___ : ___ : ___ : ___ : ___ : ___ : safe;
 ineffective: ___ : ___ : ___ : ___ : ___ : ___ : ___ : beneficial;
 reasonable : ___ : ___ : ___ : ___ : ___ : ___ : ___ : unpredictable;
 trustworthy : ___ : ___ : ___ : ___ : ___ : ___ : ___ : venturesome.

The dispositional evaluation in this case is based on adjective pairs (good:band; foolish:wise; risky:secure; etc.) A multiple-item evaluation of personality might read:

Place a number in front of each adjective which indicates how characteristic the term is of you, where:

- 5 = extremely characteristic of me;
- 4 = quite characteristic of me;
- 3 = neither characteristic nor uncharacteristic of me;
- 2 = quite uncharacteristic of me;
- 1 = extremely uncharacteristic of me.

_____ outgoing	_____ shy
_____ energetic	_____ sociable
_____ reserved	_____ confident
_____ distant	_____ talkative
_____ enthusiastic	_____ retiring
_____ quiet	_____ timid

Direct measures are easily developed but are limited in that they are more subject to situational influence. Ajzen (1988) cites the example of how attitudes toward the military as assessed by direct measures might be molded by television reports of the suppression of a demonstration by military forces. Unless people are induced to scan their behavior thoroughly they might be swayed by superficial influences. Indirect measures provide an opportunity for respondents to review different aspects of a given domain. An

example of an indirect measure of an attitude toward the Defenders of the Wildlife Credit Card is:

Please indicate your agreement with the following beliefs about the consequences of using the Defenders of Wildlife Credit Card by choosing one of the five alternatives (5) strongly agree, (4) agree, (3) undecided, (2) disagree, (1) strongly disagree.

1. Using the card is a responsible way to nurture our natural resources. (+)
2. Using the card offsets guilt caused by over-consumption. (+)
3. Using the card indicates a love of wildlife. (+)
4. Using the card will help to provide a legacy for our children. (+)
5. Using the card slows the rate of extinction among endangered species (+)
6. Using the card helps to limit animal testing. (+)
7. Using the card helps to protect the rain forest. (+)
8. Using the card supports hunters and fishers rights. (-)

In this example, a Belief-Only model of attitude is used. Belief-importance models for attitude toward the object and Belief-Evaluation models for attitude toward the consequences of behavior can provide a more detailed (and accurate) picture of the attitude-behavior relationship. These indirect measures use multiple-items to assess the attitude in several domains. In the above example, domains related to our natural resources, to consumption, to wildlife, to our children, to species extinction, to animal testing, to the rain forest, and to hunter's and fisher's rights were tapped. A tendency to approach or avoid the credit card based on this assortment of

domains is likely to be more stable than one based on a single measure.

Indirect personality measures follow a similar pattern. Statements are developed to tap into the personality dimension in several domains. An example of such a test is the Edwards Personality Preference Schedule (EPPS). Typical questions from the Edwards are:

I like to praise someone I admire;
I get so angry that I feel like throwing and breaking things;
I like to avoid responsibilities and obligations;
I like to form new friendships;
I like to accept the leadership of people I admire.

The EPPS was used in the often cited comparison of Ford versus Chevrolet truck owners (Evans, 1959). The EPPS was developed from eighteen personality traits based on Murray's List of Needs including

n Abasement, n Achievement, n Affiliation, n Aggression,
n Autonomy, n Counteraction, n Defendance, n Deference,
n Dominance, n Exhibition, n Harm avoidance, n
Infavoidance, n Nurturance, n Order, n Play, n Rejection, n
Sentience, n Sex, n Succorance, n Understanding (Hall and
Lindzey, 1970, pp. 176-177).

A second often used personality test is the California Psychological Inventory (CPI), which was modeled after the Minnesota Multiphasic Personality Inventory (MMPI). For comparison the CPI includes scales for the following 18 traits:

Dominance, Capacity for Status, Sociability, Social
Presence, Self-acceptance, Sense of Well-being,

Responsibility, Socialization, Self-control, Tolerance, Good Impression, Communality, Achievement via Conformance, Achievement via Independence, Intellectual Efficiency, Psychological Mindedness, Flexibility, and Femininity (Edwards, 1970, p. 57).

While these three inventories are the most utilized personality tests, and have undergone extensive validation, one of the criticisms of adopting existing personality scales for consumer research is that traits, like those listed above, may not apply to consumption.

(Kassarjian, 1971) points out that:

The variables that lead to the assassination of a president, confinement in a mental hospital, or suicide may not be identical to those that lead to the purchase of a washing machine, a pair of shoes, or chewing gum (p. 415).

Very few of the items on the Edwards questionnaire relate to consumption behaviors. In versions of the Edwards as well as other personality tests which have been modified to address consumption issues, "items are taken out of context, words are changed, items are arbitrarily discarded, and the test is often shortened drastically" (Kassarjian, 1971, p. 415). Few studies have examined the reliability and validity of modified scales. In one such effort, (Villani and Wind, 1975) demonstrated that test-retest reliability, agreement between modified and original trait measures is possible. The traits modified in this study were: sociable - outgoing, social, participative temperament; relaxed - to be sedate, relaxed, composed and satisfied

versus to be tense, excitable, restless, fretful, and impatient; and internal control - one's generalized expectancies for internal versus external control of the events in one's life. Villani's modifications included reducing the number of items, changing scales from yes/no to five-point responses, and in some cases, changing the wording. She did not attempt to reflect the traits in the consumption domain or across domains other than those originally designed. For the sociable trait, the reference domain was only that of a social gathering. The items included in the modified scale were:

Sociable

I'm always glad to join a large gathering;
I consider myself a very sociable, outgoing person;
I find it easy to mingle among people at a social gathering;
When I am in a small group, I sit back and let others do most of the talking;
I have decidedly fewer friends than most people; and
I am considered a very enthusiastic person.

The items in the relaxed and internal control measures tapped only general behavior without reference to any specific behavioral domain:

Relaxed

I get tense as I think of all the things lying ahead of me;
Quite small setbacks occasionally irritate me too much;
I wish I knew how to relax; and
I shrink from facing a crisis or difficulty.

Internal Control

Sometimes I feel that I don't have enough control over the direction my life is taking;

Many times I feel that I have little influence over the things that happen to me;
What happens to me is my own doing;
Becoming a success is a matter of hard work, luck has nothing to do with it; and
Getting a good job depends mainly on being in the right place at the right time.

Following the suggestions of Ajzen (1988), it is advisable to aggregate across situational domains and across specific behaviors to tap general behavior. This approach leads us to question how sociability, relaxed, and internal control traits manifest themselves in the consumption domain, and what specific consumption behaviors (such as, desiring, choosing, encouraging, promoting, etc.) relate to the traits. These types of issues are addressed in the development of a dispositional consumer scale below. We turn next to the role of self-congruity and functional congruity in the specification of the situation.

Psychological Situations

Congruity as a Cognitive Matching Process: Congruity has been operationalized in a number of ways. Sirgy and Danes (1982) compared absolute difference, simple difference, difference squared, euclidean distance, divisional, and interactive models of product image/self-image congruity. They found little difference in the method of operationalizing the match on the predictive validity of the self-congruity construct. Operationalizations only seek to duplicate the corresponding cognitive processes. The stability of the

matching process to different forms of measurement is indicative of the robustness of the process itself.

The idea of a cognitive process which matches a product image and a self-image was proposed in the early writings on product symbolism (Levy, 1959):

When people talk about the things they buy and why they buy them, they show a variety of logics. They refer to convenience, inadvertence, family pressures, other social pressures, complex economic reasonings, advertising, pretty colors, a wide range of feelings and wishes. . . . The things people buy are seen to have personal and social meanings in addition to their functions. . . . In this sense, all commercial objects have a symbolic character, and making a purchase involves an assessment-implicit or explicit-of this symbolism (p. 118).

Levy implies that symbolizing is a mode of intellectual functioning, that we think, choose and decide by mentally manipulating symbols just as we mentally manipulate "concrete" data.

The symbolic versus concrete attribute distinction has posed a problem in product symbolism research from the beginning. Some critics question if a symbolic-functional distinction can be clearly defined. Isn't everything symbolic? That is, can't any attribute be both symbolic and functional? The answer is clearly yes. However, important distinctions in terms of the level of abstraction, the value-expressiveness, and the functionality of the decision situation must

be made. These distinctions are captured in the means-end chain (Guttman, 1982).

Guttman suggests that products can be thought of as the attributes, consequences, and values they represent. Attributes refer to the properties of the product. Product properties can be concrete, (i.e., packaging) or abstract (i.e. taste). Consequences are the benefits of using the product. Guttman describes benefits as functional or psychosocial. Functional benefits are those benefits related to consumption actions, i.e. eating less. Psychosocial benefits relate social or self-image goals, i.e. don't get fat. Finally, values are identified as instrumental and terminal. Instrumental values are the means to end states, i.e. healthy appearance. Terminal values represent a motivating end state, (i.e., self-esteem). An important distinction can be made between the two levels of benefits. Functional consequences are expressed in the language of the things, while psychosocial consequences are expressed in the language of people. Bem and Funder (1978) described this distinction in the example of the choice of a university. The question posed was, should Leland go to Stanford? Functional and psychosocial benefits of Leland going to Stanford might be described in terms of Leland getting a good job, an education, developing critical thinking skills, becoming well-rounded, developing peer relationships, becoming a leader, etc. The second part of this list relates to how Leland might view the social results of going to Stanford (i.e. becoming well-rounded, becoming a leader), the first part relates to how Leland

might view what he can do after going to Stanford (i.e. get a good job, get an education). In a more simplistic sense, functioning refers to product descriptions and symbolizing refers to people descriptions. Bem and Funder (1978) propose that to make any decision the person oriented and situation oriented language must be merged. That is, the functional and symbolic benefits of the situation must be transposed into the same language in order to be compared. In order for Leland to make a decision, he must be able to evaluate Stanford in terms of how it would help him to become well-rounded or evaluate himself in terms of the job to which a Stanford education might lead. In both cases, the decision is facilitated by a matching process. Expressing a product in terms of its psychosocial benefits and matching those benefits to the psychosocial image of the purchaser is being called the symbolic self-image congruity comparison. Expressing a person's psychosocial goals in terms of functional benefits and matching those to the functional benefits of the product is what we call functional congruity here.

Situational Cues to Different Processing Modes: Functional congruity and self-congruity can be thought of as different modes of processing. These modes are evoked by different psychological situations (Sarason, 1977). The underlying motives in the functional congruity model are utilitarian. The underlying motives in the self-congruity model are value-expressive (Katz, 1960). Functional and self-image congruity can be thought of as different "routes to

persuasion" (Johar and Sirgy, 1988). The functional route is based on expectancy-value theory (Sheppard, Hartwick and Warshaw, 1988 Wilkie and Pessemier, 1973 Lutz, 1981). Expectancy-value theory has been operationalized as multiattribute models of attitude (Fishbein and Ajzen, 1975). Multiattribute attitude models require an evaluation of the instrumental qualities of the product in producing benefits. Such performance related qualities can be attributed to underlying personal needs to perform, such as, the need for accomplishment, the need to be orderly, the need to be precise, the need to stick to a task until complete, etc. (Blake and Mouton, 1981). The impact of different psychological situations on information processing modes has been observed in several research studies. The increase in cognitive involvement led respondents to process ads for pens differently. In a low involvement state, an affective-association type of processing was used, while in a high involvement state a more functional type of processing was used (Gorn, 1982).

The comparison of a person image with a stereotypical image has also been suggested as a situational modifier. In a formative attitude-behavior study, an elegantly dressed Chinese couple requested service in a upscale restaurant (LaPiere, 1934). In 81 repetitions of this scene over the next two years, the couple was refused service only once despite rampant anti-Chinese attitudes on the West Coast at the time. In a later survey, when restaurant managers were asked whether they would accept members of the

Chinese race as a guest in their establishments, the overwhelming response was an unequivocal "No." LaPiere explained this in terms of attitude-behavior inconsistency. Later these results were explained by suggesting that the image presented by the Chinese couple was very different from that of the stereotypical Chinese person (Lord, Lepper and Mackie, 1984). Accordingly, the couple was categorized as not Chinese. This image vs stereotypical image difference created a situational modifier of attitude-behavior relationship. Changing the clothes, changed how the person was categorized, and therefore change the psychological situation. From this perspective there was no attitude-behavior inconsistency. However, had the managers operated from a strictly functional process, the couple may have been categorized as Chinese and not served.

Individual Style Across the Life Domains

People exhibit consistencies in behavior in the various aspects of their life. Such consistent tendencies contribute to an "individual style." In personality research, individual style is made up of personal characteristics which are referred to as "traits." Groups of traits tend to form an individual style. On the other hand life domains are aspects of living for which activities can be distinguished and grouped. Common life domains include work, relationships, health, spirituality, leisure, etc. In general, personality measures are global tests designed to assess "traits" across life domains. Most personality tests tend to emphasize some life

domains over others. However, it is rare that multiple life domains are sampled. For example, measures of "introversion" and "extroversion" focus on reactions at a party or in a crowd. This makes sense for traits which are more observable in specific life domains. However, a personality measure couched in terms of the behaviors of only one domain may not correlate with measures of the same trait couched in terms of the behaviors of another domain. Some mental transposition is required to see the similarity of the two domains.

The consumption domain, in particular, has not often been identified and used to fashion measures of personality traits. One test which is explicit in relating personality traits to life domains is the DSM III. The DSM III (Diagnostic and Statistical Manual of Mental Disorders) relates thirteen personal characteristics to key life domains. The personal characteristics are: conscientious, self-confident, dramatic, vigilant, mercurial, devoted, solitary leisurely, idiosyncratic, adventurous, self-sacrificing and aggressive (Oldham and Morris, 1990). The life domains used in this assessment are: work, self, emotions, relationships, self-control, and real world. Some personal characteristics are thought to manifest primarily in one domain, while others manifest across several domains.

"Conscientiousness" can be defined as a dedication to perfection, detail, order, and pragmatism. According to the DSM III, for example, "conscientiousness" is exhibited primarily in the work domain and "mercurialness," the yearning for direct experience and

ardent desire to connect with life and other people is exhibited primarily in the emotional, self-control, self, and real world domains. These personal characteristics may not be limited to the assumed domains, however, and may also impact the decisions we make as consumers. In fact, personal characteristics should be evoked whenever associations elicit underlying personal needs. For example, consumer decisions which elicit the need for perfection, detail, order, and pragmatism will evoke a "conscientious style of consumption." Just as, managerial decisions eliciting those same needs will evoke "conscientious style of management." In this sense we can define a consumption domain as being made up of all the activities involved with the acquisition, consumption, and disposition of products and services, which incidentally may parallel other domains such as work and managerial domains.

Consonant with the self-congruity literature cited above, personal characteristics may be used to define two consumption styles, the functional congruent style, and the self-congruent style. These styles represent the dispositional component of functional and self-congruent situational variables defined in the self-congruity literature (Sirgy and Johar, 1989b, Claiborne and Sirgy, 1989). While latent variables may have many components, perhaps the most parsimonious structure of any latent variable is the dichotomy of the portion attributable to the person and the portion attributable to the situation. Although situational self-congruity has been addressed in a number of studies. Dispositional self-congruity and dispositional

functional congruity, the parts of these variables attributable to the person, have not been measured. Other disciplines have measured similar dispositional components. Managerial styles parallel to functional and self-congruent consumer styles were developed by Blake and Mouton in characterizing decisions in the work domain (Blake and Mouton, 1981). The Blake and Mouton Managerial Grid model is used here to propose dispositional measures for the consumer domain. In order to derive such measures, a comparison of the managerial and consumption domains is developed more fully below.

A Comparison of the Managerial and Consumption Domains

Blake and Mouton (1981) describe the managerial domain in terms of object and person dimensions. Objects are products which represent the outcome of a production process. In the consumption domain, objects are products which are the outcome of a consumer acquisition process. Both production and acquisition require decision making which in turn can increase or decrease objective outcomes. These decisions are functional in the sense in that they impact the outcomes. Even more importantly, the interactions are driven by human social needs like: the need to be understood, liked, heard, or approved of, etc. Similarly, people interactions are implicitly involved in consumption purchases. Purchases take on symbolic meanings which help meet human social needs. The acts of acquiring, or using, or disposing of products represent among other

characteristics, individuation, conformity, affection. In other words, purchases are driven by the same human social needs which shape the managerial process. To further focus on the comparison between the consumption and managerial domains, a model of the consumer decision making process is described below. Elements from the managerial process are then described. Finally, some personal characteristics which underlie the formation the managerial and consumer styles are related.

The Consumer Decision Making Process: The consumer decision making process is an adaptation of John Dewey's stages of problem solving (Dewey, 1910). The stages applied to consumer behavior are: problem recognition, information search, evaluation of alternative solutions, purchase decision, and post-purchase evaluation (Runyon and Stewart, 1987). Problem recognition includes the recognition of: depletion of stock, inadequacy of assortment, changing needs, changing financial status, and a need for acquisitions created by other acquisitions. Functional and self-congruent consumer styles may react differently in all stages of the consumer decision making process across a number of purchase decisions. The functional consumer style emphasizes planning, control, certainty and consistency. For example, the functional congruent consumer is likely to experience depletion of stock as a lack of planning, as inadequacy of assortment and as a lack of control. The self-congruent consumer in contrast, values the ability to react to situations in "real time." Depletion of stock would be handled in real-

time instead of planning. Inadequacy of assortment might be viewed as an opportunity to experiment. Underlying this apparently more flexible style is the desire to match an image of the typical product user with a self-image. While some brands or products within a product class may do this better than others, there is less of a sense of the "best" choice for the self-congruent style than for the functional style. Product categories and family brands are as likely to carry generalized images as are specific models. The tendency to prefer a self-congruent style should be exhibited for assorted products within a product category, as well as, for individual models from different product categories. Information search is characterized by internal versus external information search. Internal search accesses information stored in a consumer's memory, while external search is considered a function of the perceived value versus the perceived cost of the search. Typical perceived value elements include experience or the amount of knowledge a consumer has about the product category or specific brands, the urgency with which the product is needed, the satisfaction derived for search activity, the perceived psychological and financial risk associated with the purchase, and the value placed on the product. The cost of search refers to the time, effort, psychological discomfort, and financial cost that may be incurred in search activity. Functional and self-congruent consumer styles are likely to differ in their approach to information search. The effort expended in external search is likely to be greater for functional consumers. A greater perception

of risk (especially financial), and greater perception of time effort and psychological discomfort cost for making the wrong decision will cause the functional consumer to search for more information. Self-congruent consumers, on the other hand are likely to express their people orientation by relying more heavily on others for information. Functional style consumers who are more critical initially are likely to also be more critical after the purchase. Such consumers will express more dissatisfaction regardless of the product or purchase situation.

Conversely, self-image style consumers whose purchase were initially based on a self-image/product image match are less likely to experience dissatisfaction after the purchase. Product evaluations and purchase decisions are described in terms of decision making models which require more or less involvement in the process. Compensatory models require high involvement, motivation, and ability to process the available information. Heuristic models, on the other hand, look for peripheral cues or "rules of thumb" to simplify the decision making chore. Product evaluations and purchase decisions are much more likely to be made through a compensatory type decision for the functional congruent style consumer. The range of decisions which may be cognitively involving is much broader for this type of consumer. Many decisions across a variety of situations are likely to be evaluated in great detail. By contrast, the self-congruent consumer style rarely engages in a formal, structured decision making process. Instead of scrutinizing product attributes

and benefits, decisions are likely to be based on recommendations, inferences, and other word of mouth communications. Post-purchase evaluation is often described in terms of consumer satisfaction or dissatisfaction. The natural tendency of functional congruent style consumers to be precise and careful could contribute to "better" product choices, but such tendencies also make it more difficult for products to live up to expectations. Self-congruent style consumers base decisions on the match between the product's image and some aspect of their self-image. They tend to disproportionately favor this approach to decision-making. Product expectations, because they are more global, are less likely to differ with post-purchase experiences. Therefore, the self-congruent style consumer is likely to experience less post-purchase dissatisfaction.

The personality characteristics underlying the functional and self-congruent consumer styles manifest in the work domain as production oriented and people oriented management styles. The relation of these two styles to the managerial process is described below.

Managerial and Consumer Styles: The managerial process is defined in terms of planning, organizing, directing, controlling, and staffing. These areas represent decisions to be made by managers in the work domain. The Managerial Grid (Blake and Mouton, 1981) proposes that managers tend to approach these functions differently depending on the strength of their orientation towards production, or their orientation towards people. The manager oriented toward

production might approach the managerial functions in the following manner.

Planning: "I do the planning by setting production quotas and detailing plans to achieve them."

Organizing: "I make assignments and tell subordinates what to do, how, when, and with whom."

Directing: "I keep in close touch with what's going on to ensure that what I have authorized is being followed."

Controlling: "I ensure that schedules are being met and move people along faster if progress permits. I criticize, assign blame for deviations, and impose corrective actions."

Staffing: "I get strong people and weed out weak ones. Management development that concentrates on personnel issues may be useful, but on-the-job learning is what counts."

(Blake and Mouton, 1981, pp. 17-18)

The need of the functional style manager to plan, control, get it right, and be efficient comes through in these statements.

The people style manager might respond to the managerial functions in the following manner.

Planning: "I suggest assignments and convey my confidence by saying, I'm sure you know how to do this and that all will go well."

Organizing: "Subordinates know what to do and how to coordinate with each other. If they need my

suggestions, I'm ready to listen to them and offer whatever help I can."

Directing: "I see my subordinates frequently and encourage them to visit. My door is always open. My desire is to get them the things they want without their having to ask. That's the way to encourage people."

Controlling: "I rarely need to check on how things are going since my subordinates will try their best. I place emphasis on congratulating each individual for his good efforts. Our discussions usually end by talking about why we did as well as we did and how we can help things to go as smoothly or more so in the future."

Staffing: "Even though it's not possible to please everyone, I try to ensure that subordinates are in the jobs they like best and working with those they enjoy."

(Blake and Mouton, 1981, p. 42)

These statements all attest to the social importance that decisions have for the people oriented manager. Planning, alternative decisions, and evaluations are all made on the basis of keeping the group happy. For the manager, her self-image relative to the group's image of her is all important. Social self-congruity for the manager like the consumer is driven by a need for social approval. In that sense, the people oriented managerial style and the self-congruent consumer style are very similar. Variations of functional and people oriented managerial styles combine dimensions of self-congruity and functional congruity (see Table 5).

A high ideal self-image to actual self-image match is likely to lead to high self-esteem. High self-esteem in the consumer domain may characterize a style which is both high in functional congruity and high in self-congruity. Conversely, a low ideal self-image to actual self-image match may characterize a consumer style that is both low in functional congruity and low self-image congruity. These styles may be labeled the market maven and consumer indifferent styles respectively. Parallels in the managerial domain are the team management style comprised of a high regard for production and a high regard for people, and the laissez-faire style comprised of a low regard for both production and people. The ultimate rationale for comparing managerial and consumer styles lies in the developmental underpinnings of the personal characteristics behind the styles. Hypotheses about these developmental origins based on the theory of Blake and Mouton (1981) are discussed below.

Conclusion

This section proposes that individual consumption styles be defined following the individual managerial styles of Blake and Mouton (1981). Functional congruent and self-image congruent styles represent the dispositional components which complement the situational functional congruent and self-image congruent variables (Sirgy and Samli, 1989). Although the two styles are unidimensional, representing opposite ends of some continua, other traits which make up the styles do not overlap. "Need for spontaneity" and "planning" are opposites, for example. These traits are likely to be

negatively correlated, which would lead to a negative correlation between their functional congruent and self-image congruent latent constructs. Traits like "self-esteem" and "endurance" are not likely to be highly correlated. Such traits lower the correlation between functional congruity and self-image congruity. In fact, the dispositional consumer scale is based on a "two-factor" type of theory where each axis is considered independent of the other (see Figure 1-2). This two factor type of theory allows for the definition of "market maven" and "market indifferent" styles in addition to the functional and self-image dichotomy which has been primarily used until now. A second advantage of this approach is that the theoretical underpinnings have been defined by Blake and Mouton. To the degree that the work domain can be related to the consumption domain the underlying traits are already identified. This theoretical formulation of consumer styles may be compared to the exploratory, post hoc identification of styles in psychographic research. A second theoretical advantage is obtained through the use of the consumer decision making process (problem recognition to post purchase evaluation) to define the range of possible responses. In other attempts to develop consumer personality scales the domain of the traits was never fully considered.

CHAPTER THREE

Theoretical Constructs and Relationships

Self-congruity situations and dispositions can be related through a model which proposes a moderation of the situation-behavior relationship by disposition. This model also places the proposed dispositional constructs in the context of an established program self-congruence research, thus providing a nomological framework for its validity. Propositions related to this model are developed below. Theoretical support for these propositions is based on current research findings.

Theoretical Constructs

Situations

Situations have been defined as points in space and time (Belk, 1975a), behavioral settings (Barker, 1968), and as psychologically covert events (Sarason, 1977). Although objectively defined situations have some impact in explaining behavior, situations characterized by personal reactions to environmental differences are potentially more important from a behavioral standpoint. Sarason (1977) used the terminology "psychologically covert events" to describe situations characterized by personal reactions. These "psychological situations" are shaped from the manner in which cognitive inputs are processed. Psychological situations are internal subjective states based on reactions to external stimuli, rather than the stimuli themselves. Self-congruity and functional congruity, in

this sense, may be defined as situational variables. They represent two distinct psychological situations or states, reflecting how a person thinks rather than what he thinks. Self-congruity (SC) refers to a situation evoking a cognitive matching process which compares a product image and a self-image. Functional congruity (FC) refers to a situation in which a more detailed, attribute based, comparative and evaluative process is evoked. Similar differences in cognitive processing have been described as peripheral and central (Petty and Cacioppo, 1981), "right-brained" and "left-brained" (Myers-Levy, 1989). Psychological situations should lead to behavior. Functional situations have generally been found to be stronger than self-image congruity situations. In four studies, self-congruity was found to relate to behavior (store loyalty) moderately ($r=.12$), while the functional congruity/behavior relationship was stronger ($r=.36$) (Sirgy, Johar, Samli and Claiborne, 1991). In another study, the functional congruity/store patronage relationship was found to be stronger ($r=.48$) than the social self-congruity/store patronage relationship ($r=.30$) (Sirgy, Johar, Samli and Claiborne, 1991). Findings such as these lead us to conclude that the effect size of the functional congruity variable may be greater than the effect size of the self-congruity variable.

Two alternative explanations are plausible, however, which challenge the internal validity of these findings. One is that the data collection procedure is more conducive to functional processing. That is, in evaluating store loyalty, respondents were inadvertently led to

connect functional responses with behavior by the very nature of the evaluation task (Blake and Mouton, 1981). If functional comparisons elicit more cognitive processing and greater involvement, greater attitude formation and behavioral correlation are likely to result (Petty and Cacioppo, 1981).

Secondly, the categories evoked by verbal descriptors may not be sufficiently rich to evoke product-related images. If neither the product image nor the self-image elicit a strong response, the resultant self-congruity evaluation, although positive, may not relate strongly with behavior. Sujan referred to a similar failure in categorizing information:

Alternatively, the categorization attempt could fail, either because no category was cued, or because the most available category implied some attributes that were inconsistent with those the target individual actually possessed. Given unsuccessful categorization, the perceiver was forced to evaluate the individual in a piecemeal mode attribute-by-attribute (Sujan, 1985, p. 32).

Thirdly, it is possible that some respondents have a tendency to process information more functionally. That is, the greater FC-Beh relationship is the result of dispositional characteristics of the sample. Given a less "market savvy," less educated, or more self-approval motivated sample, the tendency might be to process more symbolically. Methodologically, these are questions of ecological validity. Bem and Funder (1978) suggest that bringing disposition to the forefront allows for the clarification of ecological validity issues

regarding the difference of experimental situations and "real world" environments. If situations can be clarified from individual differences, alternative hypotheses which question the ecological validity of experimental settings would be eliminated.

These alternatives raise some questions about the nature of the situations used to elicit self-congruity and functional congruity responses which are addressed below.

Dispositions

The focus of this work is to develop a dispositional scale to measure consumer tendencies to symbolize or functionalize when interacting in the marketplace. Dispositional self-congruity (DSC) is the tendency to be more "people oriented" as compared to more "results oriented." That is, a consumer who is high on dispositional self-congruity allows psychosocial expressions of the consequences of behavior to influence his/her choices more than functional expressions of these consequences. Based on the means-end chain (Guttman, 1982), psychosocial tendencies encourage a more abstract and value-laden logic as compared to a more concrete and attribute-based logic. Dispositional functional congruity (DFC) is the tendency to be more "product-oriented" as compared to more "people-oriented." That is, a consumer who is high on dispositional functional congruity allows the functional consequences, and therefore a functional mode of processing, to influence his/her behavior.

Conceptually there is some overlap in the DSC and DFC constructs. An analogy may be made to the overlap in the self-

congruity (SC) and functional congruity (FC) constructs. In a model using self-congruity and functional congruity to predict behavior, Claiborne and Sirgy (1990) found the SC and FC measures overlapped ($r=.35$). Some of the proposed dispositional traits reflect this "unidimensional" perspective. Consumer sensation-seeking was proposed to be more indicative of DFC at low levels, and more indicative of DSC at high levels. Similarly, impulsiveness is proposed as a trait more consonant with the symbolic consumer at high levels, but more consonant with the functional consumer at low levels. This is because the functional consumer is viewed as cautious, and a planner (therefore, not a risk-taker and impulsive). Component traits like sensation-seeking and impulsiveness are related to both DSC and DFC constructs. Other traits are unique to each personality type and tend to make the constructs unlike each other. The need for social approval and self-esteem are likely to be related to DSC but not to DFC. On the other hand, endurance and orderliness are more likely related to DFC than DSC.

DSC and DFC constructs are proposed as dispositional moderators of the situation/behavior relationship. As moderators, direct relationships between the dispositions and behavior are not expected. However, the prediction of situation/behavior relationships should be enhanced by these dispositions. This proposition is addressed below.

Behavior

Behavior is defined here in its broader sense, so that behavioral intentions are also considered. Any specific behavior is viewed as part of a latent behavioral construct. Weighing oneself regularly is a specific act which is indicative of the latent behavior of dieting. Similarly, a resultant behavior, like preferring a product or brand, is composed of specific acts such as: wanting and getting more information about the product/brand, favorably comparing this product/brand to other similar products/brands, selecting this product/brand, acquiring the product/brand, using the product/brand, recommending the product/brand, encouraging its selection, and supporting the product/brand. Behavior as a latent construct is further discussed in the Methodological Development Chapter.

Theoretical Relationships

Situations, dispositions and behavior may be related by the model shown in Figure 3-1. The relationships suggested by this model are discussed below.

Strength of the Situation/Behavior Relationship

One of the most fundamental findings of self-image congruence research is the validity of the product image/self-image congruity relationship with subsequent consumer behaviors. The strength of this relationship has tended to be moderate to small. Correlation coefficients measuring the relationship have rarely been above $r=.3$. One possible cause is that the situations which have served to evoke

behavioral responses were "weak" or were primarily incongruent for most respondents possibly leading to weak behavioral responses. For example, measures of actual self-congruity ranged from 1.74 to 3.75 in an analysis of self-image and clothing behavior (Ericksen and Sirgy, 1989). Twelve of the fifteen actual self-image ratings were greater than 2.0 and less than 4.0 on a 5-point scale. These values correspond to a "neutral" rating on an agree-disagree scale. The corresponding SC-Behavior correlation was .26⁴. Neutral or moderate self-congruity associations may be related to moderate behavioral responses. More extreme self-congruity evaluations will more likely lead to "stronger" behavioral ratings. This leads to proposition 1:

Proposition 1: The Strength of the Situation/Behavior Relationship. There is a direct relationship between the strength of the situation and the strength of the behavioral response. More specifically:

- 1a: Situations containing self-focusing cues lead to greater self-congruity evaluations than situations without self-focusing cues;
- 1b: Situations high in self-congruity evaluations lead to greater likelihood of behavioral response than situations low in self-congruity evaluations; and

⁴ Averaged across all outfits.

1c: Situations containing functionally-focusing cues lead to greater functional congruity evaluations than situations without functionally-focusing cues;

1d: Situations high in functional congruity evaluations lead to greater likelihood behavioral response than situations low in functional congruity evaluations.

The level of the self-congruity evaluation in Proposition 1 is defined by the absolute value of the differences between the self-image and product image evaluations ($SC = \sum \text{abs}(S_i - P_i)$). Situations which evoke little difference in product image/self-image evaluations (high self-congruity) have a stronger effect on behavior. Proposition 1 asserts a positive relationship between the strength of this situational evaluation and the strength or intensity of the behavioral response. Sirgy (1985b) found high self-congruity to relate to four different measures of behavior more strongly than low self-congruity. Average effect sizes ranged from .12 to .20. Similarly, Sirgy and Samli (1985) found self-congruity to be correlated with store loyalty ($r = .249$). While, Sirgy, Samli, Bahn and Varvoglis, (1985) also found a moderate correlation between social self-congruity and store patronage ($r = .22$). The question of interest is, can the relationship be extended beyond the moderate range? This may be possible by focusing on people who are particularly sensitive to image (see Proposition 2 below).

Parallel conclusions may be drawn for the impact of functional congruity on behavior. In fact, the functional congruity to behavior relationship has traditionally been stronger than the self-congruity to behavior one (Sirgy and Johar, 1989). Dispositions, on the other hand, have not been closely correlated with specific behaviors (Ajzen, 1988, Kassarian and Sheffet, 1991). Therefore, a situation/disposition interaction is more likely to predict behavioral responses. A discussion of the situation/disposition interaction follows.

Situation-Disposition Interaction

How do individual differences and situations interact to evoke behavior? Situation-disposition interactions have been proposed for sometime. However, the nature of the interaction has not been the focus of a great deal of research.

In the most general sense an interaction can be described as connecting, that is, where an interaction combines the effects of variables. Interactions represent the coaction of two variables. That is, both variables must be present for an outcome to result. This interaction perspective would suggest that situations and dispositions always act together in a complementary nature. To "unpack" or separate them would have no meaning. When situational responses are measured, dispositional tendencies would also be measured. An interaction would be represented by the product of these

terms. The construct of interest is the area described by multiplication of the two measures. It is this area that would represent the interaction of situation and disposition.

Interaction can also be described in terms of the variance explained by the interaction term. This model of interaction is the traditional moderation interpretation, which includes the interaction term and the main effects.

$$\text{Beh} = a + b_1(\text{sit}) + b_2(\text{dis}) + b_3(\text{sit X dis})$$

When the dispositional moderator is present (or considered) a relationship can be observed between the predictor (situation) and criterion variable (behavior), although the direct relationship between disposition and behavior is likely to be negligible. This second meaning of interaction is adopted here.

An interactional perspective of social behavior acknowledges that a disposition can exist for almost any situational variable. Self-consciousness and self-monitoring are two such dispositions. In situations which evoke public evaluation, a public self-consciousness disposition can be identified, such that, individuals high in this trait tend to direct attention inward more than individuals low on the trait (Carver and Scheier, 1978). In social settings rich in situational cues, a self-monitoring disposition may be defined such that individuals high in self monitoring respond to these situations more than those low on this trait (Snyder and Ickes, 1976). Furthermore, there may be a trade-off between situational and dispositional impact. That is, responses of individuals low in a disposition like

self-consciousness resemble responses of those individuals in weak situations in which self-awareness has not been induced (Snyder and Ickes, 1976; Buss and Scheier, 1976). Dispositions act to shift the cause of behavior from a situational locus to a dispositional one. Strong situations, on the other hand, shift the cause of behavior from the individual to the situation. This leads to Proposition 2.

Proposition 2: Dispositional Moderation of the Situation - Behavior Relationship. The relationship between the situation and behavior will be moderated by disposition. More specifically:

- 2a: The tendency to evaluate a product based on its image (dispositional self-congruity) will moderate the relationship between situational self-congruity and behavioral action or preference;
- 2b: The tendency to evaluate a product based on its functional attributes (dispositional functional congruity) will moderate the relationship between situational functional congruity and behavioral action or preference.
- 2c: The tendency to evaluate a product based on its image (dispositional self-congruity) will not be directly related to behavioral action or preference.
- 2d: The tendency to evaluate a product based on its functional attributes (dispositional functional

congruity) will not be directly related to behavioral action or preference.

A proposition which follows directly is that the disposition - behavior relationship is moderated by the situation. In fact, there is some support for this statement of the proposition in the personality literature on trait - behavior consistency (Bem and Funder, 1978). These relationships are between specific traits and specific behaviors, however. For example, Snyder and DeBono (1985) demonstrated a relationship between self-monitoring and preference for advertising messages. High self-monitors are more persuaded by image appeals while, low self-monitors are more persuaded by quality messages. In these cases, the relationship is between a personality trait (self-monitoring) and a specific form of behavior (behaviors of persuasiveness in response to image vs quality messages). However, trait-behavior consistency is not likely to hold for general behaviors such as brand attitude. We expect brand attitude to be more related to situational influences. The specific nature of the dispositional moderation of self-congruity and functional congruity situations is discussed next.

The Nature of the Moderating Effect

Consumers with a high tendency to process functional and self-image attributes are more likely to be affected by function and image cues. The predictor variable of interest is categorical (present or absent) whereas dispositional moderators are continuous. The

interaction of a dichotomous predictor with a continuous moderator can be characterized as linear, quadratic, or step-wise depending on the effect of the predictor on the dependent variable.

An essential question in characterizing the moderating effect is what happens to the relationship between the predictor and dependent variable at various levels of the moderator. The linear relationship proposes that the relationship between the predictor and dependent variables increase proportionally as levels of the moderator increase. The quadratic relationship proposes that the relationship between predictor and dependent variable increases more sharply at higher levels of the moderator than at lower levels. The step-wise relationship proposes that there is a sudden change in the relationship between the predictor and dependent variables for some level of the moderator.

Although there may be a threshold below which dispositions do not have a moderating effect, it was predicted that a linear relationship would occur between moderators (DSC and DFC) and predictor-behavior relationships (SC-Beh and FC-Beh) (See Figure 3-2 for an example of this interaction).

In summary, two propositions were presented to explain the relationship between situations, disposition, and behavior. They represented a restatement of the strength of the situation/behavior relationship, and a new statement of dispositional moderation of the situation/behavior relationship. This latter proposition was a test of the nomological validity of a new dispositional consumer scale.

Hypotheses related to these propositions are discussed in the Methods Chapter.

CHAPTER FOUR

Methods

Research Design

The research design was built around two phases: scale validation and empirical tests. The procedures for validating the dispositional consumer scales included: content validity screening, exploratory factor analysis, and reliability tests. Empirical tests were conducted to place the construct in a network of related constructs, thus establishing nomological validity. The primary stages of the research design are introduced first. Then, the procedures for developing the dispositional consumer scales are discussed. These procedures included the adaptation of personality measures to the consumer domain, the experimental design, and experimental manipulations. Next, the design of the survey instrument is discussed in detail. The measurement instrument was divided into five parts which assessed dispositional consumer styles, self-congruity, functional congruity, behavior, and demographic covariates, respectively. The last part of the research design focused on sample selection, sample size, and the data collection plan.

Scale Validation

Scale development and validation involved a series of steps. First, a large pool of items was generated based on previous research and/or theoretical assumptions. These items were then screened to reduce ambiguous meanings. Secondly, an exploratory factor

analysis was performed to examine the dimensionality of constructs. This was followed by reliability analysis, which was used to establish the internal consistency of the constructs. Finally, the scale was used in empirical tests to establish nomological validity.

Item Generation Items in the dispositional consumer scale were generated by adapting items from other personality measures to the consumer domain. The MMPI, Myers-Briggs, and California Psychological Inventory were used as sources of trait measures. In addition, less well known personality questionnaires by Oldham and Morris (1990) and De Carlo (1984) provided measures of traits like self-esteem and impulsiveness. The choice of the traits was based on the rationale provided by Blake and Mouton (1981) for the managerial styles in their grid. These choices are discussed more specifically under the dispositional consumer scale development procedures.

Screening: The large list of possible measures, developed in the item generation stage, was screened to remove ambiguous meanings. These items were judged for content validity by marketing faculty members knowledgeable of consumer and personality measures. Those items determined to be better measures of the designated traits were retained for further analysis.

Exploratory Factor Analysis: The structure of the dispositional consumer scales was assessed using principle components factor analysis (both unrotated and with varimax rotation). The DSC and

DFC scales were analyzed separately. Factors with eigenvalues greater than one indicated the major "traits" associated with each scale. The items which made up the traits were purified by dropping those items with loadings less than 0.5.

The items derived from each factor analysis were tested for their reliability using item-to-total correlations. Items with lower item-to-total correlations were deleted.

Empirical Tests

Empirical tests establish construct and nomological validity by examining the relationship of constructs to other known variables. Empirical tests also confirmed or disconfirmed theoretical hypotheses. The relationships between self-congruity and behavior, and functional congruity and behavior have been established in previous research (Sirgy and Johar, 1989b; Sirgy, Johar, Samli and Claiborne, 1991; and Claiborne and Sirgy, 1989). Dispositional consumer styles were tested in this model as moderators of the the SC-Beh and FC- Beh relationships. The hypotheses proposed in Chapter 3 suggest that valid dispositional constructs will moderate the SC-Beh and FC- Beh relationships, while not relating directly to behavior. Further, self-congruity and functional congruity variables should only be moderately related to each other. The validity of these two constructs was also tested. Empirical tests resulted in the validation of the situational SC and FC constructs, and a comparison of the new dispositional variables (DSC and DFC) to relationships including those constructs (SC and FC).

Procedures for Scale Development

The four steps which were important in the progression of this project were: the development of the dispositional consumer scale, the design of experimental procedures, the choice of products and situational manipulations, and the development of pre-test manipulation checks. These procedures are described below.

Dispositional Consumer Scale Development

The dispositional consumer scale is a two-factor scale fashioned after the managerial grid (Blake and Mouton, 1981). The development of this scale relied on the same explanatory underpinnings used by Blake and Mouton (1981) in defining people-oriented and production-oriented managerial styles. The developmental tendencies of these two styles were translated to "traits"⁵. Standard personality scales were consulted for measures of the traits. The individual items of the measures were translated to the consumption domain using several stages of the consumer decision making process, where possible. This process resulted in nine traits, four self-congruity and five functional congruity traits, totaling 126 items. These traits and items were the subject of the scale validation procedures.

Experimental Design

⁵ See "Individual Differences Across the Life Domains," in Chapter Two for a description of these developmental tendencies.

An experimental design was employed to test the nomological validity of the new dispositional scales. Four variables SC (hi, lo), FC (hi, lo), DSC (hi, lo), and DFC (hi, lo) situational evaluations, and dispositional measures were employed in a 2 x 2 x 2 x 2 factorial design. High and low conditions of SC and FC were manipulated for groups high and low in DSC and DFC. The design was a between groups, quasi-experimental design (Cook and Campbell, 1979).

A different group of subjects was exposed to each of the four manipulations (see Figure 4-1). Three self-report instruments were also completed by each of the groups. Situational self-congruity and functional congruity evaluations were used as manipulation checks. Dispositional measures were used to identify those high and low in DSC and DFC tendencies. Finally, the likelihood of specific behavioral responses was measured as a dependent variable.

Operational Hypotheses: Eight hypotheses were evaluated corresponding to the theoretical propositions above. Analysis of variance was used to infer the significance of the difference between the manipulated groups for the main effects and interactions as implied by the hypotheses.

Hypothesis 1: The high self-congruity situation (ad) should lead to greater SC evaluations than the low self-congruity situation (ad).

Hypothesis 2: The high functional congruity situation (ad) should lead to greater FC evaluations the low functional congruity situation (ad).

Hypothesis 3: High self-congruity (evaluations) should be more predictive of the likelihood of adopting the Sierra Club card than the low self-congruity.

Hypothesis 4: High functional congruity (evaluations) should be more predictive of the likelihood of adopting the Sierra Club card than the low functional congruity (evaluations).

Hypothesis 5: There should be no direct relationship between dispositional self-congruity and the likelihood of adopting the Sierra Club card .

Hypothesis 6: There should be no direct relationship between dispositional functional congruity and the likelihood of adopting the Sierra Club card .

Hypothesis 7: If dispositional self-congruity (DSC) is high, then the self-congruity/behavior relationship (SC/Beh) will be greater.

Hypothesis 8: If a dispositional functional congruity (DFC) is high, then the self-congruity/behavior relationship (SC/Beh) will be greater.

Hypotheses 1 through 4 represent the main effects of the situations. Based on past research we expect the main effects to be strong.

Hypotheses 5 through 8 represent an operationalization of the situation/person interaction proposition. Hypothesis 5 was tested by evaluating the main effect of the DSC term on behavior.

Hypothesis 6 was tested by evaluating the main effect of the DFC

term on behavior. Hypothesis 7 was tested by evaluating the significance of the SC/DSC interaction term. Hypothesis 8 was tested by evaluating the significance of the FC/DFC interaction term.

In operational terms, those subjects high in dispositional self-congruity who receive the high self-image focusing manipulation should score highest on the likelihood of recommending or using the credit card. Those low in dispositional self-congruity who receive the high self-image focusing manipulation should also score high on behavioral likelihood, although not as high as the previous group. The distinction between the low DSC and high DSC group's score should be most pronounced for the low self-image focusing manipulation. Those subjects high in dispositional self-image congruity who receive the low self-image focusing manipulation should score lowest on the likelihood of recommending or using the credit card. Those in the low DSC group should score higher than the high DSC group in response to the low self-image focusing manipulation (see Figure 3-2).

Similarly, those subjects high in dispositional functional congruity who receive the high function focusing manipulation should score highest on the likelihood of recommending or using the credit card. Those low in dispositional functional congruity who receive the high function focusing manipulation should also score high on behavioral likelihood, although not as high as the previous group. The distinction between the low DFC and high DFC group's score should be most pronounced for the low function focusing

manipulation. Those subjects high in dispositional functional congruity who receive the low function focusing manipulation should score lowest on the likelihood of recommending or using the credit card. Those in the low DFC group should score higher than the high DFC group in response to the low function focusing manipulation (see Figure 3-2).

Product Choice and Manipulation Development

The product used in experimental manipulations should be one for which subjects have general product knowledge. However, it should also be one in which their knowledge is not so great that brand manipulations lack face validity. Further, the product should lend itself to both symbolic and functional manipulations. In addition, the symbolic and functional components should be separable so that they can be manipulated independently. One product which fulfilled these requirements was an environmental cause credit card.

Environmental cause credit cards have proliferated in the last few years as organizations attempted to secure their share of decreasing popular cause support. Most organizations have reported decreased public support in the last two years⁶. At the same time, credit card spending by members of some of these organizations has exceeded that of other bank card holders.

⁶ Outside Magazine, July 1991, p. 63.

In 1987, for example, Sierra Club members charged an average of \$3600 per year compared to \$2000 per year for regular bank card holders⁷. Marketers have taken this opportunity to reach a lucrative market and promote the image of their organizations. Since credit cards, as financial instruments, can be compared based on interest rates, grace period, and annual fees, they lend themselves to functional evaluation of these attributes. The causes advocated by the organizations have functional consequences for environmental outcomes which may also be compared. Organizational goals such as building a reserve fund to purchase rain forest land, developing a strong environmental lobby, reversing the decline of air quality, etc. are examples of the functional consequences of contributing to the organization. Finally, environmental cause credit cards have a component of psychosocial benefits. There is an association with the organization through the display of the card when making purchases. This association with the organization stands for an association with the causes of the organization. A symbolic link is established between the use of the card and recognition as the kind of person who supports certain worthwhile causes. This kind of self-image is easily compared to an image of the kind of person who supports such causes. Some organizations may have an image of stronger ecological advocacy than others. "Strong" is used here in the sense of "deep ecology." Deep ecology goes beyond popular measures of

⁷ Consumer Reports, March 1988, p.190.

environmentalism like recycling. Strong advocacy, based on deep ecology principles, would place a premium on conservation, uphold the rights of all species, view human beings as one species among many, etc.

Organizational representatives have further proposed that someday the organizational membership card will be a type of credit card so that each purchase occasion will be a opportunity to symbolically assert group and cause affiliation. At this point, organizational credit cards are not widely held. Of the 648,000 members of the Sierra Club, only 25,000 are card holders. Thus, environmental credit cards offer the possibility of functional and symbolic manipulation. Since there was broad generic product knowledge, brand level decisions were comfortable to most people. At the same time, specific brand information was not widespread enough to be a likely contaminant to manipulations.

The manipulations themselves evoked four cognitive situations. These situations represented levels of self-referencing or function referencing. Strong self-congruity situations caused respondents to rate their self-image as being like the image of the typical user of an environmental credit card. That is, the manipulation evoked positive self-referencing. Weak self-congruity situations, on the other hand, caused respondents to see themselves as not necessarily like or unlike typical users of environmental credit cards. That is, weak self-congruity situations evoked little self-referencing. Strong functional congruity situations evoke a response toward the brand

presented in the best functional light, and weak functional situations evoke a neutral or no response to the brand in poor functional light.

Two types of information are instrumental in developing these manipulations, pictorial advertisements, and informational tables. Advertisements utilize visual images and headlines to evoke a mood and suggest symbolic associations. Informational tables facilitate functional comparisons since the very form of the table is a comparison.

Instrument Design

The test instruments consisted of five parts designed to measure the variables described by the model and demographic variables (see Appendix 1 for the complete instrument). This section describes those measures in detail along with the instructions which accompanied them. The instructions for the situational measures (self-congruity and functional congruity) were also part of the manipulation of these variables. The ads which formed the remainder of the manipulations are described in the Manipulation Development section.

Part I: The Dispositional Scales

Dispositional Self-Congruity (DSC)

Dispositional self-congruity is the tendency to act in a way which values self-congruity across different consumption situations. A person high in dispositional self-congruity is said to exhibit a self-

image congruent consumption style. Self-image congruent types perceive that their self-esteem is connected to the products that they purchase more so than others. They tend to be more fluid and less controlled, therefore they respond more quickly and spontaneously to market place decisions. As a result, they are more impulsive and sensation-seeking. They tend to value the opinions of others which manifests as a high need for social approval.

These traits were defined as follows:

Sensation-seeking (nSen)

To seek sensations with little concern for the possibility of adverse consequences. High scorers tend to believe that an element of risk adds to the spice of life. Low scorers indicate a preference for the familiar, and for safety and security.

Need for spontaneity (nSpon)

To act on the spur of the moment. High scorers tend to be carefree, changeable, and unpredictable. Low scorers are deliberate and careful when making decisions. Low scorers also tend to be systematic, orderly, cautious, and plan their lives.

Need for Self-esteem (nSelf)

To have a need for an ample measure of confidence in one's self and abilities. High scorers undervalue themselves, believing that they are failures. Low scorers consider themselves worthy human beings and believe they are well liked.

Need for Social Approval (nApp)

The need to be thought well of by others. High scorers try to engage in behaviors which are culturally sanctioned. Low scorers are independent thinkers, who act based on their individual opinions.

Questions were developed from the perspective of the different stages in the consumer decision making process. These questions along with the following instructions were used to measure dispositional self-congruity.

Scale 1: Purchasing Habits Scale

The following questions relate to the consistency of your purchasing habits. Please rate each question in terms of the frequency with which you might act, feel, or think in the following ways. Where,

1	2	3	4	5
Almost Never (1 or 2 out of 10 times)	Seldom	Sometimes (5 out of 10 times)	Usually (8 or 9 out of 10 times)	Nearly Always

For example, if you are almost never an impulsive shopper (less than 2 purchases in ten), you would respond to the question, "Do you feel you are an impulsive shopper?", by marking a "1."

The questions were arranged randomly by trait. For explanation purposes, examples of the questions used to tap each trait are shown below ⁸. Questions were stated both positively and negatively to emphasize both high scorers and low scorers on the trait.

Sensation-seeking (nSen)

1. Do you enjoy taking risks with new products?
2. Do you order products by mail without checking the reputation of the company?
3. Do you buy products that are "long shots" because they are at a good price?
4. Do you prefer innovative products even though they may be risky?
5. Do you like to purchase products which are innovative?

Need for spontaneity (nSpon)

1. When making a major purchase, would you wait at least a day, even if you really like it?

⁸ The final set of DFC and DSC questions

2. Do you plan your purchases ahead of time?
3. When you see a new product do you decide quickly that you like it?
4. Do you decide at the last minute not to make purchases?
5. In purchase situations, do you make up your mind quickly?

Need for Self-esteem (nSelf)

1. Do you feel unworthy because your friends get better deals than you do?
2. In general, are you pretty confident of your abilities as a consumer?
3. Do you often feel that you are inadequate when you have to negotiate a purchase?
4. Would you be troubled by feelings of inadequacy if a prize purchase turned out to be a lemon?
5. Do you feel confident in your abilities to make good purchase decisions?

Need for Social approval (nApp)

1. Do you hide from your friends the fact that you made a bad purchase decision?
2. When purchasing unfamiliar products, do you trust the opinions of friends?
3. Do you feel that its better to buy products that aren't too risky or different?
4. Do you like others to approve of you because of the product information you share?
5. Do you like to well-thought-of by salespeople?

The maximum dispositional self-congruity score represents a person who is nearly always impulsive, and exhibits a high need for self-esteem, sensation-seeking, and social approval when making

purchases. The lowest score represents a person who almost never exhibits those traits.

Dispositional Functional Congruity (DFC)

Functional congruent types tend to view the world from a more objective perspective than most people. For them, there are right and wrong decisions to be made in the marketplace. They have a high need to order their environment and behavior. This leads to more planning of the details connected with purchases. A properly functioning world is an orderly world for this type of person. One way to achieve order is by controlling the situation, hence functional types exhibit greater dominance. This need for dominance is connected to an endurance in sticking to the job at hand and in some cases an aggressiveness in pursuing a point. Finally, in counterpoint, functional types may be prone to an anxiety about not making the right decision or getting the best deal. These traits were defined as follows:

Orderliness (nOrd)

To put things in order. To achieve cleanliness, arrangement, organization, balance, neatness, tidiness, and precision. High scorers value detail, workmanship, and operation. Low scorers are comfortable with ambiguity and dislike systematic control.

Endurance (nEdnd)

To keep at a task until it is finished. High scorers are focused, hard working, single-minded, and even stubborn. Low scorers are uncommitted, unopinionated, and pliant.

Dominance (nDom)

To control one's environment. High scorers try to direct the behavior of others by suggestion, seduction, persuasion, or command. Low scorers accept rather than prohibit actions in their environment.

Anxiety (nAnx)

To be inclined to worry unnecessarily about what may or may not happen. High scorers are easily upset when things go wrong. Low scorers are placid, serene, and resistant to irrational fears.

Aggression (nAgg)

To overcome opposition. High scorers respond to challenge and relish competitiveness for its own sake. Low scorers try to avoid conflict.

Examples of the questions used to tap each trait are shown below.

Orderliness (nOrd)

1. Do you do routine shopping for things like groceries at definite times?
2. Do you spend time shopping for complementary products before you make a decision?
3. When eating at a restaurant are you likely to return a meal that is not completely prepared to your satisfaction?
4. Do other people think that you are a perfectionist, when it comes to shopping?
5. Do you keep product warranties well organized and filed?

Endurance (nEdnd)

1. When looking for product information to facilitate a decision, do you keep searching until the choice is clear?
2. When evaluating products, do you usually make a decision more quickly than others?
3. When looking for bargains do you stick to it until you uncover one?
4. When you go shopping, do you stay with it until you have all the things on the list?
5. Do you work hard at finding bargains?

Dominance (nDom)

1. Do you like to think you have some influence in the purchase decisions your friends make?
2. If you go shopping with your friends, would you be likely to take the lead?
3. Are you the one in the family called upon to settle disputes about which product is better?
4. Do you like the responsibility of purchasing for large groups?
5. Do you feel good when others ask you for product advice?

Anxiety (nAnx)

1. Shopping is a strain for you?
2. Are you easily upset when a new purchase doesn't work as it should?
3. Are you reluctant to buy sale items that cannot be returned?
4. Have you gone shopping wanting to buy something, but not knowing what?
5. Do you feel that there are too many product choices to make good decision?

Aggression (nAgg)

1. Do you get angry if a salesperson tries to take advantage of you?
2. If you find out that someone has given you bad information about a product, are you hesitant to confront them?
3. Do you think it is insulting to be sold a lemon so that you usually want to get revenge?
4. Are you reluctant to criticize someone's taste in products even if they deserve it?
5. Are you usually very careful in choosing the right needs, so that, nine times out of ten, it's the salesperson's or store's fault if something doesn't work out?

The maximum possible dispositional functional congruity score represented a person who is nearly always orderly, enduring, dominant, aggressive, and anxious about purchases. The lowest possible score represented a person who almost never exhibits those traits.

Part II: Self-Congruity (SC) Manipulations (Self-Focus Cues)

Self-congruity is the match between a self-image and a product image. Self-congruity is a situational measure and will be assessed in situations which have been manipulated to provide strong congruity assessments and situations which have been manipulated to provide weak congruity assessments. The situational manipulations will be described first. Then two manipulation checks which assess self-congruity using different methods will be described.

A Strong Self-Image Congruity Evoking Situation (Strong Self-Image Cue)

A strong self-image congruity evoking situation is one which induces a personal evaluation on the basis of a match between the self-image and a product image. The reference product image, in this case, is an image of the typical user of an environmental credit card. The strong self-image congruity situation leads to relatively greater congruity compared to other situations. In other words, the situation evokes the perception of similarity between the typical product user and the self. A strong manipulation can capitalize on the images

already built at the brand level by using well known and popular organizations. The organization's name becomes a primary cue to the typical user's image. Organizations that are more popular and "mainstream" in their environmental programs are more likely to have more favorable images. Whereas, organizations which are more "extreme" in ecological advocacy are likely to have less favorable images. In addition, any visual image presented as a manipulation carries symbolic associations. Similarly, the age and gender portrayed in reference images lead to greater self-image congruity depending on the respondent group (Landon, 1974). The association of images of people with products and brands is a potentially strong cue to product image. If, the user of the product is pictured, evaluations of this person could be more consistent. In other words, the stronger the reference image presented the less variation in self-congruity evaluations. When advertisements are used as cues to product image, the ads incorporate visual images, headlines and copy. These ads are gestalt wholes. The referenced product image depends on the typeface chosen, the white space on the page, as well as, the integration of visual, message and execution.

The principles referred to here are incorporated in the strong self-congruity manipulation (see Appendix 2). The following scenario, used along with the ad, was designed to evoke a strong reference to self-image congruity.

As more people are becoming aware of the delicate state of our environment, they are affiliating with organizations to help

protect aspects of the natural world. Some organizations have adopted the use of specialized credit cards as a symbol of group membership.

We are interested in how you see users of the Sierra Club credit card in reference to your own environmentalism. Your self-image ratings will be used as an indication of your tendency for ecological advocacy. Would you please rate how you see yourself relative to each of the environmental issues below. . . .

Listed below are twelve issues of environmental advocacy. Each has its advantages and disadvantages. There are no perfect styles. Please choose the number which corresponds with how you think the typical user of a Sierra Club credit card would see the issue. Mark an "T" over this number.

Next, please choose the number which corresponds with the type of environmentalist you are, that is how you see yourself on these issues. Mark an "S" over the number corresponding to your self image. For example, if you see the typical Sierra Club credit card user as the kind of person who acknowledges the severity of the environmental situation, whereas, you see yourself as more reluctant to accept that the environmental situation is currently as bad as some people say, your ratings might look like:

	Strongly agree							Strongly disagree	
I am a person who sees environmental problems as severe.	1	2	T	4	5	6	7	S	9

These instructions were designed to cause the person completing the scale to reflect on his own self-image and the image of the typical user of a credit card like the one pictured.

A Weak Self-Image Congruity Evoking Situation (Weak Self-Image Cue)

A weak self-congruity situation is one which evokes a mismatch between a product image and a self-image. Respondents see themselves as different from the typical user and therefore express an incongruity in the ratings of their self-image and the product image. In comparison to strong self-congruity situations, weak situations rely on brand names which are not widely regarded and product spokespeople who are "different" than the audience. Weak congruity ads may be less involving, and not "work" in a gestalt sense.

An example of the weak congruity manipulation used in these experiments is shown in Appendix 2. The language is neither persuasive or emotionally involving. No image is used. The weak congruity ad is less "typical" of college students and therefore less likely to evoke congruent associations.

The strong and weak self-image congruity manipulations provide the impetus to complete three rating scales used to measure self-image congruity.

Self-Congruity Manipulation Checks

Two measures have been designed to measure the extent to which self-congruity is manipulated. These measures represent

indirect, and global self-assessments, as described above⁹. Each of these measures is described here.

Self-Congruity of the Ecological Advocate: An Indirect

Measure: An indirect measure attempts to tap a latent construct by assessing issues peripheral to the construct, which cumulatively shed light on the individual's bearing on the construct. Indirect measures avoid bias due to demand artifacts. The ecological advocacy scale is an indirect measure of self-congruity based on the work of environmentalist Marshall Massey. Massey (1987) proposes that the difference between the general public and advocates of environmental issues is the denial of six critical points. Once accepted, these six points preclude the distinction between environmentally concerned behaviors and personally concerned behaviors. Since these six points are not universally acknowledged or accepted, they provide a basis for indirect assessment of ecological advocacy as defined by Massey. The six issues of environmental concern are defined below.

Global Perspective

The ecological advocate sees environmental issues as linked worldwide. Although local actions have been promoted recently, a true ecological perspective recognizes that a butterfly flapping its wings in Japan changes the weather in Cleveland.

Environmental Sensitivity

The environmental advocate sees her life as connected with nature. It is not possible to live apart from the natural environment.

Solipsism

⁹ See the discussion of direct and indirect questions in the section on Dispositions as General and Specific Behavior above.

The environmental advocate does not believe that the self can only know its own modifications. That is, he sees all life as connected. Each species has a place in creation.

Long-Term Perspective

Advocates view environmental choices in terms of their future impacts.

Anthropocentrism

The environmental advocate does not believe that humankind is the highest form of life. All creatures have rights of their own.

Finite vs. Unlimited Resources

Advocates view our natural resources as limited. Non-advocates view environmental concerns as over-reacting.

This scale permitted the comparison of a self-image as advocate with a product image. The ecological advocacy scale appears below:

Scale 3: Ecological Advocacy

(Please mark "T" for the typical user and "S" for your self, where 9 indicates strong agreement with the statement and 1 indicates disagreement. For example, if you think a typical user of the Sierra Club Card would mildly disagree with statement 1, while you feel more strongly about supporting only local issues, you might mark: 1 2 T 4 5 6 7 S 9.)

- | | Strongly Disagree | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | Strongly Agree |
|--|-------------------|---|---|---|---|---|---|---|---|---|----------------|
| 1. I am the kind of person who considers a broad spectrum of issues (both local and national) which influence the environment, even though those issues do not affect me directly. | | | | | | | | | | | |

2. I am the kind of person who must be in touch with nature. Even in my daily life I'm aware of the plant and animal life around me. 1 2 3 4 5 6 7 8 9
3. I am the kind of person who sees all life as connected. Each species has a place in the harmony of creation and needs to be protected. 1 2 3 4 5 6 7 8 9
4. I am the kind of person who is more interested in the long term impact of our environmental choices. 1 2 3 4 5 6 7 8 9
5. I am the kind of person who sees all life as sacred. All creatures have life, rights, and suffering of their own. 1 2 3 4 5 6 7 8 9
6. I am the kind of person who thinks our natural resources are finite, non-renewable and dwindling. We must conserve them at all costs. 1 2 3 4 5 6 7 8 9

A Global Measure of Self-Image/Product Image Congruity (GSC): The second way to measure self-congruity was through a single global measure. Global measures required that respondents integrate counterposing factors and make one assessment which represented their standing on the issue at hand. In this case, the comparison was between the self-image and a product image. This global measure appears below:

to attend based on library resources, on classroom size, on computer facilities, etc. is to evoke a functional mode of processing. An ideal for these attributes is implicit in the comparison. Because functional congruity involves the processing of attributes and the importance of those attributes as compared to reference attributes, an attribute belief/importance model was used to operationalize measures of functional congruity (Fishbein and Ajzen, 1975). Two measures of functional congruity are described below based on this definition. First, a description of the situations designed to evoke functionally congruent processing.

Situational Manipulations of Functional Congruity

Two manipulations of functional congruity situations are described below. One utilizes Consumer Reports type information to suggest that a product meets "ideal" functional criteria. The other give little or no functional information.

A Strong Functional Congruity Evoking Situation (Strong Functional Cue): A strong functional congruity evoking situation is one in which an evaluation of a product is made on the basis of the match between the information at hand and some set of ideal criteria. Situations which evoke this kind of evaluation should provide the salient information and the motivation to process it. In the case of a particular product, high functional congruity will result in the choice of that product. Functional congruity is manipulated using the following instructions and Appendix 2. The table portrays

the Sierra Club as more effective functionally, as compared to the other cards listed. Interest rates are lower, the grace period is longer, the number of programs supported is greater, and the administrative overhead is less.

A Weak Functional Congruity Evoking Situation (Weak Functional Cue): A weak functional congruity evoking situation is one in which a product evaluation is made on the basis of the mismatch between the information at hand, and some set of ideal criteria. This mismatch results in a low evaluation of the product. Situations which evoke this kind of evaluation should provide little salient information. Low functional congruity was manipulated using general information about the Sierra Club card. That is, the effectiveness of Sierra Club is portrayed more globally without any specific details. The weak functional congruity manipulation is shown in Appendix 2.

Functional Congruity Manipulation Checks

Two measures were designed to measure the extent to which functional congruity was manipulated. These measures represent indirect, and global self-assessments. Each of these measures is described here.

Functional Congruity (FC) and Environmental Impact: An Indirect Measure: In order to assess the impact of functional congruity manipulations respondents are asked to rate their beliefs about the likelihood of certain environmental benefits resulting from

use of the organization's credit card. Then they are asked to rate the importance of each benefit as an assessment of their ideal card. This belief-importance type measure is used to assess functional congruity indirectly. The Environmental Impact scale appears below:

Scale 5: Environmental Impact

Recently, environmental organizations have been receiving additional income from the use of specialized credit cards which bear the insignia of the organization. Such cards typically yield the organization 0.5% of each dollar spent, plus \$ 1 to 5 dollars per member enrolled, plus 10 cents per use. Environmental organizations use this revenue to defray administrative expenses, attract new members and carry out their current programs. An Organization might have 1-10 programs related to its general mission. Organizations allocate the revenue from cards and other sources to these programs. Organizations which support more programs, within its general mission, are considered to be more effective. A recent issue of Consumer Reports magazine evaluated several environmental cause credit cards and ranked these organizations in terms of general effectiveness of the card. Please take a few minutes to compare cards in the following chart

(Insert Environmental Cause Cards Chart here)

A. Please evaluate the Sierra Club credit card in terms of how you believe its use will impact the benefits listed below. Please place a "T" over the number which corresponds to how likely it is that the Sierra Club credit card will contribute to the following outcomes. . .

	<u>Not</u>				<u>Very</u>
	<u>Likely</u>				<u>Likely</u>
	1	2	3	4	5
1. Provides an easy way to contribute to a cause in which you believe.					

- | | | | | | |
|---|---|---|---|---|---|
| 2. Eases my guilt about a lack of direct conservation actions. | 1 | 2 | 3 | 4 | 5 |
| 3. Provides good interest rates. | 1 | 2 | 3 | 4 | 5 |
| 4. Helps preserve the environment for future generations. | 1 | 2 | 3 | 4 | 5 |
| 5. Gives personal satisfaction by combining environmental support with purchases. | 1 | 2 | 3 | 4 | 5 |
| 6. Offers a competitive grace period. | 1 | 2 | 3 | 4 | 5 |
| 7. Generates considerable organizational revenue for environmental programs. | 1 | 2 | 3 | 4 | 5 |

B. Your ideal credit card may or may not be like the Sierra Club card. Please evaluate your ideal credit card in terms of how important you believe the benefits listed below are. Please place a "S" over the number which corresponds to how important it is that your ideal credit card will contribute to the following outcomes. . .

- | | <u>Not</u> | | | | <u>Very</u> |
|--|------------------|---|---|---|------------------|
| | <u>Important</u> | | | | <u>Important</u> |
| | 1 | 2 | 3 | 4 | 5 |
| 1. Provides an easy way to contribute to a cause in which you believe. | | | | | |
| 2. Eases my guilt about a lack of direct conservation actions. | 1 | 2 | 3 | 4 | 5 |

- | | | | | | | |
|----|--|---|---|---|---|---|
| 3. | Provides good interest rates. | 1 | 2 | 3 | 4 | 5 |
| 4. | Helps preserve the environment for future generations. | 1 | 2 | 3 | 4 | 5 |
| 5. | Gives personal satisfaction by combining environmental support with purchases. | 1 | 2 | 3 | 4 | 5 |
| 6. | Offers a competitive grace period. | 1 | 2 | 3 | 4 | 5 |
| 7. | Generates considerable organizational revenue for environmental programs. | 1 | 2 | 3 | 4 | 5 |

A Global Measure of Functional Congruity (GFC): A second way to measure functional congruity is through a single global measure. Global measures require that respondents integrate counterposing factors and make one assessment which represents their standing on the issue at hand. In this case, the comparison was between the product image and an ideal product image. This global measure appears below:

Scale 7: A Direct Functional Congruity Measure

Once more we would like to ask you to compare the benefits of using the Sierra Club credit card with your ideal card. This time in a more direct manner. . . .

Please circle the number of the alternative below that best expresses how you see your the benefits of the Sierra Club credit card as compared to your ideal card.

1. I see the Sierra Club credit card as very different from my ideal credit card.
2. I see the Sierra Club credit card as somewhat similar to my ideal credit card.
3. I see the Sierra Club credit card as very similar to my ideal credit card..

Part IV: Behavior (Beh) Measures

The dependent variable in this experiment was behavior. Behavior is most often defined in terms of actions already taken or currently being undertaken. Behavior may also be conceptualized as a latent variable composed of multiple indicators. For example "dieting" behavior includes regular weightings, calorie counting, special food preparation, abstinence from desserts, etc. Each one of these actions could be tapped by multiple measures. For example, the regularity of weightings could be assessed by observation, indirect questioning, and direct questioning. Further, any measure might also include multiple items. Indirect questioning of "weighing regularity" might include multiple items which assess the components of regularity, such as, frequency, timing, and longevity, etc. The behavior considered here was such a latent variable reflecting many actions rather than single acts.

Behaviors may also be categorized in terms of their intensity. Increasing levels of commitment to ecological advocacy may be

reflected in the likelihood of inquiring about, considering adopting, and actually adopting ecologically sound consumption behaviors (Ohanian, 1990). Greater commitment toward ecological consumption behaviors should be synonymous with greater commitment toward ecological advocacy. The following behavioral measures were designed to tap environmentally concerned consumption behaviors across commitment levels:

Scale 8: Ecological Behaviors

The following questions relate to general ecological behaviors which you currently have or would consider adopting and to specific behaviors toward environmental credit cards.

Please rate how likely each of the following behaviors is for you.

	<u>Unlikely</u>		Maybe, but not <u>a big deal</u>		I would <u>consider</u>		(I do this already) <u>Likely</u>		
	1	2	3	4	5	6	7	8	9
1. What is the likelihood that you would reduce your automobile travel and adopt alternative transportation?									
2. What is the likelihood that you would look for more information on environmental credit cards?	1	2	3	4	5	6	7	8	9
3. What is the likelihood that you would look for and use recycled paper products for your paper needs?	1	2	3	4	5	6	7	8	9
4. What is the likelihood that you will compare the benefits of several environmental credit cards?	1	2	3	4	5	6	7	8	9
5. What is the likelihood will see the benefit of a credit card that makes a statement about you, like the Sierra Club Card?	1	2	3	4	5	6	7	8	9

- | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|
| 6. What is the likelihood that you will drive at a steady pace and conserve fuel? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 7. What is the likelihood that you will reduce your use of aerosol sprays containing CFCs? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 8. What is the likelihood that you will buy foods in season which are produced locally? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 9. What is the likelihood that you will recommend that your friends use an environmental credit card like the Sierra Club card? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10. What is the likelihood that you will purchase recyclable/biodegradable brands of the products you now use? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 11. What is the likelihood that you will feel you have made a contribution after using an environmental credit card like the Sierra Club card. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 12. What is the likelihood that you will use a credit card like the Sierra Club Card? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

Sample Selection, Sample Size and Data Collection

A sample of 320 junior and senior business majors served as subjects. The sample was selected from two Virginia colleges. Subjects were randomly assigned to one of the four treatment groups. The data collection took place through classes with credit assigned for completing the survey. There were 185 men, 120 women, and 15 indicating no gender.

Data Analysis

The data analysis plan consisted of two phases, a pre-testing phase in which measures were calibrated and an analysis phase in which hypotheses were tested. The outcome of the analysis phase was the confirmation or disconfirmation of the theoretical propositions using the proposed operationalizations of the constructs.

Pre-testing

The pre-testing phase served to refine the dispositional consumer scales, to assess the construct validity of situational measures, and to check whether manipulations had the expected effect. These areas are discussed below.

Refining the Dispositional Consumer Scale: The basic procedure for refining the dispositional consumer scale has been discussed in the Research Design section above. This process began with the pre-testing phase.

Manipulation Checks: The experimental manipulations of situational self-congruity and situational functional congruity were important to the confirmation or disconfirmation of the theoretical propositions. The difference between strong and weak situations results solely from respondents' interpretations of the situational cues. Consequently, several manipulation checks were employed to assess the differences between the situational cues. These checks are described below.

The self-congruity manipulations included two components, the brand name and the picture of the product advocate. The strong

congruity situation used a "main-stream" brand (Sierra Club) and a product advocate thought to be similar to respondents. Some ambiguity was likely when brand knowledge is low. In pretests interviews, the Sierra Club was perceived by some as a mountaineering organization rather than environmental organization. Such extreme brand perceptions fostered incongruity.

Pre-test manipulation checks were performed by soliciting responses to the situational self-congruity scales using the brand name alone as cue, using the person image alone as cue, and using the combined brand name/image as cue. A final manipulation check was based on the difference between self-congruity scores for the four ads. "Strong" ads should lead to lower mean congruity evaluations, than weak ads.

The functional congruity manipulations included detailed information about the functioning of the Sierra Club and Sierra Club credit cards. The strong functional congruity manipulation portrayed Sierra Club as a good investment both in terms of the financial return and in terms of the ecological consequences of using the card.

CHAPTER FIVE

Results

Introduction

This chapter discusses the results of the pretests and the results of the main study. The factor structure and reliability of the dispositional measures are addressed first. The results of the main study, designed to show the nomological validity of the dispositional scales, are reported.

Dispositional Measures

Pretesting

Pretesting took place with a samples of 70 and 54 junior and senior business and education majors. Several pretest procedures were used to develop the dispositional measures. Initially, a pool of 126 measures were developed based on traits from commonly used psychological and personality tests. Items were chosen based on the rationale involving the "tendency to value production" and the "tendency to value people" in Blake and Mouton's (1981) Managerial Grid Theory. Items were then adapted to reflect "cross-situational" actions, thoughts, and feelings by applying the five stages of the consumer decision making process which are need recognition, information search, evaluation and decision, consumption, post-purchase evaluation.

The pool of 126 items was reduced to twenty by factor analysis (see Table 5-1). The second pretest also resulted in two major

factors. Items which loaded highly (greater than .5) on these two principle components, an image component and a functional component were retained (See Table 5-2). This pool was expanded to 40 items through editorial additions and changes during content and face validity analysis.

The pool of 40 items was used in the main study. A subsequent principle components factor analysis was performed. Items with loadings greater than .5 on the first unrotated factor were retained ¹⁰. The resulting factor structure is described below.

The Items Deleted: The items deleted from the original scale were the ones most foreign to the consumption domain. Items which attempted to capture concepts like "aggression" and "dominance" were difficult to translate into meaningful consumption items. This is not surprising, since other efforts to use general traits as consumptions dispositions have also met with failure. Self-congruity items associated with "spontaneity" and "sensation-seeking" were also deleted, however, for a different reason. These measures were polar opposites of the measures used to tap functional dispositions like "controlling" "planning" and "order". Some items for spontaneity, for example would load negatively on a functional factor and some would load positively on a self-image factor. To clarify this spontaneity and sensation-seeking items were used as negative statements of functional traits. The remaining self-image items

¹⁰ A general factor is best described by the first unrotated factor (Synder and Gangestad, 1986).

attempted to capture "self-esteem" or "social approval". These two traits are consistent with the underlying motives for self-congruity theory. The final dispositional self-congruity scale was based on traits from self-congruity theory, while the final dispositional functional congruity scale was based on traits from the managerial grid.

Dispositional Self-Congruity (DSC)

A single general dispositional self-congruity factor emerged as the first factor in the principle components analysis. This factors may be described as a "private self-congruity" disposition. Eight items had loadings greater than .5. The mean value for these items was 3.198 (s.d.= .914) indicating that respondents viewed themselves as sometimes exhibiting this tendency (see Table 5-3).

A second DSC factor emerged as factor three in a principal components analysis (with all dispositional items included). The items which comprise this scale and the loadings are shown in Table 5-4. The two DSC factors accounted for 18.7 and 6.9 percent of the variance, respectively, in subjects responses to all dispositional measures (all DSC and DFC items combined). Correlations between the single-factor DSC variable with other variables, and a two-factor DSC variable with other variables are virtually identical (see Table 5-5). In the interest of parsimony the single factor variable was selected for further statistical analysis.

Reliability analysis of the single factor DSC measure yielded a coefficient alpha = .8499. In addition, reliability of the scale as

tested could not be significantly improved by dropping any items (see Table 5-6).

Norms of the DSC Scale

The mean value of responses to the DSC scale was 3.198. Overall, subjects viewed themselves as sometimes being the kind of person who valued self-congruity. The data are mildly dispersed (s.d.=.720). The distribution of responses is somewhat flatter than normal (kurtosis= -.334), and skewed toward higher DSC (Skewness=.136). The minimum and maximum values are 1.125 and 5.000, respectively (see Table 5-7).

Discriminant Validity of the DSC Scale

The DSC scale was slightly correlated with measures of dispositional functional congruity DFC ($r=.192$), but relatively independent of all other measures, as demonstrated in Table 5-8 below. These results demonstrate, to some extent, the discriminant validity of the DSC measure.

Dispositional Functional Congruity (DFC)

A single dispositional functional congruity factor emerged as the second factor in the principle components analysis (varimax rotation) with all the dispositional items included. This factor may be described as the disposition to value functioning which emphasizes planning and being meticulous. Principle components analysis on this factor alone (unrotated) yielded one general factor

comprised of eight items. See Table 5-9 for the items and loadings that comprised this factor.

Reliability analysis of the DFC items yielded a coefficient alpha = .8130. In addition, reliability of the scale as tested could not be significantly improved by dropping any items (see Table 5-10).

Norms of the DFC scale

The mean value of responses to the DFC scale was 3.100. Overall, subjects viewed themselves as sometimes the kind of person who valued the ideal functioning of purchases. DFC scores were mildly dispersed (s.d.=.666). The distribution of responses was somewhat flatter than normal (kurtosis= -.434), and skewed toward higher DFC (skewness=.280). The minimum and maximum values were 1.667 and 5.000, respectively (see Table 5-7).

Discriminant Validity of the DFC Scale

The DFC scale was slightly correlated with measures of dispositional self-congruity DFC ($r=.192$), but relatively independent of all other measures, as demonstrated in Table 5-11. These results provide some support for the discriminant validity of the DFC measure.

Nomological Validity: Testing the Basic Relationships

Introduction

The basic relationships between situational self-congruity, situational functional congruity, behavior and the new dispositional

measures were tested in a laboratory experiment. Eight hypotheses were proposed to guide the experiment. These hypotheses predict: 1) a relationship between self-congruity (SC) manipulations and evaluations, 2) a relationship between FC manipulations and evaluations, 3) a relationship between SC evaluations and behavior (Beh), 4) a relationship between FC evaluations and Beh, 5) no relationship between DSC standing and Beh, 6) no relationship between DFC standing and Beh, 7) an interaction between SC and DSC in predicting Beh, and 8) an interaction between FC and DFC in predicting Beh. Before presenting the results of the tests of these hypotheses, the reliability and validity of measures of SC, FC, and Beh are discussed below.

Self-Congruity (SC)

A six item scale was used to measure self-congruity. The measure compared respondents images of themselves as an ecological advocate to the typical product users image. The items used in this scale are shown in Table 5-12. The mean value for SC measures was 2.54 (s.d.=1.35). Respondents tended to agree with the image statements more than they disagreed. The mean self-image (SI) score was 5.57 (s.d.=1.51). However, this is less than the mean product image rating of 7.22 (s.d.=1.61). Overall respondents saw themselves as lesser advocates of environmental causes than typical users of the Sierra Club card.

The overall reliability of this scale was very high ($\alpha=.9198$). This scale was unchanged from pretests, where

reliability measures also indicated high internal consistency of the individual items (pretest $\alpha=.8800$). Furthermore, the scale could not be improved by deleting any items as demonstrated in Table 5-13 below.

A principle components factor analysis (unrotated) shows all six items loading on the first factor which accounts for 56.4 percent of the variance in responses to the SC scale (see Table 5-12). These results lend additional support to the validity of the SC scale.

Norms of the SC scale

The mean value of responses to the SC scale was 2.55. SC scores were mildly dispersed (s.d.=1.346). The distribution of responses is somewhat flatter than normal (kurtosis= -0.296) and skewed toward higher SC (skewness=.529). The minimum and maximum values were .000 and 6.500, respectively (see Table 5-7).

Discriminant and Convergent Validity of the SC Scale

The SC scale was highly correlated with global measures self-congruity GSC ($r=.4764$), and self-image ($r=.5683$) but less correlated with measures of functional congruity (FC) ($r=-.2459$) and behavior (Beh) ($r=-.2578$), as shown in Table 5-14. These results attest to the discriminant and convergent validity of the SC measure.

SC Evaluations vs Manipulations

SC evaluations were derived by mathematically calculating the distance between self-image ratings and product image ratings. Self-

congruity manipulations were message cues high in (1) image, (2) function, (3) both, or (4) neither.

Self-congruity manipulations did not have the same effect in the main study as in the pretests. Pretests of self-congruity manipulations, though not significant, appeared to be operating in the predicted direction ($F=1.42$, $p=.239$) (see Figure 5-1). It looked as though additional sample size would increase the power of the tests enough to distinguish between the high and low SC manipulations.

In the main study, however, SC manipulations led to SC evaluations of self-incongruity. Self-incongruity is said to exist when there is a discrepancy between the product image rating and the self-image rating (Sirgy 1982). This means, relatively speaking, that the typical user of the product is rated differently on the dimension than is the self. The four manipulations designed to create differential states of self-congruity did so by creating self-incongruity. That is, the product image (PI) was manipulated, not the self-image (SI), and the typical user was portrayed very favorably. Therefore, the manipulated PI ratings were higher than SI ratings. In manipulations where the typical user was portrayed neutrally (the low SC condition), PI ratings were only slightly greater than SI ratings. This manipulation of self-incongruity may have occurred because subjects saw themselves as relatively unlike the ecological activists pictured in the SC manipulations. The greatest self-congruity was exhibited by the group that received the

functional congruity manipulation and no self-congruity manipulation. Apparently, the inferences drawn from the functional congruity manipulation led subjects to picture someone like themselves. Notice in Tables 5-15 and 5-15(a) that the most congruent evaluations are for the group receiving the FC only manipulation (mean SC=2.11).

To examine the impact of manipulations on evaluations, a comparison was made between the SC evaluations by manipulation group and gender with disposition held constant. The result was a significant main effect of the manipulation group ($F= 3.126, p=.026$), a non-significant effect of gender ($F=1.812, p=.179$), a non-significant main effect of DSC as a covariate ($F=1.697, p=.194$), and a non-significant group by gender interaction ($F=.642, p=.588$). The mean values for these groups are given in Table 5-15 below. Manipulations had an effect on evaluations. The effect was not what had been anticipated, however.

The manipulation most effective in creating self-congruity was ad 3 (the information only table). The least effective was ad 4 (the headline only). The impact of ad 3 was more dramatic for men than women ($sc=1.93$ vs $sc=2.51$).

In an attempt to explain this, a second evaluation of SC by manipulation group and DSC was performed. It resulted in significant main effects for both independent variables (manipulation: $F=3.02, p=.030$; DSC: $F=4.79, p=.030$) (see Figure 5-9). This effect is different for those high in DSC as compared to those low

in DSC. Thus, it would appear that both the manipulation and disposition had an impact on SC evaluations. Those high on DSC are generally higher on SC. Those more sensitive to self-congruity experience more incongruity with the manipulations.

Further analyses were conducted by substituting the global self-congruity (GSC) evaluation for the SC evaluation: "Please circle the letter of the alternative below that best expresses how similar you see your self-image as an ecological advocate in comparison to the image of the typical user of a credit card like the Sierra Club card." Neither the manipulation nor the disposition (DSC) had a significant effect on global self-congruity evaluations (manipulation: $F=.313$, $p=.816$; DSC: $F=.266$, $p=.607$). These results lead to the following conclusion about self-congruity.

Self-congruity evaluations, in part, depended on the situational context in which the evaluations were made. Even situations which were overtly functional led to image-laden inferences. However, a less sensitive situational self-congruity measure (GSC) did not reflect this distinction. Notice that in Table 5-16 the mean values for GSC did not follow the same pattern as did the mean values for SC. There was little difference in GSC evaluations across manipulations. In light of the sensitivity of the analyses to self-congruity measures, further analyses involving SC and GSC evaluations, and SC manipulations were deemed warranted.

Functional Congruity (FC)

A seven-item scale was used to measure functional congruity. The measure compared respondents beliefs about a product to their ideal products. This was implemented through multiplying belief strengths by importance ratings. The greater the product of belief and importance (BI) for these measures, the greater the functional match. The items used in this scale are shown in Table 5-17. The mean value for FC measures was 12.84 (s.d.=4.469). Overall respondents saw the Sierra Club card as "average" in functioning (maximum=25.0)

The reliability of this scale was very high ($\alpha=.8351$). This scale was unchanged from pretests, where reliability measures also indicated high internal consistency of the individual items (pretest $r=.9021$). Furthermore, the scale could not be improved by deleting any items as demonstrated in Table 5-18.

A principle components factor analysis (unrotated) showed five of the seven items loading on the first factor which accounted for 52.6 percent of the variance in responses to the FC scale (see Table 5-17). This results lend additional support for the validity of the FC scale.

Norms of the FC scale

The mean value of responses to the FC scale was 12.842. FC scores were mildly dispersed (s.d.=4.469). The distribution of responses was somewhat flatter than normal (kurtosis= -0.142), and skewed toward higher levels of FC (Skewness=.273). The minimum

and maximum values were 2.571 and 25.000, respectively (see Table 5-7).

Discriminant and Convergent Validity of the FC Scale

The FC scale was highly correlated with the global measure functional congruity (GFC) ($r=.4001$), and behavior (Beh) ($r=-.5815$), but only moderately correlated with other variables as demonstrated in Table 5-14.

FC Evaluations vs Manipulations

The results show that FC manipulations worked as expected based on the pretest ($F=4.73$, $p=.034$, see Figure 5-2). The four manipulations designed to create differential states of functional congruity did so ($F=35.84$, $p=.000$, see Figure 5-3). A comparison of FC evaluations by manipulation group and disposition yielded a significant main effect for the manipulation group ($F=10.65$, $p=.000$), a non-significant main effect for DFC ($F=1.170$, $p=.280$), and a non-significant group by disposition interaction ($F=.390$, $p=.760$) (see Figure 5-9). The difference between manipulations high in FC (mean=14.17) and those low in FC (mean=11.36) was distinguishable (see Table 5-19).

The same test was also performed with a global measure of functional congruity (GFC): "Please circle the letter of the alternative below that best expresses how you see the benefits of the Sierra Club credit card as compared to your ideal card." The results indicated a main effect for manipulation group on GFC evaluation ($F=4.042$,

$p=.008$). There was no DFC main effect ($F=.113$, $p=.737$), nor was there a significant interaction ($F=.395$, $p=.757$). Both FC and GFC exhibited the similar patterns of relationships with manipulations (see Table 5-20). Therefore, further analyses will use only FC evaluations.

Behavioral Measures (Beh and Beh2)

Two dependent measures (Beh and Beh2) were used to capture the behavior construct in the main study. They are described below.

A six-item scale (Beh) was used to measure the likelihood of behavior. The items used in this scale are shown in Table 5-21. The mean value for Beh measures is 2.829 (s.d.=.979). Respondents tended to be mid-way between a likely and unlikely behavioral response. The overall reliability of this scale was high ($\alpha=.7694$). Furthermore, the scale could not be improved by deleting any items as demonstrated in Table 5-22.

A principle components factor analysis (unrotated) shows all six Beh factors loading on the first factor which accounts for 70.4 percent of the variance in responses to the Beh scale (see Table 5-21). These results provide additional support for the validity of the Beh scale.

In addition, a three item scale (Beh2) was used to measure behavioral preferences. The items used in the scale are shown in Table 5-23. The mean value for the Beh2 measures was 3.93 (s.d.=1.465). Respondents tended to be mid-way between a

favorable and unfavorable preference. The overall reliability of this scale was high ($\alpha=.8513$). Furthermore, the scale could not be improved by deleting any items as demonstrated in Table 5-24.

A principle components factor analysis (unrotated) shows the three Beh2 items loading on the first factor which accounted for 76.8 percent of the variance in responses to the Beh scale (see Table 5-23). These results provide additional support for the validity of the Beh2 scale.

Norms of the Behavior Scales

The mean value of responses to the Beh scale was 2.892. Beh data are mildly dispersed ($s.d.=.979$). The distribution of responses was somewhat flatter than normal ($kurtosis=-0.688$), and skewed toward higher Beh ($skewness=0.161$). The minimum and maximum values were 1.000 and 5.000, respectively (see Table 5-7). The mean value of responses to the Beh2 scale was 3.930. Beh2 data were mildly dispersed ($s.d.=1.465$). The distribution of responses was somewhat flatter than normal ($kurtosis=-0.375$) and skewed toward higher Beh2 ($skewness=0.158$). The minimum and maximum values were 1.000 and 7.000, respectively (see Table 5-7).

Discriminant and Convergent Validity of the Behavior Scales

The Beh scale was highly correlated with individual measures, such as (GET): "I would certainly get a Sierra Club card," ($r=.5852$, $p=.000$), but less correlated with the behavioral preference measure Beh2. While Beh was correlated with variables like FC ($r=.5815$,

$p=.000$) and SC ($r=-.2578$, $p=.000$), Beh2 variable correlated very poorly with these variables FC ($r=-.0856$, $p=.122$) and SC ($r=.0421$, $p=.465$) (see Table 5-14). These results show that the Beh2 measure may not be a valid measure.

The Situation/Evaluation Hypotheses

Hypotheses 1 and 2 assert that situations higher in functional and self-congruity should lead to higher FC and SC evaluations, respectively. Functional situations, as operationalized by the manipulations, did lead to higher evaluations ($F=35.84$, $p=.000$, see Figure 5-5). High self-congruity situations did not lead to higher evaluations, however ($F=1.35$, $p=.246$, see Figure 5-4).

The responses of those receiving low functional congruity manipulations and self-congruity manipulations (both hi and lo SC, with lo FC) were opposite to expectations (see Figure 5-4). Ideally, the SC manipulations low in FC should have the strongest effect. This was true for the lo SC condition (top line, Figure 5-4). The hi SC, lo FC manipulation did not perform as expected, however. This manipulation led to a lower SC evaluation, instead of a higher one. This was the manipulation that pictured the strong advocate for the Sierra Club card. Respondents saw themselves as unlike the person in this ad. The manipulation caused incongruity rather than congruity. Because respondents were incongruent with the manipulated product image, the manipulation with no product image elicited a stronger SC response. When given neither an image nor function-laden message, subjects supplied their own reference

product image which they rated as more congruent with the image of themselves. These two factors tended to have a cancelling effect on the overall effectiveness of the SC manipulations.

The same analysis was performed comparing SC manipulations with the global self-congruity evaluation (GSC). Results similarly indicate no main effect of the SC manipulations ($F=.215$, $p=.643$).

Situation/Behavior Hypotheses

Hypotheses 3 and 4 assert that there should be a direct relationship between situational evaluations (SC and FC) and behavior. These hypotheses were supported. Main effects were significant with specific evaluations (for SC, $F=11.76$, $p=.001$; for FC, $F=60.89$, $p=.000$, see Figure 5-6). These results are consistent with previous self-image congruence research cited in Chapter 2. The main effects were non-significant for SC and FC cues (for SC_{cue}, $F=.210$, $p=.647$; for FC_{cue}, $F=1.543$, $p=.215$). There should be no a priori relationship between the type information given and behavior. It is more likely that the evaluations (perceptions) created by the information will be more closely related to behavior.

Disposition/Behavior Hypotheses

Hypotheses 4 and 5 assert that there should be no direct relationship between DSC or DFC and behavior. Both main effects were nonsignificant (for DSC, $F=.117$, $p=.732$; for DFC, $F=.138$, $p=.240$; see Figures 5-7 and 5-8). As expected, disposition had little effect on behavior. These results held when the global variables (GSC and GFC)

were used as well (for DSC, $F=1.598$, $p=.207$; for DFC, $F=.024$, $p=.878$). However dispositions were hypothesized to moderate the situation-behavior relationship. These results are discussed next.

The Situation/Disposition Interaction Hypotheses

Hypotheses 7 and 8 propose an interaction of situations and disposition in predicting behavior. The interactions of both dispositions with their respective situations were non-significant in predicting behavioral intent (Beh) (SC X DSC, $F=.459$, $p=.499$; FC x DFC, $F=.126$, $p=.723$), see Figures 5-5 and 5-6. Repeating these analyses with global evaluations (GSC, GFC) produced similar results (GSC x DSC, $F=.461$, $p=.498$; GFC x DFC, $F=.070$, $P=.791$). Substituting the behavioral preference variable (Beh2) led to similar results for functional variables (GFC x DFC, $F=.051$, $P=.821$), but very different results for image-laden variables (GSC X DSC, $F=5.859$, $p=.016$) (see Figure 5-7). Evidently dispositions were more likely to moderate self-congruity where behavioral preferences are concerned and when global self-congruity evaluations (GSC) were made. When GSC was low, those high in DSC (DscHi), who were more sensitive to image, experienced greater incongruity and were less likely to exhibit the behaviors tapped. On the other hand, those low in DSC (DscLo) experienced incongruity but were still likely to exhibit the behaviors tapped. The failure of the dispositions to moderate the situation/behavior relationship in some cases, but not in others is discussed in detail below.

CHAPTER SIX

Discussion

In this chapter some conclusions are drawn about the validity of the dispositional measures. The mixed success of the situation/disposition interaction tests is discussed. Limitations which define the study are identified. Finally, managerial implications and future research are proposed.

Conclusions on Dispositional Self-Congruity (DSC)

Based on the data from this study dispositional self-congruity (DSC) is a valid construct. The latent factor structure indicates one general factor best reflects this construct. The overall scale has high reliability. Furthermore, the measure discriminates between high and low levels of the disposition such that meaningful relationships to situational self-congruity (SC) evaluations were observed.

Those high vs. those low in DSC were more likely to evaluate themselves as congruent with the typical product user regardless of which manipulation they received. An analysis of SC evaluations by group manipulations (1,4) and DSC (lo, hi) yielded significant main effects for both dispositional standing and manipulation group (DSC $F=4.79$, $p=.030$; group $F=3.02$, $p=.030$), see Table 5-15a. The exception is that those low in DSC tended to evaluate self-congruity more highly when they received a manipulation low in both SC and FC (see Figure 5-8). This same effect occurred for those low in DFC when they received a manipulation low in SC and FC. Evidently, subjects who have relatively less of a tendency to value self-

congruity or functional congruity were less likely to exhibit the behaviors tapped. In other words, these people appeared more prone to make inferences about image or function when little information was present. Those high in the dispositions looked for and responded to the information rather than making inferences.

This was the first attempt to identify the self-congruity disposition. As such, the present scale was not the only operationalization of the construct that was possible. The incorporation of other content domains could tap latent causal influences not addressed in this study. Also, measures with fewer literal restatements might extend the validity of the construct (perhaps at the expense of reliability). Finally, greater face validity in terms of clear, concise, and unambiguous terms which tap a range of consumer thoughts, feelings and actions related to the self could reduce errors in responding and improve the overall validity of the measure.

Conclusions on Dispositional Functional Congruity (DFC)

Based on the data from this study dispositional functional congruity (DFC), as it is operationalized here, is not a valid construct. Although the overall scale has high reliability, the measure fails to discriminate between high and low levels of the disposition such that meaningful relationships to situational functional congruity (FC) evaluations may be observed. Those high vs. those low in DFC were only slightly more likely to evaluate products functionally, regardless of which manipulation they received. An analysis of FC evaluations

by group (1,4) and DFC (lo, hi) yielded a significant main effect for the manipulation group but not for dispositional standing (group: $F=11.711$, $p=.000$; DSC: $F= 1.103$, $p=.294$), see Table 5-19 below.

Although the differences are not significant, those high in DFC also tended to evaluate functional congruity somewhat higher no matter which manipulation they received. The exception is that those low in DFC tended to evaluate functional congruity more highly when they received a manipulation low in both SC and FC (see Figure 5-9). This same effect occurred for those low in DSC when they received a manipulation low in SC and FC. Evidently, subjects who had less of a tendency to value functional congruity or self-congruity respond to information which contains neither. In other words, these people appear more prone to make inferences about image or function when little information is present. Since this occurred for both dispositions, it may be that those high in the dispositions look for and respond to the information rather than make inferences.

While the latent factor structure indicates that a single general factor best captures this construct perhaps the sub-constructs like caution, planning, meticulousness, endurance and anxiety do not relate to the beliefs and importance evaluations which make up the FC measure evaluations. Tests based on a belief-only or another type of FC model may yield different results.

Explaining the Failure of Interaction Tests

The test of the nomological validity of the constructs centered around the interaction of the new dispositions with situations in predicting behavior. In some cases the interactions were found, in other cases they were not found. One of the main reasons for the failure of the interaction test was the dominating effects of the situation, particularly, FC situation. Not only were FC evaluations high when a FC manipulation was received, SC evaluations were also high when a FC manipulation was received. The FC manipulation dominated all responses. Synder (1976) suggests that a major reason for the failure to find situation X disposition interactions is the domination of situational manipulations in experimental tests. Dispositions have no chance to manifest if situational events are compelling.

A second problem with the interaction tests stemmed from the situational cues used to establish self-congruity and functional congruity. At the heart of this problem was the incongruity caused by the self-image manipulation. Respondents felt congruity because of FC manipulations and incongruity because of SC manipulations. In some cases, this led to ambiguous responses. The incongruity effect is dramatized in Figure 5-8. Differences in the FcSc manipulation are evident for those high in DSC and those low in DSC. This effect is repeated for the groups receiving the Sc and Fc manipulations (although not as dramatically). Those insensitive to image (the DscLo line in Figure 5-8) responded ambiguously. The FcSc manipulation led to greater self-congruity (a lower SC score), driven there by the

FC portion of the manipulation, while the LoLo manipulation led to lesser self-congruity.

Interactions which were significant were those in which behavioral preference (Beh2) and global self-congruity (GSC) measures were used. The GSC measure is an overall assessment of self-congruity, similar to a global attitude. The Beh2 measure captures the appeal and liking of the Sierra Club card. It makes sense that those who value a product image-self-image match would see a card with an overall congruent image as appealing. Those high in dispositional self-congruity (DSCHi) rated behavioral preferences higher when global self-congruity evaluations were higher (GscHi) (see Figure 5-7). These same people saw themselves as unlike the typical user when specific image issues were used. Perhaps the real benefit of dispositions is to moderate behavioral preferences. More conative behaviors (getting or intending to get the product) may be too removed from dispositions. These findings are parallel to those of the attitude-behavior consistency paradigm (Ajzen 1988).

A final effort to explain the results of the two-way interaction tests was made by examining the higher-order three-way and four-way interactions. A significant interaction between FC, SC and DSC was found ($F=7.667$, $p=.006$, see Table 5-25). This implies that the expected SC X DSC interaction could be explained by examining it at high and low levels of FC. Figure 5-10 shows this interaction. The expected DSC by SC interaction occurs for the FCHI condition but not for the FCLO condition. While no theoretical interpretation is

possible, dispositions interact with both function and image-laden situations in producing behavioral outcomes ¹¹.

The four-way interaction between FC, SC, DFC, and DSC was also significant ($F=10.82$, $p=.001$, see Table 5-25). The SC X DSC interactions are even more distinct when high and low states of DFC are taken into account (see Figure 5-11). Subjects who did not have a tendency to value function (DFCLO) were less likely to report a significant role for the interaction of DSC and SC in predicting behavior. This is an area for continued research.

Conclusions

This study demonstrates the importance of considering dispositions and situations simultaneously. The results add to our understanding of self-congruity theory and the relationship between self-congruity and functional congruity. In particular, the effect of self-congruity (SC) and functional congruity (FC) evaluations on behavior is very robust. The greater the SC and FC evaluations the greater the adoption of behavior. Also the overlap in self-congruity (SC) and functional congruity (FC) evaluations has been identified. This means that functional situations can lead to image-laden inferences. Functional and image-laden situations should not be considered orthogonal.

Finally this study supports that self-congruity dispositions exist. Dispositional self-congruity distinguished between subject's

¹¹ The three way interaction between GSC, GFC, and DSC was also significant when evaluated for Beh2 ($F=5.401$, $p=.021$, see Table 5-26).

ratings of SC situations. When dispositions and situations were considered simultaneously, in a four way interaction, the expected relationships were present. These interactions are complex, but they demonstrate the need to view the coaction of dispositions and situations when examining resultant behaviors. It is only when the situation and disposition relationships are considered simultaneously that behavioral outcomes are explained.

Limitations

Several limitations constrained the results found in this study. These are discussed below.

The factorial experimental design required that a self-congruity evaluation be made by respondents who received only functional information. This was unnatural and may have forced the self-image inferences which resulted from the FC manipulation. Another demand artifact may have resulted from the laboratory situation. Subjects tended to be in more of a cognitive frame of mind while completing the survey, therefore, may have enhanced the significance of FC measures. Finally, the choice of business students as subjects may have caused an overstatement of self-incongruity. Business students may be less likely ecological advocates. The incongruity states resulting from the SC manipulation caused the SC and FC evaluations to conflict with each other.

Future research which addresses these limitations is described below.

Future Research

Future research should study disposition without controlling or emphasizing the situation. This could be done via a survey method which first identifies those high and low in the dispositions then proceeds to examine the behaviors exhibited by the two groups. Also, non-obtrusive measures like collaborative ratings by significant others might be used.

While an attempt was made to develop dispositional measures with regard to various consumer activities, responses to multiple product categories should be measured. Two prime potential product categories are political candidates and athletic events. Are political candidates supported because of their image or voting record? Are they supported by people low or high in DSC? Similarly, are sports events patronized because of the match between an athlete's image and a fan's ideal self-image. Is this relationship different for those high vs. low in DSC? In addition to these two products the traditional constellation of image-laden products (cars, clothing, cosmetics, etc.) are all possibilities for future research.

Finally future research should test these scales with different populations. The incongruity effect observed here dramatizes the impact that a group's self-image standing can have. Since different groups may have different reference self-images, measures which elicit SC evaluations should be normalized using several groups.

Managerial Implications

The managerial implications of this study relate most directly to the development of functional and self-image laden information.

Three areas of managerial decision making are potentially effected: the development of more persuasive messages , the segmentation of audiences, and the evaluation of message effectiveness. These two areas are discussed below.

The Development of More Persuasive Measures

Messages which contain both function and image-laden information are likely to impact adoption behavior more than messages containing only one type of information. This would suggest that advertisers include both function and image-laden information in the same message for maximum impact. While this might go against the conventional wisdom for some products promoted strickly on image, like perfume, it may have some benefits. This study suggests that functional elements can also elicit image-laden responses. The price of a perfume or its "smell" compared to other perfumes might be considered as functional attributes. These attributes can also elicit images of the typical user. Therefore, they facilitate and product image self-image match. Using functional cues to self-image congruity helps the potential customer to translate product attributes into meaningful personal benefits. Cognitive tranference or matching may not proceed as easily if the image of the typical user is not given. This image can be based on self-consistency (actual self-idge), self-esteem (ideal self-image), or social approval (social self-image). The particular expression of the the image chosen reflects the positioning strategy for the promotional message.

The Segmentation of Audiences

People who have a tendency to value self-image may be more influenced given messages high in image cues. This study demonstrates the impact of incongruity was more pronounced for those sensitive to self-image congruity. Image appeals are more critical for those high in DSC, if they are not to be "turned off" to the message. This group could be a viable market segment for some products which are value-expressive (e.g., clothing, cars, or cosmetics).

Those low in DSC apparently "read into" the information presented the most relevant image. This group is naturally insensitive to the image presented or not presented. The DSC high and DSC low dispositions together with their counterparts, the DFC high and DFC low dispositions, form a typology of four market segments (see Figure 1-2). Product and promotional variations could be geared to these segments. These are socio-psychological segments. Our culture promotes functional, rational consumption to the extent that we want to view ourselves as functional. We are also concerned with our image and the appearance of things. Using these dispositions as segmentation variables can have appeal for a number of products.

The Evaluation of Message Effectiveness

Measures which compare the impact of functional and self-image-laden information may perform differently based on the type

of behavioral measures used. When evaluating functional messages, specific action-oriented behaviors should be used. When evaluating image-oriented messages, preference-oriented behaviors should be used. For example, an image-oriented appeal to potential environmental credit card users, should be tested by assessments of how much they like or would prefer a card like this. A function-oriented message should be tested by assessments of whether they would get or use the card.

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TABLES

Table 2-1
The Relationship Between Self-Image and Product Image

<u>RESEARCHER</u>	<u>YEAR</u>	<u>RELATIONSHIP CONFIRMED</u>
Dolich	1969	Self-image of most (least) preferred brands
Dornoff & Tatham	1972	Self-image and best friend's image relative to preferred store
Grubb & Hupp	1968	Self-concept and stereotypical product self of competing brand
Grubb & Stern	1971	Self-concept and other's stereotypical product self of competing brand
Hughes & Guerrero	1971	Self-image and present and first choice brand images
Martin & Bellizzi	1982	Self-image and most (least) preferred brand
Ross	1971	Self-image and most (least) preferred brand

Table 2-2
The Predictiveness of Product Image/Self-Image
Congruity and Consumer Behavior

RESEARCHER	YEAR	BEHAVIOR PREDICTED	EFFECT SIZE	Z
Belch and Landon	1977	social desirability	0.31	2.13
Bellenger et. al.	1976	store loyalty	0.34	3.61
Ericksen and Sirgy	1989	product usage	0.29	4.35
Landon	1974	purchase intention	0.39*	7.32
Sirgy and Danes	1981	preference/intention	0.34	4.41
Sirgy and Samli	1985	store loyalty	0.22	4.24
Sirgy and Johar	1989	attitude/intention	0.21	4.08

*Kendall's Tau rather than Pearson r

Table 2-3
Moderator Variables

RESEARCHER	YEAR	CONSTRUCT (Y)	CONSTRUCT (X)	MODERATORS
Belch & Landon	1977	social desirability	self-image	ownership
Bellenger et al.	1976	store loyalty	self-image	
Dolich	1969	product preference	self-image	conspicuousness
Dornoff & Tatham	1972	product preference	self-image	
Ericksen & Sirgy	1989	clothing behavior	achievement	self-concept
Grubb & Hupp	1968	self-concept	stereotypical self	
Grubb & Stern	1971	self-concept	stereotypical	other's self-concept assess.
Hughes & Guerreo	1971	self/social congruity	self/social incongruity	choice of present brand
Landon	1974	purchase intention	actual/ideal self-image	gender
Martin & Belizzi	1982	preferred brand	self-congruity	social/private
Ross	1971	preferred brand	self-congruity	conspicuousness
Sirgy	1980	self-congruity	ideal self-congruity	personally revealing
Samli & Sirgy	1981	interactive congruity	single congruity	congruity measure
Sirgy & Johar	1985	purchase motivation	self/ideal congruity	consistency/esteem
Sirgy & Johar	1985b	value expressiveness	utilitarianism	referent brand
Sirgy & Samli	1985	store/self-congruity	functional store image	socioecon. var. & loyalty
Sirgy	1985	store patronage	social congruity	
Sirgy, Johar & Wood	1986	self-congruity	value expressiveness	usage/differentia./conspic.
Sirgy & Johar	1989	attitude/intention	self-congruity	
Stern et al.	1977	preferred store image	self-image	
Varvoglis et al.	1984	value expressive	utilitarianism	

(After Claiborne and Sirgy 1990)

Table 5-1

Pretest Dispositional Items

- DFC 1. Do you do things on the spur of the moment?
- DFC 2. When looking for product information to facilitate a decision, do you keep searching until the choice is clear?
- DFC 3. Do you get carried away when you see a new product and do not think of the potential problems?
- DFC 4. Is Consumer Reports a valuable information source that you consult before making a significant purchase?
- DFC 5. Do you buy things on impulse?
- DFC6. When evaluating products, do you usually make a decision more quickly than others?
- DFC 7. When you shop for a product, do you list the criteria the product should possess?
- DFC 8. Are you cautious about product purchases?
- DFC 9. When you see a new product do you decide quickly that you like it?
- DFC 10. Do you do your homework before making a big purchase?
- DSC 1. Do you like to think you have some influence in the purchase decisions your friends make?
- DSC 2. When purchasing unfamiliar products, do you trust the opinions of salespersons?
- DSC 3. Do you feel ashamed because of some of the things you have purchased?
- DSC 4. Do you feel that an important consideration is whether a product has an image that reflects who you are?
- DSC 5. Do you feel that you are what you buy?
- DSC 6. Do you think that people can tell the kind of person you are through your possessions?
- DSC 7. Do you buy products that are "long shots" because they are at a good price?
- DSC 8. Do you feel that a product has to match your ideal image of yourself before you seriously consider buying it?
- DSC 9. Do you feel that an important criterion in buying any kind of product is whether it helps you become the kind of person you would like to be?
- DSC 10. Do your possessions reflect who people think you are?

Table 5-2

Factor Loadings of Pretest Dispositional Items

<u>Factor 1</u>	<u>Loading</u>	<u>Factor 2</u>	<u>Loading</u>
DSC4	.7887	DSC5	.7432
DSC5	.7443	DSC1	.7191
DSC10	.7133	DSC6	.6678
DSC8	.6398	DSC3	.5852
DSC9	.6322	DSC7	.5613
DSC6	.5552		

Table 5-3

Item Loadings for DSC Factor 1

<u>Factor 1</u>	<u>Item</u>	<u>Loading</u>	<u>Mean</u>	<u>Std. Dev.</u>
DSC7	Are you the kind of person who makes sure to buy products that fit his/her lifestyle?	.7273	3.65	.95
DSC6	Are you the kind of person whose personal identity is reflected through the things he/she buys?	.7926	2.95	1.13
DSC5	Are you the kind of person who feels that "you are what you buy"?	.7632	2.65	1.09
DSC2	Are you the kind of person who takes special pride in his/her possessions?	.6348	3.97	.95
DSC8	Are you the kind of person who tries to maintain a consistency in his/her identity?	.6727	3.46	1.01
DSC1	Are you the kind of person who feels that a product has to match his/her ideal self-image before he/she seriously considers buying it?	.6642	3.29	1.00
DSC3	Are you the kind of person who feels that an important criterion in buying any kind of product is whether it helps you be the person you would like to be?	.6840	3.02	1.07
DSC4	Are you the kind of person who buys products which are associated with people you admire?	.5999	2.54	1.01

Table 5-4

Item Loadings for DSC Factor 3

<u>Factor 3</u>	<u>Item</u>	<u>Loading</u>	<u>Mean</u>	<u>Std. Dev.</u>
DSC12	Are you the kind of person who thinks about how others will react to the products you buy?	.7145	2.65	1.06
DSC15	Are you the kind of person who would feel uncomfortable buying a product that is inconsistent with how others see you?	.6962	2.43	1.00
DSC18	Are you the kind of person who places emphasis on whether a given product is consistent with others perceptions of you?	.6899	2.49	1.06
DSC11	Are you the kind of person who is very self-conscious when shopping with friends?	.6892	2.39	1.08
DSC16	Are you the kind of person who goes out of his/her way to buy things that reinforce how others see you?	.6698	2.13	1.02
DSC13	Are you the kind of person who would return a product because a friend didn't like it?	.6337	1.52	.79
DSC9	Are you the kind of person who things that are "popular"?	.4425	2.85	.99
DSC10	Are you the kind of person who likes to please his/her friends?	.4423	3.17	1.08

Table 5-5

Correlations Between Single-Factor and Two-Factor DSC Variables and Other Variables

<u>Variable</u>	<u>DSC(1)</u>	<u>DSC(2)</u>
SI	-.0033	.0610
PI	-.0375	.0083
SC	.0353	.0452
FC	.0485	.0024
DFC	.1819	.1922
BEH	.0752	.0782
BEH2	.0269	.0388
GSC	.0161	.0514
GFC	-.1119	-.1352

Where,

- SI - self-image
- PI - product image
- SC - self-congruity evaluation
- FC - functional congruity evaluation
- DFC - dispositional functional congruity
- DSC - dispositional self-congruity
- BEH - likelihood of behavioral action
- BEH2 - behavioral preference
- GFC - global functional congruity
- GSC - global self-congruity

TABLE 5-6

Reliability of DSC Items

<u>Item</u>	<u>Alpha if deleted</u>
DSC1	.8363
DSC2	.8394
DSC3	.8327
DSC4	.8422
DSC5	.8217
DSC6	.8164
DSC7	.8290
DSC8	.8364

Table 5-7
Norms of Measures

Variable	Mean	Std. Dev.	Kurtosis	Skew.	Min.	Max.	Cases
Beh2	3.930	1.465	-.375	.158	1.000	7.000	297
Beh	2.829	.979	-.668	.161	1.000	5.000	305
GFC	1.820	.647	-.669	.191	1.000	3.000	289
GSC	2.958	.914	-.239	-.098	1.000	5.000	265
DFC	3.100	.666	-.434	.280	1.667	5.000	306
DSC	3.198	.720	-.334	.136	1.125	5.000	305
FC	12.842	4.469	-.142	.273	2.571	25.000	295
SC	2.547	1.346	-.296	.529	.000	6.500	272
PI	7.221	1.608	.284	-1.100	2.167	9.000	274
SI	5.577	1.510	-.483	-.017	2.167	9.000	272

Where,

- SI - self-image
- PI - product image
- SC - self-congruity evaluation
- FC - functional congruity evaluation
- DFC - dispositional functional congruity
- DSC - dispositional self-congruity
- BEH - liklihood of behavioral action
- BEH2 - behavioral preference
- GFC - global functional congruity
- GSC - global self-congruity

TABLE 5-8

**Correlations Between DSC and
Other Measures**

<u>Measure</u>	<u>DSC</u>	<u>P-value</u>
BEH	.075	.160
SC	.035	.531
FC	.046	.399
DFC	.192	.000
SI	-.003	.953
PI	-.038	.504

Where,

- SI - self-image
- PI - product image
- SC - self-congruity evaluation
- FC - functional congruity evaluation
- DFC - dispositional functional congruity
- DSC - dispositional self-congruity
- BEH - liklihood of behavioral action
- BEH2 - behavioral preference
- GFC - global functional congruity
- GSC - global self-congruity

Table 5-9

Item Loadings for DFC Factor 1

<u>Factor 1</u>	<u>Item</u>	<u>Loading</u>	<u>Mean</u>	<u>Std. Dev.</u>
DFC6	Are you the kind of person who is meticulous and careful in shopping?	.7719	3.34	1.04
DFC8	Are you the kind of person who is cautious about product purchases?	.7331	3.51	.93
DFC5	Are you the kind of person who sorts information about products better than most people?	.6706	3.14	.92
DFC2	Are you the kind of person who when looking for product information to make a purchase decision keeps searching until the choice is clear?	.6754	3.32	.95
DFC15	Are you the kind of person who other people think of as a perfectionist when it comes to shopping?	.5928	2.62	1.14
DFC3	Are you the kind of person who worries over the details of a purchase more than the average person?	.6179	2.87	1.15
DFC1	Are you the kind of person who enjoys making decisions about the merits of alternative brands?	.5990	3.29	.99
DFC7	Are you the kind of person who when shopping for a product, lists the criteria the product should possess?	.5614	2.48	1.12
DFC18	Are you the kind of person who works hard at finding bargains?	.5027	3.26	1.05

TABLE 5-10

Reliability of DFC Items

<u>Item</u>	<u>Alpha if deleted</u>
DFC1	.7983
DFC2	.7893
DFC3	.7974
DFC5	.7909
DFC6	.7752
DFC7	.8050
DFC8	.7831
DFC15	.7999
DFC18	.8094

Table 5-11

**Correlations Between DFC and
Other Measures**

<u>Measure</u>	<u>DFC</u>	<u>P-value</u>
BEH	.108	.044
SC	-.104	.064
FC	.057	.296
DSC	.192	.000
SI	-.120	.033
PI	.057	..308

Where,

- SI - self-image
- PI - product image
- SC - self-congruity evaluation
- FC - functional congruity evaluation
- DFC - dispositional functional congruity
- DSC - dispositional self-congruity
- BEH - liklihood of behavioral action
- BEH2 - behavioral preference
- GFC - global functional congruity
- GSC - global self-congruity

Table 5-12**Means and Standard Deviations and Factor 1 Loadings for Self-Congruity Measures**

<u>Item</u>		<u>Loading</u>	<u>Mean</u>	<u>Std. Dev.</u>
SC1	I am (they are) the kind of person who considers a broad spectrum of issues (both local and national) which influence the environment, even though those issues do not affect me directly.	.7306	2.62	1.57
SC2	I am (they are) the kind of person who must be in touch with nature. Even in my daily life I'm aware of the plant and animal life around me.	.7298	3.05	1.95
SC3	I am (they are) the kind of person who sees all life as connected. Each species has a place in the harmony of creation and needs to be protected.	.8223	2.78	2.03
SC4	I am (they are) the kind of person who is more interested in the long term impact of our environmental choices.	.7894	2.28	1.66
SC5	I am (they are) the kind of person who sees all life as sacred. All creatures have life, rights, and suffering of their own.	.7196	2.65	1.75
SC6	I am (they are) the kind of person who thinks our natural resources are finite, non-renewable and dwindling, therefore we must conserve them at all costs.	.7071	2.14	1.79

Table 5-13
Reliability of SC Measures

<u>Item</u>	<u>Alpha if deleted</u>
SC1	.8919
SC2	.9074
SC3	.9138
SC4	.9008
SC5	.9084
SC6	.9021

Table 5-14

Correlations Between Measures

	SI	PI	SC	FC	DSC	DFC	BEH	BEH2	GSC	GFC
SI	1.0000									
PI	-.0167 p=.000	1.0000								
SC	.5683 p=.000	-.1325 p=.018	1.0000							
FC	-.2415 p=.000	-.1308 p=.021	-.2459 p=.000	1.0000						
DSC	-.0033 p=.953	-.0375 p=.504	.0353 p=.531	.0458 p=.399	1.0000					
DFC	-.1195 p=.033	.0571 p=.308	-.1037 p=.064	.0567 p=.296	.1819 p=.001	1.0000				
BEH	-.3894 p=.000	-.0001 p=.998	-.2578 p=.000	.5815 p=.000	.0752 p=.160	.1077 p=.044	1.0000			
BEH2	.0837 p=.145	.0116 p=.839	.0421 p=.465	-.0856 p=.122	.0269 p=.622	.0019 p=.973	-.0691 p=.204	1.0000		
GSC	.5432 p=.000	.0205 p=.733	.4764 p=.000	-.2801 p=.000	.0161 p=.779	-.0520 p=.364	-.4157 p=.000	.0294 p=.616	1.0000	
GFC	-.1946 p=.001	-.0012 p=.983	-.1894 p=.001	.4001 p=.000	-.1119 p=.044	.0202 p=.717	.2910 p=.000	.0520 p=.360	-.1875 p=.002	1.0000

Where,

SI - self-image

PI - product image

SC - self-congruity evaluation

FC - functional congruity evaluation

DFC - dispositional functional congruity

DSC - dispositional self-congruity

BEH - likelihood of behavioral action

BEH2 - behavioral preference

GFC - global functional congruity

GSC - global self-congruity

Table 5-15

**Self-Congruity by Group(1,4) and Gender
(1,2) with DSC(1,2)**

	<u>Gender</u>		
<u>Group</u>	<u>Male</u>	<u>Female</u>	<u>Row Total</u>
ScHi, FcHi	2.50 (43)	2.78 (27)	2.61 (70)
ScHi	2.58 (35)	2.72 (27)	2.64 (62)
FcHi	1.93 (47)	2.51 (21)	2.11 (68)
ScLo, FcLo	2.82 (38)	2.78 (32)	2.80 (70)
Column Total	2.43 (163)	2.71 (107)	2.54 (270)

Where, lower self-congruity scores (SC) indicate a greater product image/self-image match.

TABLE 5-15a**Self-Congruity by Group(1,4) by DSC (1,2)**

	<u>DSC</u>		
<u>Group</u>	<u>Lo</u>	<u>Hi</u>	<u>Row Total</u>
ScHi, FcHi	3.04 (44)	1.88 (26)	2.61 (70)
ScHi	2.67 (43)	2.59 (19)	2.64 (62)
FcHi	2.26 (44)	1.83 (24)	2.11 (68)
ScLo, FcLo	2.17 (53)	3.10 (17)	2.80 (70)
Column Total	2.67 (184)	2.26 (86)	2.54 (270)

Where, lower self-congruity scores (SC) indicate a greater product image/self-image match.

Table 5-16

Self-Congruity Evaluation Means by Treatment

Manipulation	SI	PI	SC	GSC	DSC
SC hi, FC hi	5.53	7.61	2.59	2.91	2.80
SC hi only	5.41	7.17	2.63	3.05	2.82
FC Hi Only	5.80	6.97	2.11	3.03	2.82
SC lo, Fc lo	5.54	7.10	2.76	2.91	2.94
All Groups	5.59	7.33	2.56	2.98	2.84

Note: Some numbers differ form those reported elsewhere because of cases included in the DESCRIPTIVES procedure and not in the ANOVA procedure.

Table 5-17

**Means, Standard Deviations, and Factor 1 Loadings for Functional
Congruity Measures**

<u>Item</u>		<u>Loading</u>	<u>Mean</u>	<u>Std. Dev.</u>
FC1	Provides an easy way to contribute to a cause in which you believe.	.8316	13.28	6.25
FC2	Eases my guilt about a lack of direct conservation actions.	.6886	9.42	5.59
FC3	Provides good interest rates.	<.4000	13.34	6.62
FC4	Helps preserve the environment for future generations.	.8397	13.20	6.25
FC5	Gives personal satisfaction by combining environmental support with purchases.	.8535	13.06	6.35
FC6	Offers a competitive grace period.	.4278	13.20	6.55
FC7	Generates considerable organizational revenue for environmental programs.	.8633	13.46	6.27

Table 5-18

Reliability of FC Measures

<u>Item</u>	<u>Alpha if deleted</u>
FC1	.7938
FC2	.7138
FC3	.7354
FC4	.7622
FC5	.7098
FC6	.6954
FC7	.7542

Table 5-19

Functional Congruity by Group(1,4) by DFC(1,2)

DFC

<u>Group</u>	<u>Lo</u>	<u>Hi</u>	<u>Row Total</u>
ScHi, FcHi	14.47 (31)	14.05 (44)	14.22 (75)
ScHi	12.17 (32)	10.87 (36)	11.48 (68)
FcHi	14.51 (37)	13.80 (39)	14.14 (76)
ScLo, FcLo	11.12 (31)	11.35 (43)	11.25 (74)
Column Total	13.13 (131)	12.57 (162)	12.82 (293)

Table 5-20

**Functional Congruity Evaluation
Means by Experimental Treatments**

Manipulation	FC	GFC	DFC
SC hi, FC hi	14.54	1.90	3.09
SC hi only	11.30	1.70	3.08
FC Hi Only	13.74	1.90	3.11
SC lo, Fc lo	11.36	1.61	2.99
All Groups	13.33	1.83	3.07

Note: Some numbers differ form those reported elsewhere because of cases included in the DESCRIPTIVES procedure and not in the ANOVA procedure.

Table 5-21

Means and Standard Deviations for Behavior Measures

<u>Item</u>		<u>Loading</u>	<u>Mean</u>	<u>Std. Dev.</u>
Beh1	What is the likelihood that you will look for more information on environmental credit cards?	.8711	2.50	1.04
Beh2	What is the likelihood that you will compare the benefits of several environmental credit cards?	.8273	2.67	1.20
Beh3	What is the likelihood you will see the benefit of a credit card that makes a statement about you, like the Sierra Club Card?	.8021	3.73	1.04
Beh4	What is the likelihood that you will recommend that your friends use an environmental credit card like the Sierra Club card?	.8691	2.63	1.18
Beh5	What is the likelihood that you will feel you have made a contribution after using an environmental credit card like the Sierra Club card.	.7732	2.87	1.15
Beh6	What is the likelihood that you will use a credit card like the Sierra Club Card?	.8865	2.50	1.16

Table 5-22

Reliability of Beh Items

<u>Item</u>	<u>Alpha if deleted</u>
BI1	.7616
BI2	.7037
BI3	.7355
BI4	.7580
BI5	.7143
BI6	.7351

Table 5-23

Means and Standard Deviations for Beh2 Measures

<u>Item</u>		<u>Loading</u>	<u>Mean</u>	<u>Std. Dev.</u>
Beh2-1	The Sierra Club card is appealing.	.8852	3.95	1.67
Beh2-2	The Sierra Club card is a good deal.	.8677	3.77	1.71
Beh2-3	I like the Sierra Club card.	.8755	3.85	1.59

Table 5-24

Reliability of Beh2 Items

<u>Item</u>	<u>Alpha if deleted</u>
Beh2-1	.7833
Beh2-2	.8022
Beh2-3	.7917

Table 5-25

Beh by FC(1,2) SC(1,2) DFC(1,2) DSC(1,2)

<u>Main Effects</u>	F	P
FC	65.648	.000
SC	8.261	.004
GFC	16.755	.000
GSC	32.833	.000
<u>2-Way Interactions</u>		
SC X DSC	.583	.446
SC X DFC	7.005	.009
FCUE X SCUE	2.913	.089
GSC X GFC	2.805	.095
<u>3-Way Interactions</u>		
SCUE X DFC X DSC	3.560	.060
FC X SC X DSC	7.667	.006
FC X SC X DFC	.162	.688
<u>4-Way Interactions</u>		
FC X SC X DFC X DSC	10.820	.001
GFC X GSC X DFC X DSC	2.837	.093
SCUE X FCUE X DFC X DSC	1.185	.277

Table 5-26

Beh2 by FC(1,2) SC(1,2) DFC(1,2) DSC(1,2)

<u>Main Effects</u>	<u>F</u>	<u>P</u>
FC	1.535	.217
SC	1.441	.231
GFC	.770	.381
GSC	.075	.784
<u>2-Way Interactions</u>		
DFC X DSC	3.606	.059
FC X SC	2.984	.085
GSC X DSC	6.643	.011
<u>3-Way Interactions</u>		
GSC X GFC X DSC	5.401	.021
<u>4-Way Interactions</u>		
GFC X GSC X DFC X DSC	.640	.424

FIGURES

Situations	Person Variables
Self Monitoring Situations - high in interpersonal cues to social appropriateness	Self-Monitoring Tendencies - to actively attempt to construct a pattern of social behavior appropriate to the context
Self-Consciousness Situations - strong in evaluative cues of personal being	Private Self-Consciousness Tendencies - to direct attention on inner feelings and thoughts, awareness of the self as a social object, and awareness of social anxiety
People-Oriented Situations - informal working conditions, short lines of communication, involvement, freedom	People-Oriented Management Tendencies - empathy, need to be liked, trusting, openness
Self-Congruity Situations - situations which are high in evaluative self-focusing cues	Self-Congruity Consumer Tendencies - to have a high need for self-esteem, social approval, and spontaneity , and sensations

Figure 1-1

A Complementarity of Persons and Situations Implied by the Interactionist Paradigm

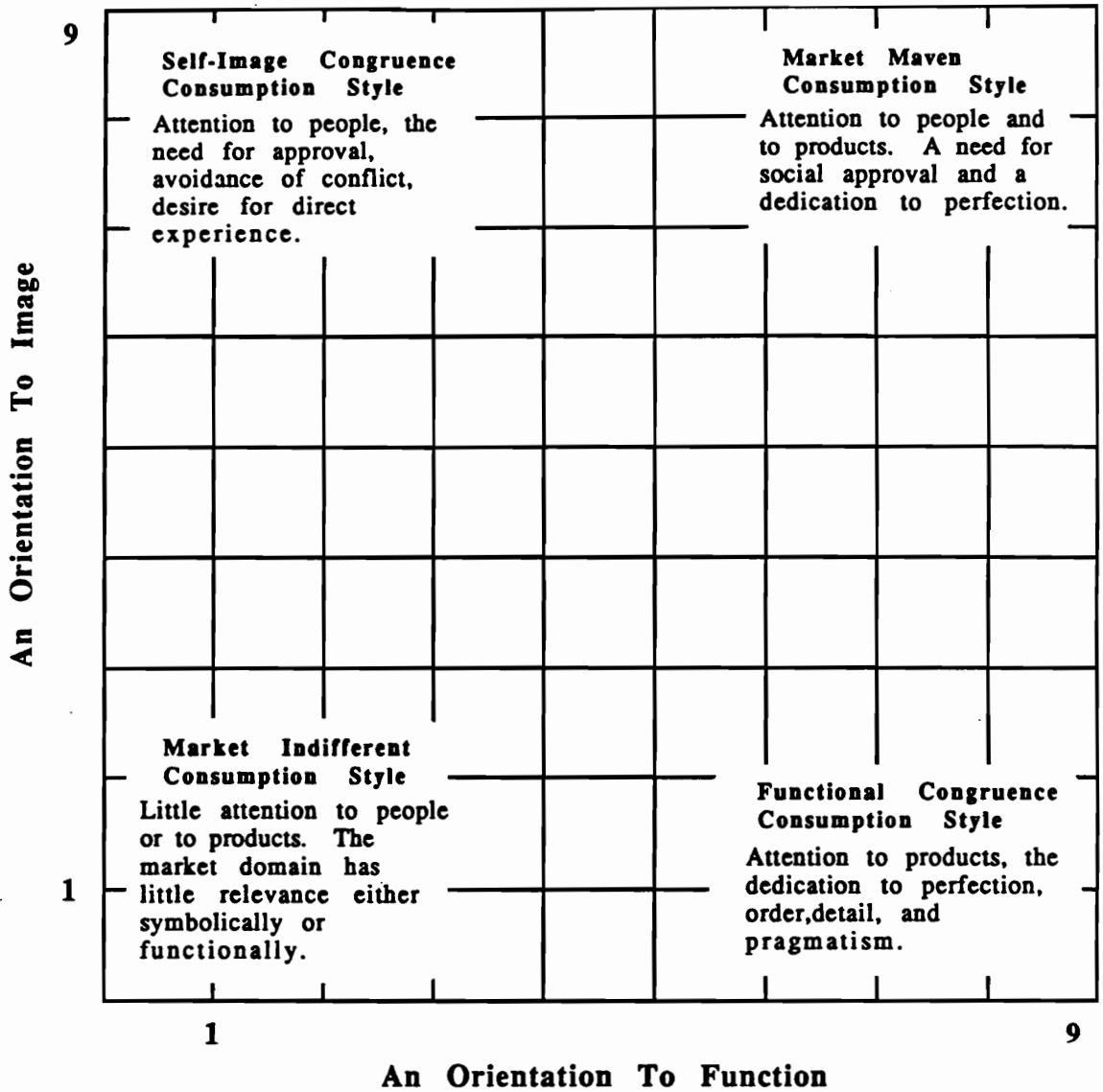


Figure 1-2

Consumer Style Grid

Perceived Self-Image (Product Image)	Actual (or Social) Self-Image	Ideal (or Ideal Social) Self-Image	Self-Congruity Condition	Self-Esteem (or Social Approval) Motivation	Self-Consistency (or Social Consistency) Motivation	Consumer Attitude/ Behavior
Young, sexy, and attractive	Young, sexy, and attractive	Young, sexy, and attractive	Positive Self-Congruity	Approach Motivation	Approach Motivation	Positive Attitude and/or High Probability Purchase
Young, sexy, and attractive	Not young, sexy, and attractive	Young, sexy, and attractive	Positive Self-Incongruity	Approach Motivation	Avoidance Motivation	Moderate Attitude and/or Average Probability Purchase
Young, spoiled, and immature	Young, spoiled, and immature	Not young, not spoiled, and mature	Negative Self-Congruity	Avoidance Motivation	Approach Motivation	Moderate Attitude and/or Average Probability Purchase
Young, spoiled, and immature	Not young, not spoiled, and mature	Not young, not spoiled, and mature	Negative Self-Incongruity	Avoidance Motivation	Avoidance Motivation	Negative Attitude and/or Low Probability Purchase

(After Sirgy 1986)

Figure 2-1
Self-Congruity Theory

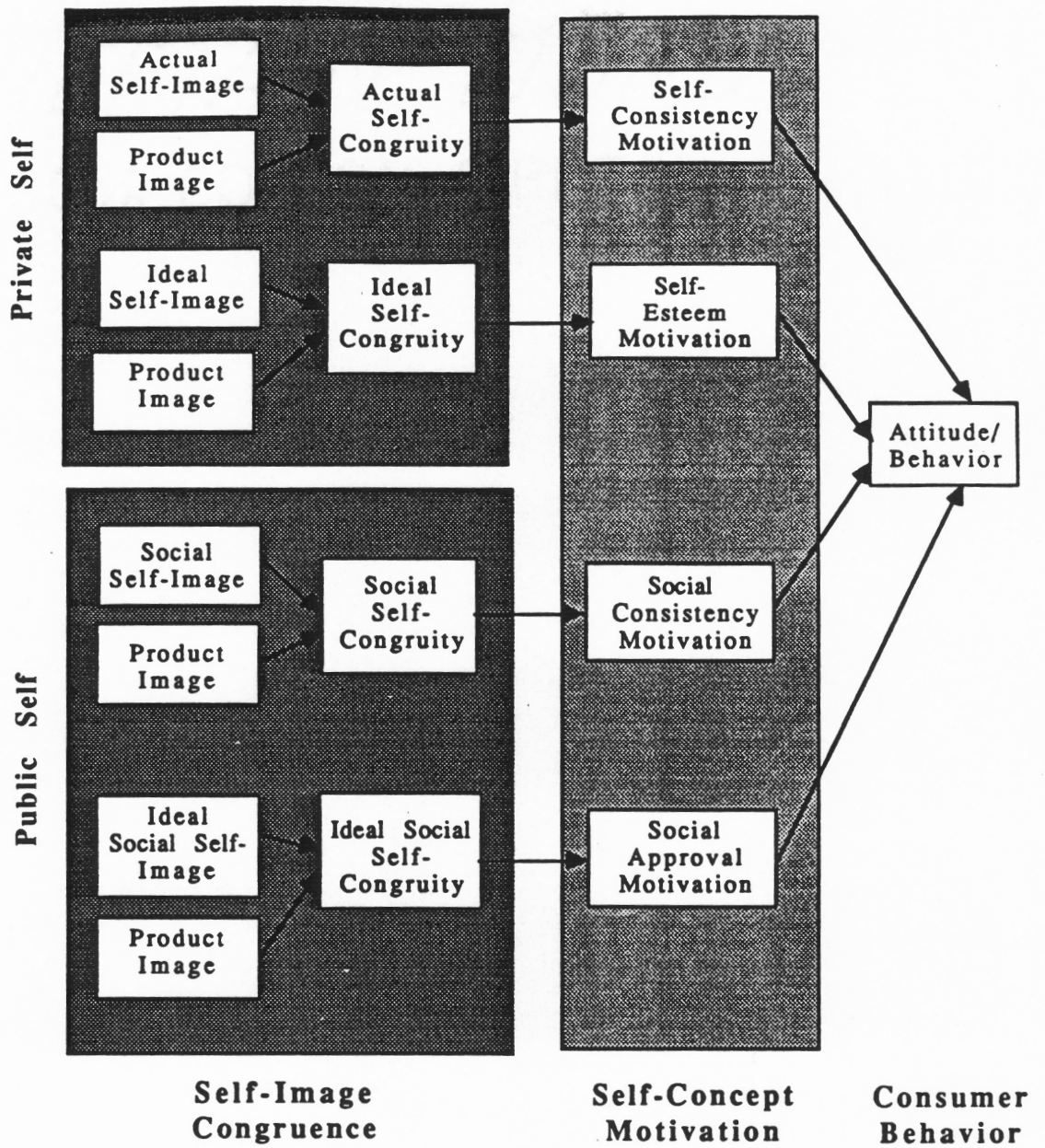


Figure 2-2

Self-Congruence Motivational States

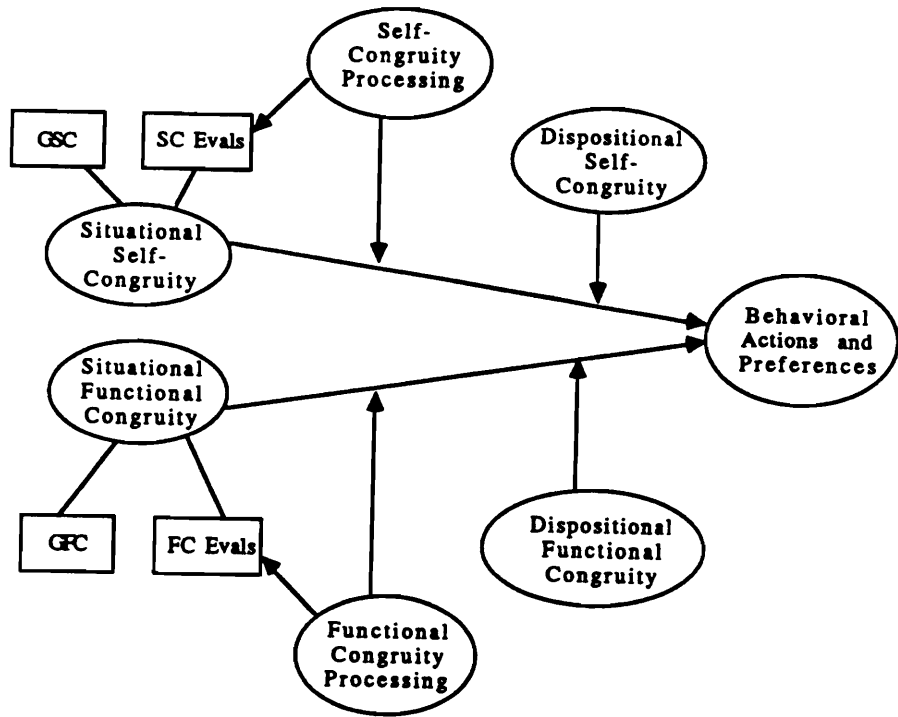


Figure 3-1

Theoretical Model

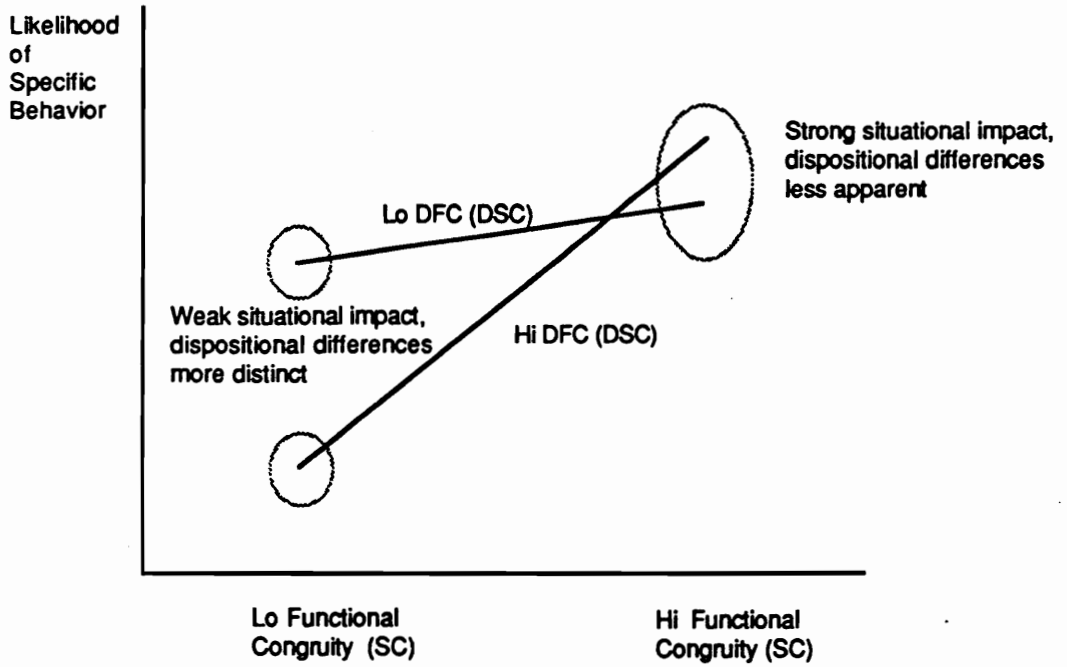


Figure 3-2

**The Functional Congruity (SC) Situation
by Disposition Interaction in Predicting
Specific Behavior**

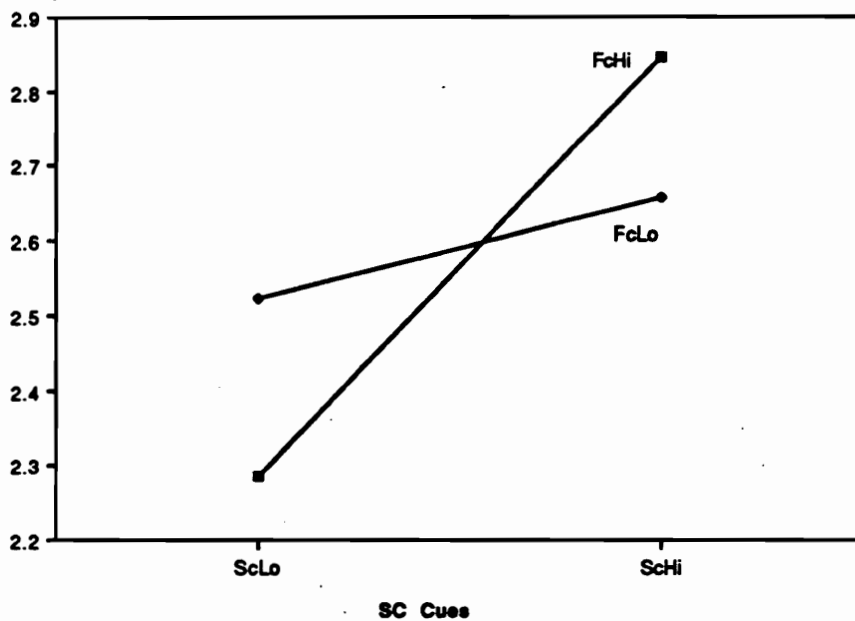
	Manipulation Independent Variable	Manipulation Check Self-Report (SC,FC)	Independent Variable Self-Report (DSC,DFC)	Dependent Variable Self-Report (Behavior)
Group 1	Ad #1, Strong Self-Image Cue	Situational and Functional Congruity Measures	Dispositional Self-Congruity and Functional Congruity Measures	Specific Behavior
Group 2	Ad #2, Strong Self-Image and Functional Cues	Situational and Functional Congruity Measures	Dispositional Self-Congruity and Functional Congruity Measures	Specific Behavior
Group 3	Ad #3, Strong Functional Cue	Situational and Functional Congruity Measures	Dispositional Self-Congruity and Functional Congruity Measures	Specific Behavior
Group 4	Ad #4, Weak Self-image and Functional Cues	Situational and Functional Congruity Measures	Dispositional Self-Congruity and Functional Congruity Measures	Specific Behavior

Figure 4-1

Research Design

	FcHi	FcLo	
ScHi	2.845	2.656	2.750
ScLo	2.286	2.522	2.410
	2.570	2.590	2.580

SC Manipulation Check



SC Main Effect $F=1.42, p=.239, n=58$

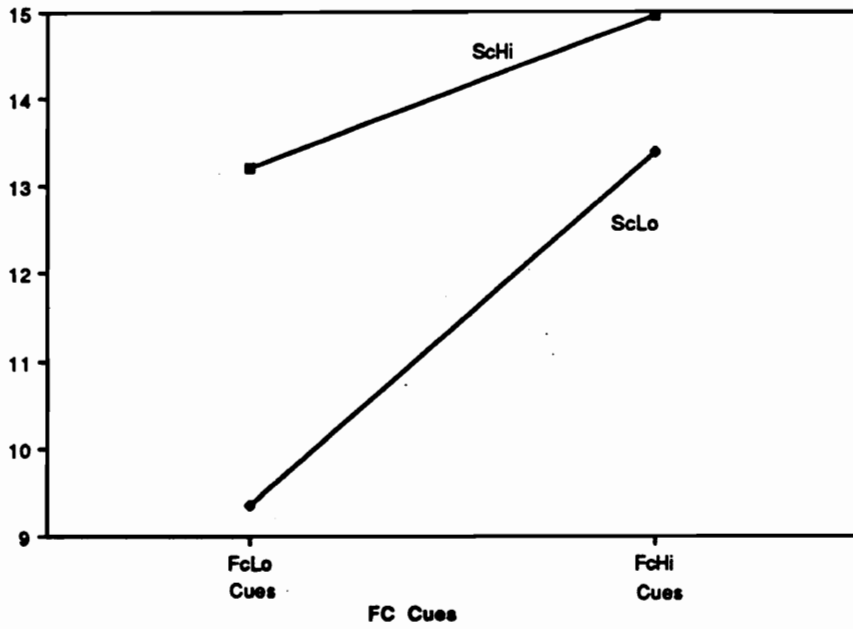
Note: Low SC values = greater congruity

Figure 5-1

Pretest of
Self-Congruity
Manipulations

	FcHi	FcLo	
ScHi	14.957	13.200	13.990
ScLo	13.386	9.365	11.180
	14.170	11.280	12.590

FC Manipulation Check



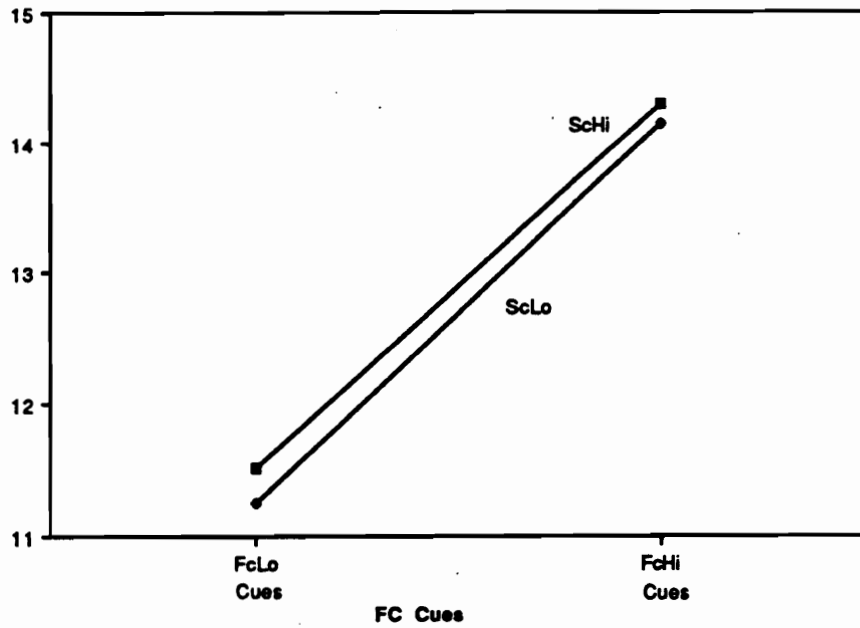
FC Main Effect $F=4.73$, $p=.034$, $n=62$

Figure 5-2

Pretest of
Functional Congruity
Manipulations

	FcHi	FcLo	
ScHi	14.29	11.51	12.97
ScLo	14.14	11.25	12.72
	14.22	11.38	12.84

FC Manipulation Check

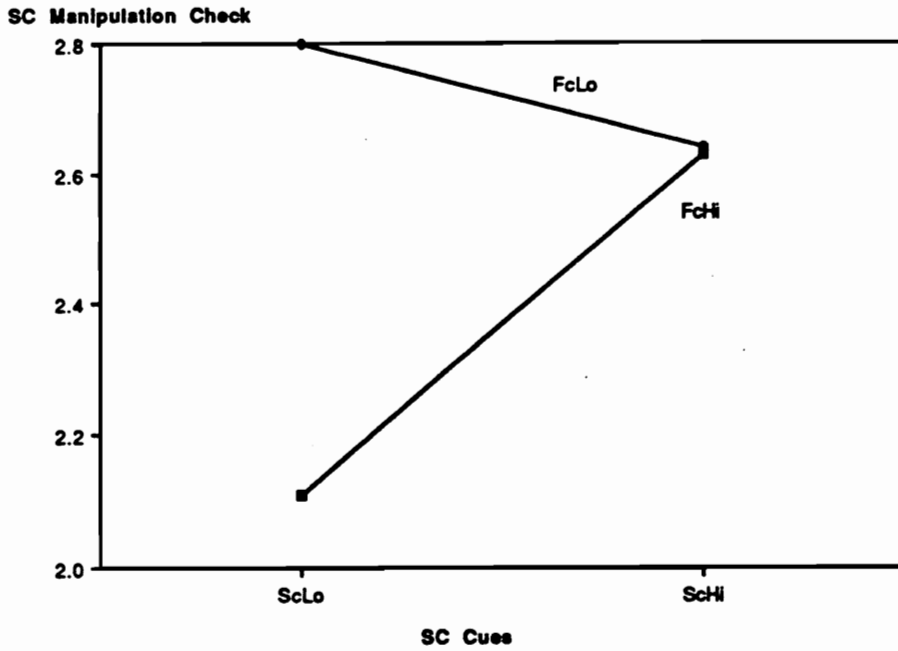


FC Main Effect $F=35.84, p=.000, n=130$

Figure 5-3

Functional Congruity Manipulations

	FcHi	FcLo	
ScHi	2.63	2.64	2.64
ScLo	2.11	2.80	2.46
	2.38	2.73	2.55



SC Main Effect $F=1.35, p=.246, n=130$

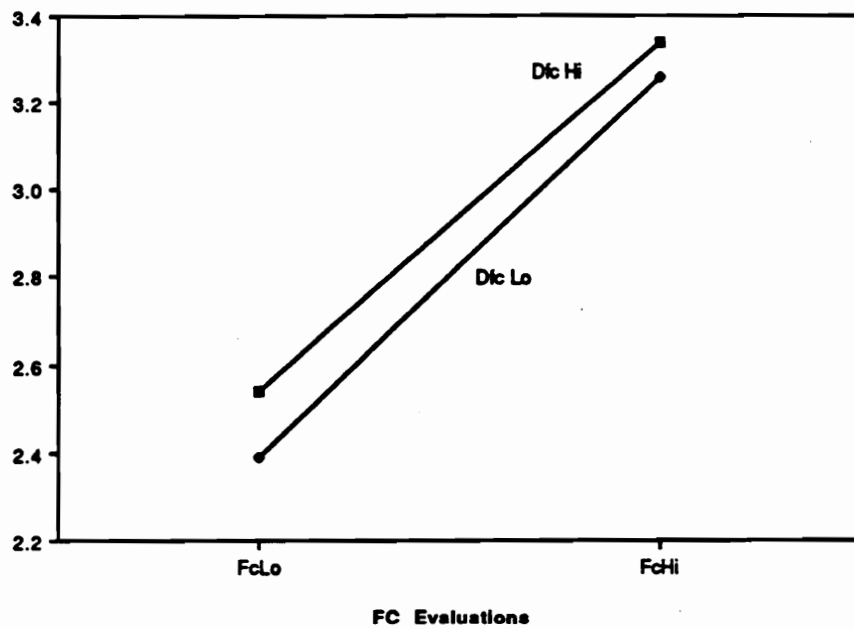
Note: Low SC values=Greater Congruity

Figure 5-4

Self-Congruity Manipulations

	DfcHi	DfcLo	
FcHi	3.34	3.26	3.30
FcLo	2.54	2.39	2.46
	2.89	2.72	2.80

Behavioral Likelihood



FC Main Effect $F=61.09$, $p=.000$

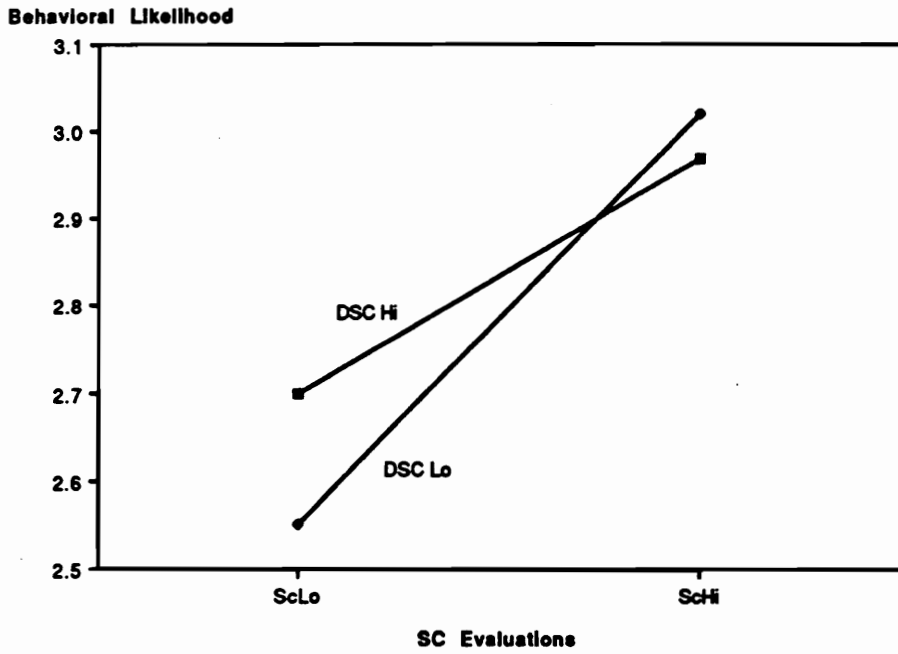
DFC Main Effect $F=1.38$, $p=.240$

FC X DFC Interaction $F=.126$, $p=.723$

Figure 5-5

DFC X FC Interaction

	DscHi	DscLo	
ScHi	2.97	3.02	3.00
ScLo	2.70	2.55	2.63
	2.84	2.83	2.65



SC Main Effect $F=12.05$, $p=.001$

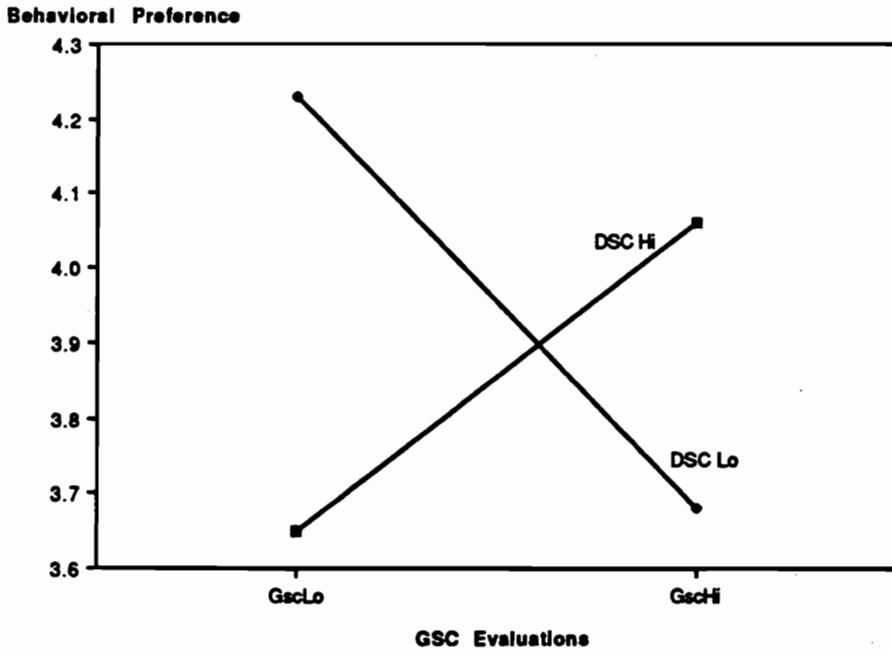
DSC Main Effect $F=.117$, $p=.732$

SC X DSC Interaction $F=.459$, $p=.499$

Figure 5-6

DSC X SC Interaction

	DschHi	DscLo	
GschHi	4.06	3.68	3.88
GschLo	3.65	4.23	3.97
	3.95	3.86	3.90



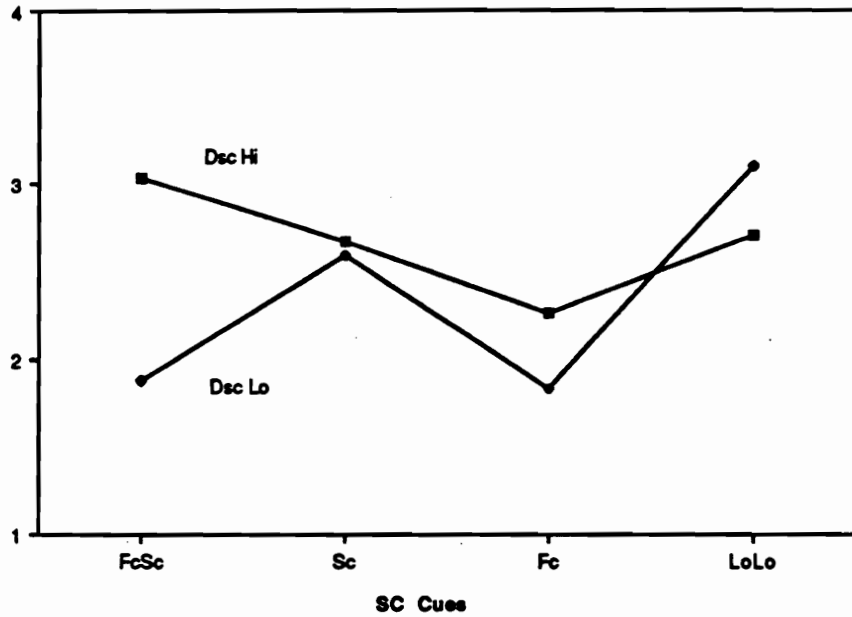
GSC Main Effect $F=.239, p=.625$
DSC Main Effect $F=.329, p=.567$
SC X DSC Interaction $F=5.699, p=.018$

Figure 5-7

DSC X GSC Interaction

	SC, FC	SC Only	FC Only	Lo, Lo
DscHi	3.04	2.67	2.26	2.71
DscLo	1.88	2.59	1.83	3.10

SC Manipulation Check



Note: Low SC values = Greater Congruity

Manipulation Main Effect $F=3.02, p=.030$

DSC Main Effect $F=4.79, p=.030$

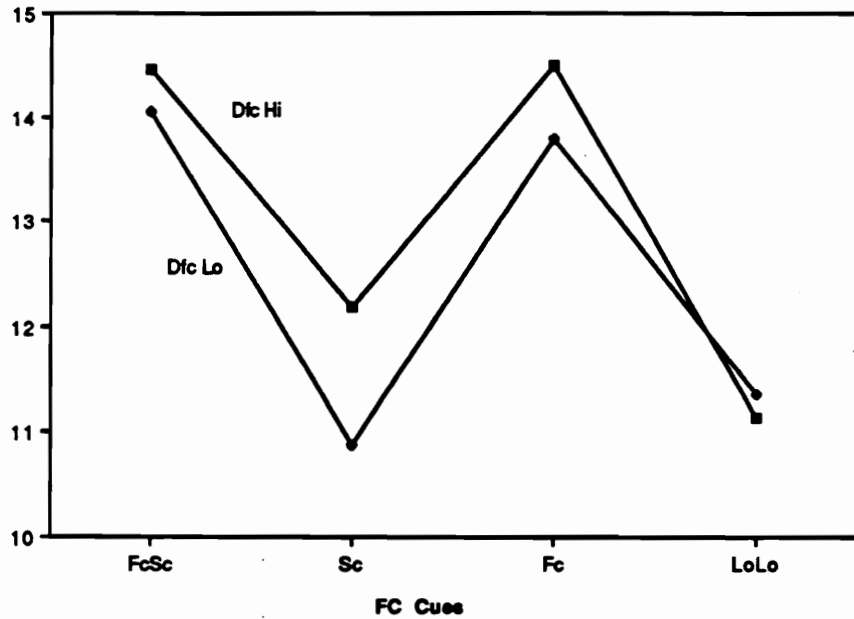
Manipulation by DSC Interaction $F=3.05, p=.016$

Figure 5-8

Self-Congruity Manipulations

	SC, FC	SC Only	FC Only	Lo, Lo
DfcHi	14.47	12.17	14.51	11.12
DfcLo	14.05	10.87	13.80	11.35

FC Manipulation Check

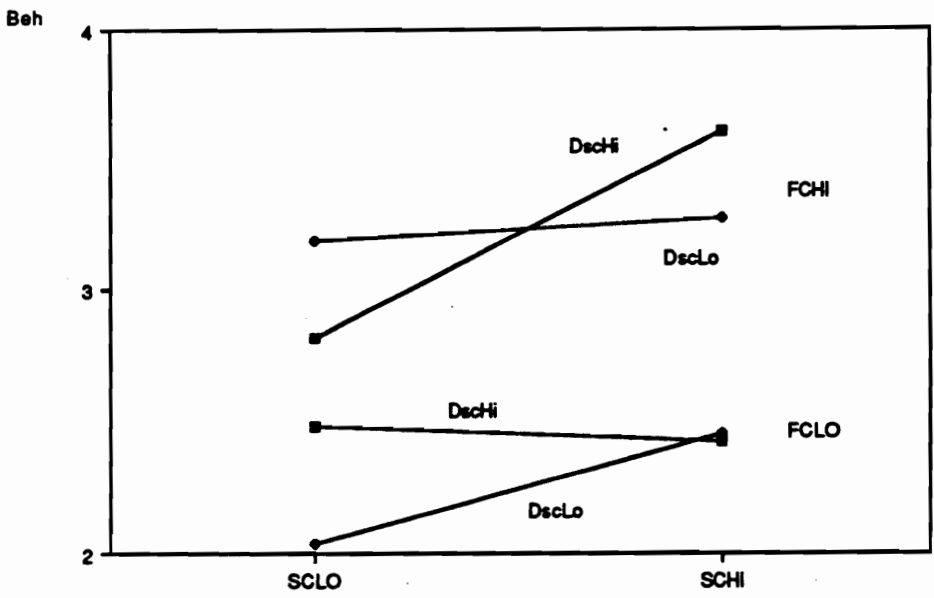


Manipulation Main Effect $F=10.65, p=.000$
 DSC Main Effect $F=1.17, p=.280$
 Manipulation by DSC Interaction $F=.760, p=.391$

Figure 5-9

Functional Congruity
Manipulations

	DscHi	DscLo		DscHi	DscLo
SCHI	3.61	3.28		2.43	2.46
SCLO	2.82	3.19		2.49	2.04
	FCHI			FCLO	



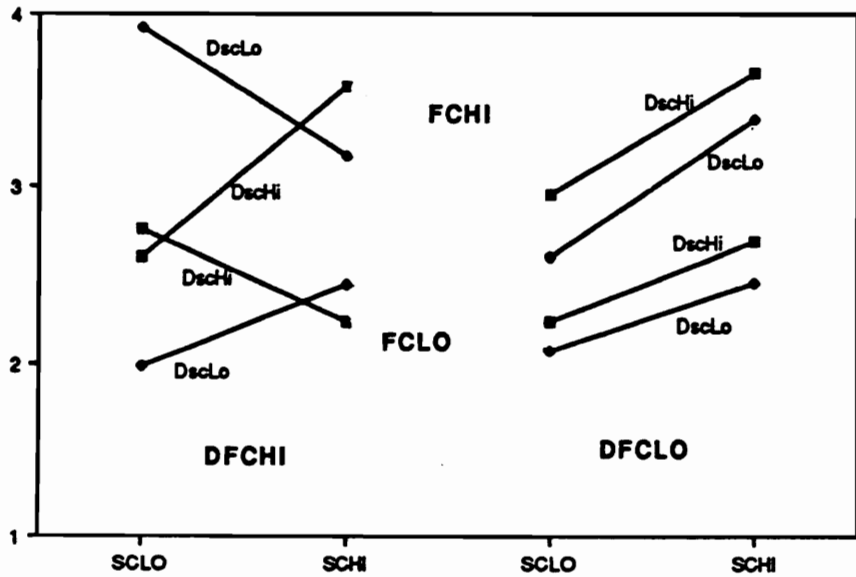
SC X FC X DSC Interaction F=7.667, p=.006

Figure 5-10

Three-Way Interaction
Beh by SC(1,2) FC(1,2) DSC(1,2)

		DscHi	DscLo			DscHi	DscLo		
SCHi		3.58	3.18			2.24	2.45		DFCHi
SCLO		2.61	3.92			2.76	1.99		
		FCHi				FCLO			

		DscHi	DscLo			DscHi	DscLo		
SCHi		3.66	3.39			2.69	2.46		DFCLO
SCLO		2.96	2.61			2.24	2.07		
		FCHi				FCLO			



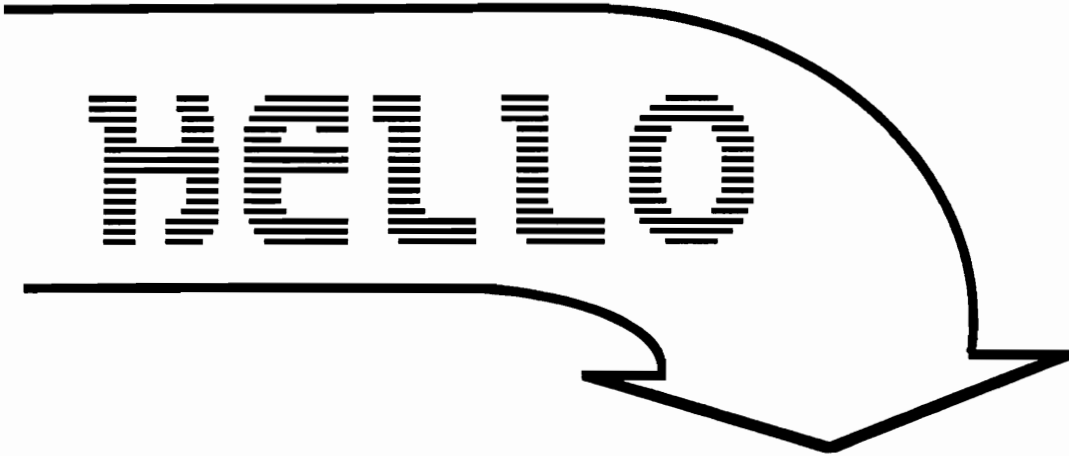
SC X FC X DSC X DFC Interaction $F=10.82, p=.001$

Figure 5-11

Four-Way Interaction
Beh by SC(1,2) FC(1,2) DSC(1,2) DFC(1,2)

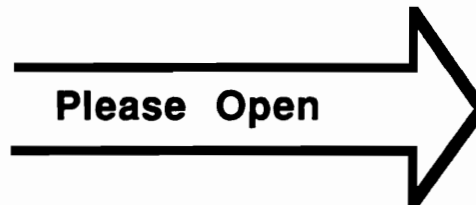
APPENDIX 1

INSTRUMENT



As environmental issues become more critical, different measures are being taken to help. We would like to get your reaction to one such measure described inside.

Please read the instructions in the boxed areas then answer the questions which follow.



The following questions relate to the consistency of your purchasing habits. Please rate each question in terms of the frequency with which you might act, feel, or think in the following ways. Where,

1	2	3	4	5
Almost Never	Seldomly	Sometimes (5 out of 10 times)	Usually	Nearly Always (8 out of 10 times)
(2 out of 10 times)				

For example, if you are almost never an impulsive shopper (less than 2 purchases in ten), you would respond to the question, "Do you feel you are an impulsive shopper?", by marking a "1".

- | | Rating |
|--|--------------------------|
| 1. Are you the kind of person who enjoys making decisions about the merits of alternative brands? | <input type="checkbox"/> |
| 2. Are you the kind of person who, when looking for product information to make a purchase decision, keeps searching until the choice is clear? | <input type="checkbox"/> |
| 3. Are you the kind of person who worries over the details of a purchase more than the average person? | <input type="checkbox"/> |
| 4. Are you the kind of person who finds <u>Consumer Reports</u> magazine a valuable source of information to consult before making a significant purchase? | <input type="checkbox"/> |
| 5. Are you the kind of person who sorts information about products better than most people? | <input type="checkbox"/> |
| 6. Are you the kind of person who is meticulous and careful in shopping? | <input type="checkbox"/> |
| 7. Are you the kind of person who when shopping for a product, lists the criteria the product should possess? | <input type="checkbox"/> |
| 8. Are you the kind of person who is cautious about product purchases? | <input type="checkbox"/> |
| 9. Are you the kind of person who gets easily upset when a new purchase doesn't work as it should? | <input type="checkbox"/> |
| 10. Are you the kind of person who does his/her homework before making a big purchase? | <input type="checkbox"/> |

<p>1 Almost Never (2 out of 10 times)</p>	<p>2 Seldomly</p>	<p>3 Sometimes (5 out of 10 times)</p>	<p>4 Usually</p>	<p>5 Nearly Always (8 out of 10 times)</p>
---	-----------------------	--	----------------------	--

Rating

- | | |
|--|--------------------------|
| <p>11. Are you the kind of person who loses sleep over big purchases?</p> | <input type="checkbox"/> |
| <p>12. Are you the kind of person who investigates a provider's qualifications thoroughly before selecting a service?</p> | <input type="checkbox"/> |
| <p>13. Are you the kind of person who feels that his/her friends get better deals?</p> | <input type="checkbox"/> |
| <p>14. Are you the kind of person who finds himself/herself pointing out mistakes friends make when they purchase "lemons"?</p> | <input type="checkbox"/> |
| <p>15. Are you the kind of person who other people think of as a perfectionist when it comes to shopping?</p> | <input type="checkbox"/> |
| <p>16. Are you the kind of person who thinks that quality and price are the most important considerations in purchase decisions?</p> | <input type="checkbox"/> |
| <p>17. Are you the kind of person who carefully reads product warranties and keeps them well-organized and filed?</p> | <input type="checkbox"/> |
| <p>18. Are you the kind of person who works hard at finding bargains?</p> | <input type="checkbox"/> |
| <p>19. Are you the kind of person who likes to make sure important purchases are planned in advance?</p> | <input type="checkbox"/> |

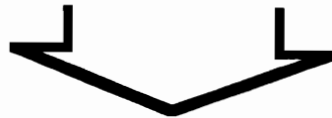
1 Almost Never (2 out of 10 times)	2 Seldomly	3 Sometimes (5 out of 10 times)	4 Usually	5 Nearly Always (8 out of 10 times)
---	---------------	---------------------------------------	--------------	--

Rating

- 20. Are you the kind of person who feels that a product has to match his/her ideal self-image before he/she seriously considers buying it?
- 21. Are you the kind of person who takes special pride in his/her possessions?
- 22. Are you the kind of person who feels that an important criterion in buying any kind of product is whether it helps you the person you would like to be?
- 23. Are you the kind of person who buys products which are associated with people you admire?
- 24. Are you the kind of person who feels that "you are what you buy"?
- 25. Are you the kind of person whose personal identity is reflected through the things he/she buys?
- 26. Are you the kind of person who makes sure to buy products that fit his/her lifestyle?
- 27. Are you the kind of person who tries to maintain a consistency in his/her identity?
- 28. Are you the kind of person who buys things that are "popular"?
- 29. Are you the kind of person who likes to please his/her friends?
- 30. Are you the kind of person who is very self-conscious when shopping with friends?
- 31. Are you the kind of person who thinks about how others will react to the products you buy?

1 Almost Never (2 out of 10 times)	2 Seldomly	3 Sometimes (5 out of 10 times)	4 Usually	5 Nearly Always (8 out of 10 times)
---	---------------	---------------------------------------	--------------	--

- | | Rating |
|---|--------------------------|
| 32. Are you the kind of person who would return a product because a friend didn't like it? | <input type="checkbox"/> |
| 33. Are you the kind of person who likes to shop with the help of friends? | <input type="checkbox"/> |
| 34. Are you the kind of person who would feel uncomfortable buying a product that is inconsistent with how others see you? | <input type="checkbox"/> |
| 35. Are you the kind of person who goes out of his/her way to buy things that reinforce how others see you? | <input type="checkbox"/> |
| 36. Are you the kind of person who has possessions which are consistent with your social identity? | <input type="checkbox"/> |
| 37. Are you the kind of person who places emphasis on whether a given product is consistent with others perceptions of you? | <input type="checkbox"/> |



On the following page you will see an ad for an environmental credit card. Please read the complete ad, then answer the questions that follow.

Protect the Environment

Our vanishing wetlands.
Endangered old growth forests.
Our 4 billion-year-old planet.
Sign up for the Sierra Club
credit card today.

Please go on to the next page

As more people are becoming aware of the delicate state of our environment, they are affiliating with organizations to help protect aspects of the natural world. Some organizations have adopted the use of specialized credit cards as a symbol of group membership.

We are interested in how you see users of the Sierra Club credit card in reference to your own environmentalism. Your self-image ratings will be used as an indication of your tendency for ecological advocacy. Would you please rate how you see yourself relative to each of the environmental issues below. . . .

1. Please circle the number which corresponds with how you think the typical user of a Sierra Club credit card would see the issue. Mark a "T" for typical over this number.

2. Next, please circle the number which corresponds with the type of environmentalist you are, that is how you see yourself on these issues. Mark a "S" for self over the number corresponding to your self-image.

For example, if you see the typical Sierra Club credit card user as the kind of person who acknowledges the severity of the environmental situation, whereas, you see yourself as more reluctant to accept that the environmental situation is currently as bad as some people say, your ratings might look like:

	Strongly Disagree	1 2 3 4 5 6 7 8	9	Strongly Agree
I am a person who sees environmental problems as severe.				

T=typical

S=self

**Strongly
Disagree**

**Strongly
Agree**

38. I am (they are) the kind of person who considers a broad spectrum of issues (both local and national) which influence the environment, even though those issues do not affect me directly. 1 2 3 4 5 6 7 8 9
39. I am (they are) the kind of person who must be in touch with nature. Even in my daily life I'm aware of the plant and animal life around me. 1 2 3 4 5 6 7 8 9
40. I am (they are) the kind of person who sees all life as connected. Each species has a place in the harmony of creation and needs to be protected. 1 2 3 4 5 6 7 8 9

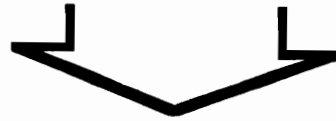
T=typical

S=self

**Strongly
Disagree**

**Strongly
Agree**

41. I am (they are) the kind of person who is more interested in the long term impact of our environmental choices. 1 2 3 4 5 6 7 8 9
42. I am (they are) the kind of person who sees all life as sacred. All creatures have life, rights, and suffering of their own. 1 2 3 4 5 6 7 8 9
43. I am (they are) the kind of person who thinks our natural resources are finite, non-renewable and dwindling, therefore we must conserve them at all costs. 1 2 3 4 5 6 7 8 9



Once more we would like to ask you to compare yourself to the typical user of the Sierra Club credit card. This time in a more direct manner. . . .

44. Please circle the letter of the alternative below that best expresses how similar you see your self-image as an ecological advocate to the image of the typical user of a credit card like the Sierra Club credit card.

Very
Similar
1

2

3

4

Very
Dissimilar
5

Please go on to the next page

Please evaluate the Sierra Club credit card in terms of how you believe its use will impact the benefits listed below. Please circle the number which corresponds to how likely it is that the Sierra Club credit card will contribute to the following outcomes. . .

- | | <u>Not Likely</u> | | | <u>Very Likely</u> | |
|--|-------------------|---|---|--------------------|---|
| | 1 | 2 | 3 | 4 | 5 |
| 45. Provides an easy way to contribute to a cause in which you believe. | | | | | |
| 46. Eases my guilt about a lack of direct conservation actions. | 1 | 2 | 3 | 4 | 5 |
| 47. Provides good interest rates. | 1 | 2 | 3 | 4 | 5 |
| 48. Helps preserve the environment for future generations. | 1 | 2 | 3 | 4 | 5 |
| 49. Gives personal satisfaction by combining environmental support with purchases. | 1 | 2 | 3 | 4 | 5 |
| 50. Offers a competitive grace period. | 1 | 2 | 3 | 4 | 5 |
| 51. Generates considerable organizational revenue for environmental programs. | 1 | 2 | 3 | 4 | 5 |

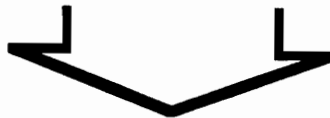
Your ideal credit card may or may not be like the Sierra Club card. Please evaluate your ideal credit card in terms of how important you believe the benefits listed below are. Please circle the number which corresponds to how important it is that your ideal credit card will contribute to the following outcomes. . .

- | | <u>Not Important</u> | | | <u>Very Important</u> | |
|---|----------------------|---|---|-----------------------|---|
| | 1 | 2 | 3 | 4 | 5 |
| 52. Provides an easy way to contribute to a cause in which you believe. | | | | | |
| 53. Eases my guilt about a lack of direct conservation actions. | 1 | 2 | 3 | 4 | 5 |
| 54. Provides good interest rates. | 1 | 2 | 3 | 4 | 5 |

	<u>Not</u> <u>Important</u>			<u>Very</u> <u>Important</u>	
55. Helps preserve the environment for future generations.	1	2	3	4	5
56. Gives personal satisfaction by combining environmental support with purchases.	1	2	3	4	5
57. Offers a competitive grace period.	1	2	3	4	5
58. Generates considerable organizational revenue for environmental programs.	1	2	3	4	5

Once more we would like to ask you to compare the benefits of using the Sierra Club credit card with your ideal card. This time in a more direct manner. . . .

59. Please circle the letter of the alternative below that best expresses how you see the benefits of the Sierra Club credit card as compared to your ideal card.
- a. I see the Sierra Club credit card as very different from my ideal credit card.
 - b. I see the Sierra Club credit card as somewhat similar to my ideal credit card.
 - c. I see the Sierra Club credit card as very similar to my ideal credit card..



The following questions relate to general ecological behaviors which you would consider adopting and to specific behaviors toward environmental credit cards.

Please rate how likely each of the following behaviors is for you by circling the number that applies.

- | | <u>Unlikely</u> | | | | <u>Likely</u> | |
|---|-----------------|---|---|---|---------------|--|
| | 1 | 2 | 3 | 4 | 5 | |
| 60. What is the likelihood that you will reduce your automobile travel and adopt alternative transportation? | | | | | | |
| 61. What is the likelihood that you will look for more information on environmental credit cards? | | | | | | |
| 62. What is the likelihood that you will look for and use recycled paper products for your paper needs? | | | | | | |
| 63. What is the likelihood that you will compare the benefits of several environmental credit cards? | | | | | | |
| 64. What is the likelihood you will see the benefit of a credit card that makes a statement about you, like the Sierra Club Card? | | | | | | |
| 65. What is the likelihood that you will drive at a steady pace and conserve fuel? | | | | | | |
| 66. What is the likelihood that you will reduce your use of aerosol sprays containing CFCs? | | | | | | |
| 67. What is the likelihood that you will buy foods in season which are produced locally? | | | | | | |

- | | <u>Unlikely</u> | | | | <u>Likely</u> |
|--|-----------------|---|---|---|---------------|
| | 1 | 2 | 3 | 4 | 5 |
| 68. What is the likelihood that you will recommend that your friends use an environmental credit card like the Sierra Club card? | | | | | |
| 69. What is the likelihood that you will purchase recyclable or biodegradable brands of the products you now use? | | | | | |
| 70. What is the likelihood that you will feel you have made a contribution after using an environmental credit card like the Sierra Club card. | | | | | |
| 71. What is the likelihood that you will use a credit card like the Sierra Club Card? | | | | | |

Please circle the choice that applies.

The Sierral Club card is:

- | | | | | | | | | |
|--|----|----|----|---|---|---|---|--|
| 72. Very appealing | -3 | -2 | -1 | 0 | 1 | 2 | 3 | Very unappealing |
| 73. A good deal | -3 | -2 | -1 | 0 | 1 | 2 | 3 | A bad deal |
| 74. I like the Sierra Club card | -3 | -2 | -1 | 0 | 1 | 2 | 3 | I dislike the Sierra Club card |
| 75. I would never get a Sierra Club card | -3 | -2 | -1 | 0 | 1 | 2 | 3 | I would certainly get a Sierra Club card |

Our Statistical Summaries

76. I am:
 a. Male b. Female
77. My age is:
 a. 17 or 18 b. 19 or 20 c. 21 or 22 d. 23 or 24 e. Over 24

Comments?



Thank you!

APPENDIX 2
Experimental Treatments

Low Self-Congruity, High Functional Congruity Treatment

Features of Popular Environmental Cause Cards

Organization	Interest rate	Grace period	Annual fee	Organization revenue	Revenue from cards	Allocation (see Note 1)
Defenders of Wildlife	17.9%	25 days	\$25	\$4,345,902	\$36,612	Adm. 13% Mem. 10% Prog. 64%
Sierra Club	13.75%	31 days	none	\$50,000,000	\$1,153,542	Adm. 4% Mem. 10% Prog. 86%
Land and Water Fund	15%	25 days	\$20	\$450,000	\$12,538	Adm. 25% Mem. 1% Prog. 74%
National Wildlife Federation	17.9%	25 days	\$20	\$90,000,000	\$2,808,624	Adm. 11% Mem. 21% Prog. 68%
Greenpeace Action	18%	25 days	\$15	\$40,659,100	\$326,586	Adm. 6% Mem. 20% Prog. 74%
The Wilderness Society	17.9%	25 days	\$25	\$10,932,448	\$200,616	Adm. 10% Mem. 18% Prog. 72%
Adapted from Consumer Reports (Mar. 1988)						

Note 1

Revenues are allocated to administration, membership, and programs. Better cards use more of the available revenue for programs.

FOR ONE DOLLAR, THIS WOMAN WILL DODGE HARPOONS, DEFY MEN WITH CLUBS, AND DIVE INTO TOXIC WASTE.

Her name's Kate Karam.
And she doesn't do these things for money.

Yet she doesn't do them for nothing.

So far, Kate and hundreds of activists like her have been able to stop the slaughter of seals in Canada. Spare the whales from extinction. And obtain criminal indictments against some of the world's worst polluters.

And these are just a few of the job's benefits.

For fifteen years now, Sierra Club activists have put their life and health on the line, for the life and health of the planet.

And even though we don't do this for money, it would be extremely hard for us to accomplish anything without it.

That's why we ask for your support.



Get and use the Sierra Club credit card, and a portion of every dollar you spend will help these ordinary people continue their extraordinary work.



High Self-Congruity, High Functional Congruity Treatment

**FOR ONE DOLLAR, THIS WOMAN
WILL DODGE HARPOONS,
DEFY MEN WITH CLUBS,
AND DIVE INTO TOXIC WASTE.**

Her name's Kate Karam.
And she doesn't do these things
for money.

Yet she doesn't do them for
nothing.

So far, Kate and hundreds of
activists like her have been able
to stop the slaughter of seals in
Canada. Spare the whales from
extinction. And obtain criminal
indictments against some of the
world's worst polluters.

And these are just a few of
the job's benefits.

For fifteen years now, Sierra
Club activists have put their life
and health on the line, for the
life and health of the planet.

And even though we don't do
this for money, it would be
extremely hard for us to
accomplish anything without it.

That's why we ask for your
support.



Get and use the Sierra Club
credit card, and a portion of
every dollar you spend will help
these ordinary people continue
their extraordinary work.



Features of Popular
Environmental Cause Cards

Organization	Interest rate	Grace period	Annual fee	Organization revenue	Revenue from cards	Allocation (see Note 1)
Defenders of Wildlife	17.9%	25 days	\$25	\$4,345,902	\$36,612	Adm. 13% Mem. 10% Prog. 64%
Sierra Club	13.75%	31 days	none	\$50,000,000	\$1,153,542	Adm. 4% Mem. 10% Prog. 86%
Land and Water Fund	15%	25 days	\$20	\$450,000	\$12,538	Adm. 25% Mcm. 1% Prog. 74%
National Wildlife Federation	17.9%	25 days	\$20	\$90,000,000	\$2,808,624	Adm. 11% Mem. 21% Prog. 68%
Greenpeace Action	18%	25 days	\$15	\$40,659,100	\$326,586	Adm. 6% Mem. 20% Prog. 74%
The Wilderness Society	17.9%	25 days	\$25	\$10,932,448	\$200,616	Adm. 10% Mem. 18% Prog. 72%

Adapted from Consumer Reports (Mar. 1988)

Note 1

Revenues are allocated to administration, membership, and programs. Better cards use more of the available revenue for programs.

Low Self-Congruity, Low Functional Congruity Treatment

Protect the Environment

Our vanishing wetlands. Endangered old growth forests. Our 4 billion-year-old planet. Sign up for the Sierra Club credit card today.

VITA

C. B. Claiborne was born in Danville, Virginia. He graduated from Duke University with a Bachelor's degree in Mechanical Engineering. He holds a M.B.A. from Washington University and a Master of Engineering degree from Dartmouth College. He has worked in Product Development for Ford Motor Co. and in the Design and Development Group of Booz, Allen, and Hamilton. Prior to joining the Ph.D program he taught for eight years at North Carolina A & T State University. He is currently on the faculty of James Madison University.

A handwritten signature in black ink that reads "C. B. Claiborne". The signature is written in a cursive style with a large, looping initial "C" and a distinct "B".