

A CROSS-SECTIONAL EXAMINATION OF THE PREDICTORS  
OF COMMITMENT IN SKATEBOARDERS

by

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## ABSTRACT

Approximately 7.7 million athletes participate in the sport of skateboarding. Skateboarding is one of a collection of sports that are often termed lifestyle, action, or alternative sports. By definition, lifestyle sports are sports in which athletes form exclusive social identities with the culture of the activity. The culture of the lifestyle sport of skateboarding is heavily influenced by music and art. Lifestyle sport athletes also prefer a sport structure that is participant-controlled as opposed to a structure organized and controlled by parents, coaches, and other authority figures. The Sport Commitment Model describes commitment as being theoretically predicted by enjoyment, personal investments, involvement opportunities, involvement alternatives, social constraints, and social support. The purpose of this study was to examine the theoretical determinants of commitment in a skateboard population. Additionally, atheoretical determinants (art, music, and sport structure) were examined as possible predictors of commitment unique to lifestyle sports. Skateboarders ( $n=68$ ) were recruited at skate parks, a skateboard showcase, and by flyers posted at the university and local skate shops. Participants completed a modified and adapted Athletes' Opinion Survey designed to measure commitment and the determinants of commitment. Data were analyzed using hierarchical regressions. Enjoyment ( $\beta= .51$ ) was the strongest predictor of commitment in the regression model. Secondly, social support ( $\beta=.23$ ), personal investment ( $\beta=.31$ ), and involvement opportunities ( $\beta=.29$ ) significantly predicted commitment. Involvement

alternatives emerged as a negative predictor of commitment ( $\beta = -.16$ ). The constructs of art, music, and sport structure failed to significantly predict commitment. The findings from the regression analysis support prior research indicating enjoyment as the most influential predictor of commitment. The strength and direction of the additional determinants of commitment also support the theoretical model. These findings suggest that in order to foster commitment among skateboarders optimizing enjoyment, personal investments, social support, and involvement opportunities are key.

## TABLE OF CONTENTS

ABSTRACT.....	iii
LIST OF TABLES.....	vii
ACKNOWLEDGMENTS .....	viii
Chapters	
1 INTRODUCTION .....	1
Purpose Statement.....	6
Hypothesis.....	7
Limitations .....	7
Delimitations.....	8
Assumptions.....	8
2 REVIEW OF LITERATURE .....	9
Defining Commitment .....	9
Models of Commitment .....	12
Investment Model of Commitment.....	12
The Sport Commitment Model.....	17
Changes to the Sport Commitment Model.....	23
Measuring Commitment .....	25
Sport and Exercise Commitment Findings .....	27
Alternative Sport.....	30
Lifestyle Sport.....	31
Skateboarding .....	32
3 METHODS .....	37
Study Design.....	37
Participants.....	38
Measurements .....	39

Unique Contributions to Commitment.....	43
Procedures.....	44
Statistical Design .....	46
4 RESULTS .....	48
Participant Demographics.....	48
Data Cleaning, Screening, and Statistical Assumptions Analysis.....	49
Scale Reliability and Descriptive Statistics .....	52
Preliminary Data Analysis .....	54
Primary Data Analysis .....	58
Purpose 1: Investigation of Theoretical Determinants of Commitment.....	58
Purpose 2: Unique Lifestyle Predictors of Commitment.....	62
5 DISCUSSION .....	64
Mean Levels of Commitment and Determinants of Commitment.....	65
Gender, Location, and Time Differences.....	68
Correlations Between Commitment and Determinants of Commitment.....	69
Regression Analysis.....	71
Tangential Explanations for the Findings.....	74
Future Directions .....	76
Summary and Conclusion.....	77
APPENDIX: ATHLETES' OPINION SURVEY .....	80
REFERENCES .....	85

## LIST OF TABLES

Table	Page
1. Means and Standard Deviations for Predictor and Outcome Variables .....	53
2. Differences in Commitment and Determinants by Gender.....	55
3. Differences in Commitment and Determinants by Skateboarding Location .....	56
4. Correlations for the Modified Athletes' Opinion Survey .....	57
5. Model Summary: Stepwise Regression for Commitment in the Athletes' Opinion Survey .....	60
6. Model Summary: Unique Contributions to Commitment .....	63



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## CHAPTER 1

### INTRODUCTION

In the United States approximately 7.7 million athletes participated in the sport of skateboarding in 2010 (Sport Business Research Network, 2011).

Skateboarding is one of a collection of sports that are often termed “lifestyle, action, or alternative” sports (Wheaton, 2004). Other such sports include snowboarding, wind surfing, BMX (bicycle motor cross), and many others that fall outside of mainstream sport. By definition, lifestyle sports are sports in which athletes form exclusive social identities with the culture of the activity (Wheaton, 2004). The culture of the lifestyle sport of skateboarding is heavily influenced by music and art (Bennett & Lachowetz, 2004). Lifestyle sports are distinct from traditional “achievement” sports such as baseball, football, and golf. Achievement sports often include an emphasis on wins and losses, breaking records, or comparing times or distances between competitors (Eichberg, 1998). Athletes involved in lifestyle sports are more concerned with personal progress and individual expression and creativity through sport rather than winning or losing (Wheaton, 2004). Lifestyle sport athletes also prefer a sport structure that is participant-controlled as opposed to a structure organized and controlled by parents, coaches, and other authority figures (Coakley, 2009). Many individuals are opting out of adult controlled achievement sports for the

less structured, more participant-controlled activities that characterize the culture of lifestyle sports (Coakley, 2009).

Increased participation in skateboarding provides the possibility for adolescents and young adults to be more physically active. In a society that is becoming increasingly sedentary (Manson, Skerrett, Greenland, & VanItallie, 2004) skateboarding may give individuals increased opportunities to reap the benefits associated with an active lifestyle. Skateboarding, as well as many other lifestyle sports, provides access to physical activity in an affordable manner. Lifestyle sport athletes may garner other benefits associated with participation in lifestyle sports. These include positive psychosocial development, higher self-esteem, higher academic achievement, emotional and psychological well-being, as well as a decline in negative behaviors (Barnett & Weber, 2008). Despite the popularity of lifestyle sports and the potential for lifestyle sports to influence individuals in many positive ways, scant research has focused on this population. Skateboarding was chosen for this study due to the number of individuals who participate in the sport, the accessibility of the participants, and skateboarding reflects the ideals of what constitutes a lifestyle sport. Additionally, skateboarding involves a high volume of physical activity and is accessible to many individuals. The physical, social, and psychological benefits associated with physical activity make skateboarding an ideal population for study.

In order to accrue the physiological, psychological, and social benefits associated with physical activity it is essential to understand why athletes continue or discontinue participation. One term for continuation of participation is persistence,

which is defined as the behavioral consequence of commitment (Scanlan, Russell, Magyar, & Scanlan, 2009). Based on the literature of commitment in interpersonal relationships, Scanlan and colleagues (1993a) defined sport commitment as “the desire and resolve to continue sport participation” (p.6). Scanlan’s Sport Commitment Model (SCM) posited six predictors of sport commitment: enjoyment, involvement opportunities, involvement alternatives, personal investments, social constraints, and social support (Scanlan, Carpenter, Schmidt, Simons, & Keeler, 1993a; Scanlan et al., 2009).

Enjoyment refers to the fun associated with sport participation, and feelings of pleasure elicited from participation. Involvement opportunities are potential benefits derived from sport participation such as being with friends, anticipation of good times, and other valuable opportunities that would not be present without continued involvement. Involvement opportunities include, but are not limited to, potential benefits such as travel opportunities, scholarships, and meeting new people. Involvement alternatives, or other priorities, refer to interests that compete with current activities and include attractive alternative activities and responsibilities that detract from one’s current pursuit. Personal investments are individual resources that cannot be recovered in the event of termination of participation; these resources most commonly include time, effort, and money. Social constraints refer to the social norms and expectations of others that produce obligatory feelings by the athletes to continue participation in their sport. These feelings may reveal the perceived importance of social norms and expectations of coaches, parents, and significant others to continue participation. Social support is the positive regard and

encouragement the athlete perceives significant others provide, which sustains participation and continued involvement in sport. The SCM posits that enjoyment, personal investment, social constraints, involvement opportunities, and social support increase commitment, whereas involvement alternatives decrease commitment (Scanlan et al., 1993a; Scanlan, Simons, Carpenter, Schmidt, & Keeler, 1993b; Scanlan et al., 2003).

The determinants found in the initial validation of the SCM have been used to better understand commitment in a variety of traditional sports including collegiate and recreational tennis (Casper & Andrew, 2008); adolescent age-group swimmers (Raedeke, 1997); youth tennis (Weiss, Kimmel, & Smith, 2001); elite youth cricket (Carpenter & Coleman, 1998); elite rugby (Scanlan, Russell, Beals, & Scanlan, 2003); elite netball (Scanlan et al., 2009); and gymnastics (Weiss & Weiss, 2003; 2006; 2007). In general, the research supports the tenets of the SCM. Across many studies sport enjoyment has emerged as the strongest positive predictor of commitment (Carpenter, Scanlan, Simons, & Lobel, 1993; Carpenter & Coleman, 1998; Scanlan et al., 1993b; Weiss et al., 2001). Involvement opportunities, social support, and the personal investments of time and effort have consistently predicted stronger commitment. Involvement alternatives have emerged as a negative predictor of commitment (Raedeke, 1997; Scanlan et al., 2009; Weiss et al., 2001). Findings in relation to social constraints have been mixed. Younger and less competitive athletes may interpret constraints as stressful, thus, decreasing commitment (Scanlan et al., 1993a). This may not be the case with older, more experienced athletes. It is suggested these older athletes may interpret social constraints as a form of positive

obligation which increases commitment (Casper & Andrews, 2008; Jeon & Ridinger, 2009; Scanlan et al., 2009).

Involvement alternatives has emerged as a constant and problematic construct in the SCM. Theoretically thought to lower commitment, early validation studies have revealed difficulty in measuring the construct. Scanlan and colleagues (1993b) found support for a single involvement alternative item and therefore the construct was eliminated in the analysis. Carpenter et al. (1993) also excluded involvement alternatives from model testing due to measurement problems. Scanlan et al. (1993b) reasoned that nonelite athletes may not have competing alternatives for their time. In subsequent research Raedeke, (1997) revisited the work of Carpenter and colleagues (1993) and developed a set of reliable items to assess the construct.

A single study examined predictors of commitment with athletes participating in a lifestyle sport. Using the SCM, Jeon and Ridinger (2009) found that adult windsurfers stayed committed to their sport due to sport enjoyment, personal investments, and involvement opportunities. Social constraints and social support did not significantly predict commitment. Involvement alternatives were excluded from this study for measurement reasons.

Although the SCM dominates the literature, an alternative model of commitment has been examined in the literature. Weiss and colleagues (2001) offered a mediation model of commitment. Based on the powerful findings related to enjoyment and the interrelationship of enjoyment with the other determinants of commitment, Weiss and colleagues suggested that the determinants of commitment may influence commitment directly and indirectly through enjoyment. Research is

equivocal relative to the mediation model.

Predominantly researchers have examined commitment in traditional sports. Although many populations have been studied to support the SCM, there exists little research on athletes who participate in lifestyle sports. Furthermore, research has tended to disregard the construct of involvement alternatives. Although the SCM posits six determinants of commitment there may be additional predictors due to lifestyle sport specific factors. Due to the unexplored role that the culture of lifestyle sports may play in lifestyle sport athletes' commitment there is a need to understand the possibility of a unique set of predictors of commitment in these athletes. Due to the heavy ties of music and art as well as the structure of lifestyle sports commitment may be predicted by lifestyle sport specific factors, namely music, art, and sport structure.

#### Purpose Statement

The general purpose of this study was to examine sport commitment among skateboarders. Specifically, skateboard enjoyment, involvement opportunities, involvement alternatives, personal investments, social constraints, and social support were examined as key determinants of commitment as proposed by the SCM. In addition, the contribution of unique predictors of commitment to skateboarding was examined. Specifically, the contribution of art, music, and the sport structure of skateboarding were examined as predictors of commitment.

## Hypotheses

Based on the findings of Scanlan and colleagues (1993a) and Weiss and colleagues (2001), it was hypothesized that sport enjoyment would be the strongest positive predictor of skateboarding commitment. The very nature of lifestyle sports, which is participant controlled, assumes that the athletes enjoy the sport as the primary reason for participation. It was further hypothesized that involvement opportunities, personal investments, and social support would positively predict commitment to skateboarding. Social constraints was hypothesized to decrease commitment because skateboarders may interpret obligations to remain in skateboarding as stressful (Scanlan et al., 1993a). Involvement alternatives was hypothesized to decrease skateboard commitment. No hypotheses were provided relative to the unique contributors to commitment due to the lack of empirical studies on this population. However, the nature of lifestyle sports would suggest that the culture of skateboarding, which includes the influences of art and music, may play a role in an skateboarder's commitment.

## Limitations

The following limitations were recognized for this study:

1. Lifestyle sport populations outside of skateboarding may be different from skateboarders, thereby making generalization to other lifestyle sports difficult.
2. Although, researchers have found changes over time in the determinants of commitment, this study will only measure commitment in a cross-



sectional manner.

3. Participants may take the survey in person or online. How they take the questionnaire may affect how they answer the questions on the survey.

#### Delimitations

The following delimitations are recognized for this study:

1. All participants were surveyed once, independent of other participants.
2. All participants were 12 years old or older.
3. All participants skateboarded.

#### Assumptions

1. All participants understood the instructions and the questions within the survey packet.
2. All participants answered the questions honestly and completely.
3. The primary sport participated in by the athletes was skateboarding.

## CHAPTER 2

### REVIEW OF LITERATURE

The general goal of this chapter is to provide an overview of the literature on commitment and alternative and lifestyle sports. More specifically, commitment will be defined and models of commitment will be detailed. The first models of commitment originated in the interpersonal relationships literature and were then adapted to sport. Issues related to the measurement of commitment will then be discussed. Next, the empirical literature examining commitment in sport will be reviewed. Finally, alternative and lifestyle sport will be defined and examined with special attention paid to the specific lifestyle sport of interest in this study, namely, skateboarding.

#### Defining Commitment

Early social psychologists were in general agreement that commitment referred to either the stability and perseverance of a relationship (Kelly, 1983) or the conditions that explained persistent behaviors (Becker, 1960). However, the definition of commitment has varied depending on the aims and area of interest of different researchers (Kelly, 1983). Researchers have defined commitment as an attitude (Leik & Leik, 1977; Sheldon, 1971; Steers, 1977); an intention (Micheals,

Edwards, & Acock, 1986; Rosenblatt, 1977); a behavior (Kiesler, 1971); a process (Kanter, 1968); and a psychological state (Rusbult, 1988; Scanlan et al., 1993a). The variability of a specific definition of commitment has caused much confusion in the literature.

Kelly (1983), an interpersonal commitment researcher, attempted to clarify the inconsistencies of definitions by separating the antecedents and consequences from the construct of commitment. The antecedents became the ‘causal conditions’ that underpin commitment. Those antecedents that promote commitment, such as positive outcomes associated with membership and feelings of obligation, comprise the first broad category of causal conditions (Kelly, 1983). A second category of causal conditions are those factors that degrade commitment. Negative outcomes associated with membership and the availability of attractive alternatives are examples of the second category of causal conditions (Kelly, 1983).

Kelly (1983) further clarified the pro-con balance of the causal conditions that comprise the existence of commitment. In general, a degree of commitment is experienced when the pros of membership overshadow the cons of membership. Greater stability in commitment will be found in a relationship with a high level of pros and a low level of cons. In summation, Kelly (1983) argues, “commitment exists when the total set of relevant causal conditions stably generates a resultant that is supportive of continued membership in the relationship” (p.293). Furthermore, the two dimensions of causal conditions have additional properties that provide greater depth to each category.

Promembership conditions fall under the categories of attraction and barriers.

Attractions are positive characteristics and traits that are experienced by an individual based on their involvement in the relationship. This factor has been measured by researchers in a variety of ways dependent upon the field of interest of the particular researcher. For example, Rusbult (1980a) investigated attractions through the construct of satisfaction, in this case, satisfaction with a relationship. Other researchers have investigated attractions through rewards in relationships (Duffy & Rusbult, 1986) and job satisfaction (Farrell & Rusbult, 1981; Rusbult & Farrell, 1983). The second category of promembership conditions, labeled barriers, includes increases in commitment resulting from complications set in place that make it difficult for one party to leave the relationship. Barriers are the financial, emotional, social, and psychological factors that individuals perceive as negative consequences of terminating a relationship. Becker (1960) termed these 'investments' and posited that these costs may be due to social pressures to remain in a committed relationship.

Conmembership conditions include the attractiveness of alternatives that an individual perceives. According to Rusbult (1980a), in any given relationship the costs of involvement are encompassed by the negative characteristics and traits that an individual perceives. When an individual perceives a secondary relationship (or activity) as more attractive than the relationship they are currently in, commitment to the primary relationship, or activity, will be diminished (Rusbult, 1980a). An additional complication with the nature of commitment, aside from the pro-con balance of commitment, is the two faces of the construct.

Johnson (1982) posited two major reasons that an individual could be

committed to a relationship or an activity, namely, they want to or because they feel they have to. Brickman (1987) hypothesized a person's commitment is a fusion of this "want to" and "have to" commitment. Brickman (1987) explained that 'wanting to' persist in an undertaking is evidenced in individuals who have feelings of satisfaction for the activity or relationship. Conversely, 'having to' continue a relationship or an activity is exemplified by social pressures and obligations. Synthesizing the work of Johnson (1982) and Kelly (1983), Scanlan and colleagues (1993a) defined commitment in the arena of sport. They defined commitment in sport as "a psychological construct representing the desire and resolve to continue sport participation" (p. 6).

### Models of Commitment

In the following section, two models of commitment are discussed, Rusbult's (1980a) Investment Model of commitment and Scanlan's (1993a) Sport Commitment Model. Rusbult's Investment Model provides a theoretical framework from which the SCM and contemporary research on commitment are based. Due to Kelly's (1983) theoretical analysis of commitment, changes to the model have occurred and are discussed in later sections.

#### *Investment Model of Commitment*

Rusbult (1980a) posited a model that has been shown to be effective in predicting commitment in friendships (Rusbult, 1980b), work settings (Rusbult & Farrell, 1983), romantic relationships (Rusbult, 1980a), career commitment in IT

professionals (Fu, 2011), intimate relationships among Cypriots (Panayiotou, 2005), commitment to abusive relationships (Rhatigan & Axsom, 2006), adherence to medical regimes (Putnam, Finney, Barkley, & Bonner, 1994), college students' commitment to their schools (Geyer, Brannon, & Shearon, 1987), participation in musical activities (Koslowsky & Kluger, 1986), and exercise behaviors (Gabriele, Gill, & Adams, 2011). Rusbult's (1980a) Investment Model predicts commitment based on satisfaction, attractiveness of alternatives, and the investment level of the individual. Rusbult (1980a) viewed commitment as the probability an individual will leave a relationship based on their current levels of satisfaction, alternatives, and investments.

Satisfaction is the degree to which the rewards of a relationship outweigh the costs of staying in the relationship. The construct of satisfaction is based on Kelly and Thibaut's (1978) Interdependence Theory. According to Kelly and Thibaut (1978), people strive to capitalize on "whatever gives them pleasure or gratification" (p. 8). Kelly and Thibaut (1978) referred to this gratification as rewards. Individuals are also motivated to minimize costs, or, "factors that inhibit or deter the performance of any behavior" (Kelly & Thibaut, 1978, p. 8). These researchers posited the idea of a comparison level between these two factors. The comparison level (CL) is a theoretical line that results in satisfaction or nonsatisfaction. On one side of the CL, rewards outweigh costs and satisfaction results. On the other side of the CL costs outweigh rewards and dissatisfaction results.

Following from Interdependence Theory, Rusbult (1980a) found that satisfaction and the attainment of rewards are significantly related to increased

commitment. Additionally, many studies have shown that satisfaction is a result of high rewards and low costs (Duffy & Rusbult, 1986; Farrell & Rusbult, 1981; Rusbult, 1980a; 1980b; 1983; Rusbult & Farrell, 1983). Rusbult and Farrell (1983) also reported that changes in satisfaction level over time predict commitment. When costs to a relationship increase and rewards for staying in a relationship decrease, overall satisfaction decreases and hence commitment decreases as well. In addition, changes over time may vary depending on if an individual in the relationship chooses to stay or leave. Those who stay in a relationship reported higher rewards, more satisfaction, and lower costs. The inverse was true. Those who chose to leave a relationship reported lower rewards, less satisfaction, and higher costs (Rusbult, 1988).

A second construct that forms Rusbult's (1980) Investment Model is attractive alternatives to current involvement. The construct of alternatives has its roots in Kelly and Thibaut's (1978) interdependence model. Individuals judge the value of alternatives (CL<sub>alt</sub>) on the basis of perceived rewards and costs. The reward-cost difference of an alternative relationship is similar to the reward-cost analysis of a current relationship as previously stated. Furthermore, the CL of the current activity or relationship is compared to the costs and rewards of the alternate activity or relationship (CL<sub>alt</sub>). If CL<sub>alt</sub> is higher (more rewards and less costs) than the CL for the current engagement (low rewards, high costs) it is predicted that the current relationship or activity will be terminated. Additionally, relationships with low attractive alternatives have been found to result in significant increases in commitment to current relationships (Duffy & Rusbult, 1986; Farrell & Rusbult,

1981; Rusbult, 1980a; 1980b; 1983; Rusbult & Farrell, 1983). In longitudinal studies, individuals who chose to stay in a relationship reported decreases in their perceived attractiveness of alternatives as opposed to those who chose to leave, who were found to perceive an increase in the attractiveness of alternatives (Rusbult, 1983; Rusbult & Farrell, 1983).

Although Kelly and Thibaut's (1978) Interdependence Theory accounts for the majority of the constructs in the Investment Model (Rusbult, 1980a), there are times in a relationship when it is predicted to end yet the relationship remains intact. Investments are resources that an individual places within a relationship. Rusbult (1980a) derived the construct of Investments from the ideas of prior research and added it to her model to explain relational situations that should, according to Interdependence Theory (Kelly & Thibaut, 1978) end but inexplicably do not.

Investments are the nonrecoverable resources put into a relationship (Rusbult, 1980a). Within a relationship, each member invests resources such as time, money, and energy, that, when the relationship ends are lost. Rusbult (1980a) posited two types of investments, extrinsic and intrinsic. Extrinsic investments are very similar to Becker's (1960) notion of 'side bets', or the events that are unrelated to being involved in a relationship that have somehow become tightly associated with the relationship (Rusbult, 1988). An example of an extrinsic investment is mutual friends. These friends are outside of the actual relationship but both members of the relationship have invested in these friendships and they have become intertwined with the relationship. Intrinsic investments pertain to resources such as money and time invested into the relationship. When measuring these two concepts Rusbult



(1980a) converged the two concepts into what is termed the size of investment value. This construct refers to the extent to which individuals in a relationship devote resources to their relationship and the extent to which they had unique variables (objects, people, events, activities) associated with their relationship.

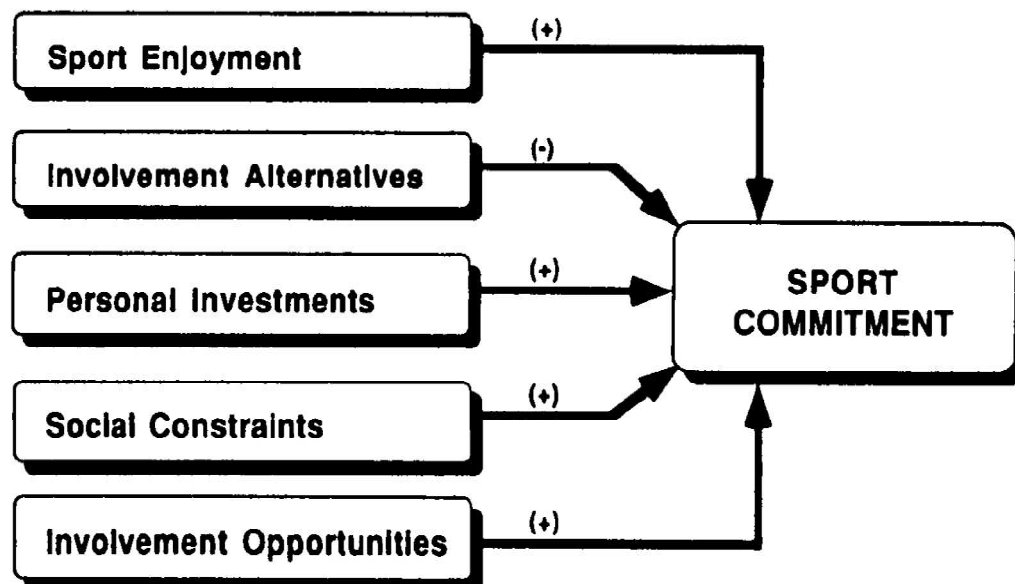
Rusbult (1988) argued that investments are independent from the rewards and costs discussed earlier. When a relationship ends the investments are lost. However, investments may be similar to rewards. The investment of time into a relationship may be rewarding in and of itself. For instance, the time invested in a relationship might be spent doing enjoyable activities. Similarly, investing money into a relationship may be costly. The perception of losing an invested resource connotes a psychological or emotional perturbation. That is, the stronger the perception an individual has of a potential investment loss the more committed they will be to the relationship because of the motivation to avoid losing said investment. Increases in investments have consistently been shown to correlate to increases in commitment in a variety of settings, including heterosexual and homosexual relationships (Duffy & Rusbult, 1986); work settings (Farrell & Rusbult, 1981; Rusbult & Farrell, 1983); romantic associations (Rusbult, 1980a; Rusbult, Johnson, & Morrow, 1986); friendships (Rusbult, 1980b); expression of emotion in young adult friendships (Allen, Babin, & McEwan, 2012); and physical activity (Gabriele, Gill, & Adams, 2011). Moreover, investments continue to increase over time in relationships. Rusbult's (1983) longitudinal studies found members of a relationship who chose to stay in the relationship had investments exceeding those who chose to terminate the relationship.

The investment model has consistently been able to predict commitment in a variety of settings. However, the model fails to account for social influences that may affect commitment. Johnson (1982) contended social pressures, or the perceived pressure an individual feels from significant others to remain in the relationship, will increase an individual's commitment to the relationship. The social pressures to remain in a relationship are frequently measured as barriers to leaving a relationship. Sabatelli and Cecil-Pigo (1985) found that religiosity was perceived as a barrier to dissolve a marriage and thus increased commitment to that marriage. Another social influence, in the form of social support, has been linked to increased commitment. Sprecher (1988) reported that social support, or the extent to which family and friends approve or disapprove of a relationship, was significantly correlated with commitment. However, social pressures to remain in sport have been shown to have either no significant effect or an inverse relationship with commitment (Carpenter, 1992; Scanlan et al., 1993a). The concepts and constructs discussed above have been applied to understanding commitment in sport.

### *The Sport Commitment Model*

The SCM is an expansion and modification of Rusbult's (1980a) Investment Model with influences from Kelly's (1983) theoretical thoughts on commitment. Originally, Scanlan et al. (1993a) developed the SCM to account for the unique characteristics within youth sport that she believed the Investment Model could not fully describe. Scanlan and colleagues (1993a) modified the model by substituting enjoyment for satisfaction and defining and operationalizing each construct specific

to sport. Furthermore, Scanlan and colleagues (1993a) expanded the model in two ways. First, the construct of investments found in Rusbult's (1980a) Investment Model was split into two separate constructs to reflect the ideas of intrinsic and extrinsic investments separately. These constructs became 'personal investments' and 'involvement opportunities,' respectively (Scanlan et al., 1993a). Secondly, the model was expanded based on the notion of the influence of social pressures in commitment (c.f. Johnson, 1982). In totality the original SCM had five determinants of commitment (Figure 1): sport enjoyment, involvement alternatives, personal investments, social constraints, and involvement opportunities. In general the model



**Figure 1 — Sport Commitment Model showing the original five sources of commitment. The (+) and (-) signs indicate the hypothesized direction of influence for each construct**

Reprinted, with permission, from T. K. Scanlan and J. P. Simons, 1992, The construct of sport enjoyment. In *Motivation in sport and exercise*, edited by G. C. Roberts (Champaign, IL: Human Kinetics), 200.

posits: commitment is predicted by the levels of sport enjoyment, involvement alternatives, personal investments, social constraints, and involvement opportunities an individual perceives.

*Sport commitment.* Scanlan and colleagues defined sport commitment as “a psychological construct representing the desire and resolve to continue sport participation” (Scanlan et al., 1993a, p.6). The definition accounts for the ‘want to’ and ‘have to’ aspects of commitment (Johnson, 1982). However, the nature of sport suggests that athletes are more likely to be in the ‘want to’ category of commitment. Scanlan and colleagues stated commitment can be assessed in three different domains. Assessment can occur at the level of sport in general, to a specific sport, or to a specific sport program (Scanlan et al., 1993a). In the original formulation of the SCM the researchers assessed commitment to a sport program in youth athletes in order to give the participants a secure reference point for their experiences.

*Sport enjoyment.* Based on the satisfaction component of Rusbult’s (1980a) Investment Model, Scanlan and colleagues defined sport enjoyment as “a positive affective response to the sport experience that reflects generalized feelings such as pleasure, liking, and fun” (Scanlan et al., 1993a, p. 6). The construct of enjoyment was chosen, in large part because youth sport research has shown that positive affective states, such as enjoyment, are important motivational variables for young athletes (Scanlan, Carpenter, Lobel, & Simons, 1993; Scanlan & Lewthwaite, 1986; Scanlan, Stein, & Ravizza, 1989). Additionally, lack of enjoyment is a major reason youth athletes drop out of sport (Scanlan et al., 1993; Weiss & Petlichkoff, 1989). Sport enjoyment has consistently emerged as the strongest positive predictor of

commitment (Carpenter, Scanlan, Simons, & Lobel, 1993; Carpenter & Coleman, 1998; Scanlan, Simons, Carpenter, Schmidt, & Keeler, 1993b; Weiss et al., 2001).

*Personal investments.* Based on the intrinsic investments of Rusbult's (1980a) Investment Model, the construct of personal investments is defined as "personal resources that are put into the activity which cannot be recovered if participation is discontinued" (Scanlan et al., 1993a, p. 7). Examples of personal investments are time, effort, and money. During the initial formulation of the personal investments scale, Scanlan et al. (1993a) found only the personal investments of time and effort were pertinent to their sample. Money items did not load with the other personal investment items. This may have been because youth do not invest the same amount of money in comparison to time and effort or youth may not understand the investment of money into sport.

*Involvement opportunities.* Rusbult's (1980a) notion of extrinsic investments is the basis for the construct of involvement opportunities. Scanlan et al. (1993a) defined involvement opportunities as "valued opportunities that are present only through continued involvement" (p.8). The opportunities that accompany involvement in an activity would be lost if they terminated participation. The opportunities perceived by the individual may or may not be rewarding or costly. The focus of the construct is not on whether the opportunity is realized, but rather in the perception that important opportunity only exists if the individual is committed to the activity. For example, a young baseball player may perceive friendships with teammates are a valued facet of playing on a baseball team. If this player quits baseball they will not be able to realize the opportunity of being with those specific

teammates. However, if the player continues participating in the activity the opportunity to be with these friends is an extrinsic investment, which could prove to be rewarding or costly.

*Social constraints.* Becker's (1960) idea of 'side-bets' in conjunction with Kelly's (1983) notion of the social expense of ending a relationship forms the foundation of Scanlan and colleagues (1993a) construct of social constraints. Social constraints are defined as "social expectations or norms which create feelings of obligation to remain in the activity" (Scanlan et al., 1993a, p.7). Kelly (1983) posited the pressure to remain in a relationship creates obstacles in leaving because individuals want to avoid the disapproval of others which increases the commitment from the individual who wishes to avoid this cost. Although findings in the initial examination of Scanlan and colleagues (1993a) model provided no significant prediction for social constraints other researchers have reported mixed results (Carpenter et al., 1993; Weiss et al., 2001).

*Involvement alternatives.* The construct of involvement alternatives is a mirror of Rusbult's (1980a) attractiveness of alternatives component in her Investment Model. Scanlan and colleagues (1993a) defined involvement alternatives as "the attractiveness of the most preferred alternative(s) to continued participation in the current endeavor" (p. 7). In essence, involvement alternatives comprise attractive alternative activities that compete with the current pursuit. If the alternative option is chosen the primary activity will be terminated. Although this construct has deep theoretical roots, measurement of this determinant has been difficult.

During the psychometric property testing phase of a questionnaire designed

to measure involvement alternatives, Scanlan and colleagues (1993b) found support for only a single involvement alternative item and therefore the construct was eliminated from the analysis. This may have been due to the age and developmental level of the participants in the study (Scanlan et al., 1993b). The validation studies for the SCM involved children as young as 9 years old. Additionally, during data collection these young athletes gave the impression that they did not understand the need to supply an alternative activity that directly conflicted with their current pursuit. Furthermore, during analysis it was found that nearly 30% of the athletes surveyed either did not answer the question or gave an answer that could not be interpreted (Scanlan et al., 1993a). Similarly, some athletes in the study provided an alternative that was invalid; athletes identified as their alternative a sport that was not in season, thus, falling outside of the definition of the construct (Scanlan, 1993b). Although the construct was left out of analysis during the structural equation modeling phase of the SCM (Carpenter et al., 1993) the construct has remained in the theoretical model.

Other researchers within the sport commitment domain have had measurement difficulties with this construct. Although most of the researchers who have investigated commitment in a sport setting have excluded it from their analyses because of measurement problems (Alexandris, Zahariadis, Tsorbatzoudis, & Grouios, 2002; Carpenter et al., 1993; Carpenter & Scanlan, 1998; Carpenter, Scanlan, Simons, & Lobel, 1993; Casper & Andrew, 2008; Krinanthi, Konstantinos, & Andreas, 2010; Jeon & Ridinger, 2009) early SCM research (Carpenter, 1992) reported a negative relationship between attractiveness of alternatives and

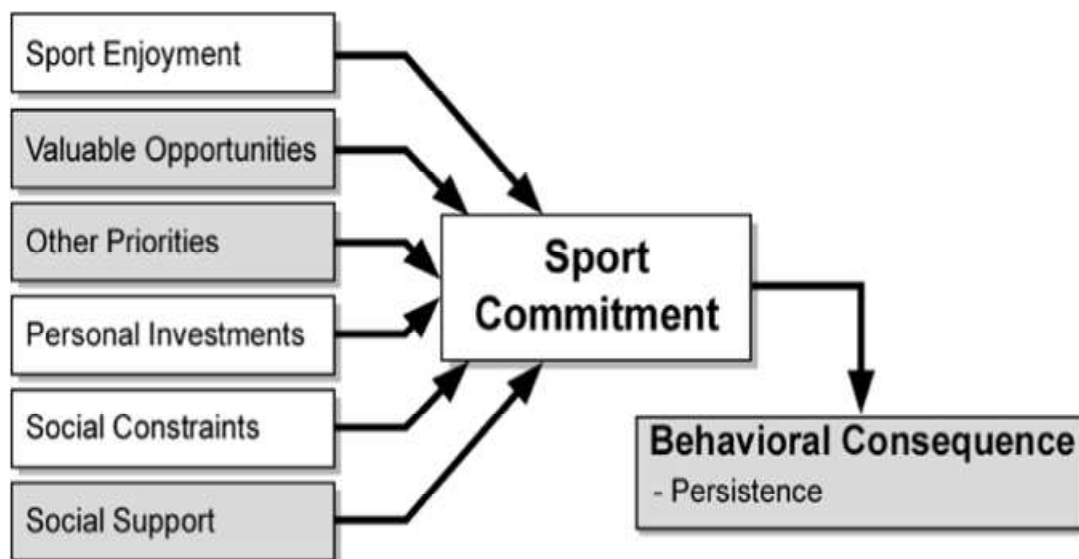
commitment. Additionally, Raedeke (1997) reported a strong negative correlation between attractiveness of alternatives and enjoyment, which is the strongest predictor of commitment. Furthermore, Weiss and colleagues (2001) reported a significant negative relationship between attractiveness of alternatives and commitment as well as a significant indirect negative association mediated by enjoyment.

#### *Changes to the Sport Commitment Model*

Recently, a sixth determinant, social support, was added to the model (Scanlan et al., 2003) and some new terms were introduced to describe the determinants (Scanlan et al., 2009). Specifically, involvement opportunities was changed to ‘valuable opportunities’ and involvement alternatives was changed to ‘other priorities’ for clarity purposes (Figure 2).

*Social support*. Across many studies the construct of social support has been an inconsistent predictor of commitment quantitatively. Carpenter (1992) initiated a line of research investigating social support as a possible determinant of commitment based on prior health psychology literature and research by Brown, Frankel, and Fennell (1989), which maintained the notion that perceived support from significant others may increase continued involvement in sport. Social support is defined as “the support and encouragement the athlete perceives significant others provide for their involvement in sport” (Carpenter, 1992, p. 59). In his initial examination of the construct, Carpenter (1992) first parsed out social support into three domains: support from parents, support from coaches, and support from peers. Carpenter’s (1992) findings revealed only support and encouragement from parents were





**Figure 2- Updated Sport Commitment Model. Shaded blocks are additions, clarifications, or modifications to the original model.**

Reprinted, with permission, from T. K. Scanlan, D. G. Russell, T. M. Magyar, and L. A. Scanlan, 2009, "Project on Elite Athlete Commitment (PEAK): III. An examination of the external validity across gender, and the expansion and clarification of the sport commitment model," *Journal of Sport & Exercise Psychology*, 31(6): 685-705.

statistically significant predictors of commitment in an adolescent population.

Additionally, Carpenter and Coleman (1998) reported no changes over time in social support in a longitudinal analysis of commitment. These researchers rationalized that the high pretest scores may indicate a ceiling effect. Weiss, Weiss, and Ambrose (2010) similarly reported that social support did not significantly predict commitment, although, one subcategory of social support (coach support) was moderately correlated with commitment ( $r=0.32$ ). Weiss and colleagues (2001) found no support for the relationship between social support and commitment in adolescent tennis players. However, Weiss and Weiss (2007) found social support

and encouragement from coaches were predictive of commitment in young gymnasts and Casper and Andrews (2008) found social support positively predicted commitment in adult tennis players. Utilizing an interview format in a sample of elite male rugby players, Scanlan and colleagues (2003) reported that social support and encouragement from significant others to be a key source of commitment. Similarly, Scanlan and colleagues (2009), in another qualitative study, generalized these social support findings to an elite female netball team.

In summary, this section detailed the theoretical underpinnings of Rusbult's (1980a) Investment Model and the Sport Commitment Model that was adapted from it. Originally, Scanlan and colleagues (1993a) took the determinants of relationship commitment (Investments, Satisfaction, and Alternatives) and modified it to fit the context of sport. The proposed determinants of commitment in a sport population were enjoyment, personal investments, involvement opportunities, involvement alternatives, and social constraints. More recently, additional modifications and clarifications were made to the SCM through qualitative interviews with elite sport teams (Scanlan et al., 2003, 2009). Specifically, social support was added as a sixth determinant of sport commitment.

### Measuring Commitment

In early relationship research, commitment was measured by obtaining an average score of the pros and cons of membership and examining the difference between the two averages (Kelly, 1983). Although this measurement may provide a sufficient assessment of what members in a relationship perceive their level of

commitment to be, Kelly (1983) argued that two important factors are left unaccounted for in this type of assessment. Subjective assessments of commitment utilizing an average pro/con difference may not be able to capture how these averages fluctuate over time. The variability over the course of involvement, in Kelly's (1983) formulation, would show how stable a relationship is and would be a better predictor of whether a member in a relationship stays or leaves. A second factor not captured in the subjective measurement of commitment is the ability to measure future behavior. Kelly (1983) stated subjective assessments are not able to measure 'distal causes.' These are factors that impact the current level of commitment in a relationship but the members of the relationship are unaware of these factors (Kelly, 1983). For example, if a member of a relationship decided to leave, he/she may be unaware of the structural links (such as friendships with friends of the spouse who was left) that may also need to be dissolved when they leave the relationship (Johnson, 1982). Similarly, changes in distal causes cannot be measured by subjective assessments. For example, a young baseball player may perceive a high level of commitment when asked but cannot actually predict if he/she will be playing baseball in 5 years due to a myriad of distal conditions such as injury, lack of access, or physical ability (Carpenter, 1992).

In sport and exercise settings, commitment is measured primarily through questionnaires and qualitative interviews. In validation studies of the SCM, Scanlan and colleagues (1993a, 1993b) utilized the Athletes' Opinion Survey, a measurement tool that assesses the original five components of the SCM. The researchers reported that sport enjoyment and personal investments of time and effort explained 58% of

the variance in commitment (Scanlan et al., 1993a). Similarly, Wilson and colleagues (2004) validated the factor structure of exercise commitment using the Exercise Commitment Scale (ECS) a cross-sectional survey instrument. These researchers found an adequate factor structure for the five determinants of commitment posited in the SCM as well as two dimensions of commitment: ‘want to’ and ‘have to’ commitment. More recently, Scanlan and colleagues developed an interactive qualitative interview system to measure commitment (Scanlan et al., 2003a). Utilizing the Scanlan Collaborative Interview Method (SCIM), Scanlan and colleagues systematically interviewed elite level male and female athletes and reported sufficient evidence that the SCM predictions were accurate in general, though the strength of each determinant was prone to individual differences (Scanlan et al., 1993a, 1993b, 2009).

### Sport and Exercise Commitment Findings

#### *Development (Age and Skill Level) and Commitment*

Researchers have reported differences in the determinants of commitment due to developmental and skill level factors. For instance, Weiss and Weiss (2007) found that commitment differed by competitive level in young gymnasts. For the least skilled athletes commitment was predicted by personal investments, perceived costs, social support from the coach, and social constraints from friends, teammates, and coaches. For the more skilled athletes, commitment was predicted by teammate social constraints and personal investments. Furthermore, Casper and Andrew (2008) examined adult tennis players’ sport commitment across skill level. These

researchers reported higher levels of sport commitment, involvement opportunities, and social constraints for the more skilled athletes. However, lesser skilled athletes reported higher levels of enjoyment (Casper & Andrews, 2008). Researchers have also reported differences in the determinants of commitment due to the age of the athlete. Weiss and Weiss (2007) found that perceived costs (i.e., time constraints, boredom, and stress) and social constraints from friends and parents were the strongest predictors of sport commitment for the youngest female gymnasts. For the middle age group of athletes, age 11-14, personal investments, social constraints from parents, and perceived costs were the strongest predictors of sport commitment. Lastly, in the oldest group of athletes, 15-18 years old, the strongest predictors of sport commitment were perceived costs and perceived competence.

#### *Longitudinal Evidence for Changes in Commitment*

Researchers have reported changes in the strength of the components of the model over time. That is, as determinants change over a season, an athlete's commitment may also oscillate (Carpenter & Coleman, 1998; Carpenter & Scanlan, 1998; Weiss & Weiss, 2006). Carpenter and Coleman (1998) found commitment increased over time as sport enjoyment and social opportunities increased. Furthermore, commitment decreased when social opportunities and social support decreased. Carpenter and Scanlan (1998) also reported longitudinal changes in commitment. These researchers found that decreases in sport enjoyment and involvement opportunities corresponded to decreases in sport commitment. Alternatively, an athlete whose involvement opportunities increased also reported

increases in their sport commitment. In a similar vein, Weiss and Weiss (2006) surveyed gymnasts twice in a 1-year period and found that ‘attracted gymnasts’ (athletes whose commitment profile included higher enjoyment and lower costs and alternatives) reported higher commitment, greater social support, and lower constraints than ‘entrapped’ gymnast (athletes whose commitment profile included lower enjoyment, and higher costs and alternatives).

### *Commitment to Physical Activity*

Researchers have also applied the SCM to physical activities outside of traditional sport. Alexandris et al. (2002) as well as Wilson, Rodgers, Carpenter, Hall, Hardy, and Fraser (2004) found the SMC to be predictive of commitment in the exercise setting. Wilson and colleagues (2004) found that Satisfaction, the perceived reward for exercise participation, and personal investment predicted both wanting to participate in exercise and feeling obligated to participate. In addition, these researchers found that involvement alternatives and social constraints only predicted feelings of obligation towards exercise. Alexandris and colleagues (2002) reported that involvement opportunities, personal investments, enjoyment, and social constraints were positive predictors of commitment to health clubs. Involvement opportunities were found to be the strongest predictor. Similarly, using the Investment Model, Gabriele, Gill, and Adams (2011) found ‘want to’ commitment was related to time spent being physically active. Additionally, these researchers found that participants who fell into the category of ‘want to’ commitment reported more satisfaction and investment in exercise.

## Alternative Sport

Traditional sports have a long history in both American and global societies. Often the parameters used to characterize what constitutes a sport and is determined by how one defines sport. Until recently sport has been defined in an achievement context. Traditional sports often include an emphasis on wins and losses, a comparison of times or distances between competitors, or breaking records (Eichberg, 1998). However, a distinction is made between traditional ‘achievement’ sports and alternative sports. Activities that provide different options have been termed ‘alternative sports’. Rinehart (2000) defined alternative sports as “activities that either ideologically or practically provide alternatives to mainstream sports and mainstream values” (p. 507). By Rinehart’s (2000) definition anything that falls outside the traditional sport definition is considered an alternative sport. Alternative sports have been known by many monikers: extreme sport, whiz, action-sports, and postmodern sports, as well as many others (Wheaton, 2004). Although sports that do not adhere to traditional sport standards may have many names their philosophical underpinnings are very similar.

According to Tomlinson, Ravenscroft, Wheaton, and Gilchrist (2005), participants who engage in alternative sports have a common philosophical belief about their involvement. The main draw is fundamentally about participation, what Tomlinson and colleagues (2005) described as just “doing it; taking part” (p. 7). Furthermore, these researchers believe that alternative sports “tend to have a participatory ideology that promotes fun, hedonism, involvement, self-actualization, flow, living for the moment, adrenaline and other intrinsic rewards” (p. 7). The

participant driven ideology of involvement also includes a fairly negative perception/attitude toward traditional sport. Tomlinson and colleagues (2005) posited that participants in alternative sports “often denounce, and in some cases even resist, institutionalization, regulation and commercialization, and tend to have an ambiguous—if not paradoxical—relationship with forms of traditional competition” (p.7). Additionally, alternative sport ideologies often include: the avoidance of bodily contact in an aggressive manner (Wheaton, 2004), engagement in physical risk-taking and thrill-seeking behaviors (Boyd & Kim, 2007; Rinehart, 2000), motivation by intrinsic rewards of participation without the need for spectators or competition (Tomlinson et al., 2005; Wheaton, 2004), an emphasis placed on the participant controlled and self-organized nature of the activity (Rinehart, 2000; Rinehart & Sydnor, 2003; Wheaton, 2004), and the importance of creativity, authenticity, and freedom of expression (Beal & Weidman, 2003; Weiner, 2001). When the previously mentioned aspects coalesce into a heightened personal connection with the sport it is often termed a lifestyle sport. Lifestyle sport encompasses a specialized social identity, adherence to a particular set of cultural, behavioral, and attitudinal norms as well as a particular sense of community within alternative sport (Tomlinson et al., 2005; Wheaton, 2004).

### Lifestyle Sport

Lifestyle sports meet all, or nearly all, of the descriptors of alternative sports but are a separate entity due to the extent the athletes involved identify with and form social identities around participation in the activity (Wheaton, 2004). Participation



becomes a 'lifestyle.' Barber, Stone, Hunt, and Eccles, (2005) describe this concept as "attainment value," or "the value of an activity to demonstrate to oneself and to others that one is the kind of person one most hopes to be" (p.188). Those who achieve this "attainment value" for an alternative sport generally are not passive in their participation, but rather, are fully engrossed with the activity. Social and personal identities of participants are nearly inseparable from the sport. This is exhibited by the social networks they form with other lifestyle sport athletes, the culture of participation, and attitudes, expressions, and styles that develop through the interaction of the participant and their sport (Barber et al., 2005; Tomlinson et al., 2005). One such lifestyle sport, and the population of interest in this study, is skateboarding.

### Skateboarding

Many youth choose to participate in skateboarding because it is accessible, cost effective, and minimally reliant on specialized gear. Furthermore, skateboards can be ridden on many surfaces found in and around cities (Eisenberg, 2003). Due to the aforementioned factors skateboard participation in the United States, especially among youth, is very strong. From 2000-2010 participation in skateboarding has ranged from 7.7 million to 12 million per year (SRBN, 2011). According to SBRN (2011), the majority of skateboarders are youth (29.9% aged 7-11, 34.9% aged 12-17) or young adults (15.7% aged 18-24). Male participants make up the majority of skateboarders, 76.1% in 2010 (SBRN, 2011). Geographically, the South Atlantic and Pacific regions have the most participants, 19.8% and 19.7%, respectively, whereas

the New England region has the fewest participants, 5.0% (SBRN, 2011).

Skateboarding appeals to youth for a variety of reasons previously outlined. Youth also tend to pursue skateboarding as a lifestyle sport for a variety of additional reasons. In the following section an examination of the importance of self-organization and participant control, cooperation verses competition, self-expression and creativity, personal challenge, and the skateboarder identity are explored.

Researchers who have examined the skateboard community have found participant control and self-organization to be key elements to participation in skateboarding (Beal, 1995; Beal & Weidman, 2003). The ability to choose when, where, and how one interacts with an activity is valued by the skateboard community. Being able to choose which maneuvers to practice, the space to practice them, engage in self-paced progress, and individually determine how success is measured are important to skateboarders (Beal & Weidman, 2003; Seifert & Hedderson, 2009). Skateboarders view this as directly contrasting with traditional sports where winning and losing is emphasized, progress is dictated by coaches or other authority figures, and success is measured by defeating another team or player (Beal & Weidman, 2003). Being able to control one's participation and organize how one participates allows skateboarders to feel autonomous, and therefore, more self-determined (Beal, 1995; Ryan & Deci, 2000).

Beal (1995) and Beal and Weidman (2003) posited an emphasis on cooperation over competition as another factor that is valued by the skateboard community. Social status among skateboarders is generally earned through the promotion of cooperation and inclusivity (Beal & Weidman, 2003) which fosters a

sense of solidarity among the participants (Bradley, 2010). Beal (1995) described cooperation among skateboarders as the emotional support one skateboarder gives another, as well as, sharing technical information that helps a skateboarder progress in the sport. Skateboarders who value this support and information sharing believe they would not receive this type of assistance if they played traditional sports, which emphasize winning as the marker of progress (Beal, 1995).

Skateboarding allows participants an opportunity to express themselves through the creativity inherent within the sport. In a qualitative study of skateboarders, Beal and Weidman (2003) reported that the freedom to explore the sport, express one's self in a creative manner, and the ability to be original in how one participates is valuable to the skateboard community. The skateboarders interviewed also believed that this freedom would not be permitted if they played traditional sports. Additionally, skateboarders believe that because they are not competing with each other they progress and learn on their own time table without feeling like they were letting their teammates down or being judged by others (Beal, 1995). Furthermore, skateboarders believe that freedom of expression is hampered if they have authority figures judging them or structuring their activity (Rinehart, 2000; Seifert & Hedderson, 2009).

Skateboarding provides participants with many opportunities to challenge one's self. Attempting new maneuvers, mastering old tricks, and combining skills offer numerous opportunities for growth and progress. Skateboarding is a difficult sport to master yet it has a built in feedback system that is instantaneous and does not require coaches or other authority figures to provide criticism (Beal & Weidman,

2003). Additionally, the sense of accomplishment associated with landing new tricks or mastering new skills appears to be a motivating factor for personal progress (Seifert & Hedderson, 2009). Skateboarding also allows participants to find a balance between the level of challenge and the skills necessary to progress in the sport.

Skateboarding is an activity that allows a participant to explore their identity, affirm their belief structure, and express their social and personal identity. This expression of identity may be especially true in adolescence when identity formation is at its peak. Young skateboarders may feel that skateboarding provides an opportunity to define one's self (Coatsworth et al., 2005) and show others how they define their identity (Barber et al., 2001). According to Woolley and Johns (2001) the skateboarder identity is comprised of a set of unique factors such as musical preferences and styles of dress that build a strong identity as a skateboarder, which interacts with the activity of skateboarding. Additionally, Shamir (1992) reported identity formation in an activity develops through expression of values, identity affirmations, and attitudes, which provides social recognition for perseverance in an activity.

Due to the formation of the skateboarder identity in adolescence, and the importance of self-organization and participant control, cooperation verses competition, self-expression and creativity, and personal challenge in skateboarding it is logical to assume that skateboarders are committed to their sport. However, research into the determinants of skateboarder commitment is lacking. To date, there is no literature known to this researcher investigating commitment to skateboarding

using an existing theoretical model of commitment.

Theoretical models have been posited to explain the construct of commitment (Rusbult, 1980a; Scanlan et al., 1993a, 1993b). Throughout the various modifications to these models the determinants are generally the same. Commitment, therefore, is determined by the level of enjoyment an athlete perceives, the amount of personal investments put into an activity or relationship, the availability of involvement opportunities, the level of social constraints or social obligations, the attractiveness of alternative activities, and the amount of encouragement and social support an athlete feels he/she receives from significant others. Although the models presented have examined commitment in many contexts, lifestyle sports may contain additional determinants of commitment that are not contained within the aforementioned models.

## CHAPTER 3

### METHODS

This chapter outlines the design of the study, the participants recruited into the study, the measures utilized, the procedures used to collect data, and the statistical design of the study. The study was a cross-sectional design which included male and female skateboarders. Participants completed the Athletes' Opinion Survey (AOS) in two formats. Data collection occurred at skate parks, a skateboard showcase, and through an online questionnaire. The statistical design for this study was hierarchical multiple regressions.

#### Study Design

This research implemented a cross sectional correlation design with skateboarders. All participants were asked to complete an adapted and modified version of Scanlan and colleagues (1993b) AOS to measure the components of the SCM: sport commitment, sport enjoyment, personal investments, involvement opportunities, involvement alternatives, social constraints, and social support. They were also asked a set of self-report Likert-type scaled questions about lifestyle specific factors (music, art, and skateboarding structure) to probe for possible unique determinants of commitment in this population.

## Participants

Participants were adolescent and adult skateboarders. Both sexes were not equally represented due to the nature of the sport, which is highly male dominated. The majority of skateboarders were Caucasian males. Time spent participating in the sport varied from novice to 6+ years of experience. Participants were not limited based on their experience.

In a study of commitment in various age groups of gymnasts, Weiss and Weiss (2007) reported a moderately strong to strong effect size in predicting commitment. However, commitment and the determinants of commitment in a skateboarding population have not been studied. A more cautious route was undertaken for the a priori power analysis for this study. G\*Power 3, a power analysis program used for many behavioral science statistical tests (Faul, Erdfelder, Buchner, & Lang, 2009), was utilized in this study to determine the sample size needed to detect significance in predictors of commitment, if significance was in fact in the accessible population. For the a priori power analysis a more stringent effect size ( $f^2 = .2$ ) was set due to the unknown nature of the determinants of commitment in a skateboard population. Alpha, or the error probability, was set at .05. Alpha is a measure of Type I error or the probability that a significant effect was found due to chance alone. Power ( $1-\beta$ ) or the probability that an effect will be detected if an effect occurs was set at .95. Therefore, assuming an expected medium effect size with three unique and six theoretical predictors of commitment an a priori power analysis suggested that a minimum sample size of 68 participants was needed to perform the statistical tests detailed in the statistical analysis section of this paper.

## Measurements

### *Participant Demographics*

Selected descriptive information was collected for each skateboarder to characterize the sample. These items included age, sex, race/ethnicity, number of years skateboarding, daily time spent skateboarding, and primary location of participation. Each of these categories was self-report.

### *The Athletes' Opinion Survey*

An adapted and modified version of Scanlan and colleagues (1993a, 1993b) AOS was given to each athlete to assess their commitment to skateboarding. The 28-item AOS measures sport commitment and the six factors proposed to contribute to sport commitment: sport enjoyment, involvement alternatives, personal investments, social constraints, involvement opportunities, and social support. The AOS was modified to be relevant to skateboarders. The AOS was adapted in four ways consistent with current usage of the instrument. First, two additional questions for personal investments based on Weiss and colleagues' (2001) study were added. Second, social support was measured using four items from the research of Weiss and colleagues (2001). Third, involvement alternatives were measured with items from Raedeke's (1997) research. Lastly, nine questions aimed at assessing sources of commitment unique to lifestyle sports were developed. A confirmatory factor analysis was planned to examine the factor structure of the adapted version of the AOS but was not conducted. MacCallum, Widaman, Zhang, and Hong (1999) suggested a sample should be over 100 participants to appropriately run a



confirmatory factor analysis.

Scanlan and colleagues (1993b) and Carpenter and colleagues (1993) performed the original validation studies of the AOS. Scanlan and colleagues' (1993b) research supported the face and content validity of the instrument. Construct validity findings are somewhat problematic. All proposed items loaded as hypothesized but involvement alternatives and personal investments failed to have an adequate number of items per factor. Subsequent research addressed this shortcoming and is discussed below.

*Sport commitment.* Skateboarders were asked four questions designed to address their psychological desire to continue participation. These items assessed how dedicated or determined the participants to their sport. All items were rated on a 5-point scale. An example item for sport commitment was: "How dedicated are you to skateboarding." Three of the four items range from "not at all dedicated/hard/determined" to "very dedicated/hard/determined." The item "What would you be willing to do to keep skateboarding?" was rated on a range from "nothing at all" to "a lot of things." Research has shown sufficient validity and reliability for this scale ( $\alpha=.88$ ) (Carpenter et al., 1993; Scanlan et al., 1993b).

*Enjoyment.* Four questions were used to assess enjoyment of skateboarding. Participants rated how much they enjoy, have fun, are happy, and like skateboarding on a 5-point scale ranging from "not at all" to "very much." An example item was: "Do you have fun skateboarding?" Scores have demonstrated adequate validity and reliability ( $\alpha=.90$ ) in a sport population (Scanlan et al., 1993b).

*Involvement opportunities.* Skateboarders were asked three questions aimed

at assessing potential benefits and opportunities associated with skateboarding. Participants rated these items, ranging from “not at all” to “very much,” on a 5-point scale. An example item was: “Would you miss your friends if you quit skateboarding?” One item in the original survey was omitted from this study. The question asked to what extent the athlete would miss their head coach. As this population does not have a head coach, this item is not pertinent. Research has found this subscale to be reliable ( $\alpha=.83$ ) in athletes across many sports (Scanlan et al., 1993a).

*Social constraints.* Skateboarders were asked three questions designed to measure the perceived social pressures and feelings of obligation to maintain participation. These social pressures come from friends, parents/guardians, and other significant people. The items were rated on a 5-point scale ranging from “not at all how I feel” to “very much how I feel.” An example item was: “I feel I have to skateboard so that I can be with my friends.” Scanlan and colleagues (1993b) demonstrated adequate reliability and validity for this scale ( $\alpha=.88$ ).

*Personal investment.* Participants were asked three questions related to resources that would be terminated if they stopped skateboarding (Scanlan et al., 1993a). These resources included time spent skating, effort put into skating, and money invested in skating. Participants responded on a 5-point scale ranging from “none” to “very much.” In Scanlan and colleagues’ (1993a) initial validation of the SCM the reliability scores for the construct of personal investments were marginally acceptable; however, Weiss and colleagues (2001) found a favorable internal consistency ( $\alpha=.88$ ) using two additional questions. To possibly ensure adequate

reliability these additional questions were included. The added questions, adapted for skateboarding, are: “How much energy have you put into skating?” based on the findings of Carpenter (1992) and “How much of yourself have you put into skating?” The latter question was developed by Weiss and colleagues (2001). An example item, modified for skateboarding, from the original survey was: “How much effort have you put into skating?”

*Social support.* Participants were asked four questions designed to assess the extent to which they perceived support and encouragement from parents and friends (Weiss et al., 2001). Social support was a critical element of commitment in early research but Scanlan and colleagues (1993a) did not include it in the original AOS. In 2009 Scanlan formally incorporated social support in the SCM (Scanlan et al., 2009). Participants were asked to rate social support on a 5-point scale ranging from “almost never” to “almost always.” Examples of social support items included: “My friends encourage me to skateboard” and “My parents/guardians support my skateboarding.” Weiss and colleagues (2001) used a 12-item assessment that included 4 items for each parent and 4 items for a coach. The measure was found to have adequate reliability ( $\alpha=.83$ ) and validity. As there is no coach, the coach related support items were omitted. Furthermore, the items for each individual parent were integrated into four parent/guardian items for ease of understanding and sensitivity reasons.

*Involvement alternatives.* The original AOS items comprising the involvement alternatives construct were not reliable (Carpenter et al., 1993; Scanlan et al., 1993b). Raedeke (1997) sought to improve this subscale and found sufficient

internal consistency ( $\alpha=.90$ ) using five items from Carpenter (1992). Adequate subscale reliability and validity with sport participants has also been shown in subsequent research using Raedeke's items (Weiss et al., 2001; Weiss & Weiss, 2003). Using these items skateboarders were asked five questions regarding whether other activities were more attractive than skateboarding. The items were rated on a 5-point scale ranging from "not at all true for me" to "completely true for me." An example item was: "Other things are more fun than skateboarding."

#### *Unique Contributions to Commitment*

It is likely that skateboarders are committed to the sport for reasons other than those measured by the AOS. To probe this possibility nine questions were asked at the end of the survey to elicit unique contributions to commitment. The items were created in collaboration with a sport psychology professor and sport psychology graduate students for clarity and appropriateness. The items generated were taken to a local nonprofit organization dedicated to skateboarding and face validity was confirmed. In these questions commitment was defined and then participants were asked the extent to which lifestyle sport specific components comprised their commitment. Specifically, they were asked to what extent do art, music, and the sport structure of lifestyle sport play in their commitment profile. An example item of a lifestyle specific question was "I would continue to skateboard even if I could not listen to music while skating" The items were rated on a 5-point scale ranging from "not at all true for me" to "completely true for me."

## Procedures

After IRB approval data collection began. Four strategies were used to recruit participants and collect data. First, the PI visited skate parks around the Salt Lake valley from 4 p.m. to dusk for at least 2 consecutive days. Fliers advertising the study were distributed to skaters. Two procedures were followed for those indicating interest in the study. Those who could show a picture identification indicating that they are 18 years or older were given consent forms. The PI answered any questions the skateboarders had while reading the consent forms. When the consent form was signed the PI provided the skateboarder with the questionnaire. Care was taken to complete the consent process and questionnaire completion in a quiet area. Those with no picture ID or who were under 18 years of age were given parent consent forms and told to take them home, give them to their parents, and return the signed forms the following day. The PI was present the following day to collect parental consent forms and distribute assent and study questionnaires to the minors wishing to participate.

Secondly, flyers were distributed to local skate shops and high traffic University of Utah areas. The flyers had an email address to contact if the participant wanted to be involved in the study. Participants who were willing to be involved were emailed a copy of the consent form that was required (Parental consent and Assent for those 12-17, Participant consent for those over 18 years old). These participants were given instructions of where data collection is taking place and what they would need to bring to the data collection site in order to be eligible to participate in the study.

Thirdly, the PI attended a skateboard showcase and solicited potential participants. Individuals who are over 18 were given a participant consent forms and a survey to complete. Participants under the age of 18 (whose parent/guardian was in attendance) were given a parental permission form. Once parental permission was granted, participants were given an assent form and a questionnaire to complete.

Finally, surveys and consent forms were available in an online format for participants who are unable to go to the data collection sites but were willing to participate in the study. Extra precautions were utilized to make certain that the proper consent form was filled out. If the participant was between 12-17 years old they were prompted to receive parental permission before taking the survey. They were also asked to provide a contact number/email address for the person giving consent to participate. If they failed to leave a contact number the data were not used in analysis. Additionally, when awarding compensation, the contact number was called and the respondent was asked if they had given consent. If this consent was not given the data were not used and compensation was awarded to another participant. Fortunately, this process concluded in appropriate consent being given. Overall, the majority of the participants opted to take the survey online.

Parental consent forms and participant consent forms were used to award the compensation to the participants. Participants who provided a contact number or email address on their consent forms were eligible for the compensation drawing. Each eligible form was given an ID number and four random numbers were generated using an online random number generator ([www.random.org](http://www.random.org)). The participants whose number matched the randomly generated number were contacted

and given the compensation award. The compensation award consisted of four \$25 gift certificates to local skate shops.

An automated response to the emails was used to ensure all pertinent information was supplied to the participant. The response was in the following format:

Thank you for your willingness to be in this study. If you are under 18 years old you will need the documents entitled Parental Consent and Participant Assent; ask your parents/guardians to read and sign the parental consent form. If you are over 18 you will need the Participant Consent form. Our next data collection will be (Name and address of Skate Park and timeframe). Please bring these forms with you if you would like to be in the study.  
Thank you,  
Morgan Hall  
Master's student, Department of Exercise and Sport Science, University of Utah

The survey packet included the purpose and rationale of the study, a participant assent/consent form, a series of demographic questions, and the modified and adapted Athletes' Opinion Survey. Participants were informed that participation was voluntary and that they were free to withdraw at any time. They were also told that their answers would be confidential and to respond honestly to every item. The majority of the participants were able to respond to the questions without assistance. However, the PI answered any questions that the participants asked.

### Statistical Design

Data were screened for outliers and missing data and checked for assumptions of normality, independence, linearity, homoscedasticity, and multicollinearity. A reliability analysis was performed to obtain Cronbach alphas to determine the reliability of each subscale of the AOS as well as the items constructed

to assess additional sources of commitment. Descriptive statistics of age, sex, race/ethnicity, number of years skateboarding, primary location of participation, and daily time spent skateboarding were collected to characterize the sample.

To answer the primary research question additional analyses were conducted. First, correlations between the skateboard commitment and the other six theoretically based subscales (enjoyment, personal investment, involvement alternatives, social support, social constraints and involvement opportunities) were analyzed and reported. Secondly, correlations between lifestyle sport specific components of commitment and the other theoretical subscales were analyzed and reported.

Finally, two hierarchical (blockwise entry) multiple regression analyses were performed. The blockwise entry method will be utilized based on Scanlan's theoretical design of the determinants of commitment (Scanlan et al., 1993a) block one contained only the predictor enjoyment as it is theoretically the strongest predictor of youth sport commitment (Carpenter et al., 1993; Scanlan et al., 1993; Weiss et al., 2001) block 2 contained involvement alternatives, personal investment, social support, involvement opportunities, and social constraints, as they have been shown to be predictors of commitment in young athletes, though, to a lesser extent than enjoyment (Carpenter et al., 1993; Scanlan et al., 1993). Unique contributions to sport commitment elicited by the lifestyle sport specific questions comprised block 3 as it is an atheoretical variable.



## CHAPTER 4

### RESULTS

This chapter presents the results of the data analysis on commitment in skateboarders. Data analysis took place in five phases: (a) Participant demographics were analyzed to characterize the sample, (b) data cleaning, data screening, and statistical assumption analyses were performed, (c) scale reliabilities and descriptive statistics were analyzed, (d) preliminary analyses were conducted, and (e) primary data analyses were conducted.

#### Participant Demographics

Participants included 70 male ( $n=66$ ) and female ( $n=4$ ) skateboarders who were between the ages of 12 and 53 ( $M=18.5$ ,  $SD=3.99$ ). One participant, aged 53, was 20 years older than the second oldest participant and was excluded from data analysis to keep the age range more homogeneous ( $n=69$ ). The majority of participants were White or Caucasian (79.4%,  $n=54$ ). Other reported ethnicities included Hispanic (5.9%,  $n=4$ ), Asian (4.4%,  $n=3$ ), Black (1.5%,  $n=2$ ), and Native American (1.5%,  $n=1$ ). Two participants reported 'other' and 3 participants did not indicate an ethnic category. Participants reported a range of daily time spent skateboarding ( $n=63$ ,  $M=2.92$  hours,  $SD=1.77$  hours). One hour a day skateboarding

was most often reported (26.5%,  $n=18$ ), followed by 2 hours a day (19.1%,  $n=13$ ), 3 hours per day (16.2%,  $n=11$ ), 6 hours per day (14.7%,  $n=11$ ), 4 hours per day (11.8%,  $n=8$ ) and 5 hours per day (4.4%,  $n=3$ ). Five participants did not respond to the daily time spent skateboarding item. The majority of participants indicated that skateboarding was their primary sport (72.1%,  $n=49$ ). Additionally, participants who indicated that skateboarding was not their primary sport reported a sport that may be classified as a lifestyle sport (snowboarding, longboarding, BMX) ( $n=13$ ) as their alternative activity. The primary location of where skateboarders participated in their sport was closely split between skate parks (48.5%,  $n=34$ ) and street (44.1%,  $n=30$ ). Two participants indicated private warehouses as their primary skating spot, 2 participants indicated 'other,' and 1 participant did not answer this item.

#### Data Cleaning, Screening, and Statistical Assumptions Analyses

Data were entered into SPSS via two methods. Questionnaires completed by hand with pencil and papers were entered into SPSS and a 100% data re-entry method was employed. Secondly, for questionnaires taken online through REDCap (Harris et al., 2009), data were downloaded into a Microsoft Excel spreadsheet and pasted into SPSS. The data obtained online required participants to answer each question and survey options were limited to the correct range of appropriate answers.

Once in SPSS the entire sample was screened for missing data. A frequency analysis was conducted to screen for missing data and data outside the range of acceptable responses. Eighteen participants had at least one item of missing data. For all analyses, listwise deletion was utilized to correct for missing values. Next, data

for the lifestyle determinants (music, art, sport structure) were then recoded. Two music items (questions 29 and 30 of the modified AOS), two art items (32 and 33) and one sport structure item (question 35) were reverse scored to capture the intention of each construct (Appendix).

Data were screened for outliers using box and whisker plots and mean/median comparison. Data points beyond the outer fence of the box and whisker plot were visually inspected. Potential outliers were judged to accurately reflect how participants answered each question. Additionally, comparisons of the median and mean of each subscale produced a difference of less than .3 between the two statistics. The mean and median were very similar indicating potential outliers in the data set were nonproblematic (Newton & Rudestam, 2013). To follow up the mean-median comparison pseudo-standard deviations (PSD) were calculated for each subscale. The PSD for each subscale were compared to the standard deviations of each subscale. Very small differences were found between these two statistics suggesting minimal deviation from normality (Newton & Rudestam, 2013)

The primary analyses for this study were two multiple regression analyses. To properly conduct a multiple regression analysis several statistical assumptions must be met (Field, 2009): (a) minimal multicollinearity, (b) predictor variables are homoscedastic, (c) data are linear (d) residuals are independent, (e) participant responses are independent, and (f) data are normally distributed.

Multicollinearity was assessed using the collinearity statistic of tolerance. Menard (1995) suggested tolerance values below 0.2 are problematic. In this data set no tolerance value was below .65 suggesting the assumption of no perfect

multicollinearity was met.

Homoscedasticity and linearity was assessed utilizing plots of standardized residuals against standardized predicted values (\*ZRESID against \*ZPRED in SPSS) plots. Partial plots of each predictor and outcome variable were inspected to detect heteroscedasticity and nonlinearity. All predictor variables appeared visually acceptable with the exception of enjoyment. The enjoyment partial plot indicated a positive relationship with commitment. Additionally, the partial plot appears to funnel out indicating that at high levels of commitment, enjoyment variances were greater. This finding may show a violation of the assumption of homoscedasticity. A violation of the assumption of homoscedasticity may make generalizability beyond this sample problematic.

To test for independence of residuals, or serial correlations between errors, the Durbin-Watson test was conducted. The Durbin-Watson statistic tests relationships between adjacent residuals (Field, 2009). Values less than one or greater than three may violate the assumption of independence of residuals. A Durbin-Watson value of two indicates the residuals are uncorrelated. For this sample the Durbin-Watson test was 2.1, signifying the assumption of independence of residuals was met.

The assumption of independence was assumed. The subjects who completed the paper and pencil questionnaire completed the survey independent of other participants, as per the researcher's instructions. Those individuals who completed the survey online were assumed to be independent of other responders as the questionnaire instructions asked participants to take the survey alone, away from

other individuals.

The assumption of normality was assessed using visual methods (histograms and Q-Q plots), K-S Lilliefors, Shapiro-Wilk's statistic, and a  $z$ -score calculation for skewness and kurtosis. Visual inspection of the histograms and Q-Q plots indicated the data violated the assumption of normality. Additionally, K-S Lilliefors and Shapiro-Wilk's statistics were significant indicating non-normal data. Finally, computed  $z$ -scores indicated subscales that were negatively skewed (commitment, enjoyment, personal investments, and involvement opportunities) and positively skewed (social constraints, involvement alternatives, music, art, and structure). Social support was mesokurtic and not skewed. Raw data were transformed to correct for violations of normality. Initially, negatively skewed data were transformed using a reverse score transformation. All skewed data were then transformed utilizing a square root mean transformation. Primary analyses were conducted on the transformed data. Results of the transformed data trended in the same direction as the raw data. In light of this, the raw data were used for all preliminary and primary analyses for ease of interpretation.

### Scale Reliability and Descriptive Statistics

Before the primary analyses were conducted reliability was assessed for each subscale of the modified AOS. Music, art, and skateboard structure failed to form reliable subscales. One item from each subscale was dropped in order to meet acceptable or near acceptable criteria for reliability. These items were "I would continue to skateboard even if I could not listen to music while skating," "I would

quit skateboarding if art was not a part of skateboarding,” and “I would quit skateboarding if it had structured practices.” Based on Nunnally’s (1978) criteria for acceptable reliability ( $\alpha > .70$ ) all of the theoretical subscales demonstrated acceptable levels of internal consistency: skateboard commitment ( $\alpha = .87$ ), enjoyment ( $\alpha = .89$ ), social constraints ( $\alpha = .71$ ), involvement alternatives ( $\alpha = .94$ ), social support ( $\alpha = .70$ ), personal investment ( $\alpha = .88$ ), involvement opportunities ( $\alpha = .75$ ), music ( $\alpha = .63$ ), art ( $\alpha = .63$ ), and sport structure ( $\alpha = .76$ ).

Table 1 presents the means and standard deviations for skateboarder responses to each subscale of the AOS. Overall, participants reported high levels of commitment to skateboarding. Additionally, enjoyment associated with skateboarding, importance placed on opportunities that skateboarding provides (involvement opportunities), and effort, energy, and time invested into skateboarding (personal investment) had relatively robust means. Furthermore, skateboarders reported a low likelihood of doing something other than skateboarding (involvement alternatives) and feeling obligated to skateboard (social constraints). Skateboarders also reported low art, music, and sport structure subscale scores. These means

**Table 1:** Means and Standard Deviations for Predictor and Outcome Variables

Variable	<i>N</i>	<i>M</i>	<i>SD</i>
Commitment	69	4.41	.845
Enjoyment	69	4.83	.421
Involvement Opp.	69	4.64	.608
Social constraints	69	1.51	.868
Personal investment	68	4.37	.735
Social support	67	3.95	.862
Involvement Alt.	67	2.29	1.09
Music	66	1.49	.861
Art	65	2.01	1.35
Structure	57	2.21	1.49
Valid N (listwise)	51		

indicated that art, music, and sport structure may not be important variables to this sample of skateboarders.

### Preliminary Data Analysis

Preliminary analyses were performed to make certain no potential confounding variables would influence the multiple regressions. Independent *t*-tests were implemented to analyze differences in gender, primary location of skateboard participation, and daily time spent skateboarding in relation to the subscales of commitment. Given that multiple tests were used in the preliminary analyses a Bonferroni correction was used to examine the post hoc findings. The Bonferroni correction counteracts the inflation of familywise error rates by making alpha more stringent (Field, 2009). In this case alpha was set at .05 and 10 comparisons were made. Utilizing the Bonferroni correction the new alpha is .005. No differences in gender were found (Table 2). Furthermore, no differences were found in primary location of where the participants skateboarded (Table 3). A significant effect for daily time skateboarding was found,  $F(5) = 11.31, p < .001$ . Daily time spent skateboarding was significantly different ( $p < .003$ ) between the skateboarders who spent 1 hour a day ( $M = 3.52, SD = .73$ ) skateboarding and skateboarders who spent 2-6 hours per day skateboarding (2 hours  $M = 4.38, SD = .57$ , 3 hours  $M = 4.70, SD = .33$ , 4 hours  $M = 4.85, SD = .14$ , 5 hours  $M = 4.86, SD = .23$ , and 6 hours  $M = 4.9, SD = .74$ ) on the personal investment subscale. The personal investment scale investigates how much effort, energy, and time one puts into an activity. It was assumed that those

**Table 2:** Differences in Commitment and Determinants by Gender

	Male	Female			
	Mean( <i>SD</i> )		<i>df</i>	<i>F</i>	<i>P</i>
Commitment	4.43(.836)	4.06(1.04)	1	.133	.716
Enjoyment	4.83(.431)	4.81(.239)	1	.019	.890
Personal Investments	4.43(.704)	3.35(.412)	1	3.70	.060
Involvement Opportunities	4.63(.617)	4.75(.500)	1	.655	.422
Involvement Alternatives	2.25(1.08)	2.95(1.24)	1	.035	.853
Social Support	3.98(.856)	3.56(.986)	1	.150	.700
Social Constraints	1.52(.889)	1.25(.319)	1	.603	.441
Art	2.05(1.38)	1.37(.750)	1	1.07	.304
Music	1.52(.879)	1.00(.000)	1	.615	.437
Sport Structure	2.21(1.51)	2.00(1.41)	1	.061	.806

who spend more hours per day skateboarding would report higher personal investment. Due to these findings the data set was collapsed across gender, time spent skateboarding, and primary location of activity. A second preliminary analysis using correlations was then conducted.

Correlations were conducted between the commitment subscale and the six theoretical determinants of commitment to determine the variables to be entered into



**Table 3:** Differences in Commitment and Determinants by Skateboarding Location

	Skate Parks	Warehouses	Street	Other			
	Mean( <i>SD</i> )				<i>df</i>	<i>F</i>	<i>P</i>
Commitment	4.58(.614)	4.75(.353)	4.25(1.06)	3.62(.176)	3	1.82	.144
Enjoyment	4.82(.441)	4.87(.176)	4.85(.423)	4.62(.530)	3	.436	.729
Personal Investments	4.48(.645)	4.10(.989)	4.27(.850)	4.20(.565)	3	1.60	.200
Involvement Opportunities	4.72(.467)	5.00(.000)	4.52(.761)	4.50(.235)	3	1.05	.377
Involvement Alternatives	2.21(1.08)	1.6(--)	2.39(1.18)	2.50(.141)	3	.535	.661
Social Support	4.12(.857)	4.75(--)	3.76(.826)	3.00(.353)	3	2.48	.073
Social Constraints	1.51(.884)	1.00(.000)	1.48(.829)	1.16(.235)	3	.540	.658
Art	1.82(1.27)	1.00(--)	2.17(1.39)	3.50(2.12)	3	1.44	.241
Music	1.50(.991)	1.00(--)	1.41(.695)	2.00(.707)	3	.388	.762
Sport Structure	2.21(1.57)	1.00(--)	2.12(1.49)	3.5(.707)	3	.652	.586

the regression equation. Additionally, correlations between commitment and the added subscales of art, music, and sport structure were analyzed to determine if these variables were suitable to include in the regression equation.

Table 4 presents the Pearson product-moment correlation coefficients for the modified AOS. Significant positive relationships were found between skateboarding commitment and four of the six theoretical determinants (enjoyment  $r = .52$ , involvement opportunities  $r = .74$ , personal investments  $r = .78$ , and social support ( $r = .44$ ). Additionally, significant negative correlations were found between commitment and involvement alternatives ( $r = -.55$ ) as well as sport structure ( $r = -.39$ ). As social constraints, music, and art failed to minimally correlate to the

**Table 4:** Correlations for the Modified Athletes' Opinion Survey

	Enjoy	InvOpp	SC	PI	SS	InvAlt	Music	Art	Structure
Commit	.523**	.747**	.017	.785**	.449**	-.550**	-.087	-.169	-.394**
Enjoyment		.447**	.022	.509**	.174	-.223	-.087	-.128	-.257
InvOpp			.191	.735**	.221	-.593**	-.150	-.228	-.500**
SC				.141	.021	.063	.357**	-.019	-.192
PI					.377**	-.531**	-.114	-.117	-.588**
SS						-.058	-.032	-.086	-.231
InvAlt							.281*	.067	.317*
Music								-.099	.130
Art									.180

\*\* Correlation significant at the 0.01 level (2-tailed).

\* Correlation significant at the 0.05 level (2-tailed).

Note: Commit= commitment, Enjoy= enjoyment, InvOpp= involvement opportunities, SC= social constraints, PI= personal investments, SS= social support, InvAlt= involvement alternatives

outcome variable, these constructs were dropped from primary analysis. Enjoyment was also significantly correlated with involvement opportunities and personal investments as shown in Table 4 possibly suppressing other determinants (Weiss & Weiss, 2001). In other words, when enjoyment is significantly correlated with another determinant, the semipartial correlation will be less than the zero-order correlation between commitment and the other determinant variable. Due to the possibility that enjoyment may suppress other variables in the SCM, Weiss and

Weiss (2001) tested and reported the viability of an enjoyment mediated model. However, Scanlan (2009) contended that constructs in the SCM are distinct from enjoyment and directly predict commitment without being mediated by enjoyment. In this study a hierarchical regression was utilized to account for the prior findings in relation to enjoyment.

### Primary Data Analysis

The two purposes of this study were to: (a) examine sport commitment among skateboarders by investigating the theoretical determinants of commitment (sport enjoyment, involvement opportunities, involvement alternatives, personal investment, social constraints, and social support) and, (b) assess the contribution of unique predictors of commitment to skateboarding (art, music, and sport structure). To answer these research questions two stepwise hierarchical regressions were performed. Stepwise hierarchical regressions were utilized based on prior research indicating enjoyment as the strongest predictor of commitment and mixed findings of the relative strength of the predictive power of the other determinants of commitment (Carpenter et al., 1993; Scanlan et al., 1993; Weiss et al., 2001). Field (2009) specified stronger known predictors of an outcome variable should be entered first in order of importance and new predictors are entered last.

*PURPOSE 1: Investigation of Theoretical Determinants  
of Commitment*

The first purpose of this study was to examine theoretical determinants of commitment in a skateboarder population. It was hypothesized that enjoyment, personal investments, social support, social constraints, and involvement opportunities would positively predict commitment and involvement alternatives would negatively predict commitment. For this stepwise regression enjoyment was entered into block one for two reasons. First, it is the strongest theoretical predictor of commitment (Carpenter et al., 1993; Scanlan et al., 1993; Weiss et al., 2001). Second, Weiss and colleagues (2001) suggested enjoyment may suppress other determinants because of the predictive power it has shown in prior research. Entering enjoyment in block one alleviates the suppression effect. Involvement alternatives, social support, involvement opportunities, and personal investment were entered into block two. Social constraints was left out of analysis due to a low correlation with the outcome variable ( $r=.017$ ).

Examination of the  $R$  and  $R^2$  values begin to explain the regression model. The  $R$  value is the multiple correlation coefficients between the outcome variable (commitment) and the predictor variables (determinants). The  $R^2$  values are a measure of the variance explained by in the outcome variable by the predictor variable(s). Enjoyment alone accounts for 26% of the variance in commitment. By adding in the additional determinants 74% of the variance in commitment was explained. The  $R^2$  values also illustrate the goodness of fit for the regression models. The goodness of fit for model 1 (enjoyment only) produced  $R^2 = .269$ ,  $F(1, 64) =$

23.50,  $p < .001$ . The goodness of fit for model 2 (enjoyment and all other theoretical determinants) was also significant  $R^2 = .741$ ,  $F(4, 60) = 34.30$ ,  $p < .001$ . Essentially, the significant  $F$  values indicate that the predictor variables do not predict the outcome variable due to chance alone. In this case the null hypothesis that the slope of the regression line is zero has been rejected.

The results of a stepwise regression are reported in Table 5. All determinants entered into the regression equation significantly or nearly significantly predicted commitment in the hypothesized direction. Utilizing the unstandardized  $b$ -values the regression equation is:

$$\text{Commitment}_i = b_0 + b_1\text{enjoyment} + b_2\text{involvement opportunities} + b_3\text{personal investment} + b_4\text{social support} + b_5\text{involvement alternatives}$$

Mathematically expressed:

$$\text{Commitment}_i = -1.14 + (.299*\text{enjoyment}) + (.405*\text{involvement opportunities}) + (.365*\text{personal investment}) + (.234*\text{social support}) + (-.129*\text{involvement alternatives})$$

**Table 5:** Model Summary: Stepwise Regression for Commitment in the Athletes'

Opinion Survey

Step	Variables Entered	$R$	$R^2$	$R^2$ Change	$F$ Change	$\beta$	$t$ -value	Sig
1	Enjoyment	.51	.26	.269	23.50	.51	4.84	.000
2	Enjoyment	.86	.74	.47	27.33	.15	1.93	.057
	Social Support	.86	.74	.47	27.33	.23	3.26	.002
	InvOpp	.86	.74	.47	27.33	.29	2.78	.007
	Personal Investment	.86	.74	.47	27.33	.31	2.89	.005
	InvAlt	.86	.74	.47	27.33	-.16	-1.95	.056

Note: InvOpp= involvement opportunities, InvAlt= involvement alternatives

The unstandardized  $b$ -values explain the relationship between commitment and the determinant variables. Positive values indicate a positive relationship and negative values indicate a negative relationship. Empirically, these data suggest that enjoyment, personal investment, involvement opportunities, and social support are positively correlated to commitment. Additionally, involvement alternatives are negatively correlated to commitment. The  $t$ -values (Table 5) indicate the degree of contribution of the determinants to the regression model. A lower significance level indicates a greater contribution to the model. Empirically, enjoyment was the greatest contributor in the model ( $t= 4.84, p < .001$ ). Other significant contributors to the model included social support ( $t= 3.26, p= .002$ ), involvement opportunities ( $t= 2.78, p= .007$ ), personal investment ( $t= 2.89, p= .005$ ), and involvement alternatives ( $t= -1.95, p= .056$ ).

For ease of interpretation the standardized beta ( $\beta$ ) were used to demonstrate the strength of the independent variables to predict the dependent variable (commitment). The standardized beta ( $\beta$ ) values illustrate the number of standard deviations commitment will change as a result of one standard deviation change in the determinants. The enjoyment beta signifies that as enjoyment increases one standard deviation commitment increases by .51 standard deviations. Additionally, social support ( $\beta= .23$ ), involvement opportunities ( $\beta= .29$ ), and personal investment ( $\beta= .31$ ) illustrate similar yet less pronounced increases in commitment as a function of increases in these other sources. In contrast, the beta associated with involvement alternatives ( $\beta= -.16$ ) suggested that for every one standard deviation increase in that variable commitment will decrease .16 standard deviations.

The beta values reveal that enjoyment was the strongest predictor of commitment in the regression model. Secondly, social support, personal investment, and involvement opportunities significantly predicted commitment. Involvement alternatives emerged as a negative predictor of commitment.

Hypothesis one was mostly supported. Enjoyment was the strongest determinant of commitment. Social support, personal investment, and involvement opportunities significantly predicted commitment in the hypothesized direction. Involvement alternatives was nearly significant ( $p = .056$ ) and predicted commitment in the hypothesized direction. Social constraints, hypothesized to decrease commitment, was not empirically supported in this study.

#### *PURPOSE 2: Unique Lifestyle Predictors of Commitment*

A second stepwise regression was performed to analyze the contribution of lifestyle specific factors to the prediction of skateboarder commitment. Hypothesis two stated lifestyle factors would significantly predict skateboard commitment. As lifestyle factors are atheoretical in this model the constructs were entered as a third block in the regression. Sport structure was the only lifestyle sport variable that significantly correlated with the outcome variable and as such was included in the second regression equation. The constructs of art and music were not significantly correlated with the outcome variable and were eliminated from this analysis. Table 6 contains the unique contributions to the regression model. Sport structure minimally increased the explained variance ( $R^2$  change = .009) and was not a significant predictor of commitment.

**Table 6:** Model Summary: Unique Contributions to Commitment

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Step	Variables Entered	<i>R</i>	<i>R</i> <sup>2</sup>	<i>R</i> <sup>2</sup> Change	FChange	$\beta$	<i>t-value</i>	Sig
3	Structure (recoded)	.86	.75	.009	1.66	.114	1.29	.203

---

Sport Structure was entered into a separate regression analysis:

$$\text{Commitment}_i = -1.437 + (.153 * \text{enjoyment}) + (.561 * \text{involvement opportunities}) + (.305 * \text{personal investment}) + (.311 * \text{social support}) + (-.094 * \text{involvement alternatives}) + (.065 * \text{sport structure})$$

Results indicated that hypothesis two was not supported. Sport structure failed to significantly predict commitment ( $t=1.29$ ,  $p=.203$ ). However, the coefficient ( $\beta=.114$ ) was in the predicted direction.



## CHAPTER 5

### DISCUSSION

Sport commitment research has often reported the construct of enjoyment to be the strongest predictor of commitment (Carpenter et al., 1993; Scanlan et al., 1993a, 1993b; Weiss et al., 2001). Other determinants of commitment reported in prior literature are personal investments, involvement opportunities, involvement alternatives, social constraints, and social support. Unfortunately, there is currently a dearth of research on sport commitment in lifestyle sport populations. In order to accrue the physical and psychological benefits of physical activity an individual must participate in a physical activity. Understanding why individuals are committed to skateboarding, a physical activity, may illuminate why skateboarders persist in their sport. Thus, this study aimed to examine theoretical and lifestyle sport specific factors associated with sport commitment. Overall, the SCM explains the majority of the reasons skateboarders are committed to their sport. The constructs of enjoyment, personal investment, involvement opportunity and social support statistically support the theoretical model of sport commitment. Additionally, the construct of involvement alternatives nearly statistically supported the model. However, social constraints did not support the theory from a statistical standpoint. Also, the constructs of art, music, and sport structure were not statistically significant

determinants of commitment. However, when the lifestyle sport specific factors were entered as the sole contributors to the regression equation sport structure emerged as the only significant predictor of commitment.

#### Mean Levels of Commitment and Determinants of Commitment

The mean level of commitment in skateboarders was a rather robust 4.41 on a 5-point Likert-type scale. Scanlan and colleagues (1993b) reported mean scores for commitment ranging from 3.70 to 4.18 in a competitive, youth sport sample. Additionally, Weiss and colleagues (2001) reported a sport commitment mean of 4.19 in junior tennis players. However, these studies surveyed younger athletes. More recently, Casper and Andrew (2008) reported a mean commitment score for adult recreational tennis player ( $M= 4.03$ ). The comparisons in the current study suggest skateboarders may be more committed to lifestyle sport than other athletes are to traditional sports. Such commitment may be due to the formation of exclusive identities with the culture of lifestyle sport (Wheaton, 2004). Additionally, the key elements to participation in skateboarding are control and self-organization (Beal, 1995; Beal & Weidman, 2003). Skateboarders may be highly committed to their sport because they are able to control when, where, and how they interact with the sport. Furthermore, because there is little authority prescribing how the athletes participate, skateboarders organize the logistics behind their participation. commitment may be so strong in this population because the key elements of participation are met.

Scanlan and colleagues (1993b) reported only one subscale with a mean

above four, namely, enjoyment with means ranging from 4.10 to 4.50. Similarly, Casper and Andrew (2008) reported enjoyment means ranging from 4.33 to 4.67. In the present study, enjoyment was reported as 4.83 on a 5-point Likert-type scale. The high enjoyment mean may connote the possibility that skateboarders derive more pleasure and fun from their sport than traditional sport athletes. It is possible that the enjoyment perceived by the skateboarders is due to the autonomy of the sport. Most amateur skateboarders do not have regimented practice schedules or authority figures dictating how they should participate in their sport. The autonomy inherent in skateboarding may affect the level of self-determined behavior. When individuals are more self-determined they behave for more intrinsic reasons. Ryan and Deci (2000) argue that intrinsically motivated behaviors are pursued for the satisfaction inherent in the activity. Furthermore, if skateboarders are in fact more intrinsically motivated to participate in their sport the enjoyment of the activity may be the root cause of their participation and perseverance in skateboarding.

Prior research indicates that the construct of involvement opportunities has tended to average between 3.21 and 4.20 (Casper & Andrew, 2008; Scanlan et al., 1993b). The current study found involvement opportunities ( $M= 4.64$ ) to be slightly higher than previous literature. As involvement opportunities include anticipation of good times and opportunities to be with friends it may be that the chance to be with skateboard friends is more salient and a more important determinant of commitment in lifestyle sports. The social networks that skateboarders create are based on the interaction of an individual's participation, expression, and attitude (Barber et al., 2005; Tomlinson et al., 2005). It may be that the interaction between these values

increases the anticipation of being with other skateboarders. Additionally, skateboarders achieve social status not by defeating an opponent, but rather, through the inclusion of others and the cooperation between skateboarders (Beal & Weidman, 2003). Cooperation and inclusivity bring skateboarders together and nurtures a sense of unity between skateboarders (Bradley, 2010). The sense of solidarity among skateboarders may influence the anticipation of good times and may make the opportunity to be with skateboard friends more important than in traditional sports.

The mean scores of the variables representing the constructs of personal investments and social constraints were a close representation of past literature. This may indicate that skateboarders put similar effort, time, and money into their sport as do traditional sport athletes. However, skateboarding requires minimal equipment so the monetary aspect of personal investments may not be the driving force behind the construct. Rather, skateboarders may invest more time and effort mastering skills than traditional athletes. Social constraints may not be a salient feature of lifestyle sports. The reported social constraints scores indicate that skateboarders do not feel obligated or pressured to participate in their sport. Casper and Andrews (2008) reported recreational athletes perceived a significantly lower level of social constraints than did collegiate athletes. It may be that skateboarders mirror recreational athletes in the structure of their sports. Recreational athletes often decide how and when they participate in their sport, as opposed to collegiate athletes who operate under a much more rigid structure.

### Gender, Location, and Time Differences

Prior research has not reported significant differences in commitment and the determinants of commitment in relation to gender (Carpenter et al., 1993; Scanlan et al., 1993a, 1993b, 2003). In support of this research, independent *t*-tests revealed no differences between male and female skateboarders in their commitment to skateboarding or any determinant of commitment. However, the sport of skateboarding is highly male dominated; 76% of skateboarders are male (SBRN, 2011). It may be if more female skateboarders were surveyed gender differences could be analyzed.

No differences in the constructs measured on the AOS (commitment, enjoyment, personal investments, involvement opportunities, involvement, alternatives, social constraints, and social support) were found between skateboarders who primarily skateboarded in skate parks and those who primarily skateboarded on city streets. This finding is somewhat interesting as it suggests that variability in commitment is not due to where skateboarders participate in their activity. Rather, commitment is likely due to social and psychological factors.

Independent *t*-tests revealed differences in skateboarders who skated 1 hour a day as opposed to skateboarders who skated between 2 and 6 hours a day. This finding was expected as the construct of personal investment measures the time, effort, and money a participant puts into an activity. The individuals who reported more personal investments were more likely to report a higher hour per day participation rate.

## Correlations Between Commitment and the Determinants of Commitment

Significant relationships were found between skateboard commitment, five theoretical determinants of commitment and one lifestyle sport specific determinant of commitment. Commitment was positively and significantly correlated to enjoyment, involvement opportunities, social support, and personal investments. Commitment was also negatively and significantly related to involvement alternatives and sport structure. These findings suggest that the more skateboarders enjoy their sport, perceives opportunities that would not be available if they did not skateboard, feel encouraged to skateboard by significant others, and invest time, effort, and money into their sport the more likely they are to perceive high levels of commitment. Conversely, skateboarders who reported high levels of commitment also reported low levels of having attractive alternative activities to pursue. Additionally, as commitment increased sport structure decreased. In essence, the more a skateboarder perceived the structure of sport as authority controlled, the less likely they were to be committed to the sport.

Inspection of the correlation matrix revealed affirmation of the relative importance of enjoyment to commitment. In previous studies enjoyment has been the strongest correlate of commitment, with coefficients ranging between .60-.82 (Carpenter, 1992; Carpenter et al., 1993, 1998; Scanlan et al., 1993a; Weiss et al., 2001). This relationship suggests that when skateboarders perceive their sport as enjoyable they are more likely to be committed to their sport. Weiss and colleagues (2001) reasoned that due to the magnitude of the relationship between enjoyment and

commitment, as well as enjoyment correlating strongly with involvement opportunities and personal investments, enjoyment may act as a suppressor variable. In the current study, enjoyment significantly correlated with involvement opportunities and personal investments. The relationship between enjoyment and involvement opportunities implies that the anticipation of good times and being able to socialize with fellow skateboard friends also brings a sense of fun to the sport. Additionally, the relationship between personal investment and enjoyment suggests that putting in time and effort into mastering a skateboarding maneuver may elicit feelings of joy. Due to these high correlations enjoyment was entered into the regression equation in block one and the other determinants were entered into block two, to account for the possibility of enjoyment suppressing other determinants of commitment.

Commitment was also significantly related to involvement opportunities, social support, personal investments, involvement alternatives, and sport structure. These findings suggest that encouragement from significant others may influence how committed they are to their sport. The strong relationship between personal investments and commitment indicate that skateboarders feel the effort, time, and money put into their sport impacts their commitment to skateboarding. Involvement alternatives had a significantly negative correlation with commitment. This finding supports the theory of sport commitment (Scanlan et al., 1993a) and provides empirical evidence that when an athlete has a more attractive alternative to their current pursuit they are less committed to the primary activity. Finally, Sport structure was significantly related to commitment in a negative direction. As an

atheoretical variable there is no prior literature to establish this relationship.

However, based on lifestyle sport literature (Wheaton, 2004) it was hypothesized that the more the sport is structured the less committed the skateboarder will be.

Empirically the relationship between sport structure and commitment bears this out.

However, when sport structure was entered into the regression equation very little change in explained variance was seen.

### Regression Analyses

The findings from the regression analysis support prior research indicating enjoyment as the strongest predictor of commitment (Carpenter et al., 1993; Scanlan et al., 1993; Weiss et al., 2001). However, these results must be taken with caution as sport enjoyment was entered into block one without the other determinants.

Scanlan and colleagues (1993b) noted that determinants may be inter-correlated with one another yet should form distinct constructs. However, Weiss and colleagues (2001) posited the notion that because enjoyment has consistently been strongly correlated with sport commitment (.60- .70) and moderately correlated with other determinants, these other determinants may be suppressed by enjoyment. In this data set it appears that involvement opportunities, personal investments, and enjoyment may be redundant variables to this population. When involvement opportunities is highly correlated with commitment and personal investment is also highly correlated with commitment, although enjoyment is significantly correlated with commitment the predictive power may be masked by personal investments and involvement opportunities. However, using a hierarchical regression with enjoyment



in block one based on the strength of prediction in past research, enjoyment alone accounted for 26% of the variance in the model.

Based on the strong intercorrelations between enjoyment, involvement opportunities, and personal investment interesting issues arise. First, skateboarders seem not to differentiate between the constructs of enjoyment, personal investment, and involvement opportunities. It could be that the anticipation of being with friends and the fun associated with actually being with them are not distinct. Similarly, the pleasure elicited by engaging in the sport of skateboarding and the effort put forth in the act of skating may be deeply connected. Finally, it could be that skateboarders perceive the time spent skateboarding and the opportunity to be with friends and the enjoyment associated with skateboarding are so intertwined that the participants perceive these supposedly distinct constructs as one and the same.

The strength and direction of the additional determinants of commitment also support the theoretical model posited by Scanlan and colleagues (1993a, 1993b). However, the determinant of social constraints, which was not entered into the model due to a nonsignificant correlation with the outcome variable, was not empirically supported. The nonsignificant correlation between commitment and social constraints is similar to findings in the sport commitment literature (Scanlan et al., 1993a). However, this finding is counter to Kelly's (1983) Close Relationship Theory from which the construct was based. It may be that the structure of lifestyle sports, because they are participant controlled, limit the social obligation one feels to remain in the sport.

It was hypothesized that enjoyment would be the strongest predictor of commitment. Furthermore, the constructs of personal investments, involvement opportunities, social support, and social constraints would positively predict commitment. Additionally, it was hypothesized that involvement alternatives would be a negative predictor of commitment. In support of the hypothesis, enjoyment was the strongest predictor of commitment, explaining 26% of the variance. Also, the remaining predictor, sans social constraints, increased the explained variance to 74%. These findings imply that a skateboarder will be dedicated to his/her sport if he/she perceives the sport to be fun, perceives the opportunities in skateboarding as important and can only be realized by pursuing the sport, feels encouraged and supported by significant others, and perceives skateboarding as a more attractive activity than any alternative activity that he/she could be involved in.

Overall, the findings reported need to be taken with caution. The primary empirical issues include the possible redundancy of enjoyment, involvement opportunities, and personal investments. The aforementioned variables seem to represent constructs that should be distinct, but in this sample appear not to be. Additionally, social constraints, involvement opportunities, and social support had barely minimal internal consistency based on Nunnally's (1978) criterion. Low reliability within each subscale may have attenuated, or reduced the effect, of the relationships between subscales. Additionally, the mean scores of enjoyment, personal investment, and involvement opportunities were very high. A high subscale mean score may indicate reduced variability within the subscale which may indicate an adverse effect on the correlations.

## Tangential Explanations for the Findings

### *Sample*

The age range in the sample may have influenced the responses to the questionnaire. Every effort was made to get a homogenous sample but low response rates from participants made it imperative to include a larger range of ages than was planned for. Additionally, the sample, because of the nature of the sport, did not include many female participants. Even though there were no statistical differences between genders, the small amount of female participants may not be representative of the female skateboarder population. Further, data were collected on how much time was spent skateboarding but nothing was collected on skill level. It was assumed that the more often a participant practices the higher their ability will be. In reality this assumption does not hold up. A skateboarder may skate many hours a day and still be considered a novice.

Another potential limitation is the participants all came from the same geographic location. It may be that skateboarders from other geographic areas would respond to the questionnaire differently. This sample of skateboarders may not be representative of the entire skateboard population because all of the participants hail from a single location.

### *Measurement*

The questionnaire used in this study was adapted and modified to ensure relevance to a skateboard population. It may be that the adaptations changed the intended meaning of the original questionnaire. Additionally, the modifications to the

survey may not have measured the actual influence of music, art, and structure as envisioned. Furthermore, the questionnaire was taken in different settings. Some participants accessed the survey online, whereas some took the survey with the researcher present. Participants may have been more motivated to complete the survey more honestly away from the researcher. Also, the public nature of the skate parks may have affected the responses to the survey. Some participants may have felt rushed to complete the survey because other individuals were waiting for them to complete it.

A second issue with the measurement tool was not conducting a confirmatory factor analysis (CFA) on the survey. A CFA is a large sample statistic (Field, 2009) and would be inappropriate for the small sample that was collected for this study ( $n=68$ ). However, with a larger sample a CFA would be useful in identifying the factor structure of the questionnaire. The CFA would also provide statistically significant relationships between the observed variables that have been collected and the latent constructs that the observed variables represent.

### *Other Lifestyle Sports*

Skateboarders do not completely represent the wide range of lifestyle sports. The results obtained in this study can only be generalized to skateboarders in the data collection area. It may be that other lifestyle sport participants would respond differently to the survey.

### Future Directions

The measurement of determinants of commitment in a lifestyle sport population is relatively new. Only one other study (Jeon & Ridinger, 2009) has attempted to examine sport commitment in lifestyle sports. In the future, researchers could broaden the scope of lifestyle sports. It would be interesting to investigate the differences in commitment based on different lifestyle sports (snowboarding, BMX, etc.). Researchers could also examine how determinants of commitment change over time in skateboarders as well as other lifestyle sports.

A future direction that this research may take is examining gender differences in skateboarding as well as other lifestyle sports. Although no gender differences were reported in this study there were few female participants. A larger female sample may reveal that there are gender differences in relation to skateboard commitment.

Another future direction is the examination of skateboarders based on age and skill level. Young skateboarders may more closely resemble prior research as the AOS was originally intended for a young audience (Scanlan et al., 1993a). It may be that older skateboarders vary in the strength of the predictor variables. The examination of skateboard skill level in regard to sport commitment is also an area of future research. Skateboarders with a higher skill level may report different levels of commitment and the determinants of commitment than novice skateboarders.

Developing a survey that more adeptly captures the essence of the lifestyle sport specific factors (art, music, and sport structure) is an additional area for future research. Prior research has indicated that these tenets are important to lifestyle sport

athletes (Bennett & Lachowetz, 2004; Wheaton, 2004) and may not have been fully captured in the current study. Similarly a mixed-methods approach to the examination of lifestyle specific factors could illuminate the relative importance of music, art, and sport structure. Scanlan's Collaborative Interview Method (Scanlan et al., 2009) could be a model for future researchers to use to investigate, in a qualitative manner, the importance of lifestyle sport specific factors in relation to commitment.

Another area of future research is the investigation of identifying with the culture of a lifestyle sport and level of commitment to the sport. It may be when athletes form exclusive social identities with the culture of lifestyle sports their commitment may be due to other variable not captured in the SCM.

### Summary and Conclusion

Research on sport commitment has indicated that enjoyment is the strongest predictor of commitment in young, adolescent, and recreational athletes (Carpenter et al., 1993; Krinanthi et al., 2010; Scanlan et al., 1993a, 1993b). Sport commitment has also been theoretically predicted by involvement opportunities, personal investments, social constraints, social support, and involvement alternatives (Carpenter et al., 1993; Scanlan et al., 1993a, 1993b). Overall, the model has been supported empirically (Alexandris, 2002; Carpenter, 1992; Carpenter, & Coleman, 1998; Carpenter & Scanlan, 1998; Carpenter et al., 1993; Casper & Andrew, 2008; Jeon & Ridinger, 2009; Krinanthi et al., 2010; Scanlan et al., 1993a, 1993b, 2003, 2009; Weiss et al., 2001, 2006, 2007, 2010). However, notwithstanding one study

(Jeon & Ridinger, 2009), SCM has not been empirically tested for athletes who participate in a lifestyle sport. The important distinction between the present study and Jeon and Ridinger's (2009) study is the participants involved. These researchers surveyed windsurfers, a sport that is location dependent and requires a substantial investment of money to participate. Skateboarding, on the other hand, is relatively inexpensive and individuals can participate in the sport on nearly any smooth surface. The access to skateboarding provides many opportunities for individuals to engage in physical activity. Participation in physical activity has been linked to positive health outcomes, such as, increased aerobic fitness (McKenzie et al., 1996). Physical activity has also been reported to assuage depression, anxiety, and issues with self-esteem in adolescents and increase positive psychosocial development (Barnett & Weber, 2008; Calfas & Taylor, 1994; Mutrie & Parfitt, 1998).

The current study aimed to investigate commitment utilizing SCM as a theoretical framework. Additionally, three potential determinants were examined as lifestyle sport specific determinants of commitment (music, art, and sport structure). In general, the theoretical determinants of commitment predicted commitment as theorized. However, the construct of social constraints failed to empirically predict commitment. Additionally, the proposed lifestyle specific factors also failed to empirically predict commitment. Nevertheless, one lifestyle specific factor was significantly correlated with commitment (sport structure) in the theorized direction. Coakley (2009) states many individuals are leaving organized sport for a more unstructured, participant controlled sport, like skateboarding. Skateboarding provides opportunities to remain physically active and may have additional benefits associated

with leisure activities (emotional and psychological well-being, higher self-esteem, positive psychosocial development, higher academic achievement and a decline in negative behaviors) (Barnett & Weber, 2008).

In conclusion, these findings suggest that in order to foster perseverance in the face of adversity among skateboarders optimizing enjoyment is key. Additionally, skateboarders report anticipating the enjoyment associated with skateboarding as well as the anticipation of being with skateboard friends are crucial motives to keeping skateboarders committed to their sport. Furthermore, skateboarders report that when they invest time, effort, and money into skateboarding they are more likely to persevere in their sport. Skateboarders also perceive that by having significant others encouraging and supporting them they are more likely to stay committed to the sport of skateboarding. Finally, although no empirical evidence was found in this study to support the notion that art, music, and the structure of lifestyle sport contribute to a skateboarder's commitment, the culture of lifestyle sport suggest that there may be more to these lifestyle sport specific factors than was captured in the current study.



## APPENDIX

### ATHLETES' OPINION SURVEY

#### Demographic Information

Age\_\_\_\_\_

Gender (circle one) \_\_\_ M \_\_\_ F \_\_\_

Grade in School\_\_\_\_\_

Number of years skateboarding\_\_\_\_\_

Race/Ethnicity\_\_\_\_\_

Daily time spent skateboarding\_\_\_\_\_

Is skateboarding your primary sport? (circle one) \_\_\_ Yes \_\_\_ No \_\_\_

Where do you spend most of your time skateboarding (circle one): Skate parks,

Private Warehouses, City Streets, Other\_\_\_\_\_

#### **Instructions:**

Thank you for agreeing to take part in this study. There are 37 questions in this section of the questionnaire and should take no longer than 15 minutes to complete but please complete this on your own, away from any distractions. Please take your time to work through each set of questions. Please answer ALL questions honestly and as accurately as possible and try not to take too much time on any one question. This is not a test therefore there are no right or wrong answers. If you do not understand an item ask the researcher for help.

Thinking about skateboarding...	1 = not at all dedicated/ hard/ determined	2 = a little dedicated/ hard/ determined	3 = sort of dedicated/ hard/ determined	4 = dedicated/ hard/ determined	5 = very dedicated/ hard/ determined
1. How dedicated are you to skateboarding?	1	2	3	4	5
2. How hard would it be to quit skateboarding?	1	2	3	4	5
3. How determined are you to keep skateboarding?	1	2	3	4	5
	1 = nothing at all	2 = a few things	3 = some things	4 = many things	5 = a lot of things
4. What would you be willing to do to keep skating?	1	2	3	4	5
	1= not at all	2= a little	3= sort of	4= pretty much	5= very much
5. Do you enjoy skateboarding?	1	2	3	4	5
6. Are you happy when you skateboard?	1	2	3	4	5
7. Do you have fun skateboarding?	1	2	3	4	5
8. Do you like skateboarding?	1	2	3	4	5
9. Would you miss being a skateboarder if you left the sport of skateboarding?	1	2	3	4	5
10. Would you miss the good times you have had skateboarding if you left the sport of skateboarding?	1	2	3	4	5
11. Would you miss your skater friends if you stopped skateboarding?	1	2	3	4	5
	1= not at all how I feel	2= a little how I feel	3= sort of how I feel	4=pretty much how I feel	5= very much how I feel
12. I feel I have to skate so that I can be with friends	1	2	3	4	5

13. I feel I have to skate to please my parents/guardians	1	2	3	4	5
14. I feel that I have to skate so that people will not think I am a quitter	1	2	3	4	5
	1= none	2= a little	3= some	4= pretty much	5= very much
15. How much of your time have you put into skateboarding?	1	2	3	4	5
16. How much effort have you put into skateboarding?	1	2	3	4	5
17. How much of your own money have you put into skateboarding?	1	2	3	4	5
18. How much energy have you put into skating?	1	2	3	4	5
19. How much of yourself have you put into skating?	1	2	3	4	5
	1= almost never	2= usually not	3=occasionally	4= usually	5=almost always
20. My parents/guardians support my skateboarding	1	2	3	4	5
21. My parents encourage me to skateboard	1	2	3	4	5
22. My friends support my skateboarding	1	2	3	4	5
23. My friends encourage me to skateboard	1	2	3	4	5
	1= not at all true for me	2= a little true for me	3=sort of true for me	4= very true for me	5= completely true for me
24. Other things are more enjoyable than skateboarding	1	2	3	4	5
25. Other things make me happier than skateboarding	1	2	3	4	5
26. Other things are more fun than skateboarding	1	2	3	4	5
27. I would be happy doing something else other than skateboarding	1	2	3	4	5

28. I like to do something else instead of skateboarding	1	2	3	4	5
29. I would continue to skateboard even if I could not listen to music while skating	1	2	3	4	5
30. Listening to music is a big reason I continue to skateboard	1	2	3	4	5
31. I would quit skateboarding if music was not a part of skateboarding	1	2	3	4	5
32. I would continue to skateboard even if art was not part of the lifestyle	1	2	3	4	5
33. I would continue to skateboard even if skateboards had no graphics	1	2	3	4	5
34. I would quit skateboarding if art was not part of skateboarding	1	2	3	4	5
35. I would continue to skateboard even if adults had more control over when I skate	1	2	3	4	5
36. I would continue to skateboard even if winning or losing were the most emphasized part of skating	1	2	3	4	5
37. I would quit skateboarding if it had structured practices	1	2	3	4	5

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