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Marathons for the Masses: Exploring the Role of Negotiation-Efficacy and Involvement on Running Commitment

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Abstract

Marathon running is a leisure behavior that has seen tremendous growth during the past decade. The purpose of this study was to gain a better understanding of factors associated with commitment to running for marathon participants. This study was designed to investigate the relationships among negotiation-efficacy, leisure involvement, and psychological commitment for individuals who had participated in a marathon event. A three-facet involvement measure was confirmed and then combined with negotiation-efficacy to predict commitment to running. The results revealed that two involvement dimensions and negotiation-efficacy explained 72% of the variance in commitment. A discussion of findings from the study as well as practical implications and suggestions for future research are presented.

KEYWORDS: Negotiation-efficacy, leisure involvement, psychological commitment

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Introduction

The positive effects of regular exercise for physical and mental health are well documented (Berger, Pargman, & Weinberg, 2006; Blair, 1995; Paffenbarger, Hyde, & Wing, 1990). Physiologically, regular physical activity can reduce the risk of cardiovascular disease and aid in the prevention or control of diabetes, obesity, and osteoporosis (World Health Organization, 2010). Psychologically, consistent physical activity is associated with a reduction in depression and anxiety and contributes to the management of stress (Berger & Motl, 2001; Taylor, 2000). Additionally, physical activity enhances the development of self-esteem and confidence and provides a mechanism for social engagement (World Health Organization, 2010).

One form of physical activity that has seen tremendous growth during the past decade is marathon running. Prior to the 1970s, jogging for health and fitness was rare, but since then, long-distance running has become an arena open to all (Yair, 1990,1992). During the late 1970s and early 1980s, running in the United States was transformed from a sport enjoyed by a few aficionados to an activity that attracted thousands of health-conscious people (Williams, 2009). Marathon running has experienced a significant increase in popularity, reflected in participation rates and the number of marathons now offered in North America and abroad (Allison, 2010). According to Running USA (2011), a running industry-supported research group, 2010 was another record year of growth for U.S. marathons, with more than half a million runners finishing the 26.2 mile distance. There were an estimated 507,000 finishers in U.S. marathons in 2010, an 8.6% increase from 2009, and the second largest increase in the past 25 years (U.S. marathons grew 9.9% in 2009). Further, more than 35 new marathons were launched in 2010, bringing the total to more than 625 U.S. marathons, up from about 200 marathons in 1985 (Helliker, 2011). The relative increases in the number of finishers and marathon events may, in part, be attributed to the fact that more individuals see marathon participation as a legitimate option for leisure based physical activity. This differs from earlier perceptions that this type of activity was appropriate for only highly trained elite athletes (Allison, 2010).

The beginning of marathons for the masses can be traced back to 1976, when the New York City Marathon established its first citywide, five-borough race; this was the first true big-city marathon, which catered to runners of all abilities (Allison, 2010). There were several other landmark marathon events that set the standards for attracting large numbers of recreational runners by creating a more festive and interactive atmosphere. These included the 1994 Los Angeles Marathon, which featured local entertainers and musicians performing along the route, the 1994 Walt Disney World Marathon with a race course winding through the theme park, and the 1998 Rock 'n' Roll Marathon in San Diego that featured rock bands performing at every mile. These marathon events provided entertainment and created opportunities for a large population of runners that had previously considered marathons to be too intimidating, too grueling, or too serious (Allison, 2010). The perceived obstacles to running a marathon, which at one point in time may have seemed insurmountable to many, were now being negotiated by runners of all ability levels and were leading to greater involvement with running.

This confidence or belief in one's ability to successfully negotiate through constraints is termed *negotiation-efficacy*. A relatively new concept, negotiation-efficacy was introduced in the leisure literature by Loucks-Atkinson and Mannell (2007) and also examined by White (2008). Although the research on negotiation-efficacy is scant, this concept would seemingly be a factor associated with higher levels of involvement in a variety of leisure pursuits. Confidence in overcoming constraints would be especially important for marathon participants. There are many factors that pose serious obstacles to the completion of a marathon. These include numerous hours and miles of training that often require work, meals, family and social schedules to be organized to accommodate one's running regimen (Ogles & Masters, 2003). Family-leisure conflicts are commonly experienced by long-distance runners, especially those with young children and lack of spouse support (Barrell, Chamberlain, Evans, Holt, & Mackean, 1989; Goff, Fick, & Oppliger, 1997; Goodsell & Harris, 2011). Although the monetary costs of marathon running are not high compared to some leisure activities, there are expenses including shoes, running attire, race entry fees, and often travel to events (Ogles & Masters, 2003). Furthermore, the level of training needed to complete a marathon is clearly beyond the exercise necessary to acquire basic health benefits and this can sometimes lead to fatigue and injury (Blair, 1995). Despite the high costs associated with training time and effort, increasing numbers of individuals are voluntarily engaging in marathon running on a regular basis (Ogles & Masters, 2003). This paradox makes one wonder what factors contribute to commitment to running.

As noted above, there are many constraints associated with long-distance running; however, the number of marathon participants continues to grow (Helliker, 2011). Running can promote health and give meaning to one's life and thus, the conditions under which people become committed to running are of interest and ought to be investigated (Yair, 1990). Previous research has investigated the link between commitment and long-distance running (Leedy, 2000; Yair, 1990, 1992) with recent empirical work demonstrating a positive correlation between involvement and running commitment (Beaton, Funk, Ridinger & Jordan, 2011). Leisure involvement has been suggested to assist with constraint negotiation and has been associated with several outcomes including psychological commitment and loyalty (Iwasaki & Havitz, 2004). It seems logical that highly involved people who participate in marathons would be confident in their ability to overcome obstacles and would be committed to running; however, this has not been empirically tested.

Marathon running is the focus of this study due to its growing popularity as a leisure activity and because it is associated with high levels of constraints and commitment. A marathon event requires considerable time and effort to prepare for and higher levels of commitment have been found in comparison to running events of shorter lengths (e.g., Funk, Jordan, Ridinger, & Kaplanidou, 2011). Hence, marathon participants are confronted with a number of constraints but have successfully negotiated these obstacles. This study evaluated the belief or efficacy of these runners in overcoming barriers and how this confidence to negotiate through constraints, coupled with involvement, led to commitment. Thus,

this investigation examined whether an individual's level of running commitment could be explained by involvement and negotiation-efficacy. We propose that higher levels of involvement combined with the ability to utilize coping efforts to overcome obstacles should increase the level of psychological commitment to running. In addition, because negotiation-efficacy is a relatively new construct in the leisure literature, further exploration was conducted to determine if differences in negotiation-efficacy were evident based on several participant characteristics.

Review of Literature

Negotiation-Efficacy

The concept of negotiation-efficacy evolved from research on leisure constraints. Early studies conceptualized a leisure constraint simply as any barrier that prevented activity participation (Buchanan & Allen, 1985; Jackson & Searle, 1985; Searle & Jackson 1985). Crawford and Godbey (1987) designed a model that classified leisure constraints into three categories: intrapersonal, interpersonal, and structural constraints. Intrapersonal constraints involve psychological states and individual attributes such as perceived abilities, interest in an activity, and level of confidence. Interpersonal constraints pertain to social interactions and relationships among individuals. Difficulty in finding a running partner to train with is an example of an interpersonal constraint. Structural constraints are features of the external environment such as financial resources, time limitations, facility access, and climate. Crawford, Jackson, and Godbey (1991) refined Crawford and Godbey's model by presenting a hierarchical model of leisure constraints which suggested that intrapersonal and interpersonal constraints affect leisure preferences whereas structural constraints intervene between preferences and participation. Crawford et al. surmised that intrapersonal constraints are the most powerful predictors of behavior while structural constraints are the least powerful.

Gender scholars have suggested that females are more constrained than males in their leisure behavior (Alexandris & Carroll, 1997; Jackson & Henderson, 1995; Raymore, Godbey, & Crawford, 1994; Searle & Jackson, 1985; Shaw, 1985). Some of the leisure constraints commonly cited by women include lack of time, lack of resources, and lack of support with child care and household chores (Dixon, 2009). For female runners, fear of being outside at night, running alone, and safety concerns were constraints that affected the timing, location, and enjoyment of their runs (Goodsell & Harris, 2011). In their study on family life and marathon running, Goodsell and Harris noted that previous studies on the influence of marriage and children on leisure have primarily focused on constraints that women experience, neglecting the constraints faced by men. Using in-depth interviews, these researchers found that cooperative strategies were used to prevent or reduce family-leisure conflict in families where one or both spouses participated in long distance running. Domestic duties were shared and spouse support was evident for those who were able to find a balance between family commitments and running. Constraints to running were experienced by both husbands and wives, but these challenges were not impossible to overcome, thus providing support for concept of constraint negotiation.

Research on constraint negotiation evolved after some scholars questioned Crawford and Godbey's (1987) original model of leisure constraints because it defined constraints too narrowly (Henderson, 1997; Samdahl & Jekubovich, 1997). Researchers (Kay & Jackson, 1991; Scott, 1991; Shaw, Bonen, & McCabe, 1991) found evidence that leisure constraints do not automatically restrict or inhibit leisure participation. Rather, individuals are able to overcome threats to participation and actively engage in leisure activities. This finding resulted in further development of the leisure constraints construct and led to the concept of constraint negotiation. Jackson, Crawford, and Godbey (1993) presented several negotiation propositions. Their first and most central proposition argued that "leisure participation is dependent not on the absence of constraints but on the negotiation through them. Such negotiation may modify participation rather than foreclosing it" (p. 1). The constraint negotiation propositions developed by Jackson et al. have been supported by a number of studies (Henderson, Bedini, Hecht, & Schuler, 1995; Hubbard & Mannell, 2001; Jackson & Rucks, 1995; Loucks-Atkinson & Mannell, 2007; Son, Kerstetter, & Mowen, 2008; White, 2008).

Early studies on constraint negotiation were generally descriptive and focused on identifying and categorizing negotiation strategies (Henderson et al., 1995; Jackson & Rucks, 1995) while more recent studies have explored relationships among several variables in the constraint negotiation process (Hubbard & Mannell, 2001; Loucks-Atkinson & Mannell, 2007; Son et al., 2008; White, 2008). Both Henderson et al. and Hubbard and Mannell suggested that self-efficacy theory might provide useful insights in future research for understanding constraint negotiation and leisure behavior, but Loucks-Atkinson and Mannell were the first to apply this theory. They coined the term negotiation-efficacy and included this variable in their study on participation in physically active leisure for individuals with fibromyalgia syndrome. They defined negotiation-efficacy as "people's confidence in their ability to successfully use negotiation strategies to overcome constraints they encounter" (p. 22). They also noted that the idea of negotiation-efficacy is related to Jackson et al.'s (1993) proposition that people anticipate their ability to negotiate based on previous experience with constraints.

Negotiation-efficacy is based on Bandura's (1977, 1982) self-efficacy theory, a social-cognitive approach to explaining behavior. Self-efficacy is defined as "people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives" (Bandura, 1994, p. 71). Self-efficacy involves individual judgment about competence to perform a specific task in a given domain. People with higher levels of perceived self-efficacy will have greater motivation to persevere in the face of adversity (Bandura, 1982). In applying this idea to constraint negotiation, people with higher levels of efficacy will persevere in their coping efforts despite constraints, whereas those who have doubts about their ability to overcome obstacles may reduce their efforts or cease involvement in the activity.

Loucks-Atkinson and Mannell (2007) examined the role of self-efficacy in the constraints negotiation process associated with physically active leisure for people with fibromyalgia syndrome. Using a measure of negotiation-efficacy based on perceptions of confidence in one's ability to use 37 negotiation strategies devel-

oped specifically for this study's population, they found a positive relationship between negotiation-efficacy and negotiation success. The more confident individuals were in their ability to cope with constraints, the greater their efforts were to negotiate and overcome those constraints.

White's (2008) study on leisure constraints negotiation in outdoor recreation was the only other study found that incorporated the construct of negotiation-efficacy. White's measure of negotiation-efficacy was more general than the one used by Loucks-Atkinson and Mannell (2007). White's intent was to "develop a unidimensional measure of perceived self-efficacy for the domain of negotiation" (p. 351). His measure included items designed to represent the sources of self-efficacy defined by Bandura (1997): mastery experience, vicarious experience, social persuasion, and physiological and emotional response. Mastery experience is the most influential source of self-efficacy and results from prior success at completing a task. Self-efficacy is also influenced by vicarious experience of observing other people of similar ability succeed or fail in their efforts to accomplish a specific task. Social persuasion such as encouragement from others to sustain effort in the face of challenges also produces self-efficacy. The final source of self-efficacy is related to physiological and affective states. If involvement with a specific task leads to responses associated with stress (e.g., increased heart rate and feelings of anxiety), self-efficacy can be negatively impacted. On the other hand, having a positive mood about a task often leads to greater success and higher levels of positive self-efficacy (Bandura, 1997).

The purpose of White's study (2008) was to extend prior research by conducting an empirical test of a conceptual model of constraints negotiation in the context of outdoor recreation. Findings supported his hypotheses that negotiation-efficacy would encourage motivation, diminish the perception of constraints, and encourage negotiation efforts, thus having an indirect positive effect on participation. The results presented by Loucks-Atkinson and Mannell (2007) and White provide support for the inclusion of a negotiation-efficacy construct in future research that examines participation in sport and leisure activities. Neither of these studies included the constructs of involvement or commitment. Thus, this current research adds to the knowledge base on negotiation-efficacy by examining its effect on commitment when combined with leisure involvement.

Leisure Involvement

A number of studies have examined motives of marathoners (Funk et al., 2011; Masters, Ogles, & Jolton, 1993; Ogles & Masters, 2003; Ogles, Masters, & Richardson, 1995), but limited attention has been given to the concept of leisure involvement with running. The involvement construct extends beyond individual motives and participation but rather looks at the relevance or meaning of a leisure activity within the context of an individual's overall outlook on life (Wiley, Shaw & Havitz, 2000). The literature includes studies on the leisure involvement of specific groups such as campers (McIntyre & Pilgram, 1992), birdwatchers (Kim, Scott & Crompton, 1997), and ice skaters (Wiley et al., 2000), with recent work examining the involvement of marathon participants (Beaton et al., 2011).

The concept of involvement was first introduced in psychology as part of social-judgment theory (Sherif & Cantril, 1947; Sherif & Hovland, 1961). Involve-

ment has generally been defined in social-psychological terms as an unobservable state of motivation, arousal, or interest between an individual and an activity or product (Rothchild, 1984). It is seen as an attitude that is relatively enduring in nature and is important to the individual on an ongoing basis. Involvement is an important construct because of its potential influence on people's attitudes and behavior relevant to a product or activity (Havitz & Dimanche, 1990).

Interest in involvement gained momentum in the consumer behavior and marketing literature in the 1980s as researchers utilized the concept to understand purchase behavior related to consumer products (Laurent & Kapferer, 1985; Rothchild, 1984; Zaichkowsky, 1985). The adaption and application of involvement to the context of leisure emerged primarily in the 1990s (Dimanche, Havitz, & Howard, 1991; Dimanche & Samdahl, 1994; Havitz & Dimanche, 1997, 1999; Havitz & Howard, 1995; Kim et al., 1997). In the leisure literature, efforts to conceptualize and measure the involvement construct evolved primarily from Laurent and Kapferer (1985) and their multidimensional consumer involvement profile (CIP). McIntyre (1989) was the first to apply facets of the CIP to a recreational setting. Results revealed a three factor solution, and the continual revision and refinement of leisure involvement has led to support for a three-facet measure comprised of pleasure, centrality, and self-expression (Beaton, Funk, & Alexandris, 2009; Beaton et al., 2011; Havitz & Dimanche, 1997; Kyle & Mowen, 2005; McIntyre & Pilgram, 1992; Wiley et al., 2000). The pleasure facet represents hedonic value and takes into account feelings of pleasure or enjoyment derived from involvement with a leisure activity. The centrality facet refers to the central role an activity plays in one's life. An activity is considered central if other aspects of an individual's life are organized around that activity. The self-expression facet refers to self-representation or the impression of self that individuals wish to convey to others through their leisure participation (Wiley et al., 2000).

Together, these three facets make up an involvement profile associated with an individual's participation in a particular leisure activity, and thus convey the overall relevance or meaning of that activity in the context of the individual's life (Wiley et al., 2000). When someone is highly involved with a leisure activity and it becomes a meaningful part of that person's life, it can be characterized as serious leisure (Stebbins, 1992). Although leisure involvement and serious leisure are two different constructs, they do share some similar qualities. Serious leisure is defined as "the systematic pursuit of an amateur, hobbyist, or volunteer activity sufficiently substantial and interesting for the participant to find a career there in the acquisition and expression of a combination of its special skills, knowledge, and experience" (Stebbins, 1992, p. 3). Runners are one of several groups Stebbins described as hobbyists. A hobby is a serious leisure activity that is interesting and enjoyable because of its durable benefits (Goff et al., 1997). The pleasure facet of the leisure involvement construct is also based on enjoyment derived from an activity. The second facet of involvement, centrality, can be equated to the serious leisure quality of effort and application of acquired knowledge, training, and skill (Goff et al, 1997). Masters et al. (1993) discussed the centrality of a marathon race in the lives of the participants. They noted that running a marathon is the result of months and sometimes years of daily preparation. Work schedules, family time, and meals

are often planned around running routines. Clearly, training for a marathon is not a trivial event in the lives of runners (Masters, et al., 1993). Self-expression, another leisure involvement facet, is identified as one of the distinguishing qualities of serious leisure. Stebbins (2001) indicated that one's self-image is enhanced through the expression of unique skills, abilities and knowledge associated with serious leisure pursuits.

Psychological Commitment

Building on early work in sociology and psychology (e.g., Becker, 1960; Kanter, 1968; Kiesler, 1971), leisure researchers (e.g., Buchanan, 1985; Iwasaki & Havitz, 2004; Pritchard, Havitz & Howard, 1999) have examined the attitudinal constructs of commitment and loyalty. According to Heere and Dickson (2008), current research on commitment and loyalty is characterized by conceptual confusion and overlap. They suggest that these two concepts are distinct and define commitment as "a construct that is cross-sectional in nature and is internal to the individual," whereas loyalty is "longitudinal in nature and should be regarded as the result of interaction between negative external changes in the environment and the individual's internal level of commitment" (p. 227). Others (Funk & James, 2001; Iwasaki & Havitz, 1998, 2004) have proposed that loyalty is a multidimensional construct consisting of both behavioral and attitudinal components and that psychological commitment effectively represents the attitudinal component of loyalty. According to Crosby and Taylor (1983), "Psychological commitment refers to a tendency to resist change in preference in response to conflicting information or experience" (p. 414).

This is similar to the personal commitment construct used by Yair (1990, 1992) in studies on the commitment of long distance runners. Yair defined personal commitment as a sense of determination to continue in the face of adversity or temptations to deviate and resulted from strong personal attachments to an activity. Commitment was conceptualized as consisting of seven factors comprising two components. The first component, personal commitment, contained five factors: identification, moral obligation, existential rewards, winning, and pride (see Yair, 1992 for definitions of each factor). The second component, termed structural commitment, included only two factors: social pressure and cost. Structural commitment was described as external constraints that make it difficult to discontinue an activity should one's sense of personal commitment decline (Yair, 1990). Examples of social pressure include fear of losing friends and disappointing others if one stopped participating in running events. The cost factor represents irretrievable investments such as foregoing other joys of life to allow more time for running. Yair (1990) suggested that personal commitment factors were mainly associated with the long-distance runner's daily practice, while structural commitment factors came into play on race days. Another study by Yair (1992) found unique commitment patterns based on runners' subjective self-concepts. The self-concept categories were identified as: 1) professional level runners, 2) semi-professional level runners, and 3) amateur level runners, but the distinguishing features of each category were not clear from the article. Results indicated that all three groups were personally committed to running, but the professional runners were also structurally committed. The professional runners, unlike the amateur

and semiprofessional runners, were willing to pay the costs of running and were prepared to upset those close to them in order to excel at running (Yair 1992).

Is the extreme dedication of professional level runners an unhealthy addiction? This was the research question that guided a study by Leedy (2000). He was interested in the psychological effects of running and whether commitment to distance running represented a positive behavior or a negative addiction. His findings indicated that commitment to running differed by gender and race length. Women had higher commitment scores than men, and runners participating in the longer race events (half and full marathons) had higher commitment scores than those running in shorter events (5K and 10K races), a finding consistent with Funk et al. (2011) who found that greater commitment to running was associated with longer race distances. Leedy classified runners as either committed or recreational runners based on weekly mileage, number of races, and commitment scores. Committed runners had lower anxiety and depression scores than recreational runners, and thus it was concluded that commitment to running does not necessarily indicate a negative addiction.

While both Yair (1992) and Leedy (2000) classified runners into categories based on behaviors and beliefs, neither of these studies examined the leisure involvement construct and its relationship to commitment. Previous research (Beatty, Kahle, & Homer, 1988; Bee & Havitz, 2010; Buchanan, 1985; Iwasaki & Havitz, 1998, 2004; Gahwiler & Havitz, 1998; Kyle & Mowen, 2005) has suggested that involvement plays a formative or antecedent role in developing commitment. Iwasaki and Havitz (2004) found that psychological commitment serves as a mediator between involvement and behavioral loyalty. The commitment measure used in this study focuses on the attitudinal component of psychological commitment that is used to represent an individual's resistance to change and refusal to seek alternative activities (Crosby & Taylor, 1983; Dick & Basu, 1994; Pritchard et al., 1999). It should be noted that psychological commitment in the present study was associated with the activity (running) and not the specific event (marathon).

Research Questions

Taken together, the volume of research suggests that running involvement would interact with one's belief in his or her ability to successfully negotiate through constraints to produce commitment to running. However, the patterns of these relationships are still not clear or well established. This study sought to understand the relationship between negotiation-efficacy and running involvement and their effects on psychological commitment to running. Furthermore, negotiation-efficacy is a relatively new construct in the leisure literature and both Loucks-Atkinson and Mannell (2007) and White (2008) recommended that future research on negotiation-efficacy should explore various individual differences based on participant characteristics. This led to the following research questions:

RQ1: Will negotiation-efficacy and involvement lead to greater running commitment for marathon participants?

RQ2: Does negotiation-efficacy differ based on participant characteristics (i.e., gender, age, and marital status)?

Method

A survey research design was used to collect data from a census sample of 7,044 individuals who participated in a marathon event that took place in the Northeast region of the United States. An online survey was developed and distributed to the marathon participants via e-mail addresses provided by the race directors. The use of an online survey was an effective way to conduct this research in terms of cost effectiveness, reach, and convenience (Van Selm & Jankowski, 2006). SPSS 18.0 was used for data analyses.

Measures

Inquisite software was used to design the online survey instrument. In addition to basic demographic information such as gender, age, income, marital status, education level, and ethnicity, the survey collected data on a variety of topics including behavioral and psychological factors, satisfaction with various components of the event, and participant expenditure information. The focus of this current study is on the factors of negotiation-efficacy, involvement, and running commitment.

The negotiation-efficacy measure was adapted from White (2008). Only minor changes were made that involved wording revisions so that items would be appropriate for this study's population (e.g., "outdoor recreation" changed to "running"). Items for this measure, such as "In the past, I have been successful getting around barriers to running" were measured using a 7-point Likert-type scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). White did not provide reliability information in his study, but for this current study the items combined to form a one-item indicator of negotiation-efficacy with a Cronbach's alpha of .76. A list of the items is presented in Table 1 and internal consistency is reported in Table 2.

Involvement measures were drawn from valid and reliable scales used previously in the leisure literature (Beaton et al., 2009; Beaton, et al., 2011; Wiley, et al., 2000). The only revisions made were minor wording changes to denote the context of the leisure activity as running. Each of the three facets of involvement was measured with three items scored on a 7-point Likert-type scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Examples of items for each facet include "I run because I like it" (pleasure), "A lot of my life is organized around running" (centrality), and "When I run, I can really be myself" (self-expression). A complete list of the items used is presented in Table 1. Cronbach's alpha for the three facets were calculated and all were above the recommended .70 threshold (Nunnally & Bernstein, 1994) (see Table 2).

The running commitment measure was adapted from prior research on psychological commitment and resistance to change (Beaton et al., 2009; Funk et al., 2011; Pritchard et al., 1999). "My preference for running would not willingly change" is an example of the items used to measure commitment to running. Similar to the other measures, the commitment scale utilized three items measured on 7-point Likert-type scales anchored by 1 (*strongly disagree*) to 7 (*strongly agree*). The commitment scale had previously been developed and validated in a variety of leisure contexts including marathon running, cycling, rugby league participation, recreational skiing and recreational fitness (Beaton et al., 2009; Beaton et al., 2011;

Iwasaki & Havitz, 2004; Pritchard et. al., 1999). A list of the items used to measure commitment is presented in Table 1 and the Cronbach's alpha for this sample (.83) is reported in Table 2.

Procedure

Using race registration data provided by the race organizers, the survey was sent to all 7,044 marathon participants two weeks after the event. The race organizers sent an e-mail message to registrants one week prior to the deployment of the survey to alert them of its pending arrival and to encourage them to complete the survey. A follow-up e-mail message was sent two weeks after the initial deployment to all non-responders to encourage survey participation. The final day of data collection was three weeks after the initial launch of the survey.

The first page of the survey provided a brief description of the research, gave directions for filling out the survey, ensured confidentiality, and explained that those who completed the survey would have the option to enter a drawing to win one of several prizes. There were 1,517 surveys returned, representing a response rate of 21.5%. Due to missing data points of interest, a number of surveys were removed from the analysis, resulting in 1,190 usable surveys. To disconfirm the presence of nonresponse error, a threat to validity that can occur with lower response rates, the sample was compared to the actual race population by cross-checking the known population characteristics from the internal registration database provided by the race directors in terms of demographic information (e.g., gender, age, education). This comparison revealed consistent percentages suggesting that the sample was representative of the population.

Results

Participants

Of the 1,190 respondents, the gender breakdown consisted of 663 (55.8%) males and 525 (44.2%) females. Most respondents (57%) were in the age range of 30 to 49, 64% of the runners were married or living with a partner, 90% held a college undergraduate or graduate degree, and the median annual household income was in the range of $75,000 to $99,000. In terms of ethnicity, 91% were Caucasian, 3.5% were Asian, 2.5% were Hispanic or Latino, and 1.2% were African-American.

With regard to running behaviors, respondents indicated they participated in an average of seven organized running events per year, 33.5% belonged to an organized running club, over a third (36.8%) had run this marathon event previously, and nearly 60% indicated that they were likely to participate in the event again next year. With regard to training activities, participants were asked to rank their level of physical activity for the six months prior to the event (e.g., Funk et al., 2011). This item was measured on a 7-point Likert-type ranging from 1 (*I have not been active*) to 7 (*I have been active and most of this activity has been intense*). The marathon participants scored 6.67 on this item, indicating that the group had been highly engaged in intense physical activity.

Confirmatory Factor Analysis (CFA) with AMOS 6.0 (Arbuckle, 2005) examined the psychometric properties of the survey instrument used to collect information. Confirmatory Factor Analysis is an analytical tool to assess construct and

discriminant validity of multiple-attribute survey items that are used to create unobserved latent factors (Hair, Black, Babin, & Anderson, 2009). This technique used data collected from a sample of marathon participants to confirm a hypothesized measurement model that specifies the rules of correspondence between manifest (i.e., survey items) and latent factors of interest. Data were first examined to test assumption of normality and presence of outliers using Kolmogorov-Smirnov statistic and kurtosis and skewness results revealed that the variables were normally distributed.

A covariance matrix taken from respondents was used as the input data (N = 1,190) to examine the specified measurement model of 15 measured survey items and the five latent factors. The covariance matrix was used as it represents the deviations of measured variables from their respective means to provide initial estimates to examine their interrelationships and is used to estimate the specified measurement model. The measurement model utilized maximum likelihood estimation to examine the relationships between the 15 measured variables and five first-order latent factors: Pleasure (PLE), Centrality (CEN), Self-Expression (SEP), Negotiation-Efficacy (NEF) and Commitment (COM). Maximum likelihood estimation was used because it provides estimations that have the greatest chance of reproducing the observed data (Hair et al., 2009).

Goodness-of-Fit indices were used to evaluate whether the data collected fit the proposed measurement model. Fit indices allow for a hypothesized measurement model to be retained or rejected by determining whether particular relationships in the model are significant (Netemeyer, Bearden, & Sharma, 2003). The selection of fit indices remains the subject of ongoing debate, but most researchers advocate selecting at least one index from each of the three classifications: absolute fit, incremental fit, and parsimony of fit (Hair et al., 2009; Jaccard & Wan, 1996; Kline, 2005). The indices selected were Root Mean Squared Error of Approximation (RMSEA), Standardised Root Mean Squared Residual (SMRM), and Tucker-Lewis Coefficient (TLI) to provide a diversity of information. In addition, to test the internal validity of the measurement model, standardized factor loadings for each item, Cronbach's alphas, and average variance extracted estimates were examined. Squared multiple correlations and correlations between constructs were also used to establish discriminant validity of the constructs.

Table 1 presents the results of the confirmatory factor analysis with reliabilities for the 15-measured items and 5-latent factors. Inspection of the Goodness-of-Fit indices indicated that the data supported the hypothesized 5-factor measurement model (χ^2 = 716.93 df =80). The RMSEA value of .08, SMRM value of .04, and TLI value of .93 were within acceptable ranges for close fitting model (Browne & Cudeck, 1993; Hair et al., 2009; Hu & Bentler, 1999). Overall, the CFA analysis revealed the data collected from the sample using the questionnaire provide valid and reliable information with over 70% of the variance in the five-latent factors accounted for by the 15 scale items.

Table 1

Results for Confirmatory Factor Analysis of Multi-Attribute Scale

Dimension	Factor Loadings	SMC
Pleasure (PLE)		AVE = .79
• I run because I like it.	.87	.76
• I run because I enjoy it.	.92	.84
• I run because I find it pleasurable.	.87	.76
Centrality (CEN)		AVE = .76
• A lot of my life is organized around running.	.86	.74
• Running has a central role in my life.	.86	.73
• A lot of my time is organized around running.	.90	.82
Self-Expression (SEP)		AVE = .55
• When I run, I can really be myself.	.71	.50
• You can tell a lot about a person by seeing them participate in running.	.74	.63
• Running gives others a glimpse of the type of person I am.	.71	.53
Negotiation-Efficacy (NEF)		AVE = .51
• In the past, I have been successful getting around barriers to running.	.73	.53
• People I admire find ways to get around challenges they face when trying to run.	.68	.46
• I enjoy overcoming obstacles to running.	.74	.55
Commitment (COM)		AVE = .66
• It would require major rethinking to change my preference for running.	.68	.45
• It would be difficult to change my beliefs about running.	.86	.75
• My preference for running would not willingly change.	.89	.78

Note:
AVE = average variance explained by construct items used in each measure
SMC = squared multiple correlation coefficient for each factor loading

Table 2 presents the means, standard deviations, consistency measures, and correlation for the five measured constructs. The means for each construct ranged from M_{PLE}= 6.24 to M_{SEP} = 5.32. A test value of 4.0 was utilized to examine whether each mean score exceeded that value as it represents the midpoint of the 7-point scale (1 = *strongly disagree* to 4 = *neutral* to 7 = *strongly agree*). This test helps determine if respondents were more likely to agree or disagree with statements. Results revealed all mean constructs were significantly above the midpoint ($p < .01$). The internal consistency measures for each construct ranged from $\alpha = .76$ to $\alpha = .92$, above recommended values of .70 (Nunnally & Bernstein, 1994).

Inspection of the correlation matrix in Table 2 reveals moderate theoretically consistent correlations between each of the five constructs. The correlations ranged from r = .41 to .r = .65. A test of construct discriminant validity incorporated this information along with the AVE from Table 1 to assess the distinctiveness of each construct (i.e., Fornell & Larkner, 1981). This test revealed the AVE for each specific construct exceeded the squared correlation between it and any other construct. These results provide evidence for each constructs' discriminant validity. Discriminant validity establishes that more variance in the construct was explained by the items that measured the construct than by its correlation to other constructs.

Table 2

Means, Standard Deviation, Internal Consistency, and Correlations for Constructs

	PLE	CEN	SEP	NEF	COM	M	SD	α
PLE	1					6.24	.87	.92
CEN	.57	1				5.53	1.19	.90
SEP	.41	.52	1			5.33	1.05	.79
NEF	.50	.58	.50	1		5.58	.98	.76
COM	.64	.65	.42	.58	1	5.92	1.06	.83

Note: all constructs significantly related $p < .01$

Once the measurement model was confirmed, structural equation modeling (SEM) analysis was next employed to test Research Question 1 and examine the relative contribution of the three involvement facets and negotiation efficacy on running commitment. An involvement-negotiation structural model (INS) was estimated jointly with the measurement model previously confirmed. The INS model specified the relationship between the four latent constructs of PLE, CEN, SEP and NEF and the latent construct COM. The specified relationship assumed that PLE, CEN, SEP and NEF were independent predictors of COM. The results revealed that CEN ($\beta = .37$), PLE ($\beta = .37$) and NEF ($\beta = .27$) explained 72% of the variance in COM. The relationship between SEP and COM ($\beta = -.05$) was not significant.

Inspection of the Goodness-of-Fit indices indicated that the data supported the INS model. The χ^2 value was 716.93 with 80 degrees of freedom. The RMSEA value of .08, SMRM value of .04 and TLI of.93 were acceptable.

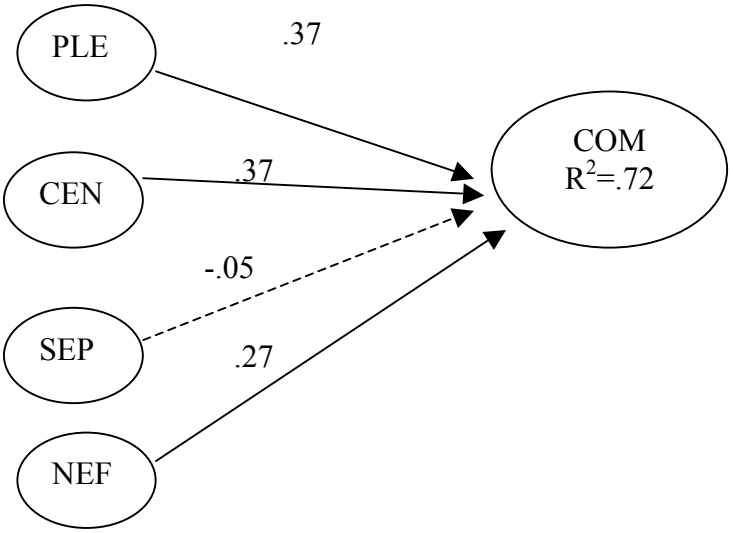

Figure 1. SEM Model Predicting Running Commitment of Marathon Participants. Note: Solid lines represent siginificant paths at p<.05.

The final analysis utilized a series of analysis of variance (ANOVA) tests for Research Question 2; the extent to which NEF was different for selected participant characteristic variables. See Table 3 for results. The test revealed no differences except for the gender category. Female respondents were more likely to agree with statements related to negotiation-efficacy than male respondents $F(1, 1189) = 34.84$ $\eta^2 = .03$ ($p < .01$). The effect sizes should be noted, as the effect of gender was only moderate ($\eta^2 \geq 0.05$) (Pierce, Block, & Aguinis, 2004).

Discussion

The current study confirms and extends research in three areas to provide a better understanding of the reasons individuals are committed to the leisure activity of running. First, the data confirms the relationship between running commitment and the involvement facets of pleasure and centrality in a marathon event context. Second, a new construct, negotiation-efficacy, was theoretically introduced and its utility in explaining higher levels of running commitment was demonstrated. Third, this study was the first to examine whether negotiation-efficacy differs based on several participant characteristics.

Table 3

ANOVA Comparison Negotiation Efficacy and Demographic Variables

	M	SD
Gender*		
Female	5.76	(.94)
Male	5.43	(.98)
Age		
≤ 29	5.59	(.92)
30-49	5.59	(.96)
≥ 50	5.53	(1.05)
Marital Status		
Single	5.59	(.96)
Married/Partner	5.56	(.98)

*Mean scores significantly different $p < .01$

The first research question inquired whether negotiation-efficacy and the involvement facets would lead to greater running commitment. This was partially supported, as two of the three involvement facets and negotiation-efficacy were predictive of commitment. Previous research has suggested that as individuals become more highly involved with an activity, they become more psychologically committed to the activity. Iwasaki and Havitz (2004) and Bee and Havitz (2010) found a relationship between leisure involvement and psychological commitment; however, both of these studies examined the involvement construct as a whole rather than analyzing relationships for each individual facet of involvement. Kyle and Mowen (2005) investigated the effects of each of the three involvement facets on commitment, but their study focused on agency commitment, a different measure than psychological commitment.

The results of this study revealed that two dimensions of involvement (i.e., pleasure, centrality), and negotiation-efficacy explained 72% of the variance in commitment while the relationship between self-expression and commitment was not significant. For this sample of marathon participants, commitment was predicted by the pleasure people associate with running, how much their lives were structured around running, and how confident they felt in overcoming barriers so they could participate in the activity. Similar to previous work on leisure involvement (see Beaton et al., 2011; Havitz & Dimanche, 1997), the pleasure facet had the highest mean score, suggesting that the enjoyment and pleasure derived from running is an important aspect for marathon participants. Thus, it was not surprising that this facet of involvement would contribute to commitment. The centrality of running within the lives of marathon participants is well documented

(Barrell et al., 1989; Goodsell & Harris, 2011; Masters et al., 1993; Ogles & Masters, 2003; Yair, 1990, 1992). Runners often organize their daily schedules around workouts. They may alter work and eating schedules, cancel or postpone engagements, spend time away from family, and schedule trips and vacations according to their running calendar (Masters et al, 1993). The connection between centrality and commitment appears evident as these types of behaviors indicate that runners are resistant to change and refuse to seek alternative activities to running.

The lack of predictive validity of the self-expression dimension was unexpected. Yair's (1992) study on the commitment of long-distance runners found that identification with running (similar to self-expression) was an important factor for all types of runners from amateurs to professional level runners. Yair (1990) found that identification with running had the largest role in determining personal commitment. Moreover, one of the qualities of serious leisure is that participants identify strongly with their activity. They speak proudly of their participation and express themselves in terms of it (Goff et al., 1997). Because long-distance running is a form of serious leisure (Stebbins. 1992), it was surprising that the self-expression facet of involvement did not lead to commitment for runners in this sample. However, running events attract a broad range of individuals who are motivated by the event challenge (Funk et al., 2011), and the accomplishment of completing the marathon distance may be more important than identification with running as an enduring leisure hobby. This finding may highlight why a number of individuals, despite putting forth considerable time and effort into preparing for the event, discontinue running after the event or drastically reduce their involvement.

The results of this study provide support for inclusion of a negotiation-efficacy construct for investigations of leisure behavior. People with higher perceptions of negotiation-efficacy were more psychologically committed to running. This finding is consistent with predictions based on self-efficacy theory (Bandura, 1994). Those with higher negotiation-efficacy were more likely to attribute the causes of their leisure behavior to their own individual efforts to negotiate constraints and their ability to persevere when confronted with challenges to participation. These findings were similar to those of Loucks-Atkinson and Mannell (2007) and White (2008) who found that negotiation-efficacy positively influenced negotiation efforts and motivation to participate. Both Loucks-Atkinson and Mannell (2007) and White (2008) included recommendations for future research on negotiation-efficacy to explore various individual differences of groups by characteristics such as gender, age, and ethnicity.

The characteristics under investigation in this study included gender, age, and marital status. Because there was little racial/ethnic diversity within the sample (91% Caucasian), this variable was not included in the analysis. Based on the findings of previous studies that examined demographic differences in the perception of leisure constraints (Alexandris & Carroll, 1997; Jackson & Henderson, 1995; Raymore et al., 1994; Searle & Jackson, 1985; Shaw, 1985; Son, et al, 2008), we surmised that negotiation-efficacy might not be perceived uniformly across the sample; rather, it could vary by subgroups. Results revealed a significant difference only for gender. Women had higher negotiation-efficacy scores than men. This was not surprising as there is ample evidence suggesting that females face more

leisure constraints than males (Alexandris & Carroll, 1997; Jackson & Henderson, 1995; Searle & Jackson, 1985; Shaw, 1985). Dixon (2009) found that women who were able to successfully negotiate constraints felt more confident in their ability to find ways to be involved in leisure activities, which could explain the higher scores in negotiation-efficacy for female marathon participants in this study. There were no differences in negotiation-efficacy based on age and marital status. Based on findings from Barrell et al. (1989), Goff et al. (1997), and Goodsell and Harris (2001), it was thought that married runners and those in age categories more likely to have young families might experience greater constraints and subsequently have stronger negotiation-efficacy skills. However, group differences were not evident and further research is needed before meaningful conclusions can be made about the effects of age and marital status on negotiation-efficacy.

Implications and Future Directions

The current study provides some important implications for academics and practitioners. A better understanding of factors associated with marathon participation contributes to the knowledge base on leisure involvement. Furthermore, the use of negotiation-efficacy in explaining increased running commitment adds a new element to the leisure behavior literature. Findings from this study may help practitioners to cultivate greater participation in running events. The key to encourage commitment to running as a leisure activity is to adopt a holistic approach to event participation. This approach will require the management of different phases of a mass participant sport event including the preparation phase to physically prepare for the event, a participation phase that occurs during the actual event, and the postevent phase where the activity continues or discontinues (Funk et al., 2011). Across the three phases, race directors should promote opportunities that will make the physical activity more pleasurable and central to an individual's lifestyle, two key facets of involvement that contribute to commitment. In addition, assistance to help build negotiation-efficacy and overcome constraints can be fostered through support from significant others and groups such as local running clubs.

This study focused on marathoners, a group of individuals with seemingly high levels of involvement and commitment to running who must be adept at overcoming constraints in order to maintain a training schedule to prepare them to complete a run of 26.2 miles. The findings from this study cannot be generalized to other types of runners or sport participants. Additional studies are needed to determine if commitment can be explained by involvement and negotiation-efficacy in other leisure contexts. This is the first study to demonstrate the utility of negotiation-efficacy in explaining increased commitment. The findings suggest that marathon runners appear to be confident in their ability to use negotiation strategies to engage in running behavior. Nevertheless, negotiation-efficacy is a relatively new construct being investigated in the leisure literature and further exploration is needed to understand the role of negotiation-efficacy and its relationship with involvement in contributing to commitment for other types of leisure behavior. Also, a better understanding of individual differences in negotiation-efficacy is needed. The collection of additional demographic data (e.g., parental status, occupation, etc.) and behavioral data (e.g., training hours, spousal support,

etc.) in future studies would allow for more meaningful comparisons to be made. Furthermore, qualitative or mixed methods research is warranted to provide more rich and in-depth information about the influence of negotiation-efficacy on commitment. In addition, future research could extend this model to include behavioral loyalty as an additional outcome variable. Iwasaki and Havitz (2004) found that psychological commitment served as a mediator between involvement and behavioral loyalty; however, the role of negotiation-efficacy in this process has not been explored. A better understanding of the salient factors leading to commitment and loyalty for marathon participants may provide information needed to foster greater efficacy and involvement for others who want to adopt running as a lifelong leisure behavior.

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