# Enduring Involvement, Situational Involvement, and Flow in Leisure and Non-leisure Activities

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This research was conducted to investigate relationships between enduring involvement (EI), situational involvement (SI), and flow. It was hypothesized that the constructs would be related and that SI would mediate relationships between EI and flow. In addition, the relationships were examined in both leisure and non-leisure contexts. The sample consisted of 46 recently unemployed adults, diverse with respect to gender, age, pre-unemployment income, and education. Respondents completed a number of experiential sampling forms (ESF) as part of a larger study. Flow and SI were measured at this time. Three months later respondents completed EI scales related to 2 leisure and 2 non-leisure activities for which they had completed ESFs. Structural equation modeling suggested that in both leisure and non-leisure activities participants with higher levels of EI were more likely to experience higher levels of flow (p < .05) and that SI mediated these relationships. This study is the first to establish links between EI, SI, and flow.

KEYWORDS: Enduring (ego) involvement, situational involvement, flow.

Researchers have developed a number of constructs such as substitutability (Iso Ahola, 1986), commitment (Buchanan, 1985), enduring involvement (Havitz & Dimanche, 1990) and loyalty (Backman, 1991) to help explain people's stable and continuing leisure preferences, choices and participation to aid in planning, marketing and managing leisure service delivery. The latter research streams, such as that for involvement, have drawn heavily from the mainline marketing and consumer behavior literature and have not been fully integrated into the leisure literature. Several researchers (e.g., Havitz & Dimanche, 1999; Kyle & Chick, 2002) have argued that the relatively isolated enduring involvement literature should be crossfertilized with situation-specific leisure research in order to make more profound contributions to the literature.

At the same time, the experiential outcomes of leisure activities have been increasingly recognized as important to planning and managing leisure

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services and understanding leisure consumer behavior (Driver & Tocher, 1970; Mannell, 1999; Manning, 1986). However, the nature of the experiential outcomes of participation in leisure activities for which people have developed some level of ego involvement and continuing commitment has not been explored. It would seem to make intuitive sense that some of the activities with which people become involved might provide conditions that promote more psychologically meaningful and involving experiential outcomes (Mannell, 1993; Stebbins, 2001).

In the present paper, we examine the relationship between the constructs of enduring involvement, situational involvement, and flow. To develop our understanding of this relationship further, we also attempt to clarify and operationalize the concept of situational involvement, and propose and test several models of the relationships among enduring involvement, situational involvement and flow in both leisure and non-leisure contexts. Specifically, we hypothesize that the higher the level of enduring involvement in an activity, the more likely people are to experience episodes of high psychological involvement or flow when engaged in that activity. The potential mediating effect of situational involvement is examined in this context and we hypothesize that situational involvement will significantly mediate relationships between enduring involvement and flow.

The extent to which relationships between enduring involvement, situational involvement, and flow differ in leisure and non-leisure contexts was also examined. It has been suggested that leisure contexts are, for many people, inherently "more involving" than are non-leisure contexts (Havitz & Dimanche, 1997) in part because leisure contexts may provide more freedom of choice (Mannell, 1980; Csikszentmihalyi & LeFevre, 1989) and accurate personality impressions than do non-leisure contexts (Leckey & Mannell, 2000). Research is limited in this area, however.

# Enduring Involvement (EI)

Involvement is a commonly used word and the various meanings associated with it range from describing overt behavior to latent social psychological constructs. A substantial body of research has developed related to EI, also referred to as "leisure" or "ego" involvement in the literature, (Havitz & Dimanche, 1997). This type of involvement has been defined by Havitz and Dimanche as an "unobservable state of motivation, arousal or interest toward a recreational activity or associated product, evoked by a particular stimulus or situation, and which has drive properties" (p. 246; adapted from Rothschild, 1984, p. 216). In lay terms, for example, we often speak of people who are "really into golf" or who "live to ski" when describing ego involved individuals. High involvement is generally viewed in positive terms in the leisure literature although negative terminology such as "addicted to running" and negative consequences, including excessive participation and spending, have been identified (Bloch, 1990).

The first phrase of Rothschild's definition is particularly important to understanding EI. As its name implies, EI levels are presumed to be reasonably stable. Specifically, Sherif, Kelly, Rogers, Sarup, and Tittler (1973) argued that, "self [ego] is conceived as a system of attitude structures which when aroused by ongoing events, are revealed in *more characteristic and less situation-specific* behaviors toward objects or classes of objects" (p. 312) [emphasis added]. Richins and Bloch (1986) postulated that EI remains consistent or evolves slowly over time "as when some teenagers' involvement with rock music declines as they reach adulthood." (p. 281). Discussion regarding the stability of EI is largely conceptual as few longitudinally-based data sets exist. Nevertheless, the limited panel survey-based empirical evidence reported in the literature suggests that stability is the norm with respect to most facets of EI (Havitz & Howard, 1995).

Although unidimensional instruments such as Bloch's (1981) scale and Zaichkowky's (1985) Personal Involvement Inventory have been employed, EI has most often been operationalized in quantitative leisure research as a multidimensional construct, using a series of profiles rather than as a single score (Havitz & Dimanche, 1997). Based largely upon Laurent and Kapferer's (1985) conceptualization, four involvement facets commonly have been examined in the leisure literature: attraction, which is a combination of interest in, and pleasure derived from participation; sign, which refers to the symbolism associated with participation; the risk probability associated with choosing one activity over other options; and risk consequences associated with making a poor choice. Attraction tends to be the dominant facet in leisure contexts for most people, whereas the risk facets often assume a greater role in non-leisure contexts (Havitz & Dimanche, 1997). These facets have been studied in previous research related to both enduring and situational involvement (Havitz & Howard, 1995). A related group of studies, beginning with McIntyre and Pigram (1992) are also based on Laurent and Kapferer's conceptualization, but the risk facets have been dropped in favor of a centrality to lifestyle facet which was originally developed by Watkins (1987). It seems likely that centrality to lifestyle issues can also be conceptualized on both enduring and situational bases. The facets studied in this research, however, were limited to those originally proposed by Laurent and Kapferer and used by Havitz and Howard.

The enduring involvement profile has been found to be an effective, but incomplete, predictor of leisure behavior in a variety of settings (Havitz & Dimanche, 1999). Celsi and Olson (1988), for example, noted that "car buffs, wine connoisseurs, and skiing fanatics generally tend to perceive the shopping and consumption activities associated with these products as personally relevant" (p. 212). Although high levels of EI have been consistently and positively linked to important behavioral indicators such as duration, frequency, and intensity of participation, these relationships are not universal. One reason for inconsistent congruence between the attitudes (EI) and behaviors is that highly involved people are not necessarily active participants. For example, constraints such as the presence of infant children in the household, a new job, or a residence far removed from coastal waters may prevent even a highly involved individual from sea kayaking on a regular basis. Another plausible explanation for the occasional lack of congruence is that intervening variables have been only sporadically considered in this body of research. Iwasaki and Havitz (1998), for example, proposed that psychological commitment to brands (e.g., a particular brand of running shoe or to a particular competitive event) may mediate the effects of activity-based EI on subsequent behavior. Support for this model was evident in their recent research conducted in the context of fitness activity providers (Iwasaki & Havitz, 2004). Pritchard (1999) concurred with Iwasaki and Havitz's original assessment, but argued further that level of satisfaction also moderates such relationships. Another potentially useful mediator with respect to EI and behavior is situational involvement.

# Situational Involvement (SI)

Situational involvement reflects temporary feelings of heightened involvement that accompany a particular situation (Houston & Rothschild, 1978). EI and SI relationships have not been widely studied, in part because additional conceptual development is necessary with respect to the latter concept. SI might be described using portions of Rothschild's (1984) aforementioned definition of EI. Indeed, the second phrase, "evoked by a particular stimulus *or situation*" [emphasis added] represents a key component in Rothschild's definition. The facets comprising EI and SI may be congruent, an issue we will address later in this paper. However, the concepts of enduring and situational involvement are not synonymous. Even though a person may be very involved or not very involved in a particular activity and hence somewhat predictable, (avid golfers, for example, generally enjoy playing golf under even relatively trying conditions), specific circumstances definitely impact both decisions leading up to participation and experiential outcomes.

Situational involvement will vary from context to context. Celsi and Olson (1988) argued that "personal relevance for an object or event is an acute state that only occurs at certain times or in certain situations. Even objects or events that are extremely important to an individual are not experienced as personally relevant at all times. This implies that the situational context is critical in determining the extent and type of personal relevance experienced" (p. 211). Consider, for example, a middle-aged woman debating whether she would prefer to do aerobic exercise alone in her basement with an exercise video versus signing up for an aerobics class at a trendy health club with 30 other participants and a "perky" instructor. These two vastly different settings provide, or at least imply, the presence of very different sets of preparations, constraints, feelings, social interactions, and outcomes. Indeed, Hull, Michael, Walker, and Roggenbuck (1996) found that on-site leisure experiences fluctuated based on various situational issues, with respect to anxiety, dullness, excitement, calmness, love, power of concentration, freedom, and self-esteem. Celsi and Olson (1988), Richins, Bloch, and McQuarrie (1992), and Pritchard and Brunson III (2001) presented evidence that EI and SI are additive so the higher the aforementioned woman's level of EI, the higher we might expect her SI to be as well, although other

research (e.g., Burton & Netemeyer, 1992) suggested that EI and SI are interactive in nature.

Though often individually idiosyncratic as in the just-described hypothetical case related to aerobics, SI and EI may also operate at a societal level. Writing in a sport-spectator context wherein RI (response involvement) refers to behavior, Pritchard and Brunson III (2001) noted,

A historic example in major-league baseball of the interaction between EI, SI and RI, was evident in the 1998 home run race between Sammy Sosa and the eventual record setting winner, Mark McGuire. Prior to the race, MLB EI was at a relative low for many fans because of the baseball strike a couple of seasons earlier. During the home run race (an SI effect), interest peaked and resulted in dramatically increased viewer ship and media ratings (RI outcome). Since that season, (EI) interest in MLB has arguably remained higher than it was before the race, but not nearly as high as it was during the actual event.

# Differential Measurement of EI and SI

Given that SI is the current and immediate feeling of EI as impacted by specific circumstances, SI is not static and is potentially meaningful in a variety of temporal contexts. For example, one of the authors participated in a charitable golf tournament on June 18, 2003. He has measurable but reasonably low levels of EI with respect to the activity of golf, but a high level of psychological commitment to the charity and high EI with the charity's various activities. His EI with respect to the activity of golf or commitment to the charitable organization could be measured at any point in a calendar year and the scores could be expected to be reasonably stable (Havitz & Howard, 1995). Likewise, his level of SI with the golf experience at the charitable tournament itself could, presumably, have been measured from any point once he was made aware of the tournament and committed to play in it. Indeed, his SI could be measured at any time up to and during the tournament itself and even, to the extent he can remember the event, to the present date or well into the future. However, the "best," that is to say the most vivid and accurate, measures of SI would likely be collected at or about the time of the tournament when the event was fresh in his mind. In addition to his attitudes regarding golf and the charity, his SI could be influenced by the weather, his playing partners, the presence, visibility, and skill of other golfers on the course, and so forth.

As noted earlier, leisure research on situational involvement is relatively rare. SI research has been especially hampered by measurement concerns related to capturing leisure experiences in situ as they happen, as opposed to post hoc (e.g., Madrigal, 2003; Stewart & Hull, 1996). Although SI can be measured at almost any point in time, it is doubtful that many individuals would be able to report in accurate detail, the nuances of a particular episode and its experiential outcomes at the end of a day or after several weeks or even months have elapsed as is commonly the case with leisure EI research. Timing is not the only issue limiting SI research. Richins et al. (1992) noted that although validated measures of EI are available for assessing relationships between consumers and products via conventional laboratory or field-based surveys, comparable measures were not available for SI. Specifically, they argued that, "the amount of SI experienced by an individual cannot be comparably measured in a field setting. Involvement is an unobservable state. . .inferred by the presence of behaviors concerning the product class (e.g., search) or by expressions of interest in the product class" (p. 149).

Leisure researchers rarely use business terminology like "product" and "product class" but product categories are somewhat analogous to leisure activities and activity categories which form the contextual basis for much of our research (Gahwiler & Havitz, 1998). Given the absence of established psychometric measures of SI and the temporal issues clouding its measurement, behavioral surrogates and statements of intent, primarily related to search and purchase have commonly been employed in situational involvement research (e.g., Celsi & Olson, 1988; Richins, et al., 1992). Several researchers (e.g., Celsi & Olson, 1988; Havitz & Crompton, 1990) have created high SI conditions by introducing lotteries into experimental contexts wherein research participants could potentially win leisure products or services of their choice.

Though various researchers have measured different facets of involvement, overlap between EI and SI measures are common. Indeed, Richins et al. (1992) noted that, "In many instances, the indicators of EI and SI are identical" (p. 149). This conceptual overlap makes measurement of EI and SI challenging especially in terms of establishing discriminant validity (Burton & Netemeyer, 1992; Laverie & Arnett, 2000). For example, in one of the few leisure research projects designed to capture both EI and SI, Laverie and Arnett used Zaichkowsky's (1985) Personal Involvement Inventory to measure SI and Higie and Feick's (1988) Enduring Involvement Scale to study college basketball fans' attendance patterns. Consistent with Richins' et al.'s suggestion, the instruments are somewhat redundant. However, both scales were arguably developed to measure EI. Indeed, Zaichkowsky specifically stated that the "Personal Involvement Inventory is designed to measure a person's involvement with products" (p. 349), which is generally an enduring set of attitudes for most people. Although Zaichkowsky provided specific instructions for introducing situational context to the Inventory in the form of purchase decisions, there is little evidence in Laverie and Arnett's method description that her advice was followed. Compounding the potential for confusion, Laverie and Arnett measured EI and SI simultaneously, one month after the end of the basketball season when situational nuances, such as heightened SI on a game day or prior to an important tournament, whether the respondent's favored team played well or poorly, and whether they won or lost the game, would have likely long-since passed (see for example, Madrigal, 2003). Indeed, it is questionable that the authors achieved a meaningful differentiation between EI and SI. In defense of Laverie and

Arnett the measurement of SI and EI on a single questionnaire is not without precedent (e.g., Burton & Netemeyer, 1992), Burton and Netemeyer made a more explicit introductory distinction between the concepts on their questionnaire than did Laverie and Arnett. Pritchard and Brunson III (2001) went even further, separating the EI and SI measures by administering them at different times of the day and on separate questionnaires, thus potentially increasing the discriminant validity of their measures. In one of the earliest studies conducted with respect to SI, Celsi and Olson (1988) measured EI three weeks prior to experimentally manipulating SI conditions.

Although we have presented arguments critical of EI-SI research published to date, each of the aforementioned studies has made important contributions to the literature. Nevertheless, we maintain that valid measurement of SI, in particular, remains a stumbling-block. An important challenge for future research then, lies in avoiding the use of behavioral surrogates to measure SI while effectively differentiating SI and EI concepts in the minds of survey respondents.

## Quality of Leisure Experience and the Flow Model

Assuming that EI and SI measurement issues can be sorted out, the study of EI and SI relationships and their impact also requires the conceptualization and measurement of appropriate participant outcomes. Researchers and leisure service providers have become as concerned with the nature and quality of the experiential outcomes of participation as they are people's leisure choices and activities (Mannell, 1999). This focus on the experience that accompanies involvement with activities, services and products is evident in contexts areas where people assume competitive roles. Research on consumer behavior in general has focused on the experience of buying in its own right, since consumers do more than simply process information to make purchasing choices. They also engage in imaginative, emotional, and appreciative consumption experiences (Bloch, 1993; Holbrook & Hirschman, 1982). Research on the experiential nature of leisure has been focused on measuring the quality of what people experience during leisure, and examining the impact of the physical and social setting as well as personality factors on this experience (Mannell, 1999). It seems reasonable to expect that higher levels of EI and SI in a particular activity would be accompanied by higher quality experiences.

A number of characteristics have been proposed and measured by researchers who have studied leisure experiences. These characteristics include mood, levels of relaxation and arousal, and cognitions of time, self-awareness, competence and control (Mannell & Kleiber, 1997). The concept of flow (Csikszentmihalyi, 1975) has been a particularly attractive model for researchers studying the quality of leisure experiences because it identifies a variety of features amenable to measurement. The model provides insight into how the activities of everyday life come to be invested with meaning and experienced as optimal. Certain conditions (match between the challenges presented by an activity and the participant's skills/knowledge in the activity, control and unambiguous feedback about his or her actions) and experiential outcomes (centering of attention on the activity, loss of self-awareness, transformation of time, momentary loss of anxiety, and enjoyment) indicate the occurrence of flow (Csikszentmihalyi, 1975, p. 35-48).

# Measuring Flow

Researchers have employed several research methods and measures of flow in the study of leisure and other types of activities (e.g., sports, work, hobbies, composing music and computer usage). Csikszentmihalyi (1975) originally developed the flow model on the basis of extensive interviews. His study participants described their experiences when engaged in their best and most enjoyable leisure (rock climbers, basketball players, recreational dancers, chess players) and work (surgeons). Flow has also been measured in laboratory experiments. Mannell (1979) and Mannell and Bradley (1986) operationalized the level of flow that was experienced while playing a game as the perception of time going faster (ratings of the duration of a 30 minute period in which the game was played), centering of attention (recall-test of the features of the game setting) and positive and negative moods (mood checklist). Questionnaires have also been used to have participants recall and rate their experiences using items that measured selected features of flow in the activity under study. For example, in a study of computer use, Ghani and Deshpande's (1994) respondents completed items measuring enjoyment, concentration, challenge and control. Webster, Trevino and Ryan (1993) studied the experiences of employees of an accounting firm who attended a course. The employees used a 12-item flow scale to report the amount of control, attention focus, curiosity and intrinsic interest they experienced. Jackson and Marsh (1998) reported the development of a "flow state" scale to measure optimal experiences in sport activities.

A frequently used approach for measuring flow is the experience sampling method (ESM). The ESM is uniquely suited to measuring flow and other states of consciousness occurring in everyday activities. Respondents typically carry electronic pagers or watches for a period of several days, usually one week. In response to a random signal or "beep," the respondents take out a booklet of brief questionnaires (typically a two-page experiential sampling form—ESF) and complete a series of closed- and open-ended questions indicating the current activity engaged in, thoughts, motivational and cognitive states, and the social and physical context of the activity. Larson and Csikszentmihalyi (1983) have suggested that the method allows for the development of a systematic phenomenology by providing a means of collecting quantitative data about an individual's behavior and experience within its situational context and at a time as close to the occurrence of the behavior as possible.

The ESM has been used to measure experiential states and address a number of leisure-related research questions. Studies have examined the in-

trinsic satisfactions and flow resulting from participation in recreational compared to non-recreational activities (Csikszentmihalyi & LeFevre, 1989; Graef, Csikszentmihalyi, & McManama Gianinno, 1983), the meaning and quality of experiences derived from leisure activities engaged in by adolescents and older institutionalized adults (Kleiber, Larson, & Csikszentmihalyi, 1986; Voelkl & Birkel, 1988), the influence of leisure on experiences in different types of social relationships (Larson, Mannell, & Zuzanek, 1986), and the conditions predicted to foster flow in leisure activities (Mannell, Zuzanek, & Larson, 1988; Stein, Kimiecik, Daniels & Jackson, 1995; Samdahl, 1988).

When operationalizing flow with the ESM, a number of different measures have been utilized. A frequently used operational definition of flow is the occurrence of a skill/challenge match. In order to assess whether personal skills match the challenges provided by an activity, respondents are typically asked to rate the "challenges of the activity" and their "skills in the activity" (Voelkl & Ellis, 1998). Those activities in which both challenges and skills are rated as greater than the respondent's own mean scores across all his or her skill and challenge ratings for the week are classified as flow. Nonflow experiences are comprised of situations where either challenge or skill levels or both skill and challenge levels are below the individual's mean level (Csikszentmihalyi & LeFevre, 1989). While this operationalization has proven quite useful, further refinements have been advocated (Moneta & Csikszentmihalyi, 1996; Voelkl & Ellis, 1998).

Flow has also been operationalized as the level of affect, potency and concentration experienced at the time of participation in an activity (e.g., Mannell et al., 1988). Potency, a measure of feelings of mental and physical activation, provides some indication of the feelings accompanying the perception of being in control of one's actions and circumstances in the environment (Csikszentmihalyi, 1975, p. 44). Csikszentmihalyi (1975, p. 48) has suggested that the centering of attention will be experienced as greater concentration and that the extent of self-awareness at the time of participation or loss of self-consciousness can reflect flow. Samdahl and Kleiber (1989) and Moneta and Csikszentmihalyi (1996) included several items that were used to measure self-awareness.

#### Testing an EI-SI-Flow Model

We expected that the research participants in the present study would have higher quality experiences (more flow) in those activities for which they have greater EI. We also expected that this relationship would be at least partially mediated by their level of SI in a specific episode of participation in that activity. In other words, the greater the EI a person has for a particular activity, generally, the higher his or her SI in any specific episode of that activity, and in turn, the higher the level of flow that would be experienced (see Figure 1). It is likely that in addition to EI factors present in the immediate circumstances surrounding participation in a specific episode of the activity also influence the level of SI. Consequently, SI is likely a better pre-



Figure 1. Hypothetical model of situational involvement as a mediator of the relationship between enduring involvement (EI) and flow. No prediction was made for the direct path between EI and flow.

dictor of quality of experience (flow) than EI. Since we had no theoretical or empirical basis for making a prediction about the existence of a direct relationship between EI and flow in the EI-SI-flow model, when SI is included as a mediator variable, no prediction was made. This possible link is shown as a dashed line in the model (Figure 1). Finally, EI, SI, and flow relationships were examined separately for leisure activities and non-leisure activities, though no specific predictions were made. However, it was expected that levels of EI, SI, and flow would be higher in leisure compared to non-leisure activities since it was assumed that the study participants had more control and choice over their leisure behavior.

#### Method

#### Sample and ESM Methodology

As part of a larger study of employment, unemployment and leisure (Havitz, Morden, & Samdahl, 2004), measures of enduring involvement, situational involvement and flow were collected for leisure and non-leisure activities. Forty-six Ontarians who had recently become unemployed completed an experience sampling method (ESM) booklet over a one-week time period. Respondents' employment status was not central to this analysis but their circumstances are reported in the interest of full-disclosure and because of the possible impact on various attitudinal and experiential statements included in the questionnaire. The sample was not expected to be representative of the Canadian or Ontarian population, but the following descriptive characteristics are noted. Twenty-eight of the 46 respondents were female. Twenty-one were in their 20s, ten were in their 30s, twelve were in their 40s and three were in their 50s. With respect to education, twelve respondents had a high school diploma or less, sixteen had some college, university or trade school experience, and fifteen had earned at least a bachelor's degree. Thirty-five were Caucasian, whereas four Asian-Canadians represented the largest ethnic minority. No other racial or ethnic group was represented by

more than two respondents. Six respondents lived in households with family incomes of greater than \$55,000 CDN in the year preceding the study, sixteen reported mid-range incomes, and twenty-four respondents lived in households earning less than \$25,000 CDN.

Participants were randomly signaled seven times daily during Phase One of the research. Each respondent completed, on average, about 41 Phase One ESM questionnaires resulting in over 1,800 total responses. At the end of the week, the respondents and principal investigator selected four episodes, two best typifying leisure and two best typifying non-leisure, from among their on-average 40+ experiences reported during the Phase One ESM data collection. Initially, leisure and non-leisure experiences were selected by each respondent on the basis of recall at the end of the week long ESM data collection period. Selections were verified by the principal investigator using their responses on a seven-point Likert-type scale to the statement, "I would call that leisure" which appeared on each ESF. The verification procedures confirmed that all selected non-leisure activities were scored as -3, -2 or -1 on the seven-point scale whereas all selected leisure episodes were scored as +3, +2 or +1. The majority of these episodes were scored using the +3 (leisure) and -3 (non-leisure) poles.

#### Measurement

Situational involvement. There is no consensus in either the leisure or marketing literature as to how SI should be measured. We have presented a case, however, that SI is better treated as a cognitive social psychological construct than as overt behavior and that it should be measured as temporally distinct from measures of EI. In the absence of demonstrated reliable and valid instrumentation developed specifically for measuring SI, but consistent with Richins et al.'s (1992) suggestion that the indicators of EI and SI are identical, we chose to measure SI with a short-form version of an existing EI instrument. Study participants responded to five items adapted from Laurent & Kapferer's (1985) Consumer Involvement Profile (CIP). These five items were selected, based on their face validity, from the larger set of 15 items comprising the CIP and included on the ESF. Table 1 details both the set of instructions, the items themselves, and the response options available to respondents.

*Flow.* The ESF also included two mood items (happy-unhappy, irritablegood humored), and two items regarding the respondents' focus of attention to the task at hand (entirely immersed-mind on other things, involvedbored). These items, the set of instructions, and response options are also outlined in Table 1.

Enduring Involvement. Three to four months later, prior to the Phase Two ESM data collection, respondents were asked about their EI with respect to the four just described activity contexts. The substantial time differential between Phase One (SI) and Phase Two (EI) data collection was considered crucial to the integrity of this study. Additional care was taken to differentiate

TABLE 1 SI and Flow Questions

*SI instructions and items:* "Think about WHAT WAS HAPPENING at the time you were beeped. For each of the following statements, circle the response that best describes that situation" (Respondents were instructed to circle the most appropriate response).

	Strongly Di		Strong	ngly Agree				
That is something that interests me a lot	1	2	3	4	5	6	7	
I was really enjoying doing that	1	2	3	4	5	6	7	
I am confident that was the right activity								
for me to be doing right now	1	2	3	4	5	6	7	
My doing that gives a glimpse of the type								
of person I really am	1	2	3	4	<b>5</b>	6	7	
I will be annoyed if that proves to be a								
poor use of my time	1	2	3	4	5	6	7	

Flow items (respondents were instructed to circle the most appropriate response):

How INVOLVED were you in what you were doing?

- 1. Entirely; I wasn't paying attention to anything else at that time
- 2. Mostly; but I was putting some attention to other things too
- 3. Only partially; my mind was on other things at the same time

Think about how you were FEELING at the time of the signal, and indicate below:

		I was	FEELIN	łG		
Happy	1	2	3	4	5	Unhappy <sup>1</sup>
Involved	1	2	3	4	5	Bored <sup>1</sup>
Irritable	1	2	3	4	5	Good-Humored
here items were m	accured in t	ha fiald	with n	n recent	h accietant	present SL and Flow item

These items were measured in the field, with no research assistant present. SI and Flow items were measured as part of a larger battery of ESM questions.

<sup>1</sup>Indicates reverse-coded items.

between EI and SI, however. Respondents were instructed to consider EI for the four activity contexts generically. That is, they were not asked to complete the questionnaire while trying to recall the exact episode highlighted in Phase One. Instead, they were specifically instructed to think of the activity context (e.g., cleaning the house, playing soccer) in general terms. Instructions specified that they should "Answer the following statements by thinking about how you *usually* feel about the activity" (emphasis in original). A complete list of leisure and non-leisure contexts for which data were collected is presented in Table 2. Research assistants verbally administered the 15-item Laurent and Kapferer (1985) Consumer Involvement Profile (again using a seven-point Likert format, see Table 3). That the EI instrument was administered verbally and in-person allowed research assistants to further clarify that we were seeking generic EI with respect to the activity in question, not post hoc recollection of a specific circumstance several months previous.

Leisure			Non-Leisure					
Watching television* (14)**	Going to/watching a movie (6)	Family barbeque and picnics (5)	Job search, excluding interviews (14)	Household chores (8)	Cleaning house* (7)			
Shopping <sup>*</sup> (5)	Visiting a park (3)	Computer games (3)	Office and paperwork (4)	Grocery shopping* (4)	Job interview (3)			
Having a drink with friends (3)	Reading a book or magazine (3)	Music practice, playing piano/guitar (2)	Disciplining children (3)	Visiting institutionalized parent (2)	Getting children ready for school (2)			
Watching youth sports (2)	Working out (2)	Bicycling (2)	Cooking* (3)	Personal hygiene* (2)	Doing laundry (2)			
Baking (2)	Dancing (2)	Walking (2)	Business meetings (2)	Running errands (2)	Moving (2)			
Listening to music (2)	Gardening (2)	Entertaining guests	Writing* (2)	Child care* (2)	Cleaning the garage			
Talking on the telephone	Eating breakfast	Playing chess	Working at a switchboard	Auto repair	Doing dishes			
Electronics hobby	Singing in a choir	Pool party	Personal care after surgery	Counseling friends	Intercessory prayer			
Word puzzles	Painting	Playing bar games	Eating supper	Going to court	Arguing			
Reading to children	Garage sales	Visiting floral gardens	Installing electrical equipment	Attending Alcoholics Anonymous meetings	Working on budgeting/ finances			
Running/jogging	Playing baseball	Playing billiards	Working on assembly line	Feeding the baby	Washing floors			
Relaxing after a meal	At the beach	Camping	Telephone sales	Visiting the doctor	Cleaning windows			
Attending a professional sports event	Attending a multi- cultural festival	Operating amateur radio	Teaching a computer course	Filing unemployment claims	Doing daughter's chores (paper route)			
Visiting grandmother	Refereeing soccer	Eating pizza	Watching television*					
Church group activities	Making deserts	Playing golf	0					
Reading the paper	Playing Bingo	Dining out						
Cooking*	Child care*	Water skiing						
Writing letters*	Taking a shower*	Cleaning house*						

 TABLE 2
 Self-described Leisure and Non-Leisure Contexts

\*Indicates contexts which were classified as leisure by some respondents and as non-leisure by other respondents.

\*\*Number of respondents choosing each context, if greater than one, is listed in parentheses.

# TABLE 3EI Data Collection Instrument

EI Instructions: "MY INVOLVEMENT WITH [context supplied by interviewer]. Answer the
following statements by thinking about how you usually feel about the activity"
I attach great importance to (Attraction)
It is complicated to choose over other activities (Risk Probability)
When I, it is like giving a gift to myself (Attraction)
I can tell about a person by whether or not they (Sign)
I get annoyed if I and it proved to be the wrong activity choice (Risk
Consequence)
I really enjoy (Attraction)
never leaves me indifferent (Attraction)
When I mistakenly choose from among other activities it really matters to me
(Risk Consequence)
interests me a lot (Attraction)
That I tells a lot about me (Sign)
Whenever I, I am confident that it is the right activity choice (Risk Probability)
is pleasurable (Attraction)
If, after I have, my choice proved to be poor, I would be upset (Risk
Consequence)
When choosing from among other activities I always feel confident that I will make the right choice (Risk Probability)
My participation in gives a glimpse of the type of person I am (Sign)
The EI questionnaire was administered in-person by a research assistant. Items are listed in
the order in which they appeared on the questionnaire. Facets are shown (in parentheses)
for informational purposes only. They did not appear on the questionnaire. Respondents

for informational purposes only. They did not appear on the questionnaire. Respondents were asked to indicate their agreement with each statement on a 7-point scale where -3 represented strongly disagree and +3 represented strongly agree.

Taken together, the 46 respondents completed 185 total EI questionnaires (89 for non-leisure activities, 96 for leisure activities). These 185 EI responses were then matched, prior to analysis, with the 185 corresponding SI and flow responses from their Phase One ESM booklets.

# Results

#### Model Testing

Several models of the relationships among the central variables of interest that included enduring involvement (EI), situational involvement (SI), and flow were tested using data based on all 185 activities (non-leisure and leisure) as well as the non-leisure (n = 89) and leisure activities (n = 96)separately. The models tested with all 185 activities also included activity type (non-leisure, leisure) as a variable. The correlation matrix for the observed variables, and their means and standard deviations for all 185 activities are reported in Table 4. Structural equation modeling (SEM) was employed us-

	and Non-Leisure Activities (n = 185)										
Variables*	1	2	3	4	5	6	7	8	9	10	11
1. Activity Type											
2. EI	.359										
3. SI1 (Interest)	.630	.453									
4. SI2 (Enjoy)	.671	.408	.769								
5. SI3 (Right)	.196	.262	.338	.363							
6. SI4 (Person)	.167	.147	.355	.290	.202						
7. SI5 (Time)	.174	.153	.093	.262	.152	.008					
8. F1 (Happy)	.427	.237	.441	.588	.219	.173	.249				
9. F2 (Good)	.507	.276	.472	.619	.245	.226	.155	.669			
10. F3 (Involved)	.184	.256	.332	.335	.256	.118	.146	.252	.333		
11. F4 (Attention)	.119	.122	.279	.229	.112	.029	.083	.077	.138	.400	
Mean	.519	.633	.894	.962	1.712	1.117	.488	3.682	3.702	3.897	2.422
Standard Deviation	.500	1.039	2.002	1.993	1.509	1.519	2.085	1.154	1.081	1.085	.686

TABLE 4Correlation Coefficients, Means, and Standard Deviations of Measures ofObserved Variables Used in Structural Equation Modeling Analysis of Leisureand Non-Leisure Activities (n = 185)

*Note:* \*Activity type was coded so that non-leisure activity = 0 and leisure activity = 1. EI refers to enduring involvement. SI1 to SI5 refer to the five situational involvement scale items, and F1 to F4 refer to the four flow scale items.

ing AMOS 4.01, SPSS 11 for Windows software. The maximum likelihood (ML) method of estimation was used in all analyses. SEM analyses provide a variety of overall measures (fit indices) of the extent to which the relationships specified in a model (implied covariances) differ from those relationships found in the data (sample covariances). Smaller differences indicate a better fit of the model to the data (Bollen, 1989).

Following the standard convention, the rectangular boxes in Figures 2, 3, and 4 represent observed or measured variables and the ellipses represent latent variables. Type of activity (non-leisure, leisure) was included as an exogenous variable in the first models tested (see Figure 2) using the data for all of the activities (n = 185). Non-leisure and leisure activities were coded 0 and 1 respectively. The measure of EI is based on the average score of the 15-item Laurent and Kapferer (1985) Consumer Involvement Profile scale. Given that the scale provides a highly reliable estimate of EI and in the present study coefficient alpha was .88, EI was treated as an observed rather than a latent variable to keep the number of observed variables to a reasonable level given the relatively small non-leisure (n = 89) and leisure (n =96) activity sample sizes. Alternatively, the mean scores for each of the EI subscales could have been treated as observed variables and indicators of EI as a latent variable. There are no generally agreed upon rules about the appropriate sample size required relative to the number of observed variables to be used in a SEM analysis. However, too large a ratio can result in poor



Figure 2. Situational involvement mediation model with type of activity included as an exogenous variable and tested with the data based on all activities (n = 185). The coefficients for the direct paths from enduring involvement and type of activity to flow were not significant (p > .05) and were not included in the model.



Figure 3. Situational involvement mediation model tested with data based on the non-leisure activities. The coefficient for the direct path from enduring involvement to flow was not significant (p > .05) and has not been included in the model.



Figure 4. Situational involvement mediation model tested with data based on the leisure activities. The coefficient for the direct path from enduring involvement to flow was not significant (p > .05) and has not been included in the model.

or unstable estimates of the population parameters (MacCallum & Austin, 2000). The measurement models for the SI and flow variables that were constructed specifically for this analysis were included in the models tested.

Both SI and flow latent variables and their respective indicators (observed variables) constituted these measurement models. The indicators of the latent variables for SI (5 indicators) and flow (4 indicators) that were included in all of the models tested were described in the Method section and are shown in Figures 2, 3, and 4. The numbers beside the paths drawn from the latent variables to their respective indicators are the equivalent of standardized factor loadings that reflect how good a measure each is of its latent construct. The Greek letter epsilon (ɛ) represents the error variance for the indicators as measures of the endogenous latent variables in the models. The standardized factor loadings for the indicators were statistically significant (p < .05) in each of the models with two exceptions, and consequently, the measurement models for these variables were considered to be acceptable. The exceptions included one indicator of the latent variable SI in the model tested using the leisure activity data ("I will be annoyed if that proves to be a poor use of my time"). The standardized factor loading for this indicator was significant when the model was tested with all 185 activities and the 89 non-leisure activities. Also, the loading for the "attention" indicator of flow when the model was tested using the non-leisure activity data did not reach significance (p > .05). This path was significantly different from zero in the other two models (p < .05). These indicators were retained, however, to keep the models consistent, and their removal would not have substantially improved the fit of any of the models to the data.

#### Type of Activity, EI, SE, and Flow

The first models tested were based on the data from all 185 activities. Because theory and previous research findings do not allow us to precisely specify the nature of the relationships among all the variables in the model, all possible direct paths between activity type, EI, SI, and flow were initially included in the model. Paths with near-zero betas that were not statistically significant (p > .05) were deleted in order to improve the fit of the model. The coefficients for the paths linking the activity type, EI, SI, and flow variables in the structural models shown in the figures are standardized regression or beta coefficients ( $\beta$ s). SEM procedures provide estimates of the values of the latent variables based on the model specified and the values of all the observed variables. The fit of these models and the others examined was assessed with a number of standard fit measures provide by AMOS (see Arbuckle, 1997). The values of the fit measures for the model shown in Figure 2 as well as Figures 3 and 4 are reported in Table 5 along with a note about their interpretation.

When models were tested with all 185 activities, the paths from type of activity to EI ( $\beta = .36$ , p < .05) and SI ( $\beta = .64$ , p < .05) as shown in Figure 2 suggest that the respondents had higher levels of enduring involvement and experienced greater situational involvement in their leisure as compared to non-leisure activities. Also, the relationships among the EI, SI, and flow

Model	Overall Fit Indicies									
	$\chi^2$	$\chi^2/df$	IFI	CFI	RMSEA	NFI	TLI			
All Activities	86.39*	2.06	0.99	0.98	0.08	0.97	0.98			
Non-Leisure Activities Leisure Activities	$66.86* \\ 41.87$	$1.97 \\ 1.23$	0.97 0.99	$0.97 \\ 0.99$	$\begin{array}{c} 0.11 \\ 0.05 \end{array}$	$\begin{array}{c} 0.94 \\ 0.98 \end{array}$	0.95 0.99			

 
 TABLE 5

 Summary of Overall Fit Indices for the Enduring Involvement, Situational Involvement, and Flow Models

Notes:

The "\*" in the second column of the table indicates that the chi-square value ( $\chi^2$ ) is statistically significant (p < .05). Degrees of freedom for the leisure and non-leisure activity models is 34. Degrees of freedom for the all activities model is 42.

See Arbuckle (1997) for a summary and discussion of these indices. Generally, a good fit exists when there is a statistically non-significant chi-square, that is, the difference between the relationships implied by the model and those found in the sample data is small. Since chi-square is sensitive to sample size, *relative chi-square*  $(\chi^2/df)$  is often used as an alternative indicator. A ratio of approximately 2 or 3 to 1 is considered indicative of an acceptable fit. A good fit is also indicated when the *Incremental Fit Index* (IFI) and *Comparable Fit Index* (CFI) values are in the upper .90s. A *Root Mean Square of Approximation* (RMSEA) value of around .05 or less is considered to indicate a very close fit of the model with values above.08 suggesting improvements are needed. With respect to the *Normed Fit Index* (NFI) and *Tucker-Lewis Index* (TLI), it has been suggested that fit indices of less than .9 can usually be improved substantially.

variables were generally consistent with expectations. Respondents who reported higher levels of EI had higher levels of SI ( $\beta = .24$ ) and in turn this higher SI was associated with higher levels of flow ( $\beta = .78$ ). The direct path from EI to flow ( $\beta = -.05$ ) was not significantly different from zero (b > -.05) .05), nor was the direct path from activity type to flow (these non-significant paths were not included in the final model shown in Figure 2). When a model that included only EI and flow was tested, the beta coefficient for the EI-flow path was .32 (p < .05) compared to -.05 when SI is part of the model. These conditions indicate that the relationship between EI and flow appears to be mediated by situational involvement (for a further discussion of the conditions necessary for mediation see MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002). The chi-square value for the model shown in Figure 2 is 86.39 (p < .05). Though this value is statistically significant, the relative chi-square ratio ( $\chi^2/df = 2.06$ ) that adjusts for sample size suggests that the model is a good fit to the data. The other fit indices calculated also indicate that this model provides a reasonable fit. These issues are further discussed in the footnote accompanying Table 5.

#### The Fit of the EI-SI-Flow Model to the Leisure versus Non-Leisure Activity Data

To determine if the relationships among EI, SI, and flow differed substantially depending on type of activity, the beta coefficients for each of the paths linking these variables were compared when the model was examined separately with the leisure (n = 96) and non-leisure activity (n = 89) data. As can be seen in Figures 3 and 4, the same pattern of relationships among EI, SI, and flow were found regardless of activity type and these relationships were consistent with the findings for all 185 activities (Figure 2). When tested separately with non-leisure and leisure activity data, the coefficients for the paths from EI to SI ( $\beta$  = .28 and  $\beta$  = .38, respectively) and SI to flow ( $\beta$  = .72 and  $\beta = .81$ , respectively) were significant (p < .05). Also, as with the model for all 185 activities, the coefficients for the direct paths leading from enduring involvement to flow for both the non-leisure and leisure activities  $(\beta = .0\overline{4} \text{ and } \beta = -.10$ , respectively) were not significantly different from zero (p > .05). Consequently, SI mediates the relationship between EI and flow for both non-leisure and leisure activities. The beta coefficients of the direct paths between EI and flow when the SI variable was not included in the model for both the non-leisure and leisure activities were .14 and .16 respectively. Neither coefficient was significantly different from zero (p >.05).

To determine if the differences in the sizes of the coefficients for the same paths in the non-leisure and leisure models were statistically significant, AMOS was used to simultaneously analyze and compare these parameters. A multi-group model was used such that the same structural and measurement models were used and the parameter values were allowed to differ when the model was fitted separately to the leisure and non-leisure activity data. AMOS provides a critical ratio (*CR*) that allows the significance of the differences

in the size of coefficients for the same paths to be determined. Though the size of the coefficients for comparable paths did differ to some extent (as can be seen by comparing the same paths shown in Figures 3 and 4), these differences were not statistically significant for either the EI-SI (CR = 1.16, p > .05) or the SI-flow (CR = 0.01, p > .05) paths.

For the leisure activity data in which we were primarily interested, the chi-square value ( $\chi^2 = 41.87$ , p = .17), relative chi-square ratio ( $\chi^2/df = 1.23$ ), and the other indicies all suggest that the model is a very good fit to the data. Though not as good, the fit of the model to the non-leisure activity data was reasonable as indicated by most of the indices except for RMSEA (see Table 5).

#### Discussion

Supporting our central hypothesis, the data provided evidence of strong and consistent relationships between EI, SI, and flow. This finding is an important contribution in the sense that these relationships have been implied and discussed conceptually, but have not been formally examined empirically. Also, as expected, SI mediated the EI-flow relationship when the model was tested with all the data and separately for leisure and non-leisure contexts. No predictions were made for the presence of a direct path between EI and flow when SI is taken into account and included in the model. In fact, no direct paths between EI and flow were found. It is possible that such direct paths in addition to the SI mediated path might be found in research conducted with other populations and in other contexts. However, our analyses are consistent with research suggesting that models proposing direct paths between EI and the experiential outcomes associated with the specific behaviors and activity contexts are less likely to be found. Our research adds to an emerging literature suggesting that variables such as SI and psychological commitment are important mediators of EI and subsequent behavior (Funk & James, 2002; Iwasaki & Havitz, 2004).

This research also supports assertions that, whenever possible, researchers should consider both the enduring and situational aspects of the involvement construct (Burton & Netemeyer, 1992; Celsi & Olson, 1988). To the extent that they can be meaningfully differentiated in the minds of respondents, EI and SI appear to make unique contributions to experiential outcomes. SI responses may provide an additional variable for refining the aforementioned involvement-commitment models. An important advance in this research was the use of five items for measuring SI. These items, originally developed by Laurent and Kapferer (1985) for measuring EI with consumer goods and later modified for the study of leisure activity contexts (Havitz & Dimanche, 1997), are arguably superior to the behavioral surrogates used in most previous SI research in the sense that they are an attempt to measure the cognitive aspects of the latent construct as opposed to subsequent manifestations including search behavior, purchase behavior, frequency of participation or the like. As noted earlier, our present approach is consistent

with recent research of this type (e.g., Laverie & Arnett, 2000) but more explicit in its attempt to distinguish conceptually and temporally between SI and EI. The five SI items used in this research, selected on the basis of face validity from the larger pool of 15 items in Laurent and Kapferer's CIP proved quite adaptable to the ESF for capturing the immediate temporal context of respondents' involvement. The situational risk consequence item did not contribute significantly to the leisure activity model, however. Measurement of risk involvement has been identified as problematic in previously published EI studies (Havitz & Dimanche, 1997) and the present research adds additional weight to arguments that risk measurement must be improved or dropped from subsequent involvement research designs.

This study introduced an innovative, albeit intrusive, labor-intensive, and time-consuming data collection method for measuring and distinguishing between EI and SI responses. It seems entirely possible that, given due caution as explained by Burton and Netemeyer (1992), EI and SI responses can be collected at shorter intervals (e.g., Pritchard & Brunson III, 2001) and perhaps even concurrently on a single questionnaire (Laverie & Arnett, 2000). Although arguably more sophisticated than previous attempts to collect data to differentiate between EI and SI, the present data are not without limitations. Our data, though collected over a three- to four-month period are not longitudinal in the sense that data for each construct (EI, SI, and Flow) were collected only once for each respondent and each activity context. A "transactional" model which recognizes feedback loops between EI, SI, and flow could be tested in future research in order to explore the effect, for example, that repeated experiences of flow might have on EI. In order to do so, however, repeat measures of EI, SI, and flow would have to be collected. Also, researchers interested in fully capturing the experiential aspects of daily life should measure SI and flow at multiple intervals in order to better capture in situ nuances described by Stewart & Hull (1996), Stewart (1998), and Madrigal (2003). Madrigal, in particular, provided convincing evidence that level of affect and satisfaction varied considerably both in the course of and between similar leisure contexts. Although SI was not measured in his research, it seems likely that such fluctuations are common, if not inevitable.

Previous research has suggested either implicitly (e.g., Zaichkowsky, 1990) or explicitly (e.g., Havitz & Dimanche, 1997; Havitz, Green, & Mc-Carville, 1993) that EI levels tend to be higher in leisure contexts than in other contexts. The findings of the present study supported these contentions. Levels of EI and SI were higher in leisure than in non-leisure contexts as suggested by the significant direct paths from activity type to EI and SI (Figure 2). Also, according to the model, though level of flow was not directly influenced by type of activity, it was indirectly influenced through type of activity's influence on EI and SI, which in turn were positively linked to flow. Although significant, differences between leisure and non-leisure based EI and SI levels may have been muted in the present study. As can be seen in Table 2, a large percentage of the non-leisure contexts examined were di-

rectly related to job search and other employment-related issues. Given the salience of work-related identity in North American society, these job-related non-leisure contexts may have been more involving than more mundane non-leisure contexts related to household chores and personal maintenance. A logical follow-up to this research would be to examine EI, SI and flow intensity with populations other than the unemployed adults comprising the present sample.

This discussion brings us to another research question, that is, whether EI, SI, and flow relationships would be stronger in leisure as opposed to nonleisure contexts. Little support was found for this contextual difference in the pattern of relationships. Although the model when tested with leisure activity data was clearly supported, the coefficients for the paths linking EI, SI, and flow were larger, and the model appeared to fit the data better, the evidence was not sufficient to definitively conclude that relationships were in fact more robust for leisure participation as the comparison of the two sets of coefficients was not significant (Table 5, Figures 3 and 4).

Stewart and Hull (1996) posed a variety of questions related to the aforementioned relationships, some of which have been at least partially addressed in this research. For example, Stewart and Hull also asked whether visitors who were highly involved in the destination choice process in leisure and tourism contexts experience a higher sense of fulfillment than do those who are less involved? Although the present research did not examine issues specific to destination choice, our data do suggest that high levels of EI are congruent with elevated mood states and deeper focus of attention. Stewart and Hull also asked what on-site situations have the most enduring influence on leisure or recreational experiences? Again, although our data were not site-specific in nature, or at least not analyzed as such in this paper, it seems clear that situational variables in general have a significant effect on quality of experience. Also, as reasonable as it seems to suggest that repeated episodes of high SI and flow may, over time, elevate EI levels this hypothesis is as yet untested. The inverse of this relationship could also be tested. Repeated episodes of low SI and lack of flow may, over time, deflate EI levels.

The flow measurements used in this research, though consistent with past research do not fully capture all of the facets of the flow concept. Although we collected data related to both affective state and focus of attention, several components thought to be characteristic of flow were not measured. Most notably, measures of skill and challenge were not included in our ESF. This omission was intentional and made in deference to the complexity of the present study and other research goals (see Havitz et al., 2004), and because data for the present study were collected prior to publication of flow measures that have been developed by other researchers (e.g., Jackson & Marsh, 1999). Nevertheless, an important suggestion for future EI, SI, and flow research is that more complete measures of the latter construct be included. In addition, research collected using a larger sample would potentially allow for a more detailed (that is, multi-faceted) treatment of EI than was possible here. Such treatment would be more consistent with the broader body of EI research conducted in leisure contexts (Havitz & Dimanche, 1997).

Future research efforts should be expanded to include more comprehensive testing of potential positive and negative effects of EI, SI, and flow. and how these constructs inter-relate. Situational involvement appears to provide an important explanatory link between EI and flow, but the link between EI and SI, though significant, does not appear to be extremely strong. Future research could explore more in-depth, situational influences related to social context, weather, and other life events that moderate EI and SI relationships. Also, intuitively, one might expect to see positive relationships between frequent experiences of EI, SI, and flow, and quality of life factors such as life satisfaction, self-esteem, health and well-being. For example, Mannell (1993) reported that older adults who regularly experienced flow-like activity in daily life also reported higher levels of life satisfaction than those who did not regularly experience flow. Nevertheless, these relationships have not been extensively tested. Likewise, EI has been deemed important from a management and planning perspective, in part because leisure service professionals develop programs to improve quality of life, but this link has not been conclusively established (Havitz & Dimanche, 1999). This study, therefore, may provide a foundation upon which several lines of future research may rest.

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