

MOVING TOWARD ACTION: HOW CONSUMERS THINK ABOUT A NEW BEHAVIOR

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Marketers are often interested in describing “where” an individual is in the process of changing behavior. Although research has investigated the process of changing problem behaviors, attention should also be directed at understanding the process of change for discretionary, more routine, non-problem behaviors. In this research, a model of Stages of Engaging in a Behavior is conceptualized and operationalized. Hypotheses are proposed which link self-concept congruity, information search behavior, interactive search behavior, and consumer knowledge to these stages. These hypotheses are tested in the context of engaging in aerobic activity.

INTRODUCTION

Which families are going to take their first camping trip together this summer? Which people are going to start playing tennis this fall? Much of marketing research is concerned with identifying which consumers are most likely to act (e.g., join a fitness program, buy a new car, donate to a charity, etc.). Although, at any given time, many of us may be “thinking about” going camping or joining a health club, for instance, which consumers are “closer” to taking that first action and engaging in a new behavior? What does “thinking about taking action” really mean? Marketers are often interested in encouraging consumers to “move” closer to taking action. We suggest that consumers who are in the cognitive process of “thinking about” engaging in a new behavior are “on their way” to engaging in a new behavior and that this cognitive process can be conceptualized as a series of stages. The present research addresses the question, “How can researchers describe consumers who are ‘on the way’ to performing a new behavior?” This paper proposes a model of Stages of Engaging in a Behavior (SEB), as well as hypotheses linking these stages to three variables (self-concept congruity, consumer knowledge, and information search behaviors).

TRANSTHEORETICAL MODELS OF CHANGE

Marketers have posited frameworks for stages of decision making in advance of a purchase (Vakratsas and Ambler 1999). Many of these approaches assume that the process is instigated by advertisers and that a specified, single choice is a typical action outcome. In many social marketing situations, “many of the behaviors that social marketers are trying to influence comprise benefits that the *consumer* generates with virtually no involvement of the marketer” (Andreassen 1993, p. 2). Marketers’ goals, in these cases, are often to move a person to another stage in a process of changing a highly involving behavior.

Prochaska and DiClemente (1982, 1983) found that individuals pass through different stages when thinking about undertaking a behavioral change. These researchers view change as occurring in a series of stages and have developed a particularly useful and relevant multi-stage model of change. Initially, Prochaska and DiClemente’s (1982) change model included the following four stages: 1) contemplation (i.e., thinking about changing), 2) determination (i.e., becoming determined to change), 3) action (i.e., actively modifying habits/environment), and 4) maintenance (i.e., maintaining the new behavior or habit). This change model has been applied in a variety of contexts, but has been most often applied in the context of changing addictive behaviors (Prochaska and DiClemente 1983). Other researchers have focused on describing the process of change in other contexts including detail-

ing the process of change that occurs when one gets divorced (Wang and Amato 2000), decides to move (Sell and DeJong 1983) or seeks health services (Rosenstock 1986). McConaughy, Prochaska and Velicer (1983) revised the initial four stage model by adding a new stage, pre-contemplation, a precursor to contemplation, and by dropping stage three, decision-making and determination.

More recently, Prochaska, DiClemente and Norcross (1992) have re-analyzed some of their past data which investigated addictive or problem behaviors and have settled on a five stage model of change (i.e., pre-contemplation, contemplation, preparation, action, and maintenance). This model is commonly referred to as the Transtheoretical Model of Change (TTM). Primarily, TTM has been applied in the context of understanding how to tailor treatment programs to assist people with mental disorders or problem behaviors (Norcross and Prochaska 2002). Researchers have adopted TTM when trying to gain insights into understanding the change process for a wider range of various behaviors including how to develop more effective continuing medical education programs for physicians (Parker and Parikh 2001), to assess a university's readiness for an integrated service delivery program (Levesque, Prochaska and Prochaska 1999), and to model medicare beneficiaries' readiness to make informed health plan choices (Levesque et al. 2001). These studies apply the stages of change model in the context of non-addictive, non-problem behaviors. Whereas Prochaska and DiClemente initially focused on an individual's current negative behavior and the process by which one, in a sense, drops the behavior and takes on other more positive actions, their stage model more recently has been applied in the context of an individual taking on a non-negative behavior.

Prochaska and DiClemente's approach has been very useful in understanding the process of change for problem behaviors and gives us insight into developing a model to describe the cognitive stages of change in the area of more routine, non-problem behaviors of interest to

marketers. The TTM was originally developed in the context of changing behaviors which (1) address a problem/situation in an individual's life (e.g., excessive drinking, recovery from severe head trauma, etc.), (2) often involve situations in which the individual's first step must be to stop denying a serious problem, (3) are unquestionably viewed by society as negative behaviors or problem situations that should be addressed by the individual, and (4) need obvious corrective action (and this action will benefit the individual). On one hand, marketers, too, are often interested in influencing consumers to "move away from" their current behavior or pattern of behaviors, even though these behaviors are not addictive or problematic. Yet, on the other hand, marketers are more interested in getting consumers to change what they've been doing and to try, and possibly adopt, some new behavior in their life (e.g., try a new restaurant, start taking a yoga class, etc.). These types of behaviors are not problematic, are not addictive, often involve less dramatic actions on the part of the consumer, and are more common than problem/addictive behaviors. Given Prochaska and DiClemente's stages of change model as a useful and insightful base, what modifications should be made in order to propose a model of engaging in a new behavior for more routine, everyday behaviors of interest to marketers?

BEHAVIORAL CHANGE

The present study proposes a model that covers a broad range of discretionary (i.e., non-addictive, non-problem) behaviors. Whereas some behaviors are non-discretionary for consumers (e.g., going to work each day, food shopping this weekend, etc.), the consumer has a choice in performing many other behaviors, the discretionary behaviors. For instance, individuals are faced with some degree of leisure time and must make decisions how to spend this time. Leisure has received much attention from researchers who have investigated the meaning of leisure (Tinsley and Johnson 1984), the psychological and physical benefits of leisure (Wankel and Berger 1990), the leisure-coping relationship (Kleiber, Hutchinson and Williams 2002), and the link between

life satisfaction and leisure participation (Sneegas 1986). In this study, we will examine the SEB in the context of engaging in aerobic activity as a specific type of leisure.

CONCEPTUALIZATION OF STAGES OF ENGAGING IN A BEHAVIOR

This paper adopts Prochaska, DiClemente and Norcross' (1992) view that change occurs over a series of stages. Their TTM is a useful starting point in developing the stages of change that are relevant in a non-addictive, non-problem behavioral context. Petrocelli (2002) describes the contemplation stage as one in which the individual "lacks a decisive action or commitment to take actions to change." He specifically points out that individuals changing behavior do actually engage in some "necessary actions for change (prerequisites for the potential desired outcome)" yet distinguishes these actions from the desired outcome. He describes individuals in the preparation stage as those who are "taking small behavioral and mental actions necessary for change." Therefore, when we adapt the TTM for our set of behaviors, we may want stages to include both the cognitive commitment and mental actions along with some small behavioral actions that are necessary for change.

For our purposes, we would like to model the stages of change a consumer moves through up to engaging in a behavior, the action stage. Therefore, how should we modify the precontemplation, contemplation, and preparation stages to be useful in describing the stages a consumer moves through in the context of more routine/non-problematic behaviors? We suggest that these three stages reflect cognitive activity and may include a behavioral component, reflecting preparation, as well. In the context of problem behaviors, in the preparation stage, an individual trying to quit drinking alcohol may try to get together with his non-drinking buddies or may pursue a hobby of interest to him. In our context, we will include some actions reflecting a consumer's preparation to engage in the behavior.

Prochaska, DiClemente and Norcross' model includes the pre-contemplation, contemplation

and preparation stages. In the context of non-problem, non-addictive behaviors, there is no "problem" that must be recognized by an individual and a commitment to change does not need to occur in the first stage. Thus, the first stage of our model should simply capture the idea that minimal cognitive activity has occurred. In our model, the first stage is initially conceptualized as "have given little thought to doing."

In the context of non-problem behaviors, the contemplation stage encompasses two stages reflecting different degrees of "seriously considering taking action": 1) considering doing a behavior and 2) being willing to do a behavior. In the former stage, an individual may mull over what is involved in performing the behavior and may think about the behavior itself. In the latter stage, an individual, in a sense, views himself as a potential participant in the behavior. "Being willing to do a behavior" connotes having an inclination to take action. In our conceptualization of Stages of Engaging in a Behavior, we initially conceptualize stage two as "considering doing a behavior" and stage three as "willing to do a behavior."

In the context of non-problem behaviors, preparation involves forming intentions to take on a new action. A person intending to change has formed a psychological commitment to take action. An individual who has intentions to perform a specific behavior may soon take steps toward performing a behavior (e.g., calling a fitness club to find out when the aerobic classes start). In our model, stage four is initially conceptualized as "preparing to do a specified behavior." In summary, our initial conceptualization of the SEB includes the following four stages: 1) have given little thought to doing, 2) considering doing, 3) willing to do, and 4) preparing to do. Next, we will discuss self-concept congruity, consumer knowledge and information search and propose hypotheses linking these variables to the stage model.

SELF-CONCEPT CONGRUITY

Many researchers suggest that self-identity and one's self-concept, in particular, are important variables to consider when trying to predict con-

sumer behavior (Reed 2002; Sirgy 1982). Grubb and Grathwohl (1967) were among the first researchers to hypothesize that self-concept congruity motivates consumer behavior. Consumers who perceive a product as being more congruent with the individual's self-concept will be motivated to purchase the particular product. Self-concept congruity is conceptualized as the match between one's self-concept and the product/supplier/service image. Recently, Mannetti et al. (2002) suggested that self-identity is an important predictor of behavioral intention. In their study, these researchers conceptualized self-identity as identity similarity and included this construct in their model of self-expressive behavior. These researchers tested their model of self-expressive behavior across three consumer behaviors (i.e., buying cellular phones, backpacks, and watches). Mannetti et al. (2002) showed that when adopting the Theory of Planned Behavior (TPB), used to model behaviors not completely under the control of the individual, adding identity similarity as a predictor to the base model of including attitude toward the behavior, subjective norms, and perceived behavioral control, did increase the explained variance in behavioral intentions. Researchers who have adopted this approach to measuring self-concept congruity have had to do extensive exploratory work to generate a list of adjectives from experts familiar with each of the products included in the study (Heath and Scott 1998). The generated list of adjectives needed to be product specific for each product and then needed to be reviewed by other researchers to insure that the selected adjectives could be used in reference to one's self-concept, as well.

Sparks and Guthrie (1998) utilized a different approach in measuring self-concept congruity and used the following three items in their health-conscious identity (i.e., self-concept congruity) scale: 1) I think of myself as the sort of person who is concerned about the long-term effects of my food choices, 2) I think of myself as someone who generally thinks carefully about the health consequences of my food choices, and 3) I think of myself as a health-conscious person. In the study predicting intention to eat a diet low in ani-

mal fats, these researchers obtained a Cronbach's alpha of .82 for the health-conscious identity scale and this variable was a significant predictor independent of the components of the TPB and perceived moral obligation and past behavior.

In addition to having different approaches to measurement of self-concept congruity, the self-concept literature presents many different orientations of the self (Heath and Scott 1998; Patrick, MacInnis and Folkes 2002; Reed 2002). Reed (2002) provides a review of the many conceptualizations of self-concept and supports a social identity-based theory of consumption. Social identity "refers to the actuated perspective or frame of reference that a consumer possesses as part of the repertoire of who they are or want to appear to be" (Reed 2002, p. 255). We suggest that one way to conceptualize a self-concept congruence utilizing Reed's (2002) concept of social identity is to form a comparison between the individual's self-concept and a stereotypical user of the particular product being discussed. For the purposes of the present research, self-concept congruity refers to the individual's perception as to how well one's self-concept matches the stereotypical performer of the new behavior.

Sirgy (1982) developed a self-image/product-image congruity theory in which a self-image belief interacts with a product-image perception to form a positive or negative self-congruity (or self-incongruity) state which influences purchase motivation. According to this theory, a consumer's self-esteem motive and self-consistency motive will lead an individual to seek experiences that enhance the self-concept and also encourage an individual to behave consistently with his view of himself, respectively. Researchers have applied the idea of self-concept congruity in varied contexts including job performance (Crowder and Michael 1989), repeated blood donation (Charng, Piliavin and Callero 1988) and retail patronage (Sirgy, Grewal and Mangleburg 2000). In addition, Prochaska, DiClemente and Norcross (1992) acknowledge that self-reevaluation is an important step in changing problem behaviors and this reevaluation often resulted in individuals altering their self-concept.

For this study, it is suggested that individuals also reflect on their self-concept when thinking about engaging in a behavior, such as a change in leisure activities. In accordance with the self-consistency motive, it is expected that:

H₁: The higher one's level of self-concept congruity, the further one will be in the Stages of Engaging in a Behavior.

CONSUMER KNOWLEDGE

Consumer knowledge is a critical factor in consumer behavior (Brucks 1985; Park et al. 1988) and has been shown to affect the framing of decisions (Bettman and Sujan 1987; Frankenberger and Liu 1994) and information processing (Sujan 1985). Philippe and Ngboo (1999) confirmed that consumer knowledge has four components: familiarity, objective product class information, objective expertise, and subjective expertise. Park, Mothersbaugh and Feick (1994) distinguish between objective knowledge and self-assessed knowledge. Whereas objective knowledge focuses on declarative and procedural knowledge, self-assessed knowledge measures a consumer's general knowledge assessments about a product and is judged in relative comparison between what friends, experts, or others know. Researchers have suggested that subjective knowledge, as opposed to objective knowledge or experience, is a more important predictor of product purchase (Flynn and Goldsmith 1999) and reflects motivation (Park, Feick and Mothersbaugh 1992). Bartkus, Hartman and Howell (1999) found that when using a simple regression equation, self-assessed consumer environmental knowledge was predictive of consumer environmental behaviors (i.e., reducing, reusing and recycling).

Consumers who are just about to engage in a specific, new behavior are bolstered by their feeling that they have gained expertise. This increased level of self-assessed knowledge may also serve as self symbolism (Elliott and Wattanasuwan 1998) and aid in the construction and visualization of one's self-identity.

H₂: The higher one's level of self-assessed consumer knowledge, the further one will be in the Stages of Engaging in a Behavior.

INFORMATION SEARCH

Researchers have investigated the role that information search plays in making specific purchase decisions (Furse, Punj and Stewart 1984) and service selections (McColl-Kennedy and Fetter 1999). Bloch, Sherrell and Ridgway (1986) propose that consumers engage in ongoing search and found that, for some product categories, consumers are motivated more by hedonic motives as opposed to informational motives. These authors suggest that consumers may engage in ongoing search to build information banks even though the consumer may not be currently facing a purchase decision.

Other researchers have categorized search activities by source of information search (i.e., media, retailer, interpersonal, and neutral) (Beatty and Smith 1987) and both source of information and effort of search (McColl-Kennedy and Fetter 1999). It is acknowledged that there are multiple ways to classify information search behaviors and in this study, we distinguish between search activities in which an individual interacts with others (e.g., friends, salespeople) to obtain information (i.e., interactive search behavior) versus those search activities that do not entail interactions to obtain information (i.e., individual search behavior). When consumers begin thinking about engaging in a new behavior, consumers may engage in search behaviors to garner practical information. It is proposed that information search encompasses search activities (across media) in which the consumer finds information related to the new behavior being considered. Thus, it is hypothesized that:

H₃: Individuals will exert more individual search effort the further one is in the Stages of Engaging in a Behavior.

Additionally, consumers may engage in search behaviors which allow them to interact with others (i.e., use interpersonal sources) and gain in-

formation, feedback and support from others (i.e., salespeople, friends, etc.) for moving ahead in thinking about engaging in a new behavior. These information search activities will be referred to as interactive search activities. Whereas the information search encompasses finding out about the activity and learning about it through non-personal interactions, this pursuit may provide the individual with hedonic benefits in and of itself and not be strongly indicative of one's making a serious commitment to actually engage in the new activity. In contrast, searching for information by interacting with personal information sources is likely to be more indicative of one's being more ready to commit to engaging in a new activity. Interacting with others about the behavior under consideration also can be viewed as symbolic communication about oneself to society (Elliott and Wattanasuwan 1998). Thus, it is hypothesized that:

- H₄:** Interactive search activities are more indicative of Stages of Engaging in a Behavior than are individual search activities.

A MODEL OF STAGES OF ENGAGING IN A BEHAVIOR

As discussed above, literature has linked all four of these variables to stage of engaging in a new behavior. That is, it is proposed that:

- H₅:** Self-concept congruity, individual search behaviors, interactive search behaviors, and consumer knowledge are predictors of the Stage of Engaging in a Behavior.

METHODOLOGY

Identifying Initial Stages

Our initial conceptualization of SEB included four stages: 1) having given little thought to doing, 2) considering doing, 3) willing to do, and 4) preparing to do. To develop an operationalization of SEB, 42 items reflecting various degrees of willingness to perform a new behavior were identified from our initial conceptualization of the

stages, previous research, a dictionary and thesaurus. Second, two adults (one a female Ph.D. student in the marketing department and the other a male working outside the university), were asked to sort the 42 items into similar groups and were allowed to determine the number of groups used. Both of these adults sorted the items into seven groups (i.e., stages) and the match rate was 100 percent. Third, these two individuals selected the one item from each group which most closely described the group of items. Both individuals selected the following: have tried before, never thought of doing, considering doing, willing to do, have considered already, reluctant to do, and intend to do.

We considered these seven items as possible Stages of Engaging in a Behavior. Based on our conceptualization of SEB, we eliminated "have tried before" and "have considered already" which reflect past behavior and thought. The remaining five items were retained as the initial operationalization of SEB and include: never thought of doing, considering doing, willing to do, reluctant to do, and intend to do.

Ordering and Refining Initial Stages

In a pilot test, we asked 44 undergraduate students at a northeastern university to "think about these five items as stages in thinking about doing a behavior and to order these five stages from least likely (1) to most likely (5) to perform a behavior." Thirty-four (77.3 percent) of the students ordered the stages as follows: 1) never thought of doing, 2) reluctant to do, 3) considering doing, 4) willing to do, and 5) intend to do. Each of the other ten students' ordering involved switching just one pair of adjacent stages.

Following this pilot test, we debriefed the 44 participants. Based on our discussion, we made the following observations and changes to the stages. First, we found that the "reluctant to do" stage caused some confusion with how to order the stages. As one responder indicated, "the four other stages give a snapshot of your current thinking and the 'reluctance' stage doesn't", (i.e., "reluctance" can occur at any stage). In retro-

spect, “reluctance” has valence and is an affect, rather than a stage in the thought process. Second, we defined the first stage as a stage in which some minimal level of cognitive activity is taking place (i.e., one can imagine or envision doing a particular behavior). Finally, instead of naming the fourth stage “intend to do”, we tried to express the idea of this stage more clearly and decided to rename it “have taken steps toward doing.” Thus, based upon our conceptualization of SEB and the results of our pilot test, we defined the stages as 1) can envision doing, 2) considering doing, 3) willing to do and 4) have taken steps toward. Note that these stages are the same as the four stages (after dropping the reluctance stage) suggested by over three-quarters of the participants in the pilot test.

To check that these four stages covered the gamut from “have given little thought to engaging in this behavior” to “very seriously thinking about engaging in this behavior,” we generated a set of 30 variations of these items, using many of the 42 items examined earlier. Each item of the 30 items was written on a 3x5 index card. Twenty MBA students placed the items along a 100 point continuum with endpoints “have given little thought to doing a specific behavior” to “very seriously thinking about doing a specific behavior within a specified time period.” Each item was transformed to z-scores, and means and standard deviations for these items were calculated. The means of these z-scores ranged from -1.11 to 1.35 and the standard deviations ranged from .42 to .88. The four Stages of Engaging in a Behavior had means and deviations (as z-scores) as follows:

1. can envision doing ($M = -.90$, $SD = .42$)
2. considering doing ($M = -.29$, $SD = .68$)
3. willing to do ($M = .35$, $SD = .55$)
4. have taken steps toward ($M = 1.17$, $SD = .43$)

We ordered the 30 items by their means and found that the means of our four items were relatively equally spaced throughout this list. Thus, given this pool of items, the four items representing the stages in our model seem to spread over the span.

Preliminary Survey

A preliminary survey was developed and administered to 66 MBA students during the end of a class period. When respondents were debriefed, we made two final changes to the names of the four stages. We found that “have taken steps toward” was not as clear as “preparing to do.” Consequently, the fourth stage was renamed to “preparing to do.” The first stage was also renamed from “can envision doing” to “have given little thought to” in order to reflect a more cognitive level of processing and orientation. To summarize, the final operationalization of SEB include the following four stages: 1) have given little thought to doing, 2) considering doing, 3) willing to do, and 4) preparing to do within a specified time. This operationalization was used in the final survey.

Measures

Stage. To get a measurement of SEB, we asked participants to “give us a ‘snapshot’ of ‘where you are’ in the process of thinking about doing the aerobic activity you listed earlier.” We provided a horizontal set of boxes with the stages labeled and unlabeled stages to capture any one in between stages.

Self-Concept Congruity. Several studies investigating self-concept have focused on measuring characteristics of a person and of a stimulus (e.g., brand) and comparing these measurements to assess congruence (Mannetti et al. 2002). However, the reliability of these scales, formed by using absolute differences, has been very low. For our purposes, however, self-concept congruity should assess the degree to which the subject thinks that the activity fits with his image of himself. We modeled our items after Sparks and Guthrie’s (1998) measure of self-concept congruity and generated five Likert items reflecting self-concept congruity.

Knowledge. Self-assessed knowledge of the new behavior was measured using four items designed to assess how much an individual thinks he knows about the new behavior. We did not

specify any particular dimension(s) to consider. Four items were generated by asking participants to rate how much they knew about the behavior, compared to their friends, compared to experts, and how much they know about the important things to consider when doing this activity. A seven-point scale was used with endpoints "not very much" and "a great amount." This measure is consistent with measures used in past research to tap an individual's level of subjective knowledge (Park et al. 1994; Philippe and Ngboo 1999) although others have used single-item measures for this construct (Capraro, Broniarczyk and Srivastava 2003).

Information Search. A pool of 13 information search activities was generated by the authors based on their own experiences and a review of relevant literature. The activities included obtaining information from non-interactive (i.e., magazines, books, television, etc.) and interactive sources (i.e., friends, talking with others, etc.). The items were preceded by a statement asking participants to indicate the extent to which they agree or disagree with the following statements. The responses were rated on a seven-point scale with endpoints "strongly disagree" and "strongly agree."

Behavior

In the preliminary survey, we wanted to test the model in more than one behavioral context to determine the generalizability of the results and chose two types of leisure behaviors (Tinsley and Johnson 1984). Yet due to respondent wearout, the final survey focused on one category of leisure activity relevant to MBA students. Also the leisure category had to encompass particular activities that the respondent was not currently doing, but had to at least have thought about the activity, and could keep it in mind as he answered the survey questions. Therefore, the general category of "an aerobic activity" (e.g., going for a run) was selected for the final survey. In the survey, each respondent was asked to "select an aerobic activity that you *have thought about doing* but one you *are NOT currently doing*" and to keep it in mind as he completed certain sections.

Final Survey and Procedure

The final pool included the entire faculty and staff (2,219 individuals) at a northeastern university. These individuals were mailed the survey and a lottery with five cash prizes was used to encourage responses. To further enhance response rates, the Total Design Method (Dillman 1978) was followed as closely as possible. A total of 790 completed surveys were returned and 54 were discarded from the analyses due to having a medical condition prohibiting participation in exercise (35), missing information for more than one item in a scale (10), and duplicate entries (9). The final sample included 736 surveys and yielded a 32 percent response rate.

RESULTS

Sample

The age of subjects, 45 percent of whom were male, ranged from 22 to 75 years, with a mean age of 45 years. Seventy-four percent were married, 14 percent divorced, 10 percent never married, and 2 percent widowed. Just over half (52 percent) had a graduate degree, 18 percent completed only up through high school, 17 percent had some college education, 9 percent completed college, 3 percent completed some graduate work and 1 percent completed only up through some high school. The occupations ranged from faculty (50 percent), administrative staff (29 percent), other (16 percent), and maintenance (5 percent).

Aerobic Activities

The selection of an aerobic activity was open-ended. Fifty-three unique activities were listed and the most frequently named activities included swimming (118), doing an aerobic routine (77), running (74), and fast walking (62).

Dependent Measures

Table 1 shows the distribution of stages. Ten percent of the sample identified themselves as being in the first stage and 11 percent identified themselves as being in the fourth (i.e., last) stage. The

TABLE 1
Distribution of Stages

Have Given Little Thought to Doing		Considering Doing		Willing to Do		Preparing to Do
74	109	150	92	157	74	80
10%	15%	20%	13%	21%	10%	11%

N=736

TABLE 2
Reliabilities of Scales Used as Independent Variables Final Survey Results

Independent Variables	N	Number of items	Cronbach's alpha	Item Means
Individual search	736	3	.80	1.77
Interactive search	736	4	.74	2.72
Self-concept congruity	736	5	.87	4.70
Consumer knowledge	736	4	.86	4.00

highest frequencies were in stage three (willing to do) (157; 21 percent) and stage two (considering doing) (150; 20 percent). Thirty-seven percent of responders did select a cell in between labeled stages to reflect "where" they were in thinking about doing the aerobic activity.

Independent Measures

Self-Concept Congruity. Reliabilities for the independent variables are reported in Table 2. For self-concept congruity, Cronbach's alpha was .87 and dropping any of the items did not improve this measurement. Therefore, we retained all five of the initial items to measure self-concept congruity. Item measures were summed to obtain a measure for the scale.

Information Search. Measures on the 13 behaviors were entered into a factor analysis and the solution was rotated to allow for correlated factors. A two factor solution emerged and individual items were retained if their loading on one factor was greater than .60 and on the other factor the loading was less than .30. The first factor retained the following items: I subscribe to maga-

zines related to this activity, I've recently read books about this activity, I've spent a lot of time reading magazines and books about this activity, and Recently, I've watched videotapes about this activity. These items reflect individual search activities. For the second factor, the following three items were retained: I've asked friends to join me in this activity, I often talk to friends about this activity, and I've looked into buying gear or equipment for this activity. Together, these three items reflect more interactive search behaviors. Retained items were summed to obtain two separate measures.

In assessing the reliability of the individual search behavior scale, Cronbach's alpha was initially .78 but deleting the item concerning watching videotapes did raise Cronbach's alpha to .80. Subsequent analysis showed that dropping any additional items did not improve Cronbach's alpha measure. Therefore, the final scale measuring individual search activities was comprised of three items: I subscribe to magazines related to this activity, I've recently read books about this activity, and I've spent a lot of time reading magazines and books about this activity. These

three items were summed to obtain the measure for this individual search scale.

Cronbach's alpha for the items comprising the interactive search scale was .74 and did not improve if we deleted any of the items. Therefore, we retained all four of these items and summed them for a measure of interactive search behavior.

Knowledge. Cronbach's alpha was .86 and all four original items were retained in the scale. The knowledge scale was computed by summing measures of the four items.

Results of Hypotheses Testing

The Pearson product-moment correlations are used to test the hypotheses (see Table 3). Results of a multiple regression using stages as the dependent variable and self-assessed consumer knowledge, self-concept congruity, interactive search behaviors and individual search behaviors as four independent variables also support these hypotheses. The correlation between self-concept congruity and the stages is relatively large in magnitude (.47) and statistically significant ($p < .001$). Therefore, hypothesis 1 is supported. The correlation between self-assessed consumer knowledge and the stages is moderately large (.31) and statistically significant ($p < .001$). Therefore, hypothesis 2 is also supported. Hypothesis 3 hypothesized a positive relationship between information search and stages. The Pearson correlation is modest in size (.26) and statistically sig-

nificant ($p < .001$). Hypothesis 4 proposed that interactive search behaviors would be more strongly associated with stages than individual search behaviors were. The Pearson correlation between interactive search behaviors and SEB is .50, relatively large, and statistically significant ($p < .001$), as opposed to the Pearson correlation between individual search behaviors and SEB of .26. Therefore, this hypothesis is supported by the data.

Hypothesis 5 proposed that all four of these variables predict the stages. A multiple regression with stage as the dependent variable does show that individual interactive search, self-concept congruity, and consumer knowledge are statistically significant predictors of stage (see Table 3). However, individual search did not enter the model as a significant predictor of the stages. Further, the variance inflation factors, a direct index of the extent to which collinearity harms estimation (Fox 1991), are all low and indicate that a multicollinearity problem does not exist.

DISCUSSION

This research proposed a model of SEB, with a set of stages relevant in a broad context of consumer behavior. Consumers are aware of many behaviors and ponder, brood over, or think about possibly taking action over an extended period of time for some of these behaviors. This study examined the change process in the context of engaging in a new aerobic activity, although this model may be useful in the context of under-

TABLE 3
Correlations and Regression Results

Independent Variables	Pearson Correlations	Beta Coefficients
Individual search	.26*	-.02
Interactive search	.50*	.36*
Self-concept congruity	.47*	.28*
Consumer knowledge	.31*	.12*
Adj. R^2		.34

* significant at $p < .001$

standing the process of change for other social marketing behaviors. The proposed model attempts to address what is meant by thinking about engaging in a new behavior and suggests that identifying stages in this cognitive process may be useful to marketers trying to influence consumers to move along the process.

Both the interactive search and self-concept congruity are the stronger predictors of one's stage. As one starts talking to friends and interacting with others about this behavior, perhaps one is starting to view oneself as a person who can engage in this behavior. From this perspective, results of the regression model seem to indicate that visualizing oneself as a "doer" of this behavior is an important step in the process of engaging in a new behavior. Although past research has focused on knowledge and information as important predictors in a decision model, this study suggests that more symbolic communications such as self-concept congruity and interactive search behaviors may be additional factors to consider to account for other motivations.

This model was developed and empirically tested, using an adult sample, in the context of non-addictive, non-problem behaviors. It was hypothesized that higher levels of self-concept congruity, consumer knowledge, individual search behavior, and interactive search behavior were each associated with an individual being in later Stages of Engaging in a Behavior. Empirical testing confirmed these four relationships. In addition, the empirical results provide support for three of the four variables in modeling the SEB. When individual search behavior was included with the three others to predict the stages, individual search behavior had an insignificant and negligible beta coefficient. It appears that individual search behaviors communicate negligibly more information than captured by interactive information search, self-concept congruity and consumer knowledge in predicting the stages.

This model describes individuals who are at the "very beginning" of the process of adopting a new behavior. This study incorporates several research streams and suggests that several types

of predictors including a self perception variable, a measure of expertise, and categories of search behaviors are useful in understanding consumers in the process of engaging in a new behavior. This model is tested in a general context of every day behaviors (e.g., engaging in a new aerobic activity) and subjects were allowed to choose a personally relevant behavior (e.g., walking).

LIMITATIONS AND FUTURE RESEARCH

The limitations of this study suggest directions for future research. First, given these stages, what activates consumers to "move" from one stage to the next? What are the barriers or costs holding consumers in one stage and preventing them from moving forward? Further research in this area would help marketers influence consumers to progress toward taking action. In addition, further investigation should be directed at investigating if there are important differences between individuals within a stage and the individuals who are "between" stages.

Second, this model is applied in the context of aerobic activities. Consumers, for the most part, are aware of many types of aerobic activities and know that engaging in this type of activity will provide many benefits (i.e., reduce stress, increase fitness level, reduce chances of onset of certain diseases, etc.). As is the case for many social marketing behaviors, the consumer's participation in the behavior yields benefits with little involvement of the marketer. Future research might apply this model in the context of other types of non-problem, non-addictive behaviors (e.g., donating to charities, volunteering, changing jobs, etc.). This model did not take into account the motivations influencing people to consider engaging in new behaviors. People may be willing to think about engaging in aerobic activity, in part, because of the impressive health benefits or to address a negative medical condition (e.g., high blood pressure), for instance. Therefore, future research may want to test this model in the realm of other social marketing behaviors.

Third, another avenue of research should examine how much time needs to pass before an action is considered "new" or "a change" by an individual. What changes need to be made to the model if the behavior being considered has never been performed versus the behavior has been performed earlier (e.g., a year ago)?

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