Understanding a Demonstration Effect Among Youth Sport Spectators: An Application and Augmentation of the Theory of Planned Behavior

by

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Author's Declaration

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

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Abstract

The present study employed the theory of planned behavior (TPB) to assess motivational factors associated to youths' pre-event and post-event intentions to participate in the sport of track cycling. This study also hypothesized that an additional variable could predict intention. In particular, the construct of state inspiration was examined in terms of its ability to explain significant proportions of variance in youths' intentions above and beyond TPB variables.

Participants were enrolled in grades seven and nine at various schools throughout the city of Milton, Ontario. Students completed a questionnaire assessing each construct of the TPB one week before attending the Milton International Track Cycling Event. Immediately following the event, students completed a post-event survey assessing each construct of the TPB and state inspiration experienced while watching the event.

Results from the hierarchical regression analysis revealed that attitude toward the behavior (β = .171, p = .001), normative influence (β = .81, p < .001), and inspiration (β = .244, p < .001) were significant positive predictors of post-event intentions within the model. Youth that felt participating in the sport would be fun, exciting, and enjoyable were more likely to intend to participate. Moreover, those youth who felt strongly that their friends and family would support and participate as well were more likely to intend to participate post-event. Lastly, youths that felt more inspired through experiencing the track cycling event were more likely to intend to participate post-event. Implications for research and practice are discussed.

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CHAPTER ONE: INTRODUCTION

Researchers have explored the benefits of youth sport participation, including opportunities for social engagement with peers, and increased well-being through physical activity (Bailey, 2006; Cote & Fraser-Thomas, 2007; Fraser-Thomas, Cote, & Deakin, 2005; Lesyk & Kornspan, 2000; Vanresusel et al., 1997; Weirsma, 2000). Specific to Canadian youth sport, the True Sport Report (2016) conducted on Canadian youth sport participation revealed "92% of Canadians believe that community sport can have a positive influence in the lives of youth", such as increased well-being and social networking. Despite the perceived importance and benefits of youth sport participation in Canadian communities, Stats Canada (2008) and ParticipACTION (2015) have documented a decline of Canadian youth sport participation in recent years.

Researchers (e.g. Mulcahy, 2017; Strashin, 2016) have suggested that youth sport participation peaks at age 10 and then declines steadily due to numerous reasons, such as: lack of interest/awareness, negative experience with coaches/supervisors, emphasis on winning, and parental support. Moreover, in the academic literature, studies on youth sport participation have explored reasons such as, gender stereotypes and socio-economic factors for declining youth sport participation (Hill, 1993; Hoyle & Leff, 1997; Kirk, 2005; Petlichkoff, 1992; Ullrich-French & Smith, 2009; Vanreusel et al., 1997). However, though media and academic sources have engaged in the conversation regarding the importance of youth sport participation, ultimately, strategies for how to address declining rates of participation remain unclear. Research is needed to better understand the nuances of youth sport participation motivations and constraints specific to sport in Canada.

Past research (e.g. Potwarka & Leatherdale, 2015) has assessed the critical role exposure to elite sporting events may play in promoting Canadian youth sport participation. Potwarka and

Leatherdale (2015) found that exposure to elite sporting events, such as the 2010 Winter Olympic Games, may serve to increase youth sport participation in geographic locations that house Olympic venues and facilities. Specifically, Potwarka and Leatherdale (2015) found that the physical activity leisure time of female youth in the Richmond, British Columbia region, significantly increased during the time of the 2010 Vancouver Winter Olympics while hosting track speed skating in Richmond. Potwarka and Leatherdale (2015) speculate this increase occurred due to the high number of medals won by Canadian female athletes at the Richmond venue. These findings support claims that exposure to elite sport events may inspire youth to become more active sport participants via a demonstration effect.

1.1 Demonstration Effect

Throughout sport literature, researchers have suggested that youth sport participation might be subject to a demonstration effect (Fredline, 2005; Potwarka & Leatherdale, 2015; Teare, 2017; Starr, 2015; Weed, 2009; Weed et al., 2015). The demonstration effect occurs when "people are inspired by elite sport, sports people or sport events to actively participate themselves" (p. 197, Weed et al., 2015). As such, in order to test for the role which an elite sporting event has inspired an individual's participation intention, intent to participate must be measured both pre-and-post event. The varying differences found across individual's intent to participate when comparing pre-event intention to participate and post-event intention to participate will shed insights into the understanding of the demonstration effect. Moreover, to test for a demonstration effect, the role of inspiration must be assessed. Furthermore, the role of inspiration must be assessed in relation to participant's intent to participate and their eventual participation behavior.

Surprisingly, after assessing current sport literature, demonstration effect research is rarely underpinned by behavioral change theories or models (Potwarka, 2015). As argued previously by Potwarka (2015), applying more theory-driven approaches may shed insights into the motivation factors that lead to participation intention. Specifically, researchers (e.g. Boardley, 2013; Potwarka & McCarville, 2010) have identified the theory of planned behavior as an appropriate theory, and model, to better evaluate the extent to which elite international sporting events might motivate individuals to participate. The theory of planned behavior focuses on key motivational constructs that may predict youth's intention to participate after watching an elite sporting event. Boardley (2013) found that the application of the theory of planned behavior to sport may explain notions of the demonstration effect. Specifically, Boardley's (2013) research suggests that viewing a sporting event could "impact attitudes towards sport would be by making positive beliefs relating to sport more salient in those viewing" the event (p. 249). Moreover, Boardley (2013) found viewing an elite sporting event may impact behavioral attitudes or beliefs by forming new associations between sport, specific sporting attributes, and positive evaluations of these associations. As such, Boardley (2013) suggests the theory of planned behavior may be "particularly productive for those viewers with little previous experience of sport", or the specific sport in question (p. 250). Furthermore, this research suggests that the theory of planned behavior may be useful in theoretically underpinning the demonstration effect. The theory of planned behavior will be briefly discussed in the following section.

1.2 Theory of Planned Behavior

As developed by Ajzen (1991), the theory of planned behavior (TPB) aims to predict an individual's intention to behavior based on three constructs: (1) attitude toward the behavior; determined from behavioral believes and personal evaluation of behavioral outcomes (Ajzen,

1991), (2) subjective norm; reflects the perceived social pressure to perform, or not perform, the behavior in question (Ajzen, 1991), and (3) perceived behavioral control; the individual's perceived ease or difficulty of performing the specific behavior (Ajzen, 1991). Figure 1.1 depicts Ajzen's (1991) original model, the model hypothesizes that these variables will each have direct relationships to the construct of intention.

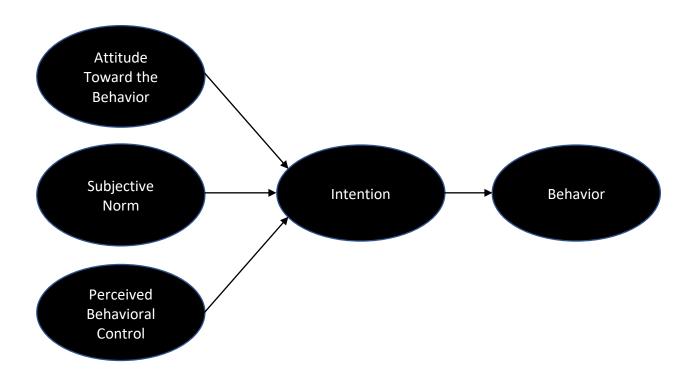


Figure 1.1. Theory of Planned Behavior Model (Ajzen, 1991)

As stated by Ajzen (1991), "intentions are assumed to capture the motivational factors that influence a behavior" (p. 181). The intention measure within the TPB is able to capture the effort and motivation the individual is willing to do, in order to perform the behavior in question (Ajzen, 1991). As such, the stronger the intention to engage in select behavior, the more likely the individual will perform the behavior in question (Ajzen, 1991). Despite its prominence, the TPB has received much critique for only capturing subjective norm and excluding its normative

partner, descriptive norm. Subjective norm captures an individual's perception of other's approval or disapproval of performing the particular behavior. Descriptive norm "is what most people do, and it motivates by providing evidence as to what will likely be effective and adaptive action" (p. 1015, Cialdini, Reno, & Kallgreen, 1990). Descriptive norm, as further explained by Cialdini (1988), if everyone is doing an action, then that action must be a sensible thing to do. As such, many researchers (e.g. Cialdini, Reno, & Kallgren, 1990; Potwarka, 2015) have critiqued the TPB for failing to distinguish and observe the potential importance of descriptive norm when attempting to explain behavior of sport consumption. Furthermore, numerous studies within the social science literature (e.g. Conner & Amitage, 1998; Hagger & Chatsizarantis, 2005; Kim, Njite, & Hancer, 2013; Montano & Kasprzyk, 2015; Sniehotta, Scholz, & Schwarzer, 2005; Potwarka, 2015; Vijayasarathy, 2004) have augmented Ajzen's (1991) original TPB model to include an independent construct of descriptive norm. Dominantly, the results of descriptive norm measures have held significant direct relationships to the construct of intention. In doing so, this has called some researchers to augment the TPB by combining the measures of subjective norm and descriptive norm into one construct labeled as either: perceived norm (Montano & Kasprzyk, 2015), or normative influence (Hagger & Chatzisarantis, 2005).

This study will use a TPB model with the three independent constructs of (1) attitude toward the behavior (Ajzen, 1991), (2) normative influence (Hagger & Chatzisarantis, 2005), and (3) perceived behavioral control (Ajzen, 1991). Normative influence will be used in replacement of the original subjective norm construct to better assess an individual's normative beliefs.

Developed by Hagger and Chatzisarantis (2005), normative influence incorporates both subjective and descriptive norms into the construct of normative influence. Figure 1.2 depicts this TPB model.

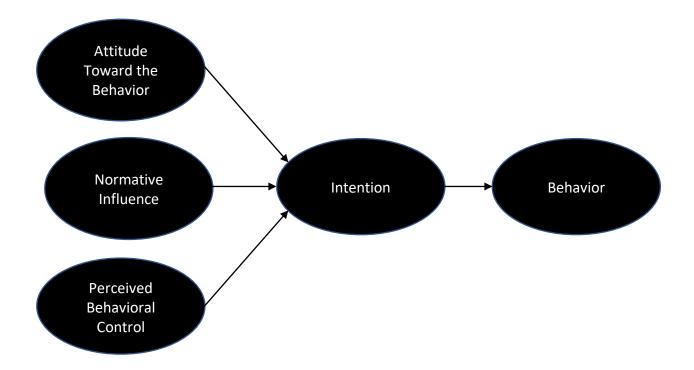


Figure 1.2. Modified Theory of Planned Behavior Model

1.3 Inspiration

Aligned with the TPB to assess factors leading to an individual's intent to behave, the affective construct of inspiration may play a strong role in explaining demonstration effects. As explored by Thrash and Elliot (2003), inspiration is evoked through a trigger (i.e. approach method, transcendence, elite athletic performance) that motivates the behavior of an individual. As such, the construct of inspiration aligns with the nature of the TPB to better understand motivational factors of intention and behavior. However, though aligned with the constructs of the TPB, inspiration is not accounted for within the TPB model. The role of inspiration is inherent to the principle of demonstration effect, as explained by Thrash and Elliot (2003), individuals may be inspired by a select trigger (i.e. role model or event). Moreover, studies have claimed that affective factors, like state inspiration, are neglected in the TPB model (Conner &

Armitage, 1998; Rapaport & Orbell, 2000; Wolff, Nordin, Brun, Berglund, & Kyale, 2011). Specific to the demonstration effect, this creates a conflict when assessing the contributing factors leading to intention and potential behavior through the TPB model, as spectator experience and its link to emotional reactions has been found evident throughout sport literature (Potwarka, 2015; Teare, 2017; Weed et al., 2015). As such, this study will utilize the affect construct of inspiration to better assess the motivational factors associated to youth sport participation intention.

1.4 Purpose

The primary purpose of this study is to explore motivational factors that may influence youth's intention to participate in track cycling after watching an elite international track cycling event. To achieve this purpose, this thesis will employ the TPB to understand motivational factors that influence youth's intention to participate in a sport after witnessing an elite-level sport competition. The TPB is open to the inclusion of additional predictors of intention (Ajzen, 1991). In particular, the TPB has been critiqued for not being able to fully capture affect and its' ability to predict intention and subsequent behavior (Conner & Armitage, 1998; Rapaport & Orbell, 2000; Wolff, Nordin, Brun, Berglund, & Kvale, 2011). Not only can affect significantly influence an individual's decision-making process, by "incorporating affect within models of decision making may greatly increase their explanatory power" (Loewenstein & Lerner, 2011, p. 619). Past research has argued for further exploration of these constructs in the TPB model, voicing that although Ajzen (1991) includes emotional components within the model's independent variables, this does not justify the degree to which affect plays a role on intention and behavior (Ajzen, 2011).

The TPB model employed in this study will be augmented to add the independent variable of inspiration. Thus, the secondary purpose of this study will be to explore the extent to which an affective state of inspiration may predict intention to participate above and beyond the TPB constructs. The term "inspiration" is often used when describing and defining demonstration effects (Weed et al., 2015). Few researchers have attempted to measure an affective state of inspiration or descriptive norm, in a youth sport (i.e. demonstration effect) contexts. Both the demonstration effect and the TPB will be further discussed in the following chapter. Specifically, each construct of the TPB model and the augmented variable of inspiration will be discussed in more detail in the literature review.

In an attempt to theoretically underpin the demonstration effect with the theory of planned behavior, this study will augment the TPB model to add the affect construct of inspiration. Figure 3 depicts the augmented TPB model to be used in the present study and further explores its utility.

TPB Core Constructs

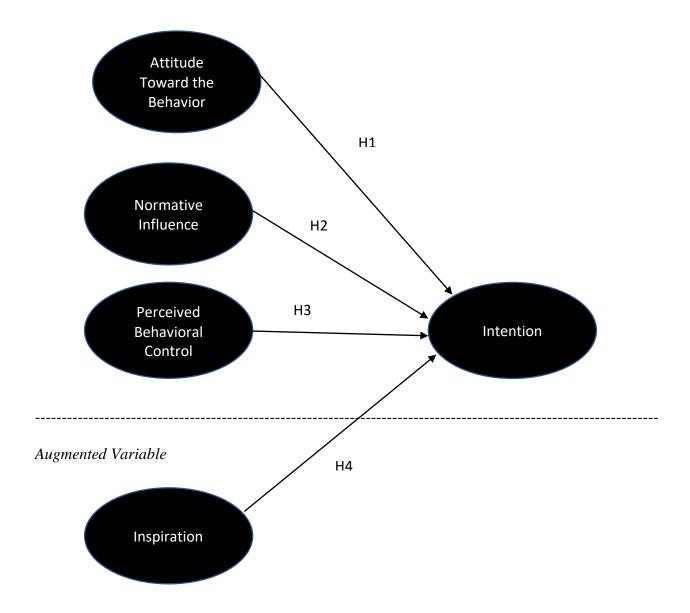


Figure 1.3. Augmented Theory of Planned Behavior Model

Ajzen's (1991) original TPB model, development of Hagger and Chatzisarantis' (2005) normative influence construct, the augmented TPB model presented in this study, and its' respective factors/antecedents, will be explored in further detail in the following chapter.

1.5 Significance of the Study

A study investigating the motivational factors of youth sport participation intention is important for several practical and theoretical reasons. From a theoretical perspective, this study contributes to the understanding of both: (1) demonstration effect, and (2) theory of planned behavior, within the under-researched youth sport participant context. First, little research, if any, has been done to assess the demonstration effect on youth sample populations, traditionally research has focused on general adult populations. Moreover, few studies have tested for the demonstration effect within a longitudinal study design. Researchers have tended to rely on cross-section examinations to explore the demonstration effect. The present study will contribute to the understanding of the demonstration effect by testing the effect within a longitudinal design. This study will shed insight into the motivational mechanisms underpinning a demonstration effect and the role experiencing sport event might play in forming post-event participation intentions. Specifically, this research might shed insights into the extent to which demonstration effects are underpinned by rational mechanism, such as TPB constructs (i.e. attitude toward the behavior, normative influence, perceived behavioral control), and emotion mechanisms (i.e. inspiration).

From a practical perspective, the current study may help sport stakeholders identify important contributing factors to developing a youth specific leveraging initiatives to increase intent to participate. TPB-based studies are often used to guide the development of behavior change interventions (Barrick, Mair, & Potwarka, 2016; Potwarka 2017). With the current lack of research specific to youth sport participation, youth sport stakeholders may be utilizing leveraging strategies developed through non-youth samples. By addressing contributing factors through this study, specific to the niche group of youth sport participants, stakeholders may be

better able to develop leveraging strategies to increase youth sport participation. For instance, from this knowledge, sport organizations can develop stronger promotional efforts and spectator experiences to increase demonstration effects specific to youth populations.

CHAPTER TWO: LITERATURE REVIEW

This chapter will expand on the concepts presented in chapter one, to do so, this chapter will be presented as follows. First, to provide theoretical context to the present study through exploring extant theories and models of demonstration effects. Both the transtheoretical model and the theory of planned behavior will be described. Second, a critique of the extant theories and models will be discussed to strongly position the select theory used for this thesis. Third, this chapter will examine the two augmented constructs used in this study: descriptive norm and the affective state of inspiration. In doing so, an overview of the augmented TPB model will be provided. This chapter will provide context for the use of TPB in this study along with its basis for augmenting the original TPB model.

2.1 Demonstration Effect

Throughout sport literature, researchers have suggested that youth sport participation might be subject to a demonstration effect (Fredline, 2005; Potwarka & Leatherdale, 2015; Teare, 2017; Starr, 2015; Weed, 2009; Weed et al., 2015). The demonstration effect occurs when "people are inspired by elite sport, sports people or sport events to actively participate themselves" (p. 197, Weed et al., 2015). Indeed, the demonstration effect may be utilized to understand the effect of watching an elite international sport event on subsequent participation (Boardley, 2013, Funk, Jordan, Ridlinger, & Kaplanidou, 2011; Girginov & Hills, 2008; Hindson, Gidlow, & Peebles, 1994; Murphy & Bauman, 2007; Potwarka & McCarville, 2010; Wicker & Sotiriadou, 2013). Outcomes of a demonstration effect are thought to be through an individual participating in a new sport, increasing participation in a sport the individual is currently participating in, or participating in a sport the individual once participated in and currently does not (Weed et al., 2015). The demonstration effect is expected to lead an increase

in the number of individual's participating in sport, the frequency individuals participate, and the longevity of their participation (Weed et. al., 2015).

Some research has provided support for the existence of demonstration effects (Boardley, 2013; Potwarka, 2015; Potwarka & Leatherdale, 2015; Veal et al., 2012; Weed et al., 2015; Weed et al., 2012). For instance, Boardley (2013) and Potwarka (2015) found the Olympic Games positively changed the population's behaviour and intention toward sport participation. As well, Potwarka and Leatherdale (2015) found that the Olympic Games increased sport participation in the select geographic location of the host event. Furthermore, Pappus and Hayday (2015) found when assessing the niche sports of judo and fencing, the Olympic Games hosted in London, England lead to an increase in England's judo and fencing sport registration. In summary, researchers have suggested that demonstration effects can occur if leveraged properly (i.e. promoting sport in conjunction with the event) in novel/niche sport contexts (Potwarka et. al., 2017) within geographic areas of close proximity (Potwarka & Leatherdale, 2015).

2.2 Extant Theories and Models of the Demonstration Effect

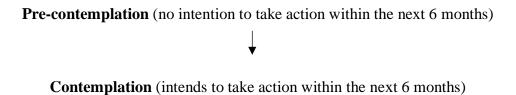
The demonstration effect refers to the relationship between sport spectatorship and intention to participate (De Bosscher, Sotiriadou, & van Bottenburg, 2013; Fredline, 2005; Mutter & Pawlwski, 2014; Roberts & Ommundsen, 1996; Weed, 2009; Weed et al., 2015). In particular, many studies (De Bosscher & De Knop, 2003; Handstad & Sille, 2010; Van Bottenburg, 2002; Van Bottenburg, 2003) have found positive relationships between spectating elite athletic performances and the intent for individuals to participate. However, after assessing current sport literature, the demonstration effect has rarely been underpinned by behavioral change theories or models (Potwarka, 2015). This thesis will explore behavioral change theories

and models to better address this literary gap. In doing so, the transtheoretical model and the theory of planned behavior will be assessed in the following sections.

2.3 The Transtheoretical Model

The transtheoretical model (TTM) originally developed by Prochaska et al. (1992) has been presented by researchers (e.g. Boardley, 2013; Weed et al., 2015) as a means to better understand demonstration effects. TTM combines behavioral intention principles of self-efficacy theory (Bandura, 1977), self-determination theory (2008), and the theory of planned behavior (Ajzen, 1991). TTM is proposed in stages, suggesting that an individual must pass through a sequence of stages before reaching participation of the select behavior (Prochaska et al., 1992). These stages include: (1) precontemplation; no intention of changing behavior, (2) contemplation: intention to change behavior, (3) preparation: intended action is upcoming, (4) action: intended action occurs, (5) maintenance, consistent participation of the action occurs (Prochaska et. al., 2008). TTM and respective stages are presented in Figure 3. Through these stages, the self-efficacy principles of Bandura's (1977) work are incorporated through the individual's perceived ability or inability to enact the behavioral change. In addition, these stages are influenced by the individual's perceived pros and cons towards the anticipated behavioral change (Prochaska et al., 2008). TTM has been used in the sport literature, specifically, for predicting the physical activity and physical activity behaviors of individuals (Cardinal, Kosma, & McCubbin, 2004; Cardinal, Tuominen, Rintala, 2004; Lutz, Stults-Kolehmainen, Bartholomew, 2010). Cardinal et al., (2004a) examined the stages of change for exercise among adults with physical disabilities in regards to exercise barriers. Their findings on individuals with physical disabilities were evidently in line with that of nondisabled individuals' relative to TTM. Cardinal et al., (2004b) conducted a cross-cultural study assessing exercise behavior of American

and Finnish college students. The sole cultural difference found in this study was that American participants gave themselves a higher barrier self-efficacy rating relative to the Finnish participants. Lastly, Lutz et al., (2010) used TTM to examine the relationships between stress events to the variables of frequency, intensity, and duration. Findings suggest that different patterns of exercise engagement are present at different stages of TTM. Specifically, participants in the maintenance stage responding to stress with enhanced activity while participants in other stages of TTM were more likely to reduce physical activity. Moreover, TTM has been suggested by Weed et al. (2015) as one possible theory in predicting participation intention. Specifically, Weed et al. (2015) suggest, TTM is of particular pertinence for adult populations as the ladder TTM stages (i.e. action and maintenance). It is suggested that TTM may evoke an individual's attitudinal changes toward a specific sport participation (Weed et al., 2015).



Preparation (intends to take action within the next 30 days and has taken some behavioral steps in this direction)

Action (changed over behavior for less than 6 months)

↓

Maintenance (changed over behavior for more than 6 months)

Figure 2.1. The Transtheoretical Model (Prochaska et al., 1992)

Though the TTM has been used to assess varying behaviors, it has been criticized for being overly simplistic. Furthermore, the stages proposed in the model might not always follow a linear course (Glanz, Rimer, & Viswanth, 2008). Moreover, the model ignores attitudes, social norms, perceived constraints, and affective stats that might help explain youths' decision to participation in sport after watching a sport event (Gucciardi & Jackson, 2015). In response to these deficiencies, the theory of planned behavior is explored below.

2.4 Theory of Planned Behavior

The theory of planned behavior (TPB) has been suggested by Potwarka (2015) as an appropriate theory to investigate the demonstration effect. The TPB has been used extensively to predict physical activity and sport-related behaviors (Potwarka, 2015). TPB builds upon the theory of reasoned action, assessing behavioral intention as a function of one's "attitude toward performing the behavior and their subjective norms associated with that behavior" (Ajzen, 1991; Montano & Kasprzyk, 2008, p. 70). TPB aims to predict an individual's intention to behavior based on three constructs: (1) attitude toward the behavior, (2) subjective norm, and (3) perceived behavioral control (Ajzen, 1991). Ajzen's (1991) theory generalizes that the more favorable an individual's attitude- and subjective norm- toward the behavior, and stronger perceived control of the behavior, the greater the individual's intent will be to participate. TPB model is presented in Figure 1.

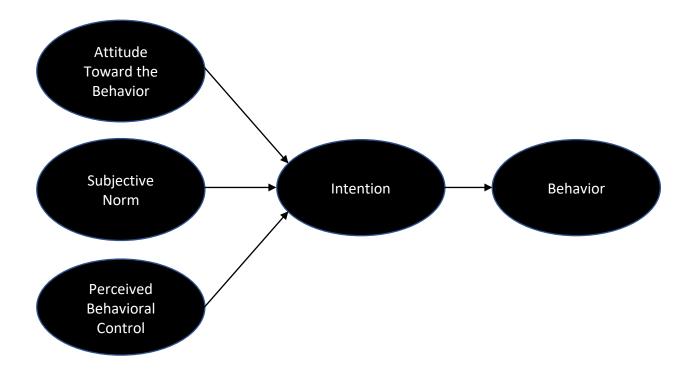


Figure 2.2. Theory of Planned Behavior Model (Ajzen, 1991)

According to the theory, attitude toward the behavior reflects an individual's overall evaluation of the behavior in question (Ajzen, 1991). In the context of sport participation, an individual may hold a favourable attitude toward performing the behavior based on perceived positive outcomes of participation (i.e. making new friends, skill mastery, etc.). Subjective norm explains the individual's "perceived social pressure to perform or not perform the behavior" (Ajzen, 1991, p. 188). Specific to potential youth sport participants, individual's subjective norm may be influenced through social norms and popularity of the sport in social media, acceptance of the sport by their peer group, or accessibility to necessary equipment and facilities. Lastly, perceived behavioral control refers to the individuals perceived ease or difficulty of performing the specific behavior (Ajzen, 1991). This may be most relatable through the specific challenge of the sport itself. The perceived difficulty to learn, and potentially excel, at the sport of track

cycling may be a strong influence to the individual's perceived behavioral control in the context of this study. The TPB has been used to explore demonstration effects among adult populations (e.g. Potwarka, 2015). The following sections will further explore the constructs of the TPB model (i.e. attitude toward the behavior, subjective norm, perceived behavioral control, intention).

2.4.1 Attitude Toward the Behavior.

The TPB was founded on Fishbein and Ajzen's (1975) expectancy-value model of attitude formation. This model suggests that attitudes are developed from the individual's belief about the specific object of attitude (e.g., behavior, person, event). Moreover, Fishbein and Ajzen (1975) argued that individual beliefs of an object of attitude are developed through associating the object of attitude with specific characteristics or perceived consequences of performing the action. Attitude toward the behavior assesses the degree to which an individual has a favorable or unfavorable evaluation of the behavior in question (Ajzen, 1991). Within the TPB, individual's attitude toward a behavior is determined from behavioral beliefs and personal evaluation of behavioral outcomes (Ajzen, 1991). For example, in the case of attitude toward behavior, each belief links the behavior to a specific outcome (Ajzen, 1991). Attitude toward the behavior develops from the belief-based measure of behavioral beliefs (Ajzen, 1991). Behavioral beliefs reflect an individual's beliefs about consequences or outcomes related to the behavior in question (Potwarka, 2015).

TPB suggests that individuals with a positive perception toward the behavior will be more likely to participate in the action (Ajzen, 1991; Ajzen & Albarracin, 2007). This relationship between attitude toward the behavior and behavioral intentions has been empirically supported by health behavior change research (Courneya, Plotnikoff, Hotz, & Birkett, 2000).

Sport consumer motivation literature has provided much evidence to the idea that an individual performing a behavior to attain a desired outcome (Donnelly & Youg, 1998; Potwarka, 2015; Schoham, Rose, & Kahle, 1998). Empirical support has been found for the relationship between attitudes toward the behavior and behavior intentions within the health behavior change literature (Potwarka, 2015). For example, Triafimow and Miller (1996) found a correlation coefficient of .83 within the sport psychology domain when predicting intentions of college football players to perform mental imagery techniques from their attitudes toward this specific behavior. As such, it is understood that individuals who develop a positive attitude toward a behavior will be more inclined to participate in the sport. Specific to the present study, it is suggested that individuals who develop a positive attitude toward track cycling, through watching an elite track cycling event, will be more inclined to participate in the sport.

2.4.2 Subjective Norm.

The TPB's construct of subjective norm, reflects the perceived social pressures to perform or not perform the behavior in question (Ajzen, 1991). Developed from the findings of Dulany's (1961) verbal conditioning experiments, Fishbein and Ajzen (1975) argued that subjective norms are determined from normative beliefs and desire to align with important referents (e.g. peers, family members, groups, associations, institutions, rules, guidelines). As Fishbein and Ajzen (1975) stated, subjective norm develops from the individual's beliefs about whether certain individuals would approve of the behavior in question or disapprove. Subjective norm develops from the belief-based measure of normative beliefs (Ajzen, 1991). Normative beliefs reflect the individual's belief toward gaining the approval or disapproval of particular referent individuals as a result of participating in the behavior (Potwarka, 2015).

The relationship between subjective norm and intention has emerged as a significant predictor in several health behavior domains, such as physical activity (Hagger et al., 2001). According to the TPB, a more favorable subjective norm is believed to associate to a stronger intention to perform the behavior in question (Ajzen, 1991). However, despite its perceived importance, research results (e.g. Ajzen & Albarracin, 2007; Godin & Kok, 1996; Hausenblas, Carron, & Mach, 1997; Norman et al., 2005) have revealed that average correlations between subjective norm and intentions are often weaker than results found between attitude toward the behavior and intention. This trend was also found in Courneya's (1995) research predicting individual's intention to participate in physical activity. Courneya (1995) found attitude toward the behavior and perceived behavioral control to outperform subjective norm in predicting physical activity behavior. Nevertheless, subjective norm has not always been found to be a weaker predictor of behavioral intentions (Fischbein & Ajzen, 1975; Norman et al., 2005). Specific to the context of this study, and the potential youth sport participants, individual's subjective norm may be influenced through social norms and popularity of the sport in social media or acceptance of the sport by their peer group.

2.4.3 Perceived Behavioral Control.

The TPB's construct of perceived behavioral control refers to the individual's perceived ease or difficulty of performing the specific behavior (Ajzen, 1991). Perceived behavioral control develops from the belief-based measure of control beliefs (Ajzen, 1991). Control beliefs reflect an individual's likelihood to participate in the behavior based on perceived factors that might facilitate or constrain participation in the behavior (Ajzen, 1991).

In this way, perceived behavioral control is similar to the notion of constraints to participation (Azjen & Driver, 1991; Crawford & Godbey, 1987). Individuals assess their ability

to perform a given behavior through their perceived capabilities and their perceived limitations/constraints. The importance of constraints and their evaluation is explored in the present study through questionnaire items regarding time, money, physical ability, and transportation. For example, items related to individual constraints (i.e. perceived behavioral control) include: (1) *I am too busy with other activities to track cycle in the coming months*, (2) *It would be easy for me to get to and from the Mattamy National Cycling Centre*, (3) *I would have the time to track cycle in the coming months*, (4) *I am in good enough shape to track cycle*.

In summary, perceived behavioral control represented an individual's assessment of their own abilities and limitations regarding the behavior in question (Hagger, Chatzirsarantis, & Biddle, 2002). In the context of track cycling participation among youth, constraints may be present through time, money, physical ability, and transportation. In addition, perceived behavioral control may be relevant for youth in terms of the perceived difficulty to learn the sport, and potentially excel in the sport of track cycling.

2.3.4 Intention.

The preceding discussion outlined the three determinants of behavioral intentions proposed within TPB (i.e. attitude toward the behavior, subjective norm, perceived behavioral control). Within the TPB model, each of these three determinants holds an independent direct relationship to intention. Ajzen (1991) has argued that relative importance amongst the three TPB determinants may vary across select behaviors and situations. Thus, in some instances one of the three determinants may only be found to have a significant impact on intentions (Ajzen, 1991). However, the culmination of these determinants will lead to prediction of behavioral intention (Ajzen, 1991).

Within the TPB, intention is believed to represent an individual's motivation to perform a select behavior (Ajzen, 1991). According to the TPB, intentions are single best predictors of behavior (Ajzen, 1991; Ajzen, 2005; Ajzen & Albarracin, 2007; Montano & Kasprzyk, 2002; Sutton, 1998). The relationship between intention to behavior within the TPB model has been explored extensively in the physical activity literature. Researchers (e.g. Azjen & Driver, 1992; Dzewaltowski et al., 1990; Godin et al., 1989; Kimiecik 1992; Theororakis 1994; Valois et al., 1988) have found significant regression coefficients ranging from .25 to .58 when observing intention as a predictor to the behavior of general exercise (Godin & Kok, 1996). Although it is encouraging that physical exercise research has been conducted using the behavioral determinant of intention, a lack of intention-behavior associations has been reported in the sport consumer literature (Potwarka, 2011). Furthermore, as noted by Potwarka (2011), most models of sport consumer behavior have not predicted intentions and behavior using TPB-based antecedents (e.g. Bauman et al., 2003; Gibson et al., 2008; Gwinner & Bennet, 2008; Kaplanidou, 2007; O'Reilly et al., 2008; Madrigal, 2001; Shonk & Chelladurai, 2008; Trail et al., 2003). As such, numerous studies, including the proposed study, have aimed to focus observations on the affect the three determinants have on intention to behavior. For the context of the proposed study, observations will be made and assessed towards the relationships that each of the three determinants (i.e. attitude toward the behavior, subjective norm, perceived behavioral control) have towards the individual's intent to participate in the sport of track cycling.

2.5 Review of TPB Studies used to explain sport participation/physical activity

In the context of sport participation, TPB can be utilized to learn what factors contribute to an individual's intent, or lack of intent, to participate (Potwarka, 2015). TPB has been used to predict general physical activity behaviors (Blanchard et al., 2007; Christina, Davis, Wilson,

Mcarty, & Green, 2014; Mummery, Spence, & Hudee, 2000; Potwarka, 2015). Though past research has utilized TPB to better understand individual's physical activity intention, a TPB study on youth participation in physical activity was only found to be conducted by Mummery et al. (2000). This study assessed Canadian youth and intent to participate in physical activity and found that youth who reported high levels of the TPB constructs (i.e. attitude toward the behavior, subjective norm, perceived behavioral control) had positive intention to participate in physical activity (Mummery et al., 2000). Specifically, Mummery et al. (2000) evaluated youth from different age categories (i.e. grade 3, 5, 8, and 11). Results from the study provide evidence that determinants of youth physical activity participation change over time (Mummery et al. 2000). Specifically, subjective norm was found to be the most contributing predictor to physical activity for grade 3 students and perceived behavioral control was found to be the most contributing predictor to physical activity for grade 5 and 8 students (Mummery et al. 2000). Moreover, as argued by Mummery et al. (2000), results of their study provide support to use the TPB to assess intention to participate in physical activity and exercise of a youth demographic.

As well in the context of sport participation, researchers (Potwarka, 2015), have assessed the TPB constructs in relation to additional constructs to further understand individual's motivational factors to intention to be more physically active. Potwarka (2015) employed the TPB to investigate motivational factors influencing individual's intention to increase their physical activity in response to the 2010 Vancouver Winter Olympic Games. Specifically, for the context of the Olympic Games, Potwarka (2015) added the constructs of descriptive norm and past behavior to the TPB model. As such, a two-step hierarchical multiple linear regression analysis was conducted to test (1) the TPB constructs (i.e. attitude toward the behavior, subjective norm, perceived behavioral control), and (2) whether the added constructs of

descriptive norm and past behavior "could explain significant proportions of the variance in these intentions above and beyond TPB predictors" (Potwarka, 2015, p. 86). Potwarka's (2015) study results revealed that after the addition of descriptive norm and past behavior the original TPB construct subjective norm did not emerge as a significant predictor of intention. Potwarka's (2015) results provide evidence to further explore motivational factors that may influence an individual's intent towards physical activity above and beyond Ajzen's (1991) original TPB constructs.

2.6 Critiques of the Theory of Planned Behavior

The TPB has been criticized within the social science literature. Specifically, the TPB has been critiqued for insufficient consideration of cognitive and affective processes, such as the emotions of inspiration attached to a spectating experience that might influence intention and subsequent behavior (Ajzen, 2011). It has been suggested that how individuals feel and their affective responses to particular stimuli may play a critical role in predicting behavioral responses (Potwarka, 2017). Moreover, studies have claimed that affective factors, like state inspiration, are neglected in the TPB model (Conner & Armitage, 1998; Rapaport & Orbell, 2000; Wolff, Nordin, Brun, Berglund, & Kyale, 2011). Specific to the demonstration effect, this creates a conflict when assessing the contributing factors leading to intent and potential behavior through the TPB model, as spectator experience and its link to emotional reactions has been found evident throughout sport literature (Potwarka, 2015; Teare, 2017; Weed et al., 2015).

In response to recent TPB criticism for not being able to fully capture emotion and its' ability to predict intention (Conner & Armitage, 1998; Rapaport & Orbell, 2000; Wolff, Nordin, Brun, Berglund, & Kvale, 2011), Ajzen (2011), has argued that affect constructs are accounted for within the TPB model's original constructs (i.e. attitude toward the behavior, subjective

norm, perceived behavioral control). As such, further exploration needs to be done to test the hierarchical value of affect constructs and their relationship to intentions independent to the original TPB model constructs. Specifically, explorations building upon Potwarka's (2015) work employing a two-step hierarchical multiple linear regression analysis to assess whether specific affect constructs explain significance of variance above and beyond the original TPB predictors in the respective study demographics. As shown through Potwarka's (2015) study, the TPB is a versatile model in its ability to add various constructs in an attempt to improve its' utility to predict a given behavioral context (Ajzen, 2011; Fischbein & Ajzen, 2010).

Though the TTM and TPB may be useful to examine demonstration effects (Boardley, 2013; Potwarka, 2015; Weed et al., 2015), two major limitations are present within these respective theories: (1) an inclusion of descriptive norm is not included when assessing normative pressures in relation to behavior (Potwarka, 2015); and (2) individual's affect during the event are not assessed (Gucciardi & Jackson, 2015; Mohiyeddini, Pauli, & Bauer, 2004; Potwarka et al., 2017). As such, research (e.g. Teare, 2017) has suggested that using the TTM and the TPB to explain demonstration effects may have neglected affect constructs, such as inspiration. In addition, by neglecting affect constructs, significant theoretical gaps for understanding demonstration effects may be present (Teare, 2017). Moreover, both TTM and the TPB have been underutilized in youth specific studies. TTM has been suggested by researchers (e.g. Weed et al., 2015) as a relevant theory for adult populations. Likewise, the TPB model has been employed predominantly in adult demographic studies and rarely used in youth demographic studies. Furthermore, the TPB model has been critiqued by many researchers (e.g. Cialdini, Reno, & Kallgren, 1990; Potwarka, 2015) for failing to distinguish and observe the potential importance of descriptive norm when attempting to explain behavior of sport

consumption. The following section will specifically discuss the critique and combination of subjective norm and descriptive norm into one normative construct within the social science literature and relative to the present study.

2.7 Normative Influence

Subjective norm captures an individual's perception of other people's approval or disapproval of performing the particular behavior. However, descriptive norm captures an individual's perceptions of whether or not other people will actually perform the behavior (Potwarka, 2015). Many researchers (e.g. Conner & McMillan 1999; Norman et al., 1996) have critiqued the TPB for relatively week correlations between subjective norm and intention. Moreover, the TPB fails in distinguishing between the two types of normative pressures (i.e. injunctive and descriptive) (Cialdini, Reno, & Kallgren, 1990). Numerous studies have observed descriptive norms and found an independent influence on intentions above and beyond the influence of other TPB variables (e.g. Conner, Martin, Silverdale, & Grogan, 1996; Conner & McMillan, 1999; Devries et al., 1995; Grube, Morgan, & McGree, 1986; Nucifora, Gallois, Kashima, 1993; Potwarka, 2015; Rivis & Sheeran, 2003; Sheeran & Orbell, 1999; White, Terry, & Hogg, 1994). As noted by Potwarka (2015), the addition of descriptive norm to a TPB-based model attempting to explain behavior of sport consumption may be useful. Examples of sport consumption may include spectating a sporting event or purchasing a product from a sport-event sponsor (Bennet, 1999). Bennett (1999) found that soccer fans who believed a large number of fellow supporters purchased the products of their team's sponsors were more likely to report positive intentions to purchase the same sponsor products. Furthermore, in a time where youth are continuously exposed to various social media platforms (e.g. Instagram, Facebook, Twitter) that allows for a more immediate connection to friends, role models, and interests, the actions

and intentions of these individuals may play a key role in youth intention to participate in the select behavior. In the context of this study, individuals who have friends that intend to track cycle may have a stronger intent to participate. Moreover, youth may be greatly influenced by participation or intentions by their role models. As such, in line with previous TPB research and the anticipated role descriptive norm may play within the select sample of the present study, the original TPB construct of subjective norm will be replaced by the new normative construct of normative influence for the application of the TPB model within the present study. In doing so, the construct of normative influence will by hypothesized to hold a direct relationship to the construct of intention. The study's hypotheses will be outlined at the completion of this chapter.

2.8 Augmented Variable

Through this theoretical exploration, it is clear that TPB studies should be conducted to better understand the theoretical underpinnings of the demonstration effect in a youth specific context. This paper will build from the previous research of Potwarka (2015) to observe the utility of descriptive norm and the continued social science literary call to assess affect constructs in a TPB-based model study. To do so, this paper will augment a TPB model by adding the independent affect construct of inspiration, which will be further discussed in the following section.

2.8.1 Affect.

Affect refers to an individual's positive or negative emotional engagement (Watson, Clark, & Tellegen, 1988) and describes an individual's broad experience as good or bad (Zeelendberg, Nelissen, Breugelamns, & Pieters, 2008). As noted by Watson et al. (1988), positive affect may include emotional states such as: excited, proud, determined, strong, and active. In turn, Watson et al. (1988) found that negative affect may include emotional states such

as: guilt, nervousness, hostility, fear, and distress. Moreover, according to the cognitive appraisal theory, affect explains the broad subjective emotional response an individual has been stimulated with through an experience (Watson & Spence, 2007). Thus, although there may be numerous spectators experiencing the same elite athletic sporting performance, each spectator may interpret the characteristics of the event differently. In doing so, this subjective interpretation may lead to varying emotional responses and behavioral responses (Teare, 2017).

Although affect is understood to effect individual's behavioral responses, empirical evidence of affective mechanisms by which exposure to a sporting performance may inspire participation in spectators is lacking in the literature (Potwarka et al., 2017). As further explored by Potwarka et al. (2017), feelings of inspiration through spectating may play a key role in developing behavioral intention. In turn, Potwarka et al.'s (2017) research suggests inspiration may also aid in mitigating feelings of physical inadequacy that discourage individuals from participating in physical activity and sport specifically. The affective construct of inspiration will be further discussed in the following section.

2.8.2 Inspiration as an Affective State.

As noted, a demonstration effect occurs when an individual becomes *inspired* by an elite athletic performance to become more physically active themselves. As such, researchers (e.g. Potwarka et al., 2017) have argued for the further investigation of inspiration in relation to the demonstration effect (Teare, 2017). Originally, the concept of inspiration was believed to be of supernatural origins (Thrash & Elliot, 2003). Recently, inspiration has been conceptualized to be thought of as a psychological concept construct, both in terms of an affective state and more enduring personality trait (Trash & Elliot, 2003). Thrash and Elliot (2003) suggested the concept

of state inspiration includes three core characteristics; evocation, approach motivation, and transcendence.

First, inspiration involves evocation, the notion that an external motivator (e.g. event) has drawn inspiration out of the individual. As stated by Thrash and Elliot (2003), "inspiration is evoked rather than initiated directly through an act of will or arising without apparent cause" (p. 871). In contrast to approach motivation, evocation refers to the ideas that inspiration is drawn out of the individual by an external motivator. External motivation, and the characteristic of evocation, creates a sense within the individual that they were not directly responsible for becoming inspired, rather, the experience of being inspired was induced from an external stimulus. Often, evocation is reflected with that the individual did not consciously choose to be inspired by the trigger (Thrash & Elliot, 2004). For example, in the context of the proposed study, the individual did not consciously choose to be evoked by experiencing track cycling or did not have a pre-mediated desire to be inspired. Rather, the individual becomes motivated through watching by allowing for the nature of experiencing the athletic performance to have its subjective effect.

Second, inspiration involves approach motivation, the actual motivation for the individual to perform action. As stated by Thrash and Elliot (2003), "inspiration implies motivation, which is to say that it involves the energization and direction of behavior" (p. 871). Approach motivation refers to the notion that the individual becomes motivated to actualize an idea or vision. Thrash and Elliot (2003) suggest that characteristics of approach motivation may be related to the psychological variable of intrinsic motivation and self-determination. Approach motivation explores the internal motivating factor of an individual to perform a select behavior. For example, in the context of the proposed study, this characteristic of inspiration occurs when

the individual is instilled with a desire to further explore the sport of track cycling. Taking action towards the sport of track cycling may be shown in multiple forms, including, but not limited to: seeking additional information, attending another event, or participating in the sport. Regardless of the route taken, approach motivation requires the individual to take action from an internally motivating factor.

Third, inspiration involves transcendence, the notion of seeing a new self or a new opportunity. As stated by Thrash and Elliot (2003), "inspiration involves transcendence of the ordinary preoccupations or limitations of human agency" (p. 871). Transcendence is associated with feelings of optimism, self-esteem, clarity, and new possibilities (Thrash & Elliot, 2003). This moment of clarity, this transcendent moment, "is illustrated by the fact that the individual gains access to and uses ideas that are felt to be more elegant or novel than those generated willfully" (Thrash & Elliot, 2003, p. 872). For example, in the context of this study's sport context, if an individual has indifferent feelings towards track cycling, watching an athletic performance may generate a vision for the individual they would not have illustrated willfully or without that spectating experience. This transcendence may also be amplified or diminished by other factors relevant to the individual. For example, witnessing a track cycling performance versus a track cycling record breaking performance may result in a greater transcendence for the individual. Furthermore, witnessing a track cycling performance versus a Canadian track cycling performance, as an identified Canadian, may result in a greater degree of transcendence on the individual.

Researchers (e.g. Figgins et al., 2016; Potwarka et al., 2017; Ramchadni & Coleman, 2012) have begun to further explore the relationship between inspiration and sporting event experiences. Both Ramchandni and Coleman (2012) and Potwarka et al. (2017) investigated

inspiration reported by spectators from one-off sporting events. Ramchandni and Coleman (2012) found that 67.6 percent of their study's respondents reported a sense of inspiration to increase their general level of physical activity or sporting activity after attending a one-off English sporting event. Moreover, spectators with previous physical activity participation reported significantly higher inspiration effect from their spectating experience than spectators with no previous physical activity (Ramchandni & Coleman, 2012). Figgins et al. (2016) found that athletes themselves, though usually the source of inspiration for spectators, experience inspiration through the performance of their role models at a higher level. As such, the support of inspiration by role models for even elite athletes further supports the role inspiration plays in demonstration effects (Teare, 2017). Recently, Potwarka et al. (2017) studied how inspiration of watching a new sport may translate from cognitive and affective mechanisms of spectating. In doing so, a positive relationship between feelings of state inspiration while spectating and intention to participate in the behavior was found (Potwarka et al. 2017). Specifically, spectators who expressed higher levels of inspirational feelings while spectating held stronger intentions to try the sport on display; track cycling (Potwarka et al., 2017).

State inspiration was found to mediate relationships between all tested cognitive dimensions (i.e. fantasy, flow, evaluation, aesthetics, physical appearance) and intention to participate (Potwarka et al. 2017). As such, the study conducted by Potwarka et al. (2017) provides greater support for the role and effect inspiration can play on demonstration effects and an individual's intent to participate from watching an elite athletic performance.

2.9 Hypothesized Relationships

In summary, the purpose of this thesis is twofold. First, the primary purpose of this study is to explore motivational factors that may influence youth's intention to participate in track

cycling after watching an elite international track cycling event. Second, the secondary purpose of this study is to explore the extent to which an affect state of inspiration may predict intention to participate above and beyond the original TPB constructs (i.e. attitude toward the behavior, subjective norm, perceived behavioral control). A review of the relevant literature has revealed that new opportunities are present within the demonstration effect and within the TPB. First, as presented by Potwarka (2015), after assessing current sport literature, demonstration effect research is rarely underpinned by behavioral change theories or models. Second, the current study will explore the added predictive utility of the constructs of inspiration to the TPB model of youth demonstration effects. Third, the current study will explore the under-researched youth demographic in relation to the demonstration effect phenomena and the TPB. As such, after this review of the relevant literature, in line with the purpose of this thesis, the proposed study will utilize the TPB to better understand theoretical underpinnings of the demonstration effect in the context of youth track cycling in Canada. The augmented TPB model employed is depicted in Figure 2.3:

TPB Core Constructs

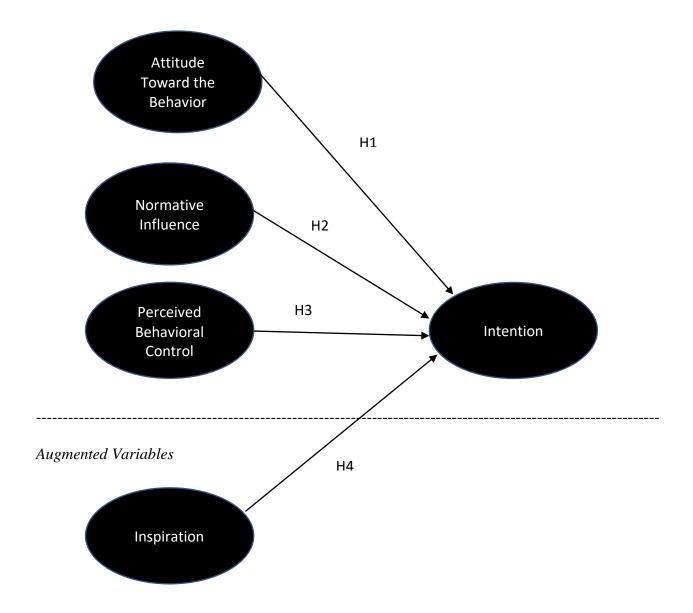


Figure 2.3. Augmented Theory of Planned Behavior Model

The hypothesized relationships presented in this study will align with previous TPB model research (Ajzen, 1991; Hagger & Chatzisarantis, 2005). As noted, Ajzen (1991) suggests the constructs of: (1) attitude toward the behavior (i.e. outcomes and consequences), and (2) perceived behavioral control (i.e. physical ability to complete the required task), will hold direct

relationships to the construct of intention. Moreover, Hagger and Chatzisarantis (2005) build off Ajzen's (1991) original work and suggest the construct of: (3) normative influence (subjective norm and descriptive norm), will hold a direct relationship to the construct of intention. Each of these three independent hypotheses are hypothesized for both the pre-event measures and the post-event measures. In addition to these hypothesized relationships, the construct of inspiration will be included to augment the model. In doing so, inspiration will be the fourth independent predictor included in the model. In line with the notions of inspiration, inspiration will only be measured post-event. Therefore, it is hypothesized that inspiration will have a direct relationship to the construct of post-event intention. All post-event measures (i.e. attitude toward the behavior, normative influence, perceived behavioral control, intention) will be controlled for preevent measures. As noted, inspiration is often used by researchers when describing demonstration effects. However, with the exception of a few researchers (e.g. Potwarka et al., in press) few have attempted to conceptualize and measure the construct when modelling demonstration effects. Accordingly, this study will be guided by the following research hypotheses as depicted in Figure 3:

H_{1A}: There will be a direct positive relationship between pre-event attitude toward the behavior and pre-event intention

H_{1B}: There will be a direct positive relationship between post-event attitude toward the behavior and post-event intention

H_{2A}: There will be a direct positive relationship between pre-event normative influence and preevent intention

H_{2B}: There will be a direct positive relationship between post-event normative influence and post-event intention

H_{3A}: There will be a direct positive relationship between pre-event perceived behavioral control and pre-event intention

H_{3B}: There will be a direct positive relationship between post-event perceived behavioral control and post-event intention

H₄: There will be a direct positive relationship between inspiration and post-event intention

CHAPTER THREE: METHODS

The following chapter will describe the methods employed to test this study's augmented TPB model. First, the event/study context and data collection procedures will be described. Following this, an explanation and description of each construct in the augmented model will be provided with the select questionnaire items used to measure these variables. Finally, methods of analysis and statistical techniques that will be used to test the hypothesized relationships (Figure 2.3) will be presented.

3.1 Event/Study Context

This study is part of a larger collaborative research project between the University of Waterloo (Dr. Luke R. Potwarka), the Town of Milton, and Cycling Canada. The sport context for this study is track cycling, which an indoor bicycle race on built banked tracks, referred to as velodromes. Indoor track cycling in velodrome facilities has been a consistent sport within the modern Summer Olympic Games for male individual, female individual, male team, and female team competitions. The event context is the Milton International Challenge hosted by the velodrome in Milton, Ontario. This event hosted athletes in October, 2016 from nations across the globe throughout a three-day competition consisting of male and female individual division races, as well as male and female division team races.

The Town of Milton, Ontario, hoped that by hosting track cycling events for the 2015 Pan Am/Parapan Am Games at the newly constructed velodrome track cycling facility would "inspire future generations of track cyclists of all ages and abilities, thereby creating a track cycling culture for years to come" (S. Palmer, Director, Community Services, Town of Milton, personal communication, September 1, 2013). However, since hosting the elite international track cycling competitions at the Pan Am/Parapan Am Games "the largest cohort of participants

has consisted of middle-aged, relatively affluent, white males; while youth, especially female youth, have generally failed to engage with track cycling opportunities provided by the facility" (S. Palmer, Director, Community Services, Town of Milton, personal communication, September 1, 2013). Shortly after the Pan Am/Parapan Am Games ended, only 13 of 527 velodrome members (2.5%) were under the age of 19. In response to the state of member demographics at the velodrome, the Town of Milton and Cycling Canada partnered with Dr. Luke R. Potwarka, and his research team, to expose local youth to an international track cycling competition (i.e. the Milton International Challenge) being held at the velodrome facility. Ultimately, this collaborative work was designed to aid the velodrome in increasing their youth sport membership and participation.

3.2 Data Collection Procedures

Data was collected as part of a previous larger research project. The purpose of the original research project was to examine the influence on watching an elite international track cycling event on youth spectators track cycling behaviors. The original research project received ethics clearance from the University of Waterloo. Information and consent forms can be found in Appendix A and Appendix B.

Chapter Three described the methodology used to survey respondents. In total, 318 questionnaires were distributed to students after their parental/guardian approval. From this sample of potential respondents, 318 questionnaires were completed and retained for subsequent analyses. In total 347 at participants completed the pre-event questionnaire at T1, 326 participants completed the post-event questionnaire at T2, and 318 participants were matched from T1 to T2.

On September 29th or September 30th, 2016 grade seven and nine students (N=318) enrolled in schools in the Town of Milton traveled by school bus to the Mattamy National Cycling Centre in Milton, Ontario to experience the Milton International Challenge. To ensure event exposure, each participant was provided a complimentary ticket for their select day.

After experiencing the event, trained research assistants boarded the school buses with the participants to administer the post-event survey (recruitment script can be found in Appendix C). This survey assessed intrapersonal factors among youth, such as intrinsic motivation and personal desire to participate in the sport of track cycling. In addition, the post-event survey included measures of participant's thoughts and feelings towards the track cycling event and the activity of track cycling itself. The post-event questionnaire used from the original larger study assessed each of the constructs in question for the present study. The present study will utilize the post-event survey to assess participant's attitudes toward the behavior, normative influence, perceived control of the behavior, inspiration, and intention. The select questions that are comprised to make each variable will be discussed in the following section. The post-event survey used for this study is presented in Appendix D with the specific survey items highlighted.

3.3 Measures of Post-Event Questionnaire Variables

3.3.1 Attitude Toward the Behavior

As noted by Ajzen (2006), obtaining a respondents' overall evaluation of the behavior in question is most commonly performed through the use of semantic differential scales. Moreover, Ajzen (2006) notes the importance of selecting bipolar adjectives to create these scales. Consequently, the attitude toward the behavior scale items used include bipolar adjective pairs. Attitude toward the behavior will be measured using four questions from the original study. This question read as follows: (1) For me to go track cycling in the coming months would be. The

following four bipolar adjective pairs were used for the corresponding question: (1) *not fun* to *fun*, (2) *boring* to *exciting*, (3) *bad* to *good*, and (4) *unenjoyable* to *enjoyable*. The four select questions will be averaged together to create one score for the measure of attitude toward the behavior on a scale ranging from 1 to 5.

3.3.2 Normative Influence

The construct of normative influence will combine three questions measuring subjective norm and two questions measuring descriptive norm. According to Ajzen (2006), multiple different questions need to be formulated to obtain a direct measure of subjective norm. Measures of subjective norms are designed to capture an individual's perception of other people's approval or disapproval of performing the particular behavior (Ajzen, 2006). These other people are those whose approval/disapproval hold a certain degree of importance to the respondent. Particular for our study with youth students as the select participants, approval/disapproval may be sought from peers, friends, teachers, parents/guardians, family members, school clubs, associations, etc. Subjective norm will be measured using three questions from the original study. These questions include: (1) My friends/family would want me to track cycle in the coming months, (2) I have friends to track cycle with, (3) I have friends in this class to track cycle with. The items used to measure the variable of subjective norm possess an injunctive quality (Ajzen, 2006). Measures of subjective norms capture an individual's perception of other people's approval or disapproval of performing the particular behavior (Ajzen, 2006). As explored earlier, researchers (Conner & McMillan, 1999; Norman et al., 2005) have advocated for the use of descriptive norm to be included in the prediction of behavior. Different from subjective norms, descriptive norms focus on capturing an individual's perceptions of whether or not other people will participate in the behavior with them. Descriptive

norms have been thought to account for significant proportions of variance above and beyond the original TPB variables (Conner et al., 1996; Conner & McMillan, 1999; Devries et al., 1995; Grube et al., 1986; Nuifora et al., 1993; Potwarka, 2010; Rivis & Sheeran, 2003; Sheeran & Orbell, 1999; White et al., 1994). Descriptive norm will be measured using two questions from the original study. These questions include: (1) *My friends will track cycle in the coming months*, (2) *Someone in my family will track cycle in the coming months*. Each question was measured on a 5-point Likert scale ranging from strongly disagree to strongly agree. The three select questions will be averaged together to create one score for the measure of subjective norms on a scale ranging from 1 to 5.

3.3.3 Perceived Behavioral Control

Ajzen (2006) explained that a direct measure of perceived behavioral control will identify the respondents' confidence in their ability to perform the behavior under observation. In particular, some items are relevant to the physical demands of the sport of track cycling as well as the monetary and transportation requirements that may challenge youth (Ajzen, 2006). Perceived behavioral control will be measured using seven questions from the original study. These questions include: (1) *I am too busy with other activities to track cycle in the coming months*, (2) *My parents would be willing to help me get to and from track cycling*, (3) *My parents have enough money to pay for me to track cycle (to cycle at the velodrome for one year would cost \$350)*, (4) *I would have the time to track cycle in the coming months*, (5) *It would be easy for me to get to and from the Mattamy National Cycling Centre*, (6) *I have the skills and physical ability to try track cycling in the coming months*, (7) *I am in good enough shape to track cycle*. Each question was measured on a 5-point Likert scale ranging from strongly disagree to strongly

agree. The seven select questions will be averaged together to create one score for the measure of perceived behavioral control on a scale ranging from 1 to 5.

3.3.4 Inspiration

Aligned with the TPB to assess factors leading to an individual's intent to behave, the affect construct of inspiration plays a strong role in explaining an individual's behavior. As explored by Thrash and Elliot (2003), inspiration is evoked through a trigger (i.e. elite athletic performance) that motivates the behavior of an individual. Inspiration will be measured using four questions from the original study. These questions include: (1) *I experienced inspiration*, (2) *Something I saw or experienced inspired me*, (3) *I was inspired to do something*, and (4) *I felt inspired*. Each question was measured on a 5-point Likert scale ranging from strongly disagree to strongly agree. The four select questions will be averaged together to create one score for the measure of perceived behavioral control on a scale ranging from 1 to 5.

3.3.5 Intention

When developing scales for TPB-based questionnaires, Ajzen (1991, 2006) argues that each measure must be directly compatible with the behavior in question. Moreover, Ajzen (2006) explains three notions to be included to ensure direct compatibility within the measures: (1) the specific action/target to be performed (i.e. intent to participate in track cycling), (2) the context in which the action is to take place (i.e. Mattamy National Track Cycling Centre), and (3) the time when the action is to be performed (i.e. in the coming months). Intention will be measured using four questions from the original study that were developed on the foundation of Ajzen's (2006) measure development principles. These questions include: (1) *I intend to track cycle at the Mattamy National Cycling Centre in the coming months*, (2) *I will track cycle at the Mattamy National Cycling Centre in the coming months*, (3) *I plan on registering for an introductory*

track cycling program at the Mattamy National Cycling Centre, and (4) I plan on joining a competitive cycling program at the Mattamy National Cycling Centre. Each question was measured on a 5-point Likert scale ranging from strongly disagree to strongly agree. The four select questions will be averaged together to create one score for the measure of intention on a scale ranging from 1 to 5.

3.4 Data Analysis

Multiple hierarchical linear regression analysis will be conducted to test each relationship previously outlined in Figure 2. These regression analyses will be used to evaluate the relationships of the TPB independent variables (i.e. attitude toward the behavior, subjective norm, perceived behavioral control) and this study's augmented independent variables (i.e. inspiration, descriptive norm) to the variable of intention. Analysis will be performed to test (1) the degree to which TPB constructs (i.e. attitude toward the behavior, subjective norm, and perceived behavioral control) predicted respondents' intention to participate in track cycling, and (2) whether descriptive norm and inspiration may explain significant proportions of the variance in these intentions above and beyond TPB predictors. Standardized beta weights (β), adjusted R^2 values, and change in \mathbb{R}^2 values (\mathbb{R}^2) for this analysis will be presented and evaluated. The descriptive statistics of means and standard deviations for each construct in the hypothesized model will be analyzed. In addition, correlation analyses will be conducted and presented through a correlation matrix table to better understand the relationship amongst all variables being assessed in the augmented TPB model. Before the data will be assessed, data cleaning will take place to test for inaccurate or missing data.

In addition, Cronbach's alpha will be used to ensure the reliability of the measures used.

Cronbach's alpha measures the internal consistency a set of items relate as a group (Cronbach,

1951). Ultimately, this will be used to measure the scale reliability used in the present study. The number of items that make up the subscale for each construct (i.e. attitude toward the behavior, normative influence, perceived behavioral control, intention, inspiration) will be reported along with the associated Cronbach's alpha. Next, discriminant validity will be used for each variable included in the model (i.e. attitude toward the behavior, normative influence, perceived behavioral control, intention, inspiration). Discriminate validity tests whether concepts or measures which are not supposed to be related, are in fact not related (Campbell & Fikse, 1959). The present study will use the method of chi-square difference tests to assess discriminant validity (Segards, 1997). In doing so, the present study will compare two models, one where the constructs are correlated and the other where the constructs are not (Zait & Bertea, 2011). As explained by Zait and Bertea (2011), "when the test is significant the constructs present discriminate validity" (p. 218). In doing so, the present study will ensure that measures which are assumed to not be related are actually unrelated to each other.

By using multiple linear regression analysis, several statistical assumptions are present. As such, several tests will be conducted prior to test these statistical assumptions. First, it is assumed that errors between observed and predicted values should be normally distributed. To test for a normal distribution, the present study will employ a chi-square goodness of fit test. As developed by Pearson (1900), a chi-square goodness of fit test determines whether the observed sample frequencies differ significantly from the frequencies of a null hypothesis. Finally, multiple linear regression analysis assumes there is no multicollinearity within the data.

Multicollinearity occurs when independent variables (i.e. attitude toward the behavior, normative influence, perceived behavioral control, inspiration) are too highly correlated to one another (Mansfield & Helms, 1982). To test for this assumption, a correlation matrix will be used to

assess the correlation between independent variables, as explored by Mansfield and Helms (1982), correlation coefficients that are higher than .80 will assessed as too highly correlated.

Lastly, in the case of missing data, the present study will employ the practice of mean of nearby points. This practice replaces missing values with the mean of valid surrounding values (Cokluk & Kayri, 2011; Fleshler & Hoffman, 1962)

3.5 Limitations

The results of behavior and intentions predicted through TPB models are not generalizable to other types of behaviors. Rather, they are only applicable to the behavior, intention, and sample under investigation. Therefore, the present study's findings will only be relevant to youth participation intention relevant to the sport of track cycling.

The present study is set to analyze the constructs of (1) attitude toward the behavior, (2) subjective norm, and (3) perceived behavioral control, of the original TPB model. However, the original TPB model includes belief based measures as the foundation to these constructs. Within the TPB model, behavioral beliefs lead to attitude toward the behavior, normative beliefs lead to subjective norm, and control beliefs lead to perceived behavioral control. Though this limitation exists, given the demographic of youth school participants used in the study, collecting belief based measures would have proved to be a challenging cognitive task. It would be difficult, for example, for youth to offer positive or negative consequences of engaging in an activity they had never participated in (nor likely heard of) before. Moreover, it would likely be challenging for youth to identify constraints and facilitators for behaviors they had never heard of nor experienced previously.

Lastly, the present study did not analyze actual behavior (i.e. participation in track cycling) of youth. The research team has access to student's contact information, so behavioral

(participation) measures could be examined as part of a follow up study. That said, previous researchers have noted the importance of establishing antecedents of more immediate participation-related responses to watching sport events. For instance, Potwarka et al. (2017) argued that when modelling the demonstration effect process, "researchers should first establish relationships among initial cognitive, affective, and intention-based responses that emerge from the spectator experience. Once empirically demonstrated, efforts can then be made to model more distal intention-behavior relationships (p. 7). Indeed, further investigation will need to be conducted to assess intention-behavior relationship in the context of the present investigation.

CHAPTER FOUR: RESULTS

This chapter presents the study's findings and is organized as follows: First, this section outlines the process of data input and the process of verifying the inputted data. Second, participant response rates and descriptions of background factors (i.e. socio-demographic characteristics of respondents) are presented. Third, descriptive statistics for each antecedent/factor presented in Figure 3 are outlined from both pre-event and post-event surveys. Results from paired sample t-tests comparing pre-event and post-event measures are also presented in this section. Finally, the results from both the pre-event multiple linear regression analysis and the post-event two-step hierarchical multiple linear regression analysis testing the hypotheses outlined in Figure 2.3 are presented.

4.1 Data Input

Data from each questionnaire was entered by the researcher into SPSS. Once all of the data had been entered, steps were followed to ensure the quality of the data collected and its clarity. In this process, each variable assessed was examined to ensure data was entered within the acceptable range as outlined by the questionnaire. For example, questionnaire items that allowed for the participant to choose from answers on a 1-5 range, this study ensured that no numbers exceeding 5, or less than 1, were inputted for the select question. No errors were uncovered during this step to ensure the quality of the data entered in SPSS.

4.2 Data Cleaning

Aligned with the methodology section of the present study, several steps were taken to ensure the validity of the data collected and analyzed. First, to test for the internal consistency of the measured variables (i.e. attitude toward the behavior, normative influence, perceived behavioral control, inspiration, intention) a Cronbach's alpha test was administered for both time

one (T1) and time two (T2) intervals. At T1, the Cronbach alpha revealed scores ranging from .626 to .752, which indicates a high level of internal consistency for the scales used with this specific sample. The perceived behavioral control measure for T1 was the only measure with an "if deleted" score higher than the Cronbach alpha score of .741. Therefore, removal of the perceived behavioral control measure for T1 would result in a small improvement in Cronbach's alpha. At T2, with the inclusion of inspiration, the Cronbach alpha revealed scores ranging from .736 to .816, which indicates a higher level of internal consistency than at T1 for the scales used with this specific sample. The perceived behavioral control measure for T2 was also the only measure with an "if deleted" score higher than the Cronbach alpha score of .815. Therefore, removal of the perceived behavioral control measure for T2 would result in a small improvement in Cronbach's alpha. Discriminant validity was tested by using chi-square difference of pair testing to confirm that each measure at T1 (i.e. attitude toward the behavior, normative influence, perceived behavioral control, intention) and T2 (i.e. attitude toward the behavior, normative influence, perceived behavioral control, inspiration, intention) was in fact not related. Results of this paired testing revealed that no measures used at T1 were related to other T1 measures, and no measures used at T2 were related to other T2 measures. Furthermore, chi-square goodness-offit test revealed that the test statistics used are statistically significant: (1) attitude toward the behavior T2: $X^2(16) = 252.30$, p < .001, (2) normative influence T2: $X^2(19) = 182.80$, p < .001, (3) perceived behavioral control T2: $X^2(28) = 129.19$, p < .001, (4) inspiration: $X^2(16) = 98.45$, p < .001, and (5) intention T2: $X^2(16) = 650.47$, p < .001. Therefore, the null hypothesis is rejected and the following conclusion is formed: there are statistically significant differences in the observed sample preferences than the null hypothesis. Finally, a correlation matrix was produced to assess the multicollinearity within the data. When assessing the correlation matrix, Table 4.6,

correlation coefficients higher than .80 were to be assessed as too highly correlated. Ultimately, correlation coefficients higher than .80 would be analyzed as multicollinearity being present.

After assessing the correlation matrix, no correlation coefficients were found to be greater than .80, confirming that multicollinearity is not present within the data used.

4.3 Sample Characteristics

The following section describes selected background (i.e. socio-demographic) characteristics of the sample related to sex, identified race, number of organized sports participated in, bike ownership type, cycling club membership, previous exposure to track cycling. For all variables, less than 8% of responses were missing. Therefore, percentages described below are the "valid percent" for the respective categories such that the total of these sums to 100%.

With respect to sex, 50.3% (n = 160) of the sample was female and 49.1% (n = 156) were male. Most participants (43.4%) identified as white race, while 8.2% of respondents elected not to identify their race. Of the participants, 72.7% (n = 221) participate in 1 to 3 organized sports over the year. Within this group, the dominant number was 1, 31.8% (n = 101) respondents participate in 1 organized sport over the year. Furthermore, 16% (n = 51) responded 0, and 10% (n = 32) responded with participating in 4 organized sports or more over the year. In terms of respondent's favorite sport, only 1 responded (0.3%) identified their favorite sport as cycling, while 70.1% (n = 223) selected either baseball, basketball, hockey, soccer, or volleyball. Finally, not holding a cycling club membership tended to be somewhat homogenous across the sample. As 96.2% (n = 306) of respondents did not hold a cycling club membership. In contrast, 3 respondents (0.9%) did.

In summary, respondents were split evenly between male and female sex, they were generally active through participating in one or more organized sports over the course of the year. Furthermore, many participants identified their favorite sport as various Olympic sporting events (e.g. hockey, soccer, volleyball) and did not hold membership to a cycling club.

Table 4.1: Sample Characteristics of the Study Sample

Descriptor	n	%
Female Participants	160	50.3
Male Participants	156	49.1
Participated in 0 Organized	51	16
Sports		
Participated in 1 to 3	221	72.7
Organized Sports		
Participated in 4 or more	32	10
Organized Sports		

4.4 Descriptive Statistics

This section describes the means and standard deviations for the different scales used to assess each variable depicted in Figure 3. In addition, for the constructs tested in the original study's pre-event and post-event questionnaire (i.e. attitude toward the behavior, normative influence, perceived behavioral control, intention), both are provided for comparison purposes. Inevitably, complete responses were not received for all variables from all participants. Unless otherwise noted, the effective sample size for each variable in this response domain ranges from 305 to 318 of the 318 study participants. Table 4.2 summarizes the descriptive statistics and inter-correlations among all variables involved in the prediction of intention to participate in the sport of track cycling for all constructs at T2 (i.e. attitude toward the behavior, normative influence, perceived behavioral control, intention) and the construct of inspiration.

Table 4.2: Means, Standard Deviations, and Inter-Correlations Among Intention to

Participate in the Sport of Track Cycling

Variable***	1.	2.	3.	4.	5.	6.	7.	8.	9.	M
										(SD)
1. Attitude toward the	1.00									3.55
behavior T1										(1.13)
2. Attitude toward the	.576	1.00								3.55
behavior T2										(1.23)
3. Normative influence	.448	.305	1.00							2.06
T1										(.89)
4. Normative influence	.296	.448	.436	1.00						2.23
T2										(.93)
5. Perceived behavioral	.323	.319	.328	.346	1.00					3.05
control T1										(.80)
6. Perceived behavioral	.234	.311	.243	.489	.620	1.00				3.11
control T2										(.88)
7. Inspiration	.365	.541	.208	.429	.139*	262	1.00			2.82
										(1.12)
8. Intention T1	.498	.355	.647	.390	.317	.262	.273	1.00		1.78
										(.82)
9. Intention T2	.353	.527	.314	.679	.275	.384	.574	.447	1.00	1.92
										(.97)

^{*}Correlation is significant at the 0.05 level (2-tailed)

All correlations, unless otherwise marked, were significant at the .001 level

4.4.1 Attitude Toward the Behavior.

The scores for each of the four items were averaged to form an overall attitude toward the behavior measure score for both time 1 (T1) and time 2 (T2) samples. Possible scores ranged from 1 to 5, with higher scores indicating a higher degree to positive overall evaluation of the behavior (i.e. more positive perception of the sport of track cycling). The mean attitude toward the behavior scale at T1 was 3.55 (SD = 1.13) and the mean attitude toward the behavior scale at T2 was 3.55 (SD = 1.23). There was no change from T1 to T2 for the mean scores, indicating that respondents' evaluation of the sport of track cycling did not increase or decrease after viewing the sport. A paired-samples t-test was conducted to compare respondents' attitude toward the behavior of participating in the sport of track cycling at T1 (i.e. pre-event) and T2

(i.e. post-event). T1 and T2 paired difference scores were not statistically significant (p = .969). On average, T1 scores were .002 points higher than T2 scores (95% CI [-.12, .13]). There was not a significant difference in the scores of attitude toward the behavior T1 (M = 3.55, SD = 1.13) and attitude toward the behavior T2 (M = 3.55, SD = 1.23); t (317) = .039, p = .969.

4.4.2 Normative Influence.

The scores for each of the five items (i.e. 3 subjective norm, 2 descriptive norm) were averaged to form an overall normative influence measure score for both T1 and T2 samples. Possible scores ranged from 1 to 5, with higher scores indicating a stronger normative influence to intent to participate in the sport of track cycling. The mean normative influence scale at T1 was 2.06 (SD = .89) and the mean normative influence scale at T2 was 2.23 (SD = .93). After watching the track cycling events at the Milton International Challenge, respondent's normative influence increased by 0.17, creating a stronger positive influence toward participating in the sport of track cycling. A paired-samples t-test was conducted to compare respondents' normative influence towards participating in the sport of track cycling at T1 (i.e. pre-event) and T2 (i.e. post-event). T1 and T2 paired difference scores were statistically significant (p = .002). On average, T2 scores were 0.17 points higher than T1 scores (95% CI [-.29, -.07]). There was a significant difference in the scores for normative influence T1 (M = 2.06, SD = .89) and normative influence T2 (M = 2.23, SD = .93); t (296) = -3.156, p = .002.

4.4.3 Perceived Behavioral Control.

The scores for each of the seven items were averaged to form an overall perceived behavioral control measure score for both T1 and T2 samples. Possible scores ranged from 1 to 5, with higher scores indicating the respondents' perception to having greater control over their ability to perform the behavior in question. The mean perceived behavioral control scale at T1

was 3.05 (SD = .80) and the mean perceived behavioral control scale at T2 was 3.11 (SD = .88). After watching the track cycling events at the Milton International Challenge, respondents perceived behavioral control towards participating in the sport of track cycling increased by 0.06. A paired-samples t-test was conducted to compare the respondents' perceived behavioral control to participating in the sport of track cycling at T1 (i.e. pre-event) and T2 (i.e. post-event). T1 and T2 paired difference scores were not statistically significant (p = .161). On average, T2 scores were .06 points higher than T1 scores (95% CI [-.14, .02]). There was not a significant difference in the scores of perceived behavioral control T1 (M = 3.05, SD = .80) and perceived behavioral control T2 (M = 3.11, SD = .88); t (296) = -1.405, p = .161.

4.4.4 Inspiration.

The scores for each of the four items were averaged to form an overall inspiration measure score. Inspiration was only measured during the post-event questionnaire. Possible scores ranged from 1 to 5, with higher scores indicating respondents experienced a greater sense of inspiration after watching the track cycling events at the Milton International Challenge. The mean inspiration scale was 2.82 (SD = 1.12).

4.4.5 Intention.

The scores for each of the four items were averaged to form an overall intention score for both T1 and T2 samples. Possible scores ranged from 1 to 5, with higher scores indicating the respondents' having greater intent to participate in the sport of track cycling. The mean intention scale at T1 was 1.77 (SD = .82) and the mean intention scale at T2 was 1.92 (SD = .97). After watching the track cycling events at the Milton International Challenge, respondents' intention to participate in the sport of track cycling increased by 0.15. A paired-samples t-test was conducted to compare the respondents' intent to participate in the sport of track cycling at T1 (i.e. pre-

event) and T2 (i.e. post-event). T1 and T2 paired difference scores were statistically significant (p = .008). On average, T2 scores were .15 higher than T1 scores (95% CI [-.25, -.04]). There was a significant difference in the scores of intention T1 (M = 1.77, SD = .82) and intention T2 (M = 1.92, SD = .97); t (317) = -2.66, p = .008.

4.4.6 Summary of Measures

Of the constructs measured at both T1 and T2 (i.e. attitude toward the behavior, normative influence, perceived behavioral control, intention), the constructs of normative influence, perceived behavioral control, and intention had higher T2 scores than at T1. Though the T2 score for perceived behavioral control was higher than at T1, on the 5.0 scale, the difference was a .06 score change. In contrast, normative influence and intention revealed differences in scores from T1 to T2 by more than double the difference in perceived behavioral control. Normative influence score increased by 0.17 points from T1 to T2 and intention increased by 0.15 points from T1 to T2. As such, preliminary analysis gives insight into the importance of normative influences for this select sample on intention. Table 4.3 presents the paired t-test results for each of the variables tested.

Table 4.3: Paired t-test of Pre-Event and Post-Event Measures

	T1		T	T2		
	M	SD	M	SD	t-test	
Attitude Toward the Behavior	3.55	1.13	3.55	1.23	.039	
Normative Influence	2.06	.89	2.23	93	-3.156**	
Perceived Behavioral Control	3.05	.80	3.11	.88	-1.405	
Intention	1.77	.82	1.92	.97	-2.66*	

^{*}p<0.05, **p<0.01, ***p<0.001

The following section will report the results the regression analyses that were conducted to test the relationships among the variables presented in Figure 3.

4.5 Hypotheses Testing

4.5.1 Pre-Event Hypotheses Testing.

With respect to the intent to participate in the sport of track cycling at T1 (i.e. pre-event), a multiple linear regression analysis was conducted to test the degree to which TPB constructs (i.e. attitude toward the behavior, normative influence, perceived behavioral control) predicted respondents' intention to participate in the sport of track cycling. Standardized beta weights (β) and adjusted R^2 values for this analysis is presented in Table 4.7. Aligned with the hypotheses of this study, the expectation was that each TPB construct would positively predict respondents' intent to participate.

H₁: There will be a direct positive relationship between pre-event attitude toward the behavior and pre-event intention

H₂: There will be a direct positive relationship between pre-event normative influence and preevent intention

H₃: There will be a direct positive relationship between pre-event perceived behavioral control and pre-event intention

Results of this multiple linear regression analysis revealed that the three TPB constructs accounted for 48.1% of the variance in respondents' intentions to participate in the sport of track cycling ($R^2 = .481$), which is a statistically significant amount of the total variance (F = 93.360, p < .001). Attitude toward the behavior ($\beta = .236$, p < .001) and normative influence ($\beta = .530$, p <

54

.001) were significant positive predictors of respondents' pre-event intention to participate in the sport of track cycling. Youth that felt participating in the sport would be fun, exciting, and enjoyable were more likely to intend to participate. Moreover, those youth who felt strongly that their friends and family would support and participate as well, were more likely to intend to participate at T1. Perceived behavioral control was not a significant predictor of intention to participate in the sport of track cycling. As such, hypothesis one and hypothesis two, within the pre-event context were, found to be statistically supported at time one while hypothesis three was not supported.

Table 4.4
Multiple Linear Regression Analysis for Variables Predicting Pre-Event Intention to Participate in the Sport of Track Cycling

	Standardized	Adjusted R^2
Predictor	Coefficients β	
Intent to Participate		
Attitude toward the Behavior	.236***	
Normative Influence	.530***	
Perceived Behavioral Control	.066	
		.481***

^{*}p<0.05, **p<0.01, ***p<0.001

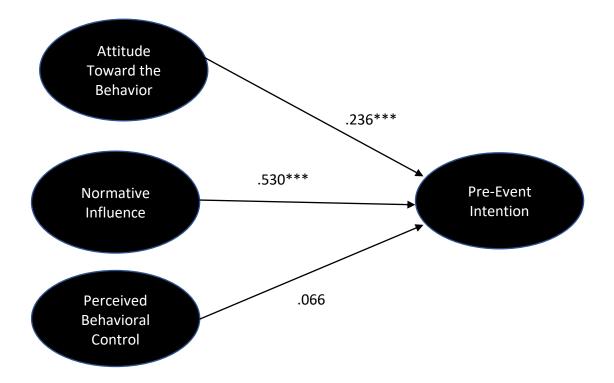


Figure 4.1. Prediction of Track Cycling Sport Participation Intention at Time One Figure 4 Notes: Adjusted R^2 value based on step two of the hierarchical regression analysis, standardized beta weights are depicted, ***Relationship is significant at the 0.001 level

4.5.2 Post-Event Hypotheses Testing.

With respect to the intent to participate in the sport of track cycling at T2 (i.e. postevent), a two-step hierarchical multiple linear regression analysis was conducted to test: (a) the degree to which TPB constructs (i.e. attitude toward the behavior, normative influence, perceived behavioral control) predicted respondents' intention to participate in the sport of track cycling, and (b) whether the affect construct of inspiration could explain significant proportions of the variance in these intentions above and beyond the TPB predictors. Standardized beta weights (β) and adjusted R^2 values for this analysis is presented in Table 4.8. Aligned with the hypotheses of

this study, the expectation was that each TPB construct would positively predict respondents' intent to participate.

H₁: There will be a direct positive relationship between post-event attitude toward the behavior and post-event intention

H₂: There will be a direct positive relationship between post-event normative influence and post-event intention

H₃: There will be a direct positive relationship between post-event perceived behavioral control and post-event intention

H₄: There will be a direct positive relationship between inspiration and post-event intention

The expectation was that the affect construct of inspiration would explain significant proportions of the variance respondents' intensions above and beyond attitude toward the behavior, normative influence, and perceived behavioral control. The hierarchical multiple linear regression analysis was conducted for the entire sample of participants. This analysis used T2 scores for the appropriate constructs (i.e. attitude toward the behavior, normative influence, perceived behavioral control, intention), while controlling for T1 scores. Results from this hierarchical multiple linear regression analysis is presented in the following section. Figure 4.8 depicts the standardized beta coefficients (β) and R^2 values for each relationship examined in the model. Prior to conducting the hierarchical regression analysis, data were screened to ensure the absence of multicollinearity.

Results of step one of this hierarchical regression analysis revealed that the three TPB constructs accounted for 52.5% of the variance in respondents' intentions to participate in the

sport of track cycling ($R^2 = .525$), which is a statistically significant amount of the total variance (F=106.84, p<.001). Attitude toward the behavior ($\beta = .284$, p<.001) and normative influence ($\beta = .528$, p<.001) were significant positive predictors of respondents' intention to participate in the sport of track cycling. Perceived behavioral control was not a significant predictor of intention to participate in the sport of track cycling.

Step two of the analysis involved the addition of the affect construct of inspiration to the existing TPB model. The addition of this construct meant that an additional 3.9% of the variance in intention was significantly explained ($\Delta R^2 = .039$, p<.001). In total, 55.8% of the variance in respondents' intention scores were explained by the four variables in the model ($R^2 = .558$), which is a statistically significant amount of the total variance (F = 93.49, p < .001). Attitude toward the behavior ($\beta = .171$, p = .001), normative influence ($\beta = .481$, p < .001), and inspiration ($\beta = .244$, p < .001) were significant positive predictors of post-event intentions within the model. Youth that felt participating in the sport would be fun, exciting, and enjoyable were more likely to intend to participate. Moreover, those youth who felt strongly that their friends and family would support and participate as well were more likely to intend to participate at T2. Lastly, youths that felt inspired through experiencing the track cycling event were more likely to intend to participate.

Perceived behavioral control did not emerge as a significant predictor of intention to participate in the sport of track cycling in this step of the analysis (β = .036, p = .429). The strength of attitude toward the behavior and normative influence in predicting intention to participate in the sport of track cycling decreased when inspiration was considered (i.e. β = .284 to β = .171; β = .528 to β = .481). The results from this hierarchical regression analysis including standardized beta weights (β) and adjusted R^2 values are depicted in Figure 4.2.

Table 4.5 Hierarchical Linear Regression Analysis for Variables Predicting Post-Event Intention to Participate in the Sport of Track Cycling

	Standardized		
Predictor	Coefficients β	Adjusted R^2	R^2
Step 1			
Attitude toward behavior	.284***		
Normative influence	.528***		
Perceived behavioral control	.044		
		.520***	
Step 2			
Attitude toward behavior	.171***		
Normative influence	.481***		
Perceived behavioral control	.036		
Inspiration	.244***		
		.558***	.039***

^{*}p<0.05, **p<0.01, ***p<0.001

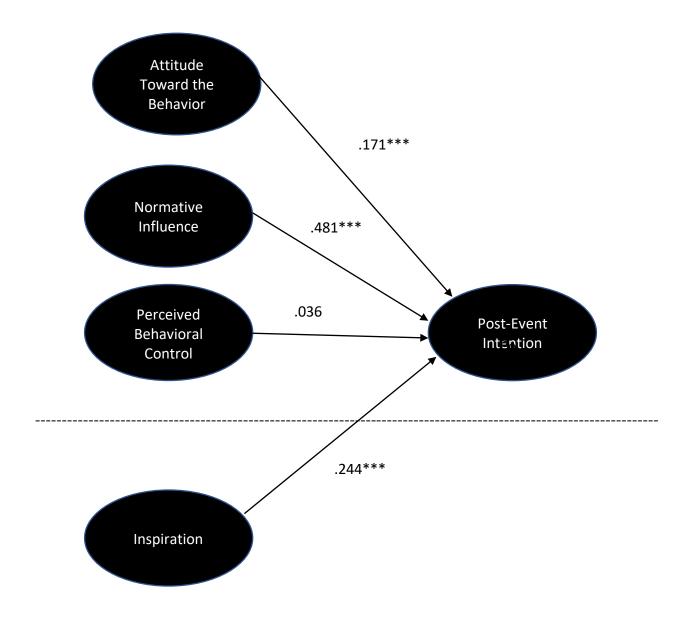


Figure 4.2. Prediction of Track Cycling Sport Participation Intention at Time Two

Figure 5 Notes: Adjusted R^2 value based on step two of the hierarchical regression analysis, standardized beta weights are depicted, ***Relationship is significant at the 0.001 level

4.5.3 Summary of Hypotheses Testing.

In summary, the multiple linear regression analyses revealed that at both points, pre-event and post-event, attitude toward the behavior and normative influence held significantly statistically relationships towards intention to participate in the sport of track cycling. Moreover,

perceived behavioral control did not emerge as a significant predictor of intention. In addition, when the affect construct of inspiration was added to multiple linear regression analysis, it too was found to hold a significantly statistical relationship towards intention to participate in the sport of track cycling. Furthermore, when adding the construct of inspiration, both attitude toward the behavior and normative influence remained significant predictors to intention but their beta scores decreased. Finally, the overall variance revealed by the hierarchical regression analysis showed that the addition of inspiration increased the variance predicted by 3.9%. Though this percentage increase is small, it was found to be statistically significant. The following chapter will discuss these results in further detail and related them to implications for future practice and research.

CHAPTER FIVE: DISCUSSION

This chapter will discuss the results of the present study. First, detail will be provided relevant to each of the four independent hypotheses presented through the analysis of the present TPB-based augmented model. Second, both practical and theoretical implications will be discussed with specific focus on leveraging system analysis and initiatives, resources for sport stakeholders, and methodological and theoretical grounding for future research. Finally, this chapter will outline the limitations of the present study in relation to opportunities for future research to explore and expand on the findings founds through the present study. Specifically, the constructs of normative influence and intention held significant changes from pre-event to post-event measures. As such, the results of this study may help to explain how experiencing a track cycling event moved individuals from being strongly opposed to participating in the sport of track cycling to being more open to participating in the new behavior.

5.1 Paired T-Test Results

Analysis from the paired sample t-tests revealed that of the four constructs measured at both T1 and T2 (i.e. attitude toward the behavior, normative influence, perceived behavioral control, intention), the constructs of normative influence, perceived behavioral control, and intention had higher T2 scores than at T1. Each of these constructs had higher mean scores at T2 than at T1, as well, their respective standard of deviation scores was higher at T2 than at T1. This increase in standard deviation score, for each variable in question, suggests that as a sample, perceptions of the sport and intention were more closely related prior to the event. As such, it may be understood that the experience of the elite sporting event created greater diversity across the study's sample. Thus, when considering the sample as a whole, there did not appear to be

much change in measures from pre-to-post event. However, there might be substantial differences when considering changes in scores on a case-by-case basis.

In contrast to normative influence, perceived behavioral control, and intention, attitude toward the behavior had the same mean score calculated at both T1 and T2. Though the mean score was calculated to be the same, the t-test score did not perfectly correlate. As such, this statistical analysis suggests that event exposure created more nuance differences within the attitude toward the behavior construct. Overall, individuals whom experienced the elite sporting event may more strongly feel that peer influencers would participate in the behavior, feel more capable of performing the behavior, and have a stronger intent to participate in the behavior. As such, experience of spectating an elite sporting event may not only lead to greater intent to participate in the behavior in question, it may also be associated with increases in the antecedents of intention proposed by the TPB.

5.2 Hypotheses Testing

The results of the pre-event multiple linear regression analysis revealed that attitude toward the behavior and normative influence were significant positive predictors of respondents' intention to participate in the sport of track cycling. Perceived behavioral control did not emerge as a significant predictor of intention for this behavioral response. The results of the post-event hierarchical regression analysis revealed that attitude toward the behavior, normative influence, and inspiration were significant positive predictors of respondents' intention to participate in the sport of track cycling. Similar to the pre-event analysis, perceived behavioral control did not emerge as a significant predictor of intention for this behavioral response. The TPB constructs (i.e. attitude toward the behavior, normative influence, perceived behavioral control) at T1 (i.e. pre-event) were able to explain around 48% of the variance of intention to particle in sport of

track cycling. During the post-event analysis (i.e. T2), the same TPB constructs (i.e. attitude toward the behavior, normative influence, perceived behavioral control) were able to explain round 52% of the variance of intention to participate, while the augmented model adding the affect construct of inspiration explained around 56% of the variance. The following sections will discuss the results relating to each predictor of intention included in the pre-event model (Figure 4.1) and the post-event model (Figure 4.2).

5.2.1 Hypothesis One.

H_{1A}: There will be a direct positive relationship between pre-event attitude toward the behavior and pre-event intention

H_{1B}: There will be a direct positive relationship between post-event attitude toward the behavior and post-event intention

Attitude toward the behavior was positively associated with respondents' intention to participate in the sport of track cycling in response to the event for both pre-event and post-event analysis. In particular, respondents who perceived participating in the behavior as being fun, exciting, and enjoyable were more likely to intend to perform in the action. This finding is consistent with previous research (e.g. Courneya, Plotnikoff, Hotz, & Birkett, 2000; Donnelly & Youg, 1998; Potwarka, 2015; Schoham, Rose, & Kahle, 1998), suggesting that individuals who perceive positive experiential characteristics through watching an elite sporting event will create a more positive attitude towards participating in the behavior. Specifically, for the context of this study, respondents' who had fun, and found watching the elite track cycling event enjoyable, held stronger intention to participate in the sport of track cycling themselves.

5.2.2 Hypothesis Two.

H_{2A}: There will be a direct positive relationship between pre-event normative influence and preevent intention

H_{2B}: There will be a direct positive relationship between post-event normative influence and post-event intention

Normative influence was the strongest predictor of respondents' intention to participate in the sport of track cycling in both pre-event and post-event contexts. The normative influence construct combines subjective norm and descriptive norm. Subjective norm captures an individual's perception of other people's approval or disapproval of performing the particular behavior. Descriptive norm suggests that the actions of important others often motivate people to engage in a particular behavior by showing them it is the normal and rational thing to do (Sheeran & Orbell, 1999). This finding is consistent with recent research conducted by Potwarka (2015), where intention to participate in physical activity after watching an Olympic event was found to have significantly increased after the addition of descriptive norms to a TPB-based model. Specifically, for the context of this study, in the inclusion of descriptive norms within the normative influence construct suggests that individual's intention to participate within this specific sample may be greatly affected by if they perceive their peers, friends, significant others to engage in the particular behavior themselves. This finding is consistent with past research in the physical activity context (e.g. Preibe & Spink, 2012; Sheeran & Orbell, 1999). Suggesting that if the respondent believes everyone else is doing it, then it must be the sensible thing to do, and therefore, the individual will do it as well (Sheeran & Orbell, 1999). Where descriptive normative perceptions associated to the respondents' "friend" activity were the strongest predictor of intention to participate in the behavior. Moreover, the important role peer influence

played in predicting post-event participation intention in the current investigation has important implications for the design of leveraging efforts tied to hosting elite international sport events.

This finding will be discussed in more detail below.

5.2.3 Hypothesis Three.

H_{3A}: There will be a direct positive relationship between pre-event perceived behavioral control and pre-event intention

H_{3B}: There will be a direct positive relationship between post-event perceived behavioral control and post-event intention

Perceived behavioral control was not a significant predictor of respondents' intention to participate in the sport of track cycling in either of the pre-event or post-event analyses. The extent to which respondents perceived performing the behavior to be easy was determined by their beliefs about their control over factors that would facilitate or constrain performance of the behavior (i.e. control beliefs). This finding is consistent with past research (e.g. Potwarka 2015), where perceived behavioral control was not found to be a significant predictor of intention to participate in the select behavior. This may shed insights into specific characteristics relevant to a foreign sport to the participants. It may be understood that individuals who do not have experience participating in the select behavior or only have the experience of watching as a study respondent, may not cognitively be able to answer questions relevant to perceived behavioral control contexts.

As such, for the context of this study, it was found that individual's intention to participate in the sport of track cycling was not significantly influenced by their perceived abilities or constraints to participate either prior to the event experienced or following the event experienced. This may be select to the niche youth sample utilized for this study. This finding

may shed insights into the weak influence perceived abilities or constraints hold when youth are introduced to a new form of physical activity, as only 0.3% (n=1) stated their favourite sport as track cycling. Moreover, this finding may be present because a youth sample may not be cognitive towards constraints present or abilities required to participate in this behavior. As such, this may further the importance of select constructs (i.e. normative influence, inspiration) for youth sample specific to new forms of sport or physical activity. In doing so, this provides strong insight into the development and analysis of the leveraging system employed by Cycling Canada, assessed in the current study, and future leveraging programs to increase sport participation. Leveraging systems will be discussed further in the following sections.

5.2.4 Hypothesis Four.

H₄: There will be a direct positive relationship between inspiration and post-event intention

Inspiration was a significant predictor of respondents' intention to participate in the sport of track cycling. Respondents who reported having a greater sense of inspiration, after watching an elite track cycling event, held a stronger intent to participate in the sport of track cycling. As such, when evaluating participation at the intentional level, a demonstration effect was found.

Augmentation of the TPB-based model adding the affect construct of inspiration increased the level of variance explained by the independent variables (i.e. attitude toward the behavior, normative beliefs, perceived behavioral change) to the dependent variable of intention. Furthermore, when adding in the predictor of inspiration, all of the TPB-based constructs influence was lowered. Though, both attitude toward the behavior and normative beliefs remained a significant positive predictor to intention, the beta score for all three independent variables decreased when the augmented variable of inspiration was included. This, combined with a small increase of 3.9% variance explained suggests that the addition of inspiration may

have had more effect in understanding and explaining intention, rather than increasing intention. As such, arguments may be formulated suggesting that though inspiration maybe formulated through an event, it does not increase participation intention. Rather, it further explains participant's intention whom already intended on participating. Moreover, this creates a backdrop for further research when exploring the demonstration effect underpinned by behavioral theories.

Specifically, this study explored the influence of event experiences on post-event intentions to participate. Based on previous research, how people feel while immersed in a live sport event can have implications for behavioral responses (Potwarka et al., 2017). The present study has shown significance in supporting the hypothesis that inspiration is a positive predictor to intention to participate. However, as shown through the results of the present study, much is still left to be understood, from a theoretical and methodological perspective, as to how inspiration increases intention to participate versus explaining intention to participate.

From a theoretical perspective, few investigations of demonstration effect have attempted to conceptualize and measure the construct of inspiration. The results of this study further support the work of Thrash and Elliot (2003). Specifically, the significance of the inspiration construct in this study may shed insights into the importance of transcendence. Moreover, the importance of transcendence speaks to the notion of seeing a new self or a new opportunity (Thrash & Elliot, 2003). In the context of this study, many youth had little background or knowledge of the sport in question. Thus, the notion of seeing a new self or a new opportunity first hand while experiencing an elite track cycling event seemed to have played an important role in creating intention to participate in the new sport on display. Youth may have been moved by the performances in ways that opened their minds to new possibilities. Furthermore, the

significance of the inspiration construct in this study may shed insights into the importance of approach motivation. In terms of approach motivation, individual can become compelled to actualize a new idea or vision (Thrash & Elliot, 2003). Specifically, youth might have been inspired "by" the event, but also inspired "to" participate themselves. In other words, some youth in the study might have experienced a "call to action". Indeed, approach motivation experienced by youth while watching the event is consistent with notions of self-determination and intrinsic motivation, which has been show as strong predictors of sport participation (Deci & Ryan, 2000; Thrash & Elliot, 2003). As such, the results of this study have further supported the work of Thrash and Elliot (2003), and the role inspiration may play in understanding intention to participate in a select behavior. Furthermore, the results of this study add to the theoretical understandings of inspiration and its role in intention to participate within this less researched demographic of youth participants engaging with an activity or behavior that is foreign to them (i.e. the sport of track cycling).

5.3 Implications for Practice and Research

With the current lack of demonstration effect research specific to youth sport participation, youth sport stakeholders may benefit from utilizing leveraging strategies developed through non-youth samples (Wood et al., 2018). In response, this study has identified key targets of behavioral change interventions (i.e. leveraging initiatives) that might be particularly effective at maximizing participation impacts of elite sport events among youth populations. Specifically, the constructs of attitude toward the behavior, normative influence, and inspiration have proven to play a significant role in predicting youth intention to participate in the sport of track cycling. As such, stakeholders may be better able to develop leveraging strategies targeted at increasing

youth sport participation, similar to the leveraging system employed by Cycling Canada and analyzed in the current study.

Findings from this study, for example, demonstrate the importance of utilizing normative influences for the select sample of youth. As hypothesized, specific to youth sport participants for the present study, individuals who have peers that intend to track cycle held a stronger intent to participate. As such, with the strength of the normative influence as a statistically positive predictor to intention, the results of the present study suggest the most evident method to increase intention to participate is through targeting normative influence like descriptive norms. For instance, youth may have held stronger intentions based on experiencing the event with their friends, providing them with a stronger understanding of whether their friends would participate in the select behavior themselves. This may be done through various forms, such as creating "bring a friend day", "family events", and "school events". All events targeted at the inclusion of peers and creating experiences for individuals with peers.

Furthermore, findings related to the significant role attitude toward the behavior played in predicting pre- and post-event intentions suggest that target words such as "fun" and "exciting", could be used in communication and branding efforts targeting new youth participants.

Moreover, stakeholders should aim to develop and incorporate opportunities for youth to make meaningful connections with athletes during an event may help make more inspiring events.

Youth day events should be fun and engaging and present the new sport opportunity in accessible ways. Methods and tactics to do this may be found through better educating participants on the event, the athletes, the sport itself, etc. and through opportunities to meet and interact with athletes in the event. Creating these opportunities would suggest further inspiring

individuals and creating connections to the behavior in question, perhaps, ultimately leading to greater intention to participate in the behavior.

The current study sheds some insights into the efficacy of increasing youth sport participation through a "youth day" event. The concept of "youth day" events involves a sport association or facility transporting a group of youth to an event to experience the select sport behavior first hand. In doing so, stakeholders are utilizing the sporting event as a leverage in hope of increasing youth awareness to the select sport behavior, increasing interest and intrigue, and ultimately, increase intention to participate and actual participation. This study revealed that the intention to participate after experiencing the Milton International Event at the Mattamy National Cycling Centre did increase, albeit only slightly.

From a theoretical perspective, little research, if any, has been done to assess the demonstration effect on youth sample populations. Traditionally, research has focused on general adult populations with a broader contact of well-being or physical activity. This study begins to fill this under-researched niche area of youth population in the context of participation within a select sport behavior. Furthermore, stronger understanding and explanation of intention was found when adding in the augmented construct of inspiration. Suggesting that using a demonstration effect as a leveraging system (i.e. having youth witness an elite sport event) did increase youth intention to participate in the sport of track cycling. Furthermore, this analysis suggests that normative influences play a strong role in predicting intention for youth samples. Moreover, few studies have tested the demonstration effect within a longitudinal study design. Previous research (e.g. Potwarka, 2015; Ramchandni et al., 2012), has tended to rely on cross-sectional examinations to explore the demonstration effect as well as its applicability within behavioral longitudinal studies. Furthermore, as noted by Potwarka (2015), the demonstration

effect has rarely been underpinned by a behavioral theory. This study utilized the theory of planned behavior to underpin a demonstration effect. In doing so, this study has shed insights into the motivation mechanisms that underpin the demonstration effect. Specifically, attitude toward the behavior, normative influences, and state inspiration were found to be significant post-event positive predictors of intention to participate in the behavior in question. In addition, both attitude towards the behavior and normative influences were found to be significant pre-event positive predictors of intention to participate in the select behavior. Results of this study provide evidence of motivational mechanisms that underpin the demonstration effect from theoretical perspectives.

5.4 Study Limitations and Future Research

The current study possesses certain limitations. First, the present study only assessed intention and not actual behavior. This is a significant limitation to the TPB by not completely utilizing the entire model. Future studies should prioritize understanding participants behavior in addition to the TPB constructs and intention. Though this study presents a foundation for future research to better understand TPB constructs, intention, and their relations, within a youth sport track cycling context, future studies should focus on understanding the relationship between intention and behavior within a youth sport track cycling context, youth sport context, and behavior context's in general. In doing so, a more robust understanding of the demographic studied and the behavior in question will be understood from a theoretical and practical perspective for all stakeholders involved.

Second, data for the present study was collected at multiple time points (i.e. pre-event and post-event), however, only one time point was used for data assessment of each of these respective time points. For select stakeholders, it may be of interest to better understand change

and analysis of intention to behavior and actual behavior at multiple points in the post-event phase. Therefore, future research should aim to assess intentions and behavior at multiple time points post-event to better understand the notion of time and how intention and behavior may change over time.

Third, the data collected and the instruments used did not assess negative affect of the questionnaire respondents, therefore this study only assessed positive affect relative to knowledge and criticality. Future studies should assess both positive affect and negative affect to better understand the nuance differences that may be present between the two. In addition, intention questions were specifically worded targeting intention to participate at the Mattamy National Cycling Centre. Although this seems appropriate for the youth and the experience at the training centre, it does create disagreement for individuals who intend to participate but not at the Mattamy National Cycling Centre specifically.

Finally, it is challenging to generalize the results of TPB-based research beyond the specific sample population and behavior under investigation (Ajzen, 1991). As such, future research should aim to assess TPB-based research within youth sample populations across varying sport-specific activities and general physical activity or well-being.

Through this analysis several avenues for future research within leveraging research and demographic research were present. First, as previously explored, little research has been conducted on youth sample populations and should continue to do so. Findings may lead to niche understandings within youth sample when comparing across sport-specific activities and general well-being activities. Second, though research is beginning to individually target stronger understandings of youth demographic leveraging systems and adult demographic leveraging systems, comparative studies are under researched. As such, future studies should be conducted

to compare and contrast the niche differences between youth and adult leveraging systems. In doing so, specific factors/antecedents relative to each select sample may shed insights into how sport stakeholders design and employ leveraging systems for their select practices. Third, within the leveraging system employed by Cycling Canada, youth participants were surrounded by fellow youth participants. This environmental component is of interest as the results of this study revealed that normative influences were the strongest predictor towards participants intent to participate in the sport on display. As such, leveraging studies comparing youth participants in a similar environment compared to youth participants in an isolated viewing environment may be of interest to youth sport stakeholders in understanding niche components to the factors/antecedents of youth sport intention and participation. Finally, the same comparative study design may be of interest to sport stakeholders within adult demographics relating to participation in the behavior of sport spectating and consumption.

5.5 Conclusion

The results of this study suggest that having individuals experience an event will increase their intent to participate in the sport. As such, it may be worth the investment for stakeholders to conduct "youth days" to engage youth in new behaviors, to increase awareness about a behavior, and increase the intent to participate in the behavior. Moreover, based on the results of this study, it may be believed that the demonstration effect follows both a rational/reasoned and emotional/affective-drive phenomena. Results of this study give strong predictive utility that both normative influences (i.e. rational/reasoned phenomena) and inspiration (i.e. emotional/affective phenomena) were statistically significant to intention. As such, because both phenomena were measured together, neither normative influence or inspiration can be definitively stated as needed to increase intention independently. Rather, results of this study

suggest that both the rational and the emotional phenomena are needed to increase intention to participate in the sport of track cycling.

This study shed insights into the nuances of sport participation intention for youth specific to large-scale sporting events. The significance of normative influence in this context provides a foundation for the argument that to increase sport participation in a public, peer-influenced setting, sport event stakeholders should consider capitalizing on peer influences in the design of leveraging efforts. The significance of attitude toward the behavior has called for the perception of the experience being fun to be created by stakeholders, utilizing words like "fun", "exciting", and "enjoyable". Lastly the significance of inspiration within the youth demographic supports the importance of creating engaging events that foster connections with athletes. In doing so, staging event experiences may be more likely to facilitate positive participation impacts.

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APPENDIX A: SCHOOL INTRODUCTION LETTER

Dear				

Thank you for agreeing to participate in the *Youth Track Cycling in the Community Study*. The purpose of our study is to increase access to track cyclic opportunities for youth in Milton, and to increase the Town of Milton and Cycling Canada's capacity to promote youth track cycling participation. Knowledge gleaned from this investigation will serve to ensure a sustainable legacy for the Mattamy National Cycling Centre/Velodrome, and improve our understanding of what motivates or hinders youth involvement in the sport of track cycling.

My name is Georgia Teare, and I will be your primary point of contact for the project. Our team has been working hard making preparations and coordinating the logistics of the project, which will begin in September.

Students in your class will have the opportunity to attend the *Milton International Challenge* track cycling event taking place on either **Thursday September 29**th or **Friday September 30**th at **the Mattamy National Cycling Centre in Milton.**

Busses will be arranged to pick your class up sometime between 10:30 and 11:00am and return back to school for approximately 2:00pm. Before and after attending the event, students will be required to complete a brief 5 to 10 minute survey about their perceptions of the sport of track cycling, and their experiences watching the event. Students are invited to bring a lunch and there will be food available for purchase at the event as well. All students who attend will receive an "incentive" to try the sport they just watched!

In the coming week, we will be providing more detailed instructions and information about the study and what to expect. You will receive a package of materials that will include parent permission and consent forms, and pre-event surveys.

I am pleased to report that this project is being funded by the Social Science and Humanities Research Council of Canada (SSHRC), the Town of Milton and Cycling Canada. Thus, there is no cost to your class or school to be involved in the project! Our project would also not be possible without the ongoing support of the Halton Catholic District School Board.

I will continue to be in contact with you and share information and instructions as we move forward with the project.

In the meantime, if you have any additional questions, please do not hesitate to ask me or the Principal Investigator for the project, Dr. Luke R. Potwarka, from the University of Waterloo.

Thank you,

Georgia Teare, MA Candidate
Youth Track Cycling in the Community Study Project Coordinator
Department of Recreation and Leisure Studies
University of Waterloo
gteare@uwaterloo.ca

APPENDIX B: SCHOOL INFORMATION LETTER

Dear

Thank you again for agreeing to participate in the Youth Track Cycling study. My name is Georgia Teare, and I will be your primary point of contact for the logistics of the study. The purpose of the Youth Track Cycling study is to increase access to track cyclic opportunities for youth in Milton, and to increase the Town of Milton and Cycling Canada's capacity to promote youth track cycling participation.

The study will be completed in three phases: phase one includes a pre-event base line survey; phase two includes exposure to a track cycling event and a post-event survey; and, phase three includes a follow-up survey and semi-structured interviews. All activities associated with the research project (i.e. transportation, tickets to the event) of no cost to the school or students. The entire project has been funded by the Social Sciences and Humanities Research Council (SSHRC).

I am contacting you today to provide more information about phase one and two of the study. The pre-event baseline survey will be administered by the teacher of each class during class-time.

The event will take place on September 29th/30th, followed by the post-test that will be administered by the research team at the velodrome immediately after the event. Specific details for survey administration, and information for the principal, teachers, parents, and students, as well as event-day logistics is included in the package that will be delivered to your school before the first day of classes.

If you have any additional questions, please do not hesitate to ask.

Thank you, Georgia Teare

APPENDIX C: PRE-QUESTIONNAIRE INFORMATION SCRIPT

On-bus recruitment script (Phase 2)

Hi my name is [name]. I am a research assistant with the University of Waterloo in the Department of Recreation and Leisure Studies. I am here to invite you to participate in the second stage of a study we are doing. You might have heard a bit about the study before. As a reminder, this part of the study looks at your experiences of watching track cycling competitions.

We're going to invite you to fill out a brief survey about your experience today watching the track cycling events and your opinions about the sport. It should take you about 10 minutes to complete. However, your participation is in no way mandatory – it is entirely voluntary. Whether you participate or not you will be offered a small gift. Participation will in no way influence your mark in your class. This is NOT a test, and there are no right or wrong answers. You choose not to answer any question that you don't want to answer.

No one will get angry or upset with you if you don't want to do this. If you would not like to participate, please leave your survey blank and return it to the researchers. This study will not hurt you and it will not make you feel bad. And remember, if you decide to be in the study but later you change your mind, then you can tell us you do not want to be in the study at any point.

This study has been reviewed and received ethics clearance through a University of Waterloo Research Ethics Committee. However, the final decision about participation is yours. If you have any questions, please see me and I would be happy to direct you to an appropriate contact at the University's Office of Research Ethics.

For anyone filling out the survey and who have a question, raise your hand. I will be around to assist you. When you are finished, hold on to your survey, and I will collect it once everyone is done, and give you your prize.

Thank you coming today, and for taking the time to be a part of our study.

APPENDIX D: POST-EVENT QUESTIONNAIRE



INSTRUCTIONS

- This is NOT a test. All of your answers will be kept confidential. No one, not even your parents or teachers, will ever know what you answered. So, please be honest when you answer the questions.
- Mark only one option per question
- Using the pencil provided, choose the option that is the **closest** to what you think/feel is true for you.

EXAMPLE QUESTION

The following questions ask you about your event experience. Please rate how much you agree or disagree with these statements by colouring in the option that is the closest to what you think/feel is true for you.

While watching the event, I	Stron Stron Disag Agree	gly ree		
1. Was surprised at how fast the cyclists go	0	0	0	0



---- BEGINNING OF SURVEY -----

<i> </i>	ABOUT YOU	
What is your name?		
First name	_ Last name	
What is your date of b	irth?	
Month	Day	_Year

YOUR EXPERIENCE WATCHING THE TRACK CYCLING EVENT

The following questions ask you about your event experience. Please rate how much you agree or disagree with these statements by colouring in the option that is the closest to what you think/feel is true for you.

While watching the event, I		ngly gree		Strongly Agree		
1. Evaluated the performance of the athletes	0	0	0	0	0	
2. Analyzed the performance of the track cyclists	0	0	0	0	0	
3. Evaluated the quality of track cyclists' performance	0	0	0	0	0	
4. Imagined that I am one of the track cyclists	0	0	0	0	0	
5. Fantasized that I am participating in the action	0	0	0	0	0	
6. Pictured myself as one of the track cyclists	0	0	0	0	0	
7. Got so into the action that I lost touch with what is happening around me	0	0	0	0	0	
8. Felt as if time stood still because I was so focused on the action	0	0	0	0	0	
9. Was so "zoned into" the action that I lost track of time	0	0	0	0	0	
10. I experienced inspiration	0	0	0	0	0	
11. Something I saw or experienced inspired me	0	0	0	0	0	
12. I was inspired to do something	0	0	0	0	0	

13. I felt inspired	0	0	0	0	0
YOUR EXPERIENCE WATCHING THE TI	RAC	K C	YCL	ING	ì
EVENT					
Please rate how much you agree or disagree with	thes	e sta	item	ents	by
colouring in the option that is the closest to what	you [·]	thinl	⟨/fe€	is اڃ	
true for you.					
	Stro			Stro	ngly
	Disa	gree		A	gree
14. I felt proud of Team Canada track cycling athletes	0	0	0	0	0
15. I respected Team Canada track cycling athletes	0	0	0	0	0
16. I admired Team Canada track cycling athletes	0	0	0	0	0
17. Watching this event was entertaining	0	0	0	0	0
18. Watching this event was exciting	0	0	0	0	0
19. I had fun watching this event	0	0	0	0	0
20. I enjoyed watching this event	0	0	0	0	0
21. What was your favourite moment f	rom	th	e ev	/en	+?
21. What was your lavourite moment is				CII	
22. What was the most memorable thir	ng ν	OII			
	'6 Y	- Cu			
experienced at the event?					

cycling? Why or w	hy not?			nt to go track
THOUGHTS AND				
For the following state disagree by colouring in				, <u> </u>
think/feel is true for yo		ir that is the	. Closes	t to what you
24 For me to go tue				Aba wa ulai ba
24. For me to go tra	ick cycling	in the comi	ng mon	itns would be
Not fun o	0	0 0	0	Fun
Boring O		0 0	0	Exciting
Bad Our Discourage Description Unenjoyable Our Discourage Description Unen		0 0	0	Good Enjoyable

THOUGHTS AND FEELINGS ABOUT TRACK CYCLING

Please rate how much you agree or disagree with these statements by colouring in the option that is the closest to what you think/feel is true for you.

		Strongly Disagree		Stro A	ngly gree
25. I intend to track cycle at the Mattamy National Cycling Centre in the coming months	0	0	0	0	0
26. I plan on registering for an introductory track cycling program at the Mattamy National Cycling Centre	0	0	0	0	0
27. I plan on joining a competitive cycling program at the Mattamy National Cycling Centre	0	0	0	0	0
28. I will track cycle at the Mattamy National Cycling Centre in the coming months	0	0	0	0	0
29. I want to be a track cyclist for Team Canada one day	0	0	0	0	0
30. I am too busy with other activities to track cycle in the coming months	0	0	0	0	0
31. My friends/family would want me to track cycle in the coming months	0	0	0	0	0
32. My friends will track cycle in the coming months	0	0	0	0	0
33. Someone in my family will track cycle in the coming months	0	0	0	0	0
34. I have friends to track cycle with	0	0	0	0	0
35. I have friends in this class to track cycle with	0	0	0	0	0
36. My parents would be willing to help me get to and from track cycling	0	0	0	0	0
37. My parents have enough money to pay for me to track cycle (to cycle at the velodrome for one year would cost \$350)	0	0	0	0	0
38. I would have the time to track cycle in the coming months	0	0	0	0	0
39. It would be easy for me to get to and from the Mattamy National Cycling Centre	0	0	0	0	0
40. I have the skills and physical ability to try track cycling in the coming months	0	0	0	0	0
41. I am in good enough shape to track cycle	0	0	0	0	0
42. I believe I can become a track cyclist for Team Canada one day	0	0	0	0	0

43. Is there anything that would make you want to go track cycling?
44. Is there anything that is stopping you from going track cycling?

---- END OF SURVEY -------THANK YOU FOR PARTICPATING --