# **Understanding Response to the Vancouver 2010 Olympic Winter Games**

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 examiners.

I understand that my thesis may be made electronically available to the public.

#### Abstract

The present study employed Ajzen's theory of planned behaviour (TPB) to understand the motivational factors associated with peoples' intention to: (a) increase their physical activity levels in response to Vancouver 2010 Olympic Winter Games; (b) watch the event on television; and (c) purchase products or services from companies because they were sponsors of the event. According to the theory, behavioural intentions are determined by individuals' attitude toward performing the behaviour (i.e., their overall evaluation of the behaviour); the subjective norms they associate with the behaviour (i.e., their beliefs about whether most people approve or disapprove of the behaviour); and perceived behavioural control (i.e., the perceived ease or difficulty of performing the behavior). As well, this investigation hypothesized that additional variables could predict intention. In particular, past behaviour and descriptive norms (i.e., people's perceptions about the degree to which other people would perform the behavior) were examined in terms of their ability to explain significant proportions of variance in respondents' intentions above and beyond TPB variables.

Participants were enrolled in first and second year undergraduate classes at the University of Waterloo and the University of Victoria during the Fall 2009 and Winter 2010 term (n = 405). The questionnaire assessed each TPB construct (excluding actual behaviour) using standardized Likert-type scaling procedures suggested by Ajzen (2006). Additionally, the questionnaire assessed gender, geographic proximity to the event (i.e., whether students were enrolled at the University of Waterloo or the University of Victoria), past behaviour, and descriptive norms.

Results from the regression analyses revealed that the TPB-based models accounted for 50.7%, 61.5% and 66.6% of the variance in respondents' intentions to become more active in response to the event, watch the event on television, and purchase products or services from event

sponsors respectively. Attitude toward the behaviour was the only TPB construct to play a prominent role in the prediction of all three responses of interest in the present investigation. The importance of the attitude construct in predicting such a diverse set of intentions suggests that sport consumer behaviour might be best understood in terms of expectancy-value cognitive theories such as the TPB. These theories suggest that people will be motivated to perform a particular behaviour (e.g., watching a sport event on television) when they expect to attain a valued outcome as a result of performing the behaviour (e.g., feelings of national pride).

Descriptive norms and past behaviour explained an additional 29%, 9.3%, and 21% of the variance in respondents' intention to become more active in response to the event, watch the event on television, and patronize event sponsors respectively. Among this sample of undergraduate students, responses to the event appeared to be strongly associated with beliefs about whether or not referent others would perform each behaviour. Additionally, much of what motivates sport consumer behaviour within this segment of the population may be related to notions of tradition and nostalgia. Implications for future research and the design of behaviour change interventions are discussed.

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# **Dedication**

To my wife Melissa and to Olympic athletes past, present, and future:

Thank you for inspiring me to do the best I can each day of my life.

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#### 1. INTRODUCTION

International mega-sport events such as the Olympic Games are thought to have positive social and economic impacts on host regions, as well as attract global television audiences and corporate sponsorships (Getz, 1997, Majid, Chandra, & Joy, 2007; Malfas, Theodoraki, & Houlihan, 2004; Roche, 2000). Indeed, the Olympic Games garner considerable monetary and in-kind investment from both public and private sector organizations. Recently, for example, the federal government of Canada invested \$578 million into staging the 2010 Vancouver Winter Olympic Games ("Vancouver 2010," 2008). In exchange for their substantial investment of tax dollars, governments hope that hosting such events will improve the local economy via tourism and urban development (Crompton & Lee, 2000; Carson & Taylor, 2003; Higham, 1999). Further, governments often feel their financial support can result in increased social cohesion, community pride, volunteerism, and health among citizens (Brown & Massey, 2001; Essex & Chalkley, 1999; Mihalik & Simonetta, 1998; Murphy & Bauman, 2007).

Mass media conglomerates are also key stakeholders in the delivery of the Olympic Games. In particular, television networks pay considerable amounts of money for exclusive rights to cover these events. As Table 1 illustrates, Canadian and US networks have paid increasing amounts of money to televise the Summer and Winter Olympic Games. In return for the purchase of exclusive rights to cover the Olympics, media companies hope to generate heightened ratings of their television broadcasts and thus, make substantial profits from the sale of advertising during telecasts (Coakley & Donnelly, 2004). Networks also use mega-sport events to promote their prime-time television shows.

Table 1: Escalating media rights fees for the Olympics (in US\$ Millions)

<b>Summer Olympics</b>	Canadian Network	US Network
1976 Montreal	1.8	25.0
1980 Moscow	1.044	87.0
1984 Los Angeles	3.0	225.0
1988 Seoul	4.17	300.0
1992 Barcelona	16.5	401.0
1996 Atlanta	22.0	456.0
2000 Sydney	28.0	705.0
2004 Athens	37.0	793.0
2008 Beijing	45.0	894.0
2012 London	63.0	1,002.0
Winter Olympics	Canadian Network	US Network
1976 Innsbruck	0.36	10.0
1980 Lake Placid	0.907	15.5
1984 Sarajevo	1.8	91.5
1988 Calgary	3.4	309.0
1992 Albertville	10.1	243.0
1994 Lillehammer	12.0	300.0
1998 Nagano	17.0	375.0
2002 Salt Lake City	22.0	545.0
2006 Turin	28.0	613.0
2010 Vancouver	90.0	998.0
2014 Sochi	n/a	n/a

Note. Adapted from Coakley and Donnelly (2008, p. 393).

Similarly, the amount of money corporations spend to sponsor the Olympic Games has increased dramatically over the past three decades. In 1984, the cost to sponsor the Olympic Games was \$4 million, up from \$250,000 for the previous Games ("Navigating Olympic Sponsorship," 2008). For the 2008 Beijing Games, the 12 Worldwide Olympic Sponsors provided an estimated \$866 million, which was divided among the IOC, national Olympic committees and international sports federations ("Navigating Olympic Sponsorship"). Unlike philanthropy and donations, Olympic sponsors seek to fulfill commercial objectives in exchange for their support (McCarville & Copeland, 1994). For example, numerous companies have citied reasons such as increased brand awareness and sales for their association with mega-sport events

(Cornwell & Maignon, 1998). Now, more than ever, sponsors demand evidence of a commercial return for their investment of cash or non-cash resources (Crompton, 2004; Lough, Irwin, & Short, 2000).

The extent to which the Olympic Games deliver the social and economic objectives established by funding stakeholders (i.e., government, media, and corporate sponsors) depends, at least in part, on the event's ability to make people take action in the marketplace. Therefore, it is important for sport researchers to develop a better understanding of what motivates people (especially citizens that reside within host nations) to perform a given behaviour that might ultimately lead to the attainment of an event stakeholder's objective. As Pons, Mourali, and Nyeck (2006) noted, "a growing concern shared by researchers and sport marketers is to understand the various motivations that bring individuals to consume sporting events and related goods and services" (p. 276). Public (i.e., host resident) responses of particular interest to Olympic Stakeholders (and the present investigation) will be explored in more detail in the following section.

#### 1.1 Behavioural Responses of Interest to Olympic Stakeholders

Researchers (e.g., Stewart, Smith, & Nicholson, 2003) have suggested that there are likely several public responses to the Olympic Games of potential importance to event stakeholders (i.e., governments, television networks, and corporate sponsors). Some of these behaviours include, but are certainly not limited to, increasing sport/physical activity levels, watching Olympic events on television, traveling to a host city during or after the event, purchasing products/services from corporate sponsors, and/or becoming an event volunteer. Each of these behaviours is discussed here.

## 1.1.1 Sport/Physical Activity Participation

Public sector investment in hosting the Olympic Games is often justified in terms of "trickledown effects". Such effects refer to the event's capacity to increase sport and/or physical activity (PA) levels within host populations (Hindson, Gidlow, & Peebles, 1994; Hogan & Norton, 2000; Murphy & Bauman, 2007). For instance, in a recent address to the House of Commons, England's Olympic Minister suggested that hosting the 2012 Summer Games would be 'the catalyst that inspires people of all ages and all talents to lead more active lives' (Jewell, 2003). London 2012's official Olympic bid document went on to predict that 'grassroots participation would be boosted. An already sports-mad nation would get fitter and healthier' (London 2012, 2005).

To date, however, the existence of trickle-down effects remains largely anecdotal. Indeed, the few studies examining this phenomenon suggest that the effects of the Olympic Games on host populations' activity levels appear only marginal at best (Coalter, 2004, 2007; Murphy & Bauman, 2007). Not to mention, it is still not clear whether such an event will have its greatest influence on increasing participation in Olympic sporting activities or physical activity more generally (Potwarka & McCarville, 2010). The relative lack of understanding of the dynamics surrounding the trickle-down effect emerges from both practical and conceptual challenges. In practical terms, there has been only limited coordination among public health officials in capitalizing on the sport-related excitement created by the Olympic Games. As a result, the potential of the Games is perhaps being squandered and opportunities to induce changes in citizens' physical activity levels are being lost (Murphy & Bauman; Soteriades, Haddjichristodoulou, Kremastinou, Chelvatzoglou, Minogiannis, & Falagas, 2006). In conceptual terms, existing research on the trickle-down effect is not underpinned by any explanatory theory or model of health behaviour change (Murphy & Bauman). Therefore, the

application of more theory-driven approaches to behaviour change might better demonstrate the Games' capacity to alter activity levels among host residents (Potwarka & McCarville, 2010).

## 1.1.2 Television Viewership/Spectatorship

Watching televised sport events is arguably one of the most popular forms of leisure among North American adults (Mason, 1999; Whannel, 1997). Not surprisingly then, television networks attempt to include the Olympic Games in their programming because they believe the event will increase their profits from the sale of advertising (Coakley & Donnelly, 2004; Turner & Shilbury, 1997). In fact, the Olympic Games have become the biggest world television events in human history (Coakley & Donnelly). Recently, it was reported that in August 2008, over 24 million Canadian viewers watched as the four networks of CBC offered a record 2,400 hours of Summer Olympic coverage from Beijing (CBC Sports, 2008). This CBC survey revealed that 77 per cent of Canadians watched at least some portion of the Beijing Summer Olympic Games on television, with the average person taking in 13.76 hours from the opening to closing ceremonies.

According to a poll conducted by Harris Interactive, television coverage of the Turino 2006 Olympic Winter Games was most popular among middle-aged adults in the U.S. The survey found that middle-aged (those aged 35-64) and older adults (those aged 55 and over) were more likely than younger adults (those aged 18 to 34) to say they intended to watch televised coverage of the 2006 Winter Olympics (The Harris Poll, #15, February 13, 2006). The less substantial young adult television audience that appears to be tuning into the Olympics was also noted by the IOC in their official marketing report from the Athens 2004 Summer Games. Their report stated that "there is an opportunity to build on the Olympic Games appeal amongst 16-34 year olds through prime time broadcasts and innovative broadcast techniques" (IOC, 2004). This statement provided much of the impetus behind the decision to explore the sport consumer

motivations among samples of Canadian undergraduate students (i.e., those aged approximately 17 to 22) in the present investigation. This younger audience represents an important segment of the population for many Olympic Stakeholders who wish to elicit desired behavioural responses to the Games (personal communication, David Bedford, Executive Director of Marketing and Communications for the Canadian Olympic Committee, August 28, 2009).

Majid, Chandra, and Joy (2007) also noted that there appears to be increased global appeal of the Winter Olympic Games. According to the authors, there is now heavy television viewership of this event in non-traditional markets (e.g., Mexico, Brazil, South Africa). Majid et al. identified three factors that might help explain this trend. First, the authors argued that the values underpinning the Olympic Games such as equality and togetherness create strong brand associations among global audiences. Second, they explained that certain experiential aspects associated with the event (e.g., seeing the unknown or witnessing an unexpected outcome) might help to draw faithful viewers. Third, the authors suggested that the Winter Olympics provide global television audiences with inspiring heroes (i.e., athletes) who triumph over adversity. Moreover, networks that operate in hosting nations are likely equally as concerned with attracting a solid base of domestic viewership.

In addition to television audiences, Olympic stakeholders (i.e., governments) hope the event will attract millions of dollars in foreign and domestic ticket sales. For instance, 6.8 million tickets ranging in price from \$12 to \$653 were sold for the recent Bejiing Olympics ("Going, going, gone," 2008). These figures are especially important for Government officials who believe that the influx of foreign and domestic spectators into the host region will have positive implications for the local economy (Crompton & Lee, 2000). Despite claims that the Olympics will increase a television network's profits or improve a host city's economy, relatively few

studies have examined factors that might actually compel an individual to skip work to watch the event, or travel thousands of miles to witness it in person. According to Pons et al., "unraveling the motivations that bring individuals in front of their TV or to stadiums is vital to the industry and represents a growing concern for both researchers and practitioners" (p. 277).

#### 1.1.3 Post-Event Tourism

As mentioned, the commitment of public money to host the Olympics is often justified by the assumption that such an event will improve the local economy via increased tourism (Crompton & Lee, 2000). Consequently, politicians and researchers are concerned with the degree to which staging a mega-sport event can enhance the destination image of a host region, and subsequently, stimulate post-event domestic and international travel behaviour (Chalip, Green, & Hill, 2003; Kaplandiou, 2007; Kaplanidou & Gibson, 2010; Gibson, Qi, & Zhang, 2008). As Gibson et al. stated.

The debate over the benefits of hosting mega sports events continues to evolve with many beginning to doubt the long-term economic and tourism benefits touted by politicians and organizing committees. What we do know is that destination image is linked to intent to travel and so, with the strategic leveraging of images that are shown to the world in conjunction with the event (pre, during, and after), the level of awareness of a particular city and/or country can be raised, which may in turn provide the impetus to visit at some point in the future, or at the very least be used to educate the world about a particular locale. (p. 446)

However, it is reasonable to speculate that, in addition to destination image, other variables might also affect people's decisions/intentions to visit a region after it has played host to a megasport event. For example, Kaplanidou and Gibson (2010) found that attitude toward event participation (i.e., the degree to which respondents perceived the event to be pleasant, worthwhile, and entertaining) mediated the impact of satisfaction with the event and destination image on respondents' intention to return a subsequent Senior Games event. Moreover, the authors speculated that past behaviour (i.e., participation in a previous Senior Games event)

would play a role in predicting intention to attend the following year's event. However, this construct did not emerge as a significant predictor of intention in this regard.

## 1.1.4 Sponsorship Patronage

For many corporations, the ultimate goal of sponsoring mega-sport events such as the Olympic Games is to increase sales (IEG, 2003; Cornwell & Maignon, 1998; Crompton, 1999). However, researchers have tended to rely on more distal (i.e., intermediate) measures of patronage when attempting to evaluate sponsorship effectiveness in the context of athletic events (Crompton, 2004). Specifically, Walliser (2003) noted that the vast majority of sponsorship valuation research has relied on measures of brand awareness (i.e., brand name recall and recognition tests), with a limited number looking at image constructs, and only a few exploring actual purchase intentions.

The use of intermediate measures of sponsorship effectiveness (e.g., attitudes, awareness, and image constructs) may be due to the challenges researchers encounter when trying to isolate, and determine the direct influence of the sponsorship on consumers' actual purchase behaviour. Recently, O' Reilly et al. (2008) argued that "the true long-term impact of a sponsorship on sales, or intent to purchase, however, is difficult to evaluate, and thus, often questioned" (p. 393). For example, a person's decision to purchase a product/service from a corporate sponsor may be unrelated to the company's association with a mega-sport event, but instead, may result from some other simultaneous or previously used communication effort. Nevertheless, researchers (Crompton, 2004; O'Reilly et al.) have called for models of sponsorship patronage that focus on more proximal determinants of behaviour (i.e., measures of behavioural intention, actual purchase behaviour).

Indeed, sponsors of Olympic-based properties hope their association will have a considerable impact on the host resident purchase decisions. The power of sponsorship to alter

purchase behaviour has been documented in other sport event contexts. For instance, results from a national probability sample of more than 1000 NASCAR fans indicated that nearly three-fourths (71%) of the respondents said that they 'almost always' or 'frequently' choose brands of NASCAR sponsors over competitors simply because of the sponsorship. Moreover, 42% said that they switched brands after a manufacturer became a sponsor (IEG Sponsorship Report, 1994).

#### 1.1.5 Event Volunteerism

Many elected officials believe that staging a mega-sport event can improve social cohesion/capital among host residents via increased volunteer opportunities (Brown & Massey, 2001; Misener & Mason, 2006). Baum and Lockstone (2007) noted that,

within the context of mega-sporting events, the issue of employment creation is an important motivator for host cities and features high on the political justification agenda for bids to host events. At the same time, the most significant working contribution to major events in sports, as in other areas, is provided by the very large numbers of volunteers who undertake tasks across the range of opportunities afforded by such events. (p. 27).

According to Baum and Lockstone, organizing committees have reported between 40,000 to 60,000 volunteers for recent mega-sport events but added that, despite these substantial numbers, relatively little is known about what motivates these thousands of people to volunteer at such events.

## 1.2 <u>Modeling Public Response to the Olympic Games</u>

The motivational processes involved in host resident's decisions to perform behaviours of interest to Olympic stakeholders (e.g., sport/physical activity participation, television viewership/spectatorship, post-event travel to host destinations, sponsorship patronage, and event volunteerism) have received little attention from the research community. In keeping with this

notion, Trail, Fink, and Anderson (2003) stated that because the competition for the sport consumer dollar has increased tremendously in recent years,

a better understanding of why sport spectators and fans consume media and merchandise would benefit sport marketers and managers greatly. To date, no empirically tested model has proposed explanatory and predictive relationships among fan/spectator motives and behavior variables. In addition, no psychometrically sound scales exist to measure these cognitive, affective, and behavioral constructs. (p. 8)

Since this statement from Trail et al., at least one study has attempted to develop a model to explain consumer responses to sport-events. Specifically, Pons et al. (2006) developed a scale to capture the various facets that might comprise a consumer's orientation toward a sporting event. The authors reported that consumer orientations toward sporting events (i.e., people's inclination to engage in predictable forms of behaviour to consume sport-events) consisted of three dimensions: (i) sensation seeking (i.e., the tendency for individuals to consume a sport event in order to experience euphoria and excitement); (ii) cognition seeking (i.e., the tendency for individuals to consume a sport-event in order to increase their knowledge about the game/contest); and (iii) socialization seeking (i.e., the tendency for people to consume a sport-event in order to interact with others and feel part of a group).

Although Pons et al.'s (2006) investigation represents a needed shift toward more empirically based models of sport consumer behaviour (e.g., Getz, 1997; Trail et al., 2003), their model was designed only to predict television viewership and spectatorship responses to sport-events. However, as previously illustrated, there can be many other behavioural responses to sport-events than just watching the event itself (e.g., sport/physical activity participation, post-event travel to host destinations, sponsorship patronage, and volunteerism). According to Stewart et al. (2003), it is this diversity that underpins the need "to construct models of sport consumption that make sense of disparate behavior" (p. 203).

The present study employed the theory of planned behaviour (TPB) (c.f., Ajzen, 1991; Fishbein & Ajzen, 2010) to help understand the motivational factors associated with three behavioural responses to Vancouver 2010 Winter Olympic Games. Specifically, the present investigation used the TPB to help gain a better understanding of what motivated Canadian undergraduate students to: (a) watch the event on television; (b) purchase products/services from companies because they were sponsors of the event, and (c) become more physically active in response to the event. As previously outlined, there can be a variety of different responses to the event (i.e., behaviours) of interest to Olympic stakeholders. However, exploring the motivational antecedents of the three behaviours of interest in the present investigation were identified as top research priorities for Olympic Marketing officials as Canada prepared to host the Vancouver 2010 Winter Olympics (personal communication, David Bedford, Executive Director of Marketing and communications for the Canadian Olympic Committee, May 11, 2008).

## 1.3 Overview of The Theories of Reasoned Action and Planned Behavior

Conner and Armitage (1998) stated that the theory of reasoned action (TRA) and the TPB are "widely applied expectancy-value models of attitude-behavior relationships" (p. 1429). One of the core assumptions underlying such models is that much of human behaviour is goal-directed (Ajzen & Madden, 1988; Sheppard & Taylor, 1999). In particular, expectancy-value cognitive theories such as the TRA/TPB view behaviour, behavioural intentions, and/or attitudes as a function of (i) *expectancy* (or belief) that an object possesses a particular attribute or that a behaviour will have a particular consequence; and (ii) *evaluation* of the degree of affect, positive or negative, toward an attribute or behavioural outcome (Rayburn & Palmgreen, 1984). Simply put, these theories suggest that people will be motivated to perform a particular behaviour (e.g.,

jogging) when they expect to attain a valued outcome as a result of performing the behaviour (e.g., weight loss).

Although there have been several expectancy-value cognitive theories developed within the field social psychology, (e.g., expectancy-value of achievement motivation, behavioural decision theory, subjective expected utility theory), perhaps the most empirically supported models are Fishbein and Ajzen's (1975) TRA and Ajzen's (1985, 1991a) TPB. The TPB is considered a theoretical extension of the previous TRA, rather than its own independent theory (Montano & Kasprzyk, 2002). According to Trafimow (2007), the TRA and TPB have been the most successful models for predicting complex social behaviours in the history of social psychology. Indeed, recent meta-analytic reviews provide strong support for the predictive validity of the TRA/TPB (Godin & Kok, 1996; Sutton, 1998). For example, Godin and Kok found that, on average, the constructs of the TPB explained 41% of the variance in behavioural intentions and 34% of the variance in actual behaviours for a wide range of health-related behaviours. Similarly, Sutton's meta-analysis of studies using the TRA or TPB in s variety of behavioural contexts found that the models explained an average between 40% and 50% of the variance in intention, and between 19% and 38% of the variance in behaviour.

The TRA/TPB can also be thought of as deliberative processing models because they assume individuals make behavioural decisions based on careful consideration of available information (Conner & Armitage, 1998). The idea of behaviour being a function of available information or a belief that performing an action will lead to a particular consequence is by no means unique to the TRA/TPB (Ajzen & Albarracín, 2007). Rather, these propositions are consistent with several other social psychological models of human behaviour such as the health

belief model (Rosenstock, 1974; Strecher, Champion, & Rosenstock, 1997) and Bandura's (1986, 1997) social cognitive theory.

Within the health belief model for example, behaviour change is thought to occur when individuals value an end outcome associated with a behaviour (e.g., prevention of disease or obesity), and expect that performing a specific health action (e.g., engaging in strenuous bouts of PA) will lead to the attainment of that desired health outcome (Janz, Champion, & Strecher, 2002). In addition, the health belief model posits that for behaviour change to occur, people need cues to action and information about how to perform the behaviour in question (Janz et al.). Similarly, Bandura's well known social cognitive theory suggests that much human behaviour is learned by observing others and witnessing the degree to which an action is reinforced or punished. Much like the TRA/TPB, social cognitive theory also contends that people will move towards behavioural goals by anticipating desired outcomes, and developing strategies and/or skills necessary to take action (Bandura, 1986).

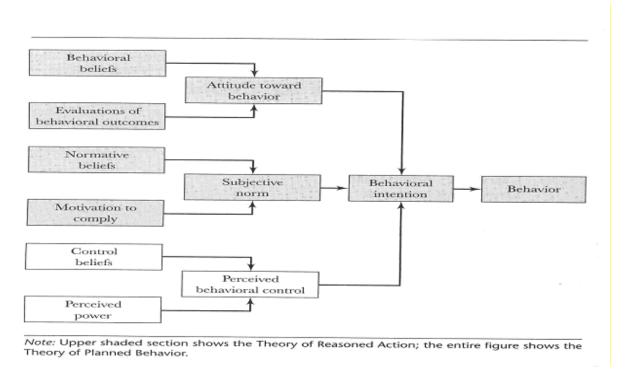
Montano and Kasprzyk (2002) noted that the TRA/TPB "focus on theoretical constructs concerned with individual motivational factors as determinants of the likelihood of performing a specific behavior" (p. 67). Central to each theory is the notion that a person's behavioural intention (i.e., a person's perceived likelihood of performing a behaviour) is the most important predictor of whether or not he or she will perform a particular action (Ajzen, 1991a; Fishbein & Ajzen, 1975). Within Fishbein and Ajzen's original TRA, behavioural intentions are determined by individuals' attitude toward performing the behaviour (i.e., their overall evaluation of the behaviour) and the subjective norms they associate with the behaviour (i.e., their beliefs about whether most people approve or disapprove of the behaviour).

Furthermore, the TRA posits that people's attitude toward a behaviour is a function of their beliefs about outcomes that may result from performing the behaviour (i.e., behavioural beliefs), weighted by evaluations of those outcomes (Fishbein & Ajzen, 1975; Montano & Kasprzyk, 2002). For example, a person who believes performing a behaviour will result in a valued outcome will likely form a positive overall evaluation of the behaviour, and intend to perform the action. The TRA also suggests that a subjective norm one associates with a behaviour is a consequence of normative beliefs about whether important referent individuals approve or disapprove of performing the behaviour, weighted by an individual's motivation to comply with these referents. In other words, individuals might be more likely to form a behavioural intention to engage in an activity when they believe that certain people (e.g., friends, close relatives, or co-workers) would approve of performing the behaviour, and when they are motivated to meet the expectations of these people.

More recently, the TPB was constructed by Ajzen (1985, 1991a) in response to a key limitation of the TRA. The TRA appeared to be only useful in predicting behaviours when individuals possessed a high degree of volitional control over their actions (Ajzen, 1991a). However, behaviours requiring specific skills, resources, or opportunities not freely available to individuals are likely to be poorly predicted by the TRA (Fishbein, 1993). Essentially, the TRA was unable to capture the degree to which some individuals might be highly motivated to perform a certain behaviour (e.g., watch a live sporting event) but never actually do so because of an external environmental condition (e.g., time constraints imposed by a demanding job) they perceived to be outside of their own control (Ajzen, 1991a; Fishbein).

Thus, as is depicted in Figure 1, Ajzen (1985, 1991a) added the construct of perceived behavioural control (i.e., the perceived ease or difficulty of performing the behaviour) to the TRA in an effort to account for factors that exist outside of an individual, which may affect behavioural intentions and subsequent behaviours (c.f., Ajzen, 1985; Ajzen 1991a; Ajzen & Madden, 1986). According to his revised TPB, how much control people perceive to have over a particular behaviour is determined by their beliefs regarding "the presence or absence of facilitators and barriers to behavioral performance, weighted by the perceived power or impact of each factor to facilitate or inhibit the behavior" (Montano & Kasprzyk, 2002, p. 75). Here again, the notion of perceived behavioural control is not exclusive to the TPB. As many researchers (e.g., Ajzen, 1991a; Armitage & Conner, 1998) have noted, the construct is aligned with Bandura's (1972, 1982, 1997) concept of self-efficacy, which refers to degree of confidence people perceive to have in their ability to perform a behaviour (including overcoming barriers associated with performing the behaviour). Each component of the TPB and how they relate to one another will be explored in more detail in Chapter Two.

Figure 1: The Theory of Reasoned Action and the Theory of Planned Behavior



Source: Montano and Kasprzyk (2002, p. 68)

The TPB is open to the inclusion of additional predictors that may help explain a particular behaviour of interest (Ajzen, 1991). For instance, researchers (e.g., Ajzen; Ajzen & Albarracín, 2007; Conner & Armitage, 1998, Norman et al., 2005; Sheeran & Orbell, 1999) have posited that background factors (e.g., age, gender, income, media exposure), past behaviour, and descriptive norms (i.e., people's perceptions about the degree to which other people perform the behaviour) can explain significant proportions of the variance in intentions and behaviour over and above TPB constructs. Each of these proposed extensions to the model, and their application to understanding the behaviour of sport consumers will also be described in more detail in the following chapter.

To date, the TPB has been used to predict a variety of different human behaviours including leisure-time sedentary behaviours such as watching television and socializing with friends (c.f., Hagger, Chatzisarantis, & Biddle, 2002; Rhodes & Dean, 2009). Despite recent calls in the sport marketing literature (e.g., Kaplanidou & Gibson, 2010; Shonk & Chelladurai, 2008), the TPB has not been extensively applied in the context of sport event consumerism. As well, the model has yet to be employed to predict people's responses to the Olympic Games in particular. Table 2 provides an overview of the few investigations (published in scholarly journals or conference proceedings) that have applied the TPB in sport consumer domains.

**Table 2: Applications of the Theory of Planned Behaviour in Sport Consumer Domains** 

Study	Sport Consumer Domain	Main Findings/Conclusions
Cunningham and Kwon (2003)	Attendance	Attitude toward the behaviour, subjective norm, and perceived behavioural control accounted for 64% of the variance in intentions to attend a University varsity hockey game.
		Subjective norm and perceived behavioural control accounted for the most variance in intentions.
		Past behaviour should be included in future TPB models predicting spectatorship.
Cuskelly, Auld, Harrington, and Coleman (2004)	Volunteerism	Attitudinal beliefs about volunteering, subjective norms, and perceived behavioural control predicted the behavioural dependability of sportevent volunteers.
Kaplanidou and Vogt (2009)	Active Sport Event Tourism	Attitude toward participating in a cycling event, past experience with the event, satisfaction with the event experience, and perceptions of the destination as a "bike place" were significant predictors of intentions to re-attend the event the following year.
		Subjective norm and perceived behavioural control did not emerge as significant predictors in the TPB model.
Kaplanidou and Gibson (2010)	Active Sport Event Tourism	Attitudes toward event participation mediated the impact of satisfaction and destination image on intention to return the next year's Senior Games.
		Past participation (behaviour) was not a significant predictor of intentions.

The TPB might greatly improve researchers' ability to predict a variety of behaviours of interest to sport marketers. Indeed, this theory can offer scholars more parsimonious explanations of specific behaviours than many of the contemporary sport consumer motivation models (c.f., Conner & Armitage, 1998; Crompton & McKay, 1997; Funk, Ridinger, & Moorman, 2003; McDonald et al., 2002; Pons et al. 2006; Wann, 1995). Some of these more cumbersome models attempt to predict fan behaviours using several generalized attitudinal and dispositional constructs (Funk et al., 2003; McDonald et al.). Instead, the TPB allows sport researchers to identify a small set of causal factors (i.e., attitude towards the behaviour, subjective norms, and perceived behavioural control) that should permit the explanation and prediction of almost any behaviour of interest, and which is performed by the specific population under investigation.

That being said, it is difficult to generalize the results of a TPB investigation beyond the sample population of interest to the researcher (Ajzen, 2002). Thus, it is important for researchers using the TPB to identify (and separate) the most salient segments of a population with respect to performing the behaviour in specific question. Ajzen noted that different segments of a population will have different beliefs about the consequences associated with performing the particular behaviour, perceive different barriers to performing it, and identify different referent others who might approve or disapprove of the behaviour. For instance, undergraduate students might be more likely to believe watching the Vancouver 2010 Olympic Games will allow them to improve social ties with friends than might older adults.

Undergraduate students might be less likely to have access to cable television sets required to watch the Vancouver 2010 Olympic Winter Games than might middle-aged adults.

Undergraduate students might be less likely to face disapproval for watching the Olympic Games from a spouse compared to middle-aged adults. Consequently, the TPB requires extensive pre-

test work to elicit behavioural, normative, and control-based beliefs that are relevant to a particular cohort at a particular point in time. The process by which these beliefs were elicited from the sample population in the present investigation is described in Chapter 3.

Moreover, results from TPB analyses can be used to help guide behaviour change interventions and service strategies (Ajzen, 2002; Montano & Kasprzyk, 2002). For example, based on the results of a TPB-based study, a sport marketer who wishes to increase television viewership of an event among young adults aged 17 to 22 can design effective communication efforts targeting their attitudes and beliefs about watching the event on television (e.g., that watching the event will, in some way, enhance their social relationships). As well, the information gained from applying the TPB in such a way can influence the development of promotional programs or services aimed at removing barriers that might inhibit these individuals from performing the behaviour in question (e.g., not having access to a cable television sets).

## 1.4 <u>Study Purpose and Hypotheses</u>

In summary, Olympic organizers hope that staging the event will deliver desired social and economic benefits to public and private stakeholders (e.g., Waitt, 2001). In exchange for the purchase of exclusive rights to cover the Olympics, media companies hope to generate heightened ratings of their television broadcasts and thus, make substantial profits from the sale of advertising during telecasts (Coakley & Donnelly, 2004). Similarly, corporate sponsors hope that their payment of rights and association fees translate into increased sales of their products/services (Crompton, 1999; Cornwell & Maignon, 1998; McCarville & Copeland, 1996). Moreover, government officials hope that their investment of public money into the staging Games will help facilitate increased levels of sport/physical activity participation within host nations (Murphy & Bauman, 2007).

To date, relatively little is known about potential antecedents (motivational processes) that might be associated with performing many of the behaviours of interest to Olympic Stakeholders (Trail et al., 2003). As well, few researchers have examined peoples' responses to mega-sport events using empirically validated explanatory theories of behaviour such as the TPB (Trail et al.). Thus, the purpose of this investigation was to develop a better understanding of why host residents, particularly Canadian undergraduate students might be motivated (or not motivated) to perform certain behaviours in response to the staging of the Vancouver 2010 Olympic Winter Games. To achieve this purpose, the present investigation employed the use of the TPB. Specifically, the TPB was used as a framework to understand selected Canadian undergraduate students' intentions to:

- i) increase their physical activity levels in response to the event.
- ii) watch the event on television.
- iii) purchase products or services from companies because they were sponsors of the event.

It was expected that three constructs which comprise the TPB (i.e., attitude toward the behaviour, subjective norms, and perceived behavioural control) would combine to explain significant proportions of the variance in each of the behavioural intentions under investigation in the current study. As per the TPB, it was also expected that behavioural, normative, and control belief measures would emerge as a significant predictors of attitude toward the behaviour, subjective norm, and perceived behavioural control (within each behavioural domain).

Moreover, this investigation hypothesized that additional variables could predict respondents' intentions to increase their physical activity levels, watch the event on television, and purchase products/services from event sponsors. In particular, the current study speculated that past behaviour and descriptive norms (i.e., people's perceptions about the degree to which

other people actually perform the particular behaviour in question) would explain significant proportions of variance in respondents' intentions over and above TPB-based constructs.

Lastly, it was anticipated that background factors (i.e., gender and geographic proximity to the event) would significantly influence behavioural, normative, and control belief measures included in the TPB. Each of these variables and their relationships with one another will be discussed in more detail in the following chapter.

#### 2. LITERATURE REVIEW

#### 2.1 Outline

This chapter is divided into four main sections. First, the discussion will trace the conceptual development of the TPB within the field of social psychology. Second, literature about each of the theory's constructs and how they relate to one another will be reviewed in detail. As well, this part of the discussion will describe investigations that have used the TPB (or related constructs) to predict the behaviour of sport consumers. Third, factors proposed as extensions/additions to the TPB will be outlined, and their potential role in explaining consumer responses to sport events is described. Fourth, some of the conceptual and methodological limitations of the TPB are identified.

2.2 Conceptual Development of the Theories of Reasoned Action and Planned Behavior
Fishbein's (1967) work exploring the psychosocial processes by which attitudes cause behaviour
was instrumental to the development of the TRA and subsequent TPB. Prior to his research,
psychological investigations in the 1950s and 1960s had mainly focused on demonstrating how
more general dispositions such as self-esteem, prejudice, internal-external locus of control served
as overarching causal agents for many different types of social behaviours (Ajzen & Albarracín,
2007). However, the TRA emerged primarily in response to a failure of these global dispositions
to predict social behaviours (Ajzen, 1988; Ajzen & Albarracín).

For example, reviews of the literature (e.g., Baumesiter, Campbell, Krueger, & Vohs, 2003) have reported a lack of evidence in support of associations between generalized measures of self-esteem and problem behaviours (e.g., smoking, drinking, and sexual activity) among adolescents. Ajzen and Albarracín (2007) argued that although it is important for people to feel

good about themselves, researchers should recognize that this construct "does little to advance our understanding of the determinants of human behaviour" (p. 4). Likewise, global dispositions associated with racial, ethnic, and gender prejudices have been found to be unsuccessful in explaining certain discriminatory behaviours (c.f., Schütz & Six, 1996; Talaska, Fiske, & Chaiken, 2004). Once again, Azjen and Albrracín noted that racial, ethnic, and gender prejudice are worthy and important concepts to explore, but they do not appear to account for much variance in any particular behaviour.

Fishbein (1967) questioned the salience of global dispositions in predicting human behaviours (Ajzen & Albarracín, 2007). For instance, Fishbein (1967; Fishbein & Ajzen, 1972; Fishbein & Ajzen, 1975) argued that instead of examining global dispositions, researchers should focus their attention on the specific behaviour of interest and attempt to identify its determinants. Specifically, Fishbein advocated for a movement away from assessing attitudes toward objects, groups, institutions, or policies to behaviour specific dispositions. As previously described, these behaviour specific dispositions included intentions to perform the behaviour, attitudes toward the behaviour, subjective norms regarding the behaviour, and perceptions of control over performing the behaviour (Fishbein & Ajzen, 1975; Ajzen 1991a).

Nevertheless, it is important to note that the TRA and TPB do not completely ignore the role global constructs might play in predicting a variety of social behaviours. As Ajzen and Albraracin (2007) point out, although the TRA/TPB focus on specific behaviours of interest, they "do not deny the importance of global dispositions, demographic factors, or other kinds of variables often considered in social psychology and related disciplines" (p. 7). In fact, recent theoretical extensions to the TPB recognize the importance of "background variables" (e.g., global attitudes, personality traits, self-esteem, age, gender, income, religion) that can indirectly

influence behaviour through their effect on behavioural, normative, and control beliefs about performing the action in question (Ajzen & Albraracin). These background factors and other theoretical extensions to the TRA/TPB will be discussed in more detail in a later section of the chapter.

According to Ajzen and Albarracín (2007) a shift from global to behaviour specific dispositions constituted "a revolution in theorizing of social scientists who for decades had relied almost exclusively on global dispositions in their attempts to explain social behavior" (p. 7). Additionally, the authors argued that Fishbein and Ajzen's insights "have yet to reach many investigators as is evidenced by the continuing reliance on global dispositions in diverse areas of research" (p. 7). Indeed, a reliance on global dispositions to explain behaviour can be observed in much of the contemporary sport consumer literature. For example, researchers attempting to understand individuals' motivations to attend live sporting events or watch them on television have often utilized constructs such as self-esteem (e.g., McDonald et al., 2002; Wann, 1995), personality type (Funk & James, 2004), or other global dispositional needs such as escape, affiliation, and achievement (Trail & James, 2001).

As well, numerous scholars (e.g., Dees, Bennett, & Tsuji, 2007, Funk & James, 2001; Mahony & Moorman, 1999; Pons et al, 2006) have assessed individuals' attitudes toward general sport objects such as a teams, events, or sports when trying to explain behaviours interest to sport marketers (e.g., game/event attendance, television viewership, sponsorship patronage, etc). Recently however, Funk, Ridinger, and Moorman (2003) stated that the use of these attitudinal constructs have revealed ambiguous results within the sport consumer literature. These results led the authors to question the validity of these constructs in deciphering the motivations of sport consumers.

Therefore, it may be important for sport researchers who wish to predict specific behaviours to make clear distinctions between attitude toward a sport object (e.g., attitude toward the Olympic Games), and attitude toward a behaviour with respect to that object (e.g., attitudes toward watching the Olympic Games on television) (Ajzen, 1991a; Fishbein, 1967; Fishbein & Ajzen, 1975). According to TRA/TPB, attitudes and dispositions regarding specific behaviours are much better predictors of intentions and actual behaviours than more global constructs (Ajzen, 1988, 1991a; Fishbein & Ajzen). For instance, one might hold a positive attitude toward the general sport object of the Olympic Games (i.e., hold a favourable overall evaluation of the event), yet never actually watch the Olympic Games on television because of some inhibiting factor (e.g., lack of discretionary time), or because he/she feels their peers or family members would disapprove of the behaviour.

## 2.3 Core Constructs of the Theory of Planned Behavior

As noted in Chapter 1, the TPB assumes people's *intentions* to perform behaviours can be predicted with a great deal of accuracy from three main constructs, which include *attitude* toward the behaviour, subjective norm, and perceived behavioural control (Ajzen, 1991a). Ajzen stated that these intentions, together with perceptions of behavioural control, account for considerable variance in actual behaviours. Further, the model proposes sets of antecedents for the constructs of attitude toward behaviour (i.e., behavioural belief and evaluation of behaviour outcomes), subjective norms (i.e., normative beliefs and motivation to comply) and perceived behavioural control (i.e., control belief and perceived power). Table 3 provides summary definitions of each of the aforementioned constructs. The following discussion will review literature pertaining to each construct/variable of the TPB and how they relate to one another as depicted in

Figure 1. As well, studies using components of the model or related constructs to understand the behaviour of sport consumers are described below. While the present study focuses on only three such behaviours (i.e., participating in sport/physical activities, watching an event on television, and purchasing products/services from event sponsors), this chapter will provide a comprehensive review of the literature relating to these, as well as other possible public responses to sport events including live attendance, event-based travel, and volunteerism. Several other possible responses to sports events are reviewed here to demonstrate the potential versatility of the application of the TPB in sport consumer literature. Researchers and sport marketing practitioners must be aware that the TPB can and should be applied to understand sport consumer responses that are of most relevance to the target population of interest. In the present investigation, it was deemed that sport/physical activity participation, sponsorship patronage, and television viewership responses were of most relevance to the samples of Canadian undergraduate students being examined. More about the rationale for selecting the three behaviours of interest in the current investigation will be offered in Chapter 3.

**Table 3: Definitions of Theory of Planned Behavior Constructs** 

Construct	Definition
Behavioural Intention	Perceived likelihood of performing a behaviour
Attitude toward the behaviour	
Direct measure:	Overall evaluation of the behaviour
Determinant measures:	
Behavioural belief	Belief that performance is associated with
	certain outcomes
Evaluation	Value attached to a behavioural outcome
Evaluation	value attached to a behavioural outcome
Subjective Norm	
Direct Measure:	Belief about whether most people approve or
	disapprove of the behaviour
Determinant Measures:	
Normative belief	Belief about whether each referent approves or
	disapproves of the behaviour
Mativation to comply	Motivation to do what each referent thinks
Motivation to comply	Motivation to do what each referent timiks
Perceived Behavioural Control	
Direct measure:	Overall measure of perceived control over the
	behaviour
Determinant measures:	
Control belief	Perceived likelihood of occurrence of each
	facilitating or constraining condition
Perceived power	Perceived effect of each condition in making
	behavioural performance difficult or easy
	Source: Montano & Kasprzyk (2002, p. 69)

Before beginning this discussion however, it is important to note that the TPB is considered to be a "complete" theory of behaviour (Azjen, 1991a; Ajzen & Albarracín, 2007; Conner &

Armitage, 1998). In other words, the model holds that any other potential influences on behaviour (e.g., personality, media exposure) have their impact via influencing its components (Conner & Armitage).

#### 2.3.1 Attitude Toward Behaviour

The work of social psychologists dating as far back as Thurstone (1928), Allport (1935)

Festinger (1957), and Heider (1958) has suggested that attitudes may not be directly observed, however, they can be inferred from people's responses to a certain stimuli (i.e., a person, object, or issue). These early studies also argued that individuals' attitudes might be useful predicators of subsequent behaviours (Ajzen & Fishbein, 1977; Fiske & Taylor, 1992; Funk, Haugtvedt, & Howard, 2000; O'Keefe, 1990). Based on this previous research, Petty and Cacioppo (1991) defined the term "attitude", as a general and enduring positive or negative feeling about some person, object, or issue that has the ability to direct behaviours. Moreover, other social psychologists noted that attitudes might also represent learned predispositions toward a certain object (Fishbein & Ajzen, 1975), or reflect an important part of one's personality (Eagly & Chaiken, 1993, 1995). As it relates to the TPB, attitude toward behaviour refers to "the degree to which a person has favourable or unfavourable evaluation of the behaviour" (Ajzen, 1991a, p. 188).

Indeed, attitudes have long been regarded as one of the most salient predictors of people's behavioural responses to stimuli (Fishbein & Ajzen, 1975). However, results from empirical investigations prior to the 1970s had revealed somewhat abysmal results regarding the attitude-behaviour relationship (e.g., Corey, 1937; LaPiere, 1934, Wicker, 1969). As researchers (e.g., Funk et al., 2000; Jaccord & Blaton, 2007) have suggested, such findings led scholars to explore the conditions under which attitudes were more or less likely to influence behaviours. Perhaps two of the most influential researchers within this area of inquiry were Martin Fishbein

and Icek Ajzen who, as mentioned, would eventually collaborate to develop the TRA and TPB (Jaccord & Blaton).

Ajzen and Fishbein would eventually propose the *principal of correspondence*, which suggested that a stronger attitude-behaviour association could be achieved by increasing specificity in the measures of attitudes and behaviours (Trafimo, 2007). Specifically, Ajzen and Fishbein (1977) concluded that attitude measures contributed to predicting behaviour provided that four elements were considered: (1) the *action* performed (e.g., watching an athletic event); (2) the *target* at which the action was preformed (e.g., watching a specific team or athlete participate in the event); (3) the *context* in which the action took place (e.g., watching a specific team or athlete compete on television); and (4) the *time* when the action was performed (e.g., watching a specific team or athlete compete on TV Sunday afternoon). Therefore, an assessment of ones' attitude toward a behaviour (as measured in relation the action, target, context, and time associated with the behaviour) was included in the TRA/TPB. According to Ajzen and Albarracín (2007), when researchers in the 1970s began to ensure attitudes and behaviours corresponded in this manner, they started reporting correlations substantially higher than the (r = 3) barrier that had existed to that point in time.

2.3.1.1 Attitude toward behaviour, behavioural beliefs, and evaluation of outcomes

Within the TPB, people's attitude toward a behaviour (i.e., their overall evaluation of the behaviour as "good" or "bad") is determined by behavioural beliefs and evaluation of behavioural outcomes. As mentioned, the TPB was founded on the principles of Fishbein and Ajzen's (1975) expectancy-value model of attitude formation, which suggests that attitudes develop from the beliefs people hold about the object of attitude (e.g., a behaviour, person, issue, or event). Moreover, Fishbein and Ajzen argued that individuals form beliefs about an object of

attitude by associating it with certain attributes. In the case of attitude toward behaviour for example, each belief links the behaviour to a particular outcome (Ajzen, 1991a). As Ajzen noted, because outcomes that come to be linked to behaviours are already evaluated positively or negatively by the individual, people "automatically and simultaneously acquire an attitude toward the behaviour" (p. 191). Thus, individuals learn to favour behaviours they believe have desirable consequences and form unfavourable attitudes toward behaviours they associate with undesirable consequences (Ajzen).

The process by which people construct an attitude on the basis of the sum of the products of behavioural beliefs and evaluations of those beliefs is captured in the following equation:

$$A = \sum b_i e_i$$

where A is the attitude toward the behaviour,  $b_i$  is strength of belief that the behaviour will lead to an outcome i,  $e_i$  is the evaluation of outcome i, and the sum is over all salient outcomes (Ajzen & Albarracín, 2007; Fishbein & Ajzen, 1975). The TPB suggests that beliefs about the outcomes of performing a behaviour can originate from a variety of different sources including "personal experiences, formal education, radio, newspapers, TV, the internet and other media, interactions with family and friends, and so forth" (Ajzen & Albarracín, p. 7).

The idea that a person will perform a behaviour to attain a valued outcome is evident in much of the sport consumer motivation literature. Indeed, researchers (e.g., Donnelly & Young, 1988, Schoham, Rose, & Kahle, 1998) have argued that decisions to follow a sports team, via live attendance and/or other media outlets, indicates the formation of an attitude based on the degree of positive affect towards potential outcomes. For instance, numerous sport scholars (e.g., Funk & James, 2004; Funk et al., 2003; Kahle, Kambara, & Rose, 1996; McDonald et al., 2002; Melnic, 1993; Milne & McDonald, 1999; Trail & James, 2001; Stewart et al., 2003; Wann,

1995) have cited factors such as escape (from daily life), stress reduction, entertainment, social interaction, bonding with family, and acquisition of knowledge as reasons people choose to become both spectators and participants of sport. Likewise, decisions to volunteer at a major sport event are often associated with expectations that the behaviour will afford individual opportunities to develop transferable skills, gain practical experience, and "get close to the sporting action" (Andrew, 1996; Elstad. 1996; Ralston, Downwark, & Lumsdon, 2004).

### 2.3.1.2 Attitude toward behaviour and behavioural intention

Much like other TPB constructs, attitude toward behaviour is considered an *endogenous* variable because it simultaneously serves as both a predictor and criterion variable in a regression model (Kline, 2005). With respect to its former function, attitude toward a behaviour is held to be one of the most important predictors of the formation of a behavioural intention in the TPB (Ajzen, 1991a; Ajzen & Albarracín, 2007; Fishebein & Ajzen, 1975; Trafimow, 2007). In particular, the model posits that people who have a favourable overall evaluation of a behaviour will perceive themselves as being likely to perform the action (Ajzen; Ajzen & Albarracín; Fishebein & Ajzen, Trafimow).

In general, the relationship between attitudes toward behaviours and behavioural intentions has received substantial empirical support, especially within the health behaviour change literature. For example, health researchers have reported correlation coefficients ranging from .5 to .8 for a variety of behavioural intentions including breast self-examination (Norman & Hoyle, 2004), consuming dairy products (Kim, Reicks, & Sjoberg, 2003), eating a low-fat diet (Armitage & Conner, 1999), using cannabis (Conner & McMillan, 1999), "getting drunk" (Trafimow, 1996), and physical exercise (Courneya, 1995). Within the sport psychology domain, Triafimow and Miller (1996) obtained a correlation coefficient of .83 when they predicted

intentions of college football players to perform mental imagery techniques from their attitudes towards doing so.

It is interesting to note that in almost all of aforementioned studies, attitudes toward behaviours emerged as better predictors of behavioural intentions than subjective norms did. As well, in several cases (e.g., Armitage & Conner, 1999; Conner & McMillan, 1999; Courneya, 1995) attitudes toward the behaviour outperformed perceived behavioural control in the prediction of behavioural intentions. Despite the strength of the relationship between attitude toward behaviour and behavioural intentions reported in these investigations (see Ajzen & Fishbein, 1977 and Ajzen & Albarracín, 2007 for more detailed reviews), few studies have examined this association within the context of sport consumption. Consequently, the following section will explore how researchers have used measures of attitude to understand and explain sport-related consumptive behaviours.

# 2.3.1.3 Attitude toward behaviour and sport consumption

Much literature supports the notion that many of the behaviours of sport consumers are determined, at least in part, by attitudinally-based constructs (Crompton, 1979; Mahony & Howard, 1998; Funk et al., 2000). To date however, a relative paucity of sport consumer research has adhered to Ajzen and Fishbein's (1977) principal of attitude correspondence (i.e., measuring attitudes in relation to a specific behaviour of interest) when exploring attitude-behaviour relationships (c.f., Cunningham & Kwon, 2003; Cuskelly, Auld, Harrington, & Coleman, 2004; Kaplanidou & Vogt, 2009; Kaplanidou & Gibson, 2010; Madrigal, 2001; Norman, Clark, & Walker, 2005;). Instead, numerous sport researchers have examined associations between people's attitudes towards more generalized sport objects such as teams, sports, athletes, or host destinations and subsequent behaviours (Dees, Bennett, & Tsuki, 2007; Funk & Bruun, 2007;

Funk et al.; Mahony & Howard; Mahony & Moorman, 1999). This trend appears to be especially true of research attempting to predict loyal fan behaviours (i.e., regularly watching a team in person or on television). For instance, Mahony and Howard (1998) observed that a "strong" positive attitude toward a favorite sports team, and a "strong" negative attitude toward a disliked team, was related to the consumption of televised sports events featuring these teams.

In another study, Mahony and Moorman (1999) speculated that individuals' attitude toward a team (i.e., whether the team is perceived favourably or unfavourably) is a function of how psychologically committed that person is to the team. According to Mahony and Moorman, people characterized as having a high degree of psychological commitment to a team represent those who frequently watch, read, or think about their favourite team and who are resistant to changing these habits in response to "negative" information or experiences. The authors found that these individuals intended to watch their favourite team on television even when they were likely to lose, and reported a desire to do so more often than individuals with low psychological commitment to a team.

As Mahony and Moorman's (1999) study illustrates, a significant amount of fan loyalty research has been dedicated to exploring the affective, cognitive, and behavioural properties of people's attitudes toward sports teams. In particular, Funk et al. (2000) argued that attitudes toward a team (and its influence on behaviour) has been thought to reflect properties such as *knowledge* (e.g., Kallgren & Wood, 1986), *importance* (e.g., Krosnick, 1989), *certainty* (e.g., Fazio & Zanna, 1978), *intensity* (e.g., Krosnick & Shuman, 1988), *extremity* (e.g., Raden, 1985), *accessibility* (e.g., Fazio & Williams, 1986), *involvement/personal relevance* (e.g., Havitz & Dimanche, 1997; Petty, Cacioppo, & Schumann, 1983) and *affective-cognitive consistency* (Chaiken & Yates, 1985). As Funk et al. (2000) stated,

a loyal fan who attends every home match during the season would be expected to possess an attitude toward the team that is intense, extreme, important, supported by extensive knowledge and experience, and held with great certainty. In contrast, the average spectator who attends two or three matches during the season would be expected to possess an attitude that is moderate to low in extremity, intensity and importance. Further, it would be based upon little or no previous knowledge and experience with that team. (p. 129)

According to Funk et al. (2000), attitude properties such as importance, involvement/personal relevance, certainty, direct experience, and knowledge influence the *strength* of one's attitude towards a sports team, which can have valuable consequences for sport and recreation managers. Within the leisure literature, for example, measures of attitude importance have been used to understand the psychological significance and value people place on recreation programs and services (e.g., Hudson & Sheppard, 1998) and to predict participants' price expectations (e.g., McCarville, 1996). As mentioned, people with "strong" attitudes are considered likely to resist changing their allegiance from a particular team (Mahoney & Howard, 1998; Mahony, Madrigal, & Howard, 1999) and display fan behaviours in the form of loyal television viewership and live attendance at games (Pritchard, Havitz, & Howard, 1999; Havitz & Dimanche, 1997).

Measures of attitude have also been used to predict a variety of other sport-related consumptive behaviours including *sport and physical activity participation* (e.g., Kamphuis, Van Lenthe, Giskes, Huisman, Brug, & Mackenbach, 2008; van der Horst, Paw, Twisk, & Van Mechelen, 2007), *sponsorship patronage* (e.g., Gwinner & Bennett, 2008; Lee, Sandler, & Shani, 1997; Madrigal, 2001), *sport-based travel* (e.g., Baloglu & McLeary, 1999; Funk & Bruun, 2007; Kaplanidou, 2007; Kaplanidou & Vogt, 2009; Kaplanidou & Gibson, 2010; McKay & Fesenmaier, 1997), and *volunteerism* (e.g., Cuskelly et al., 2004; Monga, 2006; Green & Chalip, 2004). Within the sport and physical activity participation domain, Kamphuis et al. reported that negative evaluations of sport participation outcomes were associated with decisions

not to participate among adults aged 25 to 75. Likewise, van der Horst et al. found that children and adolescents with positive attitudes toward engaging in physical activity had greater intentions to participate, and actually did participate in more bouts of physical activity than those with negative attitudes toward engaging physical activity.

As well, researchers (e.g., Dees, Bennett, & Tsuji, 2007; Lee et al., 1997; Madrigal, 2001) have demonstrated that decisions to purchase products/services from sport event sponsors are associated with attitudes toward performing the behaviour. For example, Lee et al. surveyed consumers following the 1992 Winter Olympic Games to develop a scale for measuring people's attitude towards the behavioural intent of purchasing products from sponsors, and paying more attention to their promotional activities. Their scale included items such as, "I am more likely to buy products from companies that are official sponsors" and "when I purchase a product I look for the Olympic logo" (p. 167). Lee et al. noted that future research would be needed to validate the efficacy of the scale in predicting these behaviours. More recently, Madrigal reported that attitude toward purchasing a sponsor's products were more highly related to purchase intentions for individuals who had low team identification (i.e., people who had little or no emotional connection to the team) than for individuals with high team identification (i.e., people who had a strong emotional connection to the team).

Unlike sport/physical activity participation and sponsorship patronage behavioural domains, there appears to be less attitude-behaviour congruence in research aimed at understanding the behaviour of sport tourists. For instance, sport tourism researchers often rely on assessing a person's attitude toward the host destination when attempting to predict decisions to travel to cities that stage (or that have staged) sporting events (Funk & Bruun, 2007).

Specifically, one key determinant of the formation of a favourable or unfavourable attitude

toward a host destination is believed to be one's perception of the host destination's image (Funk & Bruun). Tourism scholars have argued that *destination image* represents a set of beliefs based on information processing, which determine people's feeling about a destination that subsequently lead to visit intentions (Baloglu & McLeary, 1999; Funk & Brunn; Kaplanidou, 2007). Recently, for example, Kapalandiou found that the perceived destination's excitement and pleasantness predicted Olympic travelers' intentions to return to Athens in the future. Likewise, Kapalandiou and Gibson (2010) found that attitude toward event participation (i.e., the degree to which respondents perceived the event to be pleasant, worthwhile, and entertaining) mediated the impact of satisfaction with the event and destination image on respondents' intention to return a subsequent Senior Games event. Indeed, almost three decades ago, Crompton (1979) suggested that strength of motivation, involvement, and attitude toward the host destination are the most important constructs for measuring the socio-psychological motives for traveling to an international sport event.

Moreover, few studies have examined attitudes in relation to the behaviour of sport event volunteers (Cuskelly et al., 2004; Ralston et al., 2004). Ralston et al. conducted a qualitative investigation of volunteers of the 2002 Commonwealth Games. The authors found that people's decisions to become a volunteer at this event were rooted in their attitudes toward volunteering in general (e.g., the belief that being a volunteer fulfils a sense of belonging), and expectations associated with their recruitment and training (e.g., the belief that being an event volunteer would lead to useful skill development and experiences).

Indeed, several researchers have also examined the motives, expectations, and satisfaction of sport event volunteers in particular (e.g., Andrew, 1996; Elstad. 1996; Johnson, Twynam, & Farrell, 2000). For instance, Johnson et al. found that people's motivations to

become a sport event volunteer often included some dimension unique to the event. In other words, those with high levels of involvement with the sport of golf (i.e., perceive the sport to be personally relevant, fun, interesting and exciting) are probably more likely to volunteer at a professional golf tournament than some who is less interested in the sport. Andrew reported that volunteers of a large sporting event did so based on the expectation of personal benefits for their service (e.g., opportunities to see the event for free, clothing, etc.). Similarly, Elstad found that satisfaction among student volunteers of the 1994 Lillehammer Winter Olympics was related to positive factors such expanding personal networks, being part of the event atmosphere, and achieving job-related competence.

Although these studies provide useful insights into the motives, expectations, and satisfaction of sport event volunteers, Cuskelly et al. (2004) noted that these studies "do not specifically address behavioural implications for event volunteers" (p. 77). Consequently, using the TPB, Cuskelly et al. observed that a number of attitudinal beliefs about volunteering at three major sporting events (i.e., feeling good about helping others, gaining valuable experience for future paid employment opportunities, being "closer to the action" than most spectators) were related to the self-reported behavioural dependability of volunteers (e.g., showing up on time, completing assigned tasks).

In summary, the degree of attitude-behaviour correspondence within the sport literature appears to vary greatly across behavioural domains. Specifically, a relatively high level of attitude-behaviour correspondence can be observed in research examining participation and sponsorship patronage (e.g., Kamphuis et al., 2008; Lee et al., 1997; Madrigal, 2001; van der Horst et al., 2007). Conversely, attitude toward the behaviour seems to be seldom assessed in relation to sport spectartorship/viewership, travel, and volunteerism (e.g., Elstad, 1996;

Kapalandiou, 2007; Kapalandiou & Gibson, 2010; Mahony & Howard, 1998). Nevertheless, within the TPB, attitudes toward the behaviour represent only one determinant of intentions and subsequent behaviours. As such, the following discussion will explore the role of subjective norms within the TPB and how the construct has been applied to predict sport-related consumer behaviours.

## 2.3.2 Subjective Norm

In addition to attitude toward the behaviour, several researchers have cited 'social influences' as important determinants of human behaviour (Bandura, 1986; De Vries, Backbier, Kok, & Dijkstra, 1995; Fishbein & Ajzen, 1975; Turner, 1991). According to De Vries et al. (1995), social influences are best described as "the processes whereby people directly or indirectly influence the thoughts, feelings, and actions of others" (p. 237-238). Within the TPB, social influences are captured via the subjective norm construct (Fishbein & Ajzen; Ajzen, 1991a). In particular, subjective norms refer to the perceived social pressure to perform or not perform the behaviour (Ajzen, 1991a; Ajzen & Albarracín, 2007; Fishbein & Ajzen, 1975). In other words, a general measure of subjective norm represents a person's perception about whether most people who are important to them think they should or should not perform the behaviour (e.g., "people who are important to me think I should watch televised Olympic events featuring Canadian athletes").

Fishbein and Ajzen's decision to include a measure of subjective norm in the TPB was largely informed by Dulany's (1961, 1968) *theory of prepositional control* (Fishbein & Ajzen, 1975). Essentially, his theory deals with the determinants of behavioural intentions and was tested in the context of several verbal conditioning experiments. In these experiments, subjects were encouraged to elicit a certain class of verbal responses (e.g., plural nouns). Any increase in the frequency with which these responses were elicited was taken as evidence of verbal

conditioning. Dulany found that an intention to respond in a certain way was related to a subject's overall evaluation of the reinforcer (i.e., a positive or negative evaluation of the experimenter). As well, the author reported that a subject's intended verbal response was a direct result of their belief about whether the experimenter would want them to respond in a particular manner, and their motivation to comply with this perceived expectation.

### 2.3.2.1 Subjective norm, normative belief, and motivation to comply

Based on the findings from Dulany's (1961) verbal conditioning experiments, Fishbein and Ajzen (1975) posited that subjective norms are determined by *normative beliefs* and *motivations to comply* with important referents (e.g., friends, family members, co-workers, etc). As Fishbein and Ajzen stated, subjective norms are a function of the perceived expectations of referent individuals or groups (i.e., one's beliefs about whether certain people would approve or disapprove of the behaviour) and one's motivation to comply with those expectations (i.e., motivation to do what each referent thinks). In many instances, normative beliefs are inferred, at least in part, on the basis of a person's beliefs about referents' attitudes toward the behaviour in question (Fishbein & Ajzen). Specifically, people construct a subjective norm on the basis of the sum of products of normative beliefs and how much they want to comply with each referent (Trafimow, 2007). This process is summarized in the following equation:

$$SN = \Sigma n_i m_i$$

where SN is subjective norm towards the behaviour,  $n_i$  is the strength of normative belief i, and  $m_i$  is motivation to comply with a specific normative referent referred to by i (Trafimow).

This equation has received empirical support in leisure behaviour domains (Ajzen 1991a, 1991b; Ajzen & Driver, 1991). For example, Ajzen and Driver asked people to rate (on a 7-point Likert-type scale) the degree to which they believed referents (i.e., friends, parents,

boyfriend/girlfriend, brothers/sisters, and other family members) would approve of their engagement in certain leisure activities (i.e., relaxing at a beach, jogging, mountain climbing, boating, and biking). These normative beliefs were then multiplied by motivation to comply with each referent, which was measured by a rating of how much the respondent cared whether the referent would approve or disapprove of their participation in the particular leisure activity (Ajzen & Driver). When these belief-based products were correlated with a global measure of people's subjective norm (i.e., whether "important others" would approve or disapprove of the behaviour), the authors observed significant relationships for relaxing at the beach (r = .47), jogging (r = .60), mountain climbing (r = .58), boating (r = .47), and biking (r = .35).

Subjective norms are thought to be one of only three antecedents of behavioural intentions within the TPB (Ajzen, 1991a). Consequently, external influences such as demographic or personality characteristics of respondents, the nature of the specific behaviour under investigation, or other situational variables impact intentions only indirectly, through their influence on the social normative (and/or attitudinal) components of the theory (Ajzen, 1991a; Fishbein & Ajzen, 1975). For instance, those with an external locus of control personality type will likely perceive their behaviour to be more dependent on others (e.g., Rotter, 1966), thereby potentially influencing their sense of normative beliefs in relation to the behaviour.

## 2.3.2.2 Subjective norm and behavioural intention

According to the TPB, a more favourable subjective norm is thought to be associated with a stronger intention to perform the behaviour (Ajzen, 1991a). As noted however, meta-analyses have revealed that average correlations between subjective norm and intentions are often weaker than those observed for attitude toward the behaviour and perceived behavioural control constructs (Ajzen & Albarracín, 2007; Godin & Kok, 1996; Hausenblas, Carron, & Mach, 1997;

Norman et al., 2005). This trend is quite evident among many health behaviour domains. For example, attitude toward behaviour and perceived behavioural control have outperformed subjective norm in predicting people's intentions to use cannabis (Conner & McMillan, 1999), eat a low fat diet (Armitage & Conner, 1999), consume dairy products (Kim et al., 2003), administer a breast self-examination (Norman & Hoyle, 2004), and participate in physical exercise (Courneya, 1995).

Nevertheless, it is important to note that subjective norm will not always emerge as a weaker predictor of behavioural intentions vis-à-vis other TPB constructs (Fishbein & Ajzen, 1975; Norman et al., 2005). Fishbein and Ajzen's original contention was that the relative weights of the model's components would differ based on the behaviour and population under investigation. As Norman et al. stated, "in some studies, attitude or perceived behavioural control may be the strongest predictor; whereas in other studies, subjective norm may be the strongest predictor" (p. 1009). For instance, Cunningham and Kwon (2003) suggested that subjective norms might be stronger predictors of intentions in certain sport consumer contexts than in various health behaviour domains. The authors stated that,

while an individual may have influential others (e.g., parents, spouse) who encourage him or her to exercise, it is possible for him or her to exercise alone. In this instance, subjective norms may hold some influence on intentions to exercise and actual exercise behaviour, but other factors, such as perceived behavioural control and attitudes, are expected to be more salient. (p. 130)

Conversely, in the context of sport consumerism, Cunningham and Kwon (2003) argued that it is unlikely a person would choose to attend an event alone. Rather, the authors suggested that most people attend sports events with important referents or go to the event with the hopes of meeting and socializing with other fans. In these instances, Cunningham and Kwon posited that subjective norms would play a more prominent role in predicting intentions and actual behaviours than attitude toward the behaviour and perceived behavioural control constructs. As

such, the following section will explore how researchers have used subjective norms or similar measures of social influence to understand and explain sport-related consumptive behaviours.

### 2.3.2.3 Subjective norm and sport consumption

Social influences have been acknowledged as important determinants of behaviours such as sport spectatorship/event attendance (e.g., Cunningham & Kwon, 2003; Melnick, 1993; Wann, 1995), sponsorship patronage (e.g., Madrigal, 2000; 2001), and sport/physical activity participation (e.g., Coble & Rhodes, 2006; Hagger et al., 2002; Giles-Corti & Donovan, 2002; Stahl et al., 2001). For instance, several researchers have suggested that needs for social affiliation and identification have a strong influence on people's decisions to attend sporting events (Cunningham & Kwon; Melnick; Mullin, Hardy, & Sutton, 2000; Trail & James, 2001; Wann, 1995). Wann found that desires to maintain group contacts and seek refuge from feelings of alienation were primary reasons for being a fan of a sports team and attending competitions regularly. Similarly, Melnick suggested that people often satisfy their social needs in public places (e.g., sports stadiums and sport arenas) with relative strangers.

In addition to satisfying needs for social affiliation, researchers have also argued that an individual's level of social/team identification can influence tendencies to engage in certain "fan" behaviours (Cialdini, Borden, Thorne, Walker, Freeman, & Sloan, 1976; Snyder, Lassegard, & Ford, 1986; Wann & Branscombe, 1990). For example, Cialdini et al. used the term "basking in reflected glory" or "BIRGing", to describe individuals who proudly display their associations with a successful sport team to others by wearing and/or displaying team paraphernalia. Conversely, Snyder et al. used the term "cutting off reflected failure" or "CORFing" to describe people who attempt to disassociate themselves with an unsuccessful team by refraining from activities that would create a perceived link between themselves and the

unsuccessful team (e.g., wearing a team's jersey, purchasing season tickets, etc). Thus, many sport scholars believe an individual's level of team identification may reflect underlying needs for social approval, belongingness, or personal expression (Funk et al., 2000).

It is interesting to note that the aforementioned research did not specifically refer to measures of subjective norms when attempting to understand loyal fan behaviours. In other words, the degree to which people perceived social pressure to perform the behaviour (i.e., attend a sport event, wear team apparel) were not explicitly explored within these investigations.

Nevertheless, as is aligned with the underlying principle of subjective norms, several researchers (e.g., Cialdini et al., 1976; Melnick, 1993; Synder et al., 1986; Wann, 1995) appear to support the contention that loyal sport fan behaviours are, at least to some degree, influenced by the social norms of significant others (Cunningham & Kwon, 2003). Moreover, little research has examined the role of social influences (e.g., measures of subjective norm, level of social/team identification) in predicting people's decisions to watch sports events on television and within different social contexts (e.g., watching a sport event on television at home and alone, or in a restaurant/bar with friends).

Constructs related to social/team identity have also been used to explain decisions to purchase products form sport event sponsors (Gwinner & Swanson, 2003; Madrigal, 2001; Terry & Hogg, 1996). For example, Madrigal (2001) speculated that one's level of team identification would moderate the relationship between attitudes toward purchasing a sponsor's product and intentions to perform the behaviour. The author reported that attitudes toward purchasing a sponsor's product was more predictive of intentions among those with lower levels of team identification than among those high in team identification (i.e., those who placed a great deal of importance on winning, displayed team insignias at home or at work, and believed their friends

viewed him/her as a loyal fan of the team). Madrigal's contention and subsequent finding was based on Terry and Hogg's (1996) argument that highly identified individuals are more likely to act in a manner which is good for the object of identification (i.e., the team), regardless of their objective attitude toward the behaviour. According to Terry and Hogg, this phenomenon represents a kind of "cognitive shortcut", whereby highly identified individuals reinforce their membership to a group.

Madrigal (2000) explored the extent to which group norms (i.e., perceived social pressure to perform a behavior) could predict people's intentions to purchase products or services from sponsors of a NCAA Division I-A college football team. Similar to the present investigation, respondents were first asked to indicate their feelings along three semantic differential scales (admirable-silly, smart-dumb, makes sense-does not make sense; each reverse coded) in response to the following statement: "Most other fans of this team whose opinion I value would probably think my decision to buy products or services from a company because it sponsors the team to be... The second question asked respondents, On the whole, would you say most other fans of this team who are important to you would approve or disapprove of your decision to buy a sponsor's products (approve-disapprove reverse coded)" (p. 16). The four scales were summed to form an overall measure of the group norms construct. The authors found that perceptions of group norms were the largest predictor of intentions in their study. Specifically, group norms were able to explain 41% of the variance in people's intentions to purchase products or services from team sponsors. Respondents who perceived more pressure from other fans to patronize team sponsors were more likely to form an intention to perform the action.

Likewise, Bennett (1999) used a proxy measure of perceived social pressure to predict sponsorship patronage. In particular, the author found that sport spectators' level of false

consensus, which reflected their belief that teams sponsors' brands were purchased by a larger number of fellow supporters and other citizens than was actually the case, was associated with increased brand recall and purchase intentions. Essentially, this false consensus effect is based on the notion that people often perceive their own behaviours and beliefs as being typical of the group to which they want to belong (Sherman, Presson, & Chassin, 1984; Wetzel & Walton, 1985). The notion of false consensus is similar to the construct of descriptive norms (c.f., Norman et al., 2005; Sheeran & Orbell, 1999), which reflects people's perceptions about the degree to which other people actually perform the particular behavior in question. The concept of descriptive norms and its usefulness in helping understand the behavioural responses of interest in the current study are outlined in section 2.4.3 of this Chapter.

As well, various measures of social influence have been used to predict sport and physical activity-related behaviours. Specifically, several researchers (e.g., Coble & Rhodes, 2006; Stahl et al., 2001) have explored the relationship between perceived social support and sport/physical activity participation. Stahl et al. reported that adults who perceived low social support from their friends, family, and co-workers (i.e., those who felt little motivation from such people to engage in sport and physical activity) were more than twice as likely to be sedentary compared to those who reported having high social support from these individuals. Likewise, Coble and Rhodes found that aboriginal people with social support in the form of knowing others who exercise or having active neighbours were more likely to participate in physical activity themselves.

Furthermore, unlike sport event attendance and sponsorship patronage domains, actual measures of subjective norm have been extensively employed to predict sport and exercise-related behaviours (Courneya, 1995; Hagger et al., 2002; Norman & Smith, 1995). Indeed, many

of these investigations have reported positive associations between subjective norms and decisions to engage in regular bouts of physical activity (Courneya; Hagger et al.). As noted however, the strength of these relationships is typically weaker than physical activity-attitude toward the behaviour relationships and physical activity-perceived behavioural control relationships (Ajzen & Albarracín, 2007; Norman et al., 2005).

In contrast, the use of subjective norms or similar measures of social influence to explain behaviour appears to be somewhat less prominent within sport volunteerism contexts (Cuskelly et al., 2004). Recently however, Cuskelly et al. reported positive associations between subjective norm and the self-reported behavioural dependability of sport event volunteers. Specifically, the authors found that individuals who believed strongly they were encouraged and influenced by their spouse and/or children to become an event volunteer were more likely to report starting and finishing shifts on time, willingly covering shifts for other volunteers who did not show up, completing all assigned tasks, and finishing additional tasks not directly assigned by their supervisor. Another study found that people's sense of commitment, which referred to expectations from others to become an event volunteer, was positively associated with decisions to volunteer at the Canadian Women's Curling Championship (Farrell, Johnston, & Twynam, 1998).

Relatively few studies have explored the role social influences (e.g., subjective norms) play in predicting the behaviour of sport tourists. Nevertheless, researchers have suggested that decisions to travel in general are often influenced by referent others and, in many cases, by members of one's family (e.g., Scott & Kanaroglou, 2002; Wang, Hsieh, Yeh, & Tsai, 2004). For instance, Wang et al. observed that the influence of certain family members in deciding where to travel varied depending on the stage of the travel decision making process (c.f., Kotler, Brown,

& Makens, 1999). In particular, the authors found that although families had a tendency to make joint decisions during the 'problem recognition' and 'final decision' stages of the process, wives played a more dominant role during the 'information' stage. Perhaps decisions to travel to an Olympic host city post-event follow the same pattern of referent influence as that reported by Wang et al.

In summary, despite some exceptions (e.g., Bamber, Ajzen, & Schmidt, 2003; Cunningham & Kwon, 2003; Cuskelly et al., 2004; Kaplanidou & Vogt, 2009; Kaplanidou & Gibson, 2010; Norman et al., 2005; Sparks, 2007), few sport scholars have used actual measures of subjective norm consistent with those proposed within the TRA/TPB to predict behaviours of interest. As Ajzen and Albarracín (2007) suggested, utilizing TRA/TPB components such as subjective norm and attitude toward behaviour might greatly improve the predictive power of many models of sport-related consumer behaviours. Thus far, the discussion has outlined these two components and reviewed literature relating to their influence on behaviours of interest to sport marketers and managers. In much the same way, the following sections will explore the construct of perceived behavioural control, which Ajzen added to the original TRA to form the complete TPB model (Ajzen, 1991).

#### 2.3.3 Perceived Behavioural Control

The TPB posits that the third antecedent of intention and action is the degree of perceived behavioural control, which refers to "the perceived ease or difficulty of performing the behaviour" (Ajzen, 1991, p. 188). Specifically, Hagger et al. (2001) stated that the construct "reflects the person's assessments of the capacities (e.g., skills and abilities) and the limiting or facilitating factors (e.g., barriers and access to facilities) regarding behavioural engagement" (p. 712). Indeed, researchers (e.g., Ajzen, 1991a; Fishbein, 1993) have argued that the addition of perceived behavioural control to the original TRA greatly improved the model's ability to predict

intentions and actual behaviours. According to Fishbein, the TPB was more effective than its predecessor (i.e., the TRA) at explaining behaviours requiring specific skills, resources, or opportunities not freely available to people. Within a sport consumer context, for example, it is reasonable to assume that perceived behavioural control would exert greater influence on people's decisions to attend an athletic event in person (e.g., a behaviour that requires sufficient monetary resources and available free time) than to watch the same event on television (e.g., a behaviour which is of marginal cost to most consumers and relatively easy to gain access).

Ajzen (1991a) compared the construct of perceived behavioural control to previous conceptualizations of control. First, he suggested that perceived behavioural control differs from Rotter's (1966) concept of perceived locus of control. Ajzen argued that as is consistent with other TPB components, perceived behavioural control is assessed in direct relation to a behaviour of interest, and thus, can vary across situations and actions. Conversely, he noted that perceived locus of control reflects a more generalized expectancy, which remains relatively stable across situations and forms of actions. To illustrate this conceptual distinction, Ajzen stated that:

a person may believe that, in general her outcomes are determined by her own behavior (internal locus of control), yet at the same time she may also believe that her chances of becoming a commercial airline pilot are very slim (low perceived behavioral control). (p. 183)

Second, Ajzen (1991a) compared perceived behavioural control to Atkinson's (1964) theory of achievement motivation. One of the central tenants of Atkinson's theory is the notion of expectancy of success, which he defined as the perceived probability of succeeding at a given task. Ajzen suggested that this concept is similar to perceived behaviour control because it refers to a specific behavioural context as opposed to a more general predisposition. However, Ajzen noted that quite paradoxically, Atkinson measured the motive to achieve success not as a motive

to succeed at a particular task, but in terms of a general predisposition that was thought to remain consistent from one situation to another. Certainly, this more global measure of motive runs counter to the behaviour specific dispositions proposed within the TPB.

Finally, Ajzen (1991a) argued that perceived behavioural control is most compatible with Bandura's (1977, 1982) notion of self-efficacy. According to Bandura (1982), self-efficacy is a behaviour specific disposition that "is concerned with judgments of how well one can execute courses of action required to deal with prospective situations" (p. 122). As Ajzen stated, most of social psychology's knowledge about the role of perceived behavioural control in predicting human behaviour comes from the systematic research program of Bandura and colleagues.

Essentially, Bandura's investigations have shown that people's behaviour is strongly influenced by their confidence in their ability to perform it. Moreover, self-efficacy beliefs have been shown to impact what activities people choose to engage in, as well as how much effort they expend preparing for and completing the task (Bandura, 1991, 1997).

# 2.3.3.1 Perceived behavioural control, control beliefs, and perceived power

Just as beliefs about the consequences of performing a behaviour are thought to determine attitude toward the behaviour, and beliefs about whether important others would approve or disapprove of the behaviour are thought to determine subjective norms, beliefs about the availability of requisite resources and opportunities are thought to determine perceived behavioural control (Ajzen, 1991a). Specifically, these *control beliefs* reflect the perceived likelihood of occurrence of each facilitating or constraining condition with respect to performing a behaviour (Ajzen, 1991a). In general,

a person who holds strong control beliefs about the existence of factors that facilitate the behaviour will have high perceived control over the behaviour. Conversely, a person who holds strong control beliefs about the existence of

factors that impede the behaviour will have low perceived control over the behaviour. (Montono & Kaspezk, 2002, p. 75)

Likewise, Ajzen reported that "the more resources and opportunities individuals believe they possess, and the fewer obstacles or impediments they anticipate, the greater should be their perceived control over the behaviour" (p. 196). For example, if people feel strongly that they have the time and monetary resources to purchase a valued product from an event sponsor, and the item is readily available for them to purchase in their community, then they may be likely to perceive the behaviour as being relatively easy to perform (i.e., possess high perceived behavioural control over the behaviour).

Ajzen (1991a) suggested that control beliefs are based in part on past experience with the behaviour. He also argued that these beliefs could be influenced by second-hand information about the behaviour, by the experiences of friends or family members, and/or by any other factor that might increase or reduce the perceived difficulty of performing the behaviour. For instance, beliefs about possessing the monetary resources necessary to purchase a desired product from a sponsor may be the result of consumers' past purchase patterns, or promotional campaigns (e.g., television or radio advertisements) designed to highlight the "affordability" of the product.

According to the TPB, overall measures of perceived behavioural control are thought to result from the combined impact of *control beliefs* and *perceived power*, which refers to the perceived effect of each control factor (e.g., having the money to purchase a sponsor's product) in making behavioural performance difficult or easy (Ajzen, 1991a). The collective influence of both of these variables on predicting perceived behavioural control is summarized in the following equation:

$$PCB = \Sigma c_i p_i$$

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where each control belief  $(c_i)$  is multiplied by the perceived power  $(p_i)$  of the particular control factor to facilitate or inhibit performance of the behaviour, and the resulting products are summed across the all salient control beliefs to produce a perception of behavioural control (Ajzen).

#### 2.3.3.2 Perceived behavioural control, intentions and behaviour

The TPB posits that perceived behavioural control affects actions via its influence on behavioural intentions (Ajzen, 1991a; Ajzen & Madden, 1986; Hagger et al., 2002). Much like attitude-intention and subjective norm-intention relationships proposed within the TPB, higher levels of perceived behavioural control are thought to be associated with more favourable intentions to perform (or not perform) behaviours. Here again, this association has received considerable empirical support, especially within various health behaviour domains. For example, perceived behavioural control has emerged as a significant predictor of intentions to engage in physical exercise (Hagger et al., 2002), smoke cigarettes (Higgins & Conner, 2003), using cannabis (Conner & McMillan, 1999), eat healthy foods (Armitage & Conner, 1999; Kim et al., 2003), and to undergo breast cancer screening procedures (Norman & Hoyle, 2004; Rutter, 2000).

Additionally, the TPB proposes that together with intentions, perceived behavioural control can be used directly to predict behaviour (Ajzen, 1991a; Ajzen & Driver, 1992). Ajzen and Driver offer two rationales for this hypothesis. First, they speculated that if intentions are held constant, the amount of effort one exerts to achieve a behaviour is likely to increase with perceived behavioural control. Ajzen and Driver used the following example to illustrate this idea:

even if different individuals have equally strong intentions to learn to ski, and try to do so, those who are confident that they can master this activity are more likely to persevere than are those who doubt their ability. It may appear that the individual with high perceived behavioral control should also have a stronger intention to learn skiing than the individual with low perceived control. However, as we saw earlier, intentions are also influenced by attitudes and subjective norms, and it is because of these other factors that two individuals with different perceptions of perceived behavioral control can have equally strong intentions. (p. 209)

As Ajzen (1985, 1991a) and Azjen and Driver (1992) noted, the degree to which people successfully perform a behaviour depends not only on the formation of a behavioural intention, but also on non-motivational factors such as the availability of requisite resources and opportunities such as time, money, skills, and cooperation with others. Taken together, these factors represent a person's actual control over the behaviour (Ajzen & Driver). However, Ajzen and Driver stated that of greater psychological interest than actual control, is the perception of behavioural control, and its subsequent influence on intentions and behaviour.

Thus, Ajzen's second reason for including a direct link between perceived behavioural control and behavioural achievement in the TPB was that perceived behavioural control is often used as a substitute for actual control. As he suggested, the degree to which a measure of perceived behavioural control can substitute for a measure of actual control depends on the accuracy of one's perceptions (Ajzen, 1991a). If people's perceptions of control are accurate and realistic (e.g., the person has enough information about the behaviour, and the requirements or resources necessary to perform the behaviour have not changed), it can then be an effective predictor of the likelihood of a successful behavioural attempt (Ajzen, 1985; Ajzen & Driver, 1992).

According to Ajzen (1991a), "the relative importance of intentions and perceived control in the prediction of behaviour is expected to vary across situations and across different behaviours" (p. 185). The author reported that in any given application of the TPB, only one of the two predictors might be needed. If the behaviour allows a person to have complete control

over behavioural performance, then intentions alone should be sufficient in predicting the action (Ajzen). In contrast, perceived behavioural control tends to become increasingly useful as volitional control over the behaviour declines (e.g., when the behaviour requires more specific skills and resources). Within a sport consumer context for example, intentions alone might be suitable for predicting people's decisions to watch a sport event on TV. However, decisions to actually participate in the sport being displayed on television might be more influenced by perceived behavioural control. The following discussion will examine the degree to which perceived behavioural control and related constructs (e.g., self-efficacy, barriers/constraints) have been employed to help explain the behaviour of sport consumers.

### 2.3.3.3 Perceived behavioural control and sport consumption

Perceived behavioural control and its related constructs have been used to predict many behaviours of interest to sport marketers (e.g., sport/PA participation, spectatorship, sponsorship patronage, travel, and volunteerism). Most notably perhaps, measures of perceived behavioral control have been extensively employed within the sport/PA behavioural domain (Courneya, 1995; Hagger Chatzisarantis, & Biddle, 2001; Hagger et al., 2002). For example, Hagger et al.'s meta-analysis of 72 studies using the TPB revealed that perceived behavioural control was one of the most consistent and reliable predictors of both intentions and actual PA-related behaviours.

The construct of self-efficacy has also been heavily examined in relation to sport/PA participation (Sniehotta, Scholz, & Schwarazer, 2005). Despite Bandura's suggestion that assessing efficacy measures in relation to specific behaviours would increase the predictive power of the construct, self-efficacy has often been assessed as a global, trait-like variable in much of PA/sport participation research (McAuley, Pena, & Jerome, 2001). Nevertheless, Sallis and Owen's (1999) review of PA determinants in adults reported "a repeatedly documented"

positive association" between self-efficacy and PA (their strongest classification). Similarly, Trost, Owen, Bauman, Sallis, and Brown (2002) noted that, of the psychological, cognitive, and emotional factors they explored in their review of the literature, "self-efficacy emerged as the most consistent correlate of physical activity behaviour" (p. 1998).

Within the leisure literature, self-efficacy has been studied in the context of outdoor recreation, therapeutic recreation, and leisure education contexts (c.f., Bergin, 1992; Hoff & Ellis, 1992; Maughan & Ellis, 1991; Propst & Koesler, 1998; Sibthorp, 2003). Recently however, Sylvia-Bobiak and Caldwell (2006) reported that self-efficacy had the largest effect (compared with peer support, family support, and gender) on the amount of physically active leisure in which college students were engaged. A study of more than one thousand Toronto high school students found that self-efficacy for overcoming external barriers (e.g., lack of programs) was a significant predictor of vigorous exercise that took place in school-based and non-school-based activities (Allison, Dwyer, & Makin, 1999).

As Allison et al. (1999) illustrated, leisure scholars are beginning to examine people's ability to negotiate (i.e., overcome) behavioural constraints (e.g., Loucks-Atkinson, 2002; Mannell & Loucks-Atkinson, 2005). According to Jackson (2005), constraints represent any factor that prevents or prohibits an individual from participating and enjoying a leisure activity. Specifically, Crawford, Jackson and Godbey (1991) identified three types of constraints: (i) intrapersonal constraints, which refer to psychological conditions that arise internal to the individual (e.g., being in a negative mood when deciding whether or not exercise); (ii) interpersonal constraints, which are those barriers that arise from interactions with referent others (e.g., a close friend who encourages a person not to participate in an activity); and (iii) structural constraints, which include factors that arise from external environmental conditions (e.g., lack of

sport/PA programs or the cost to participate in such activities). More recently, Loucks-Atkinson developed a measure of constraint negotiation efficacy. The author found that individuals who had high negotiation efficacy (i.e., confidence in their ability to use available resources and strategies to overcome constraints) were more likely to be motivated to participate in active leisure pursuits and negotiate constraints associated with the behaviour.

Similarly, perceived constraints have been examined vis-à-vis people's decisions to attend live sporting events. For example, researchers have documented several negative influences on sport event attendance including ticket prices (Baade & Tiehen, 1990; Hansen & Gauthier, 1989; Zhang, Pease, Hui & Michaud, 1995); increased television coverage of the sport (Fizel & Bennett, 1989); bad weather (Hansen & Gauthier); amount of other teams to watch in the community (Baade & Tiehen); unfavourable game schedule (Hansen & Gauthier; Zhang et al.); poor seat location (Hansen & Gauthier); lack of team success (Baade & Tiehen; Hansen & Gauthier; Zhang, Pease, Smith, Lee, Lam & Jambor, 1997) and travel distance to the event (Hansen & Gauthier; Kim & Chalip, 2004). This latter factor might be of particular to interest to sports-mega event marketers, who likely face several challenges when attempting to attract global markets of potential spectators. For instance, Kim and Chalip found that financial constraints associated with travel negatively affected people's sense that they could attend the FIFA world cup of soccer. The authors reported that "the higher the sense that cost [of travel] was a constraint, the less able respondents felt to attend the event" (p. 703).

The factors influencing people's decisions not to attend sport events outlined above are most consistent with Crawford et al.'s notion of structural constraints (i.e., barriers that arise from conditions external to the individual such as financial costs or available opportunities). However, intrapersonal constrains (i.e., barriers that arise form psychological conditions that

exist within individuals such as beliefs, attitudes, and perceptions of having control over performing the behaviour) appear to have received considerably less attention in relation to this behaviour. In particular, few studies have examined how beliefs about each of the aforementioned external conditions (e.g., beliefs about the likelihood of there being inclement weather during an outdoor sporting event) can contribute to the formation of an overall measure of the perceived ease or difficulty of performing the behaviour (i.e., perceived behavioural control). One such study found that two dimensions of perceived behavioural control (i.e., having time and money) were significant predictors of students' decisions to attend a NCAA division 1 hockey game (Cunningham & Kwon, 2003).

It is reasonable to argue that watching a sport event on television requires less specialized skills and resources to accomplish than actually participating in the activity being undertaken. Consequently, constructs such as self-efficacy, perceived constraints, and perceived behavioural control have not been well-studied in the context of sedentary behaviours such as television viewership (Smith & Biddle, 1999). Indeed, only a few prior investigations have attempted to predict sedentary behaviours with these types of variables. For instance, using the TPB, Smith and Biddle found positive associations between intentions to be sedentary (i.e., physically inactive in general) and perceived behavioural control. The authors concluded that some sedentary behaviours (e.g., watching an Olympic event on television) might be planned, and they noted that future TPB research should focus on specific non-active behaviours. Therefore, based on Smith and Biddle's results, decisions to watch sport events on television might be influenced by measures of perceived behavioural control and self-efficacy.

Within the domain of sport tourism, several researchers have examined the motivations and constraints involved in people's decisions to travel great distances (domestically or

internationally) to attend major sporting events (Crompton, 1979; Cunningham & Kwon, 2003; Gammon & Robinson, 2003; Gibson, Willming, & Holdnak, 2002; Gibson, 2004; Fairly, 2003; Kim & Chalip, 2004; Ritchie, Mosedale, & King, 2000). With respect to constraints, scholars have identified structural factors such as the unfamiliarity of the host destination (Gibson; Lepp & Gibson, 2003), cost of the trip (Kim & Chalip), available free time (Cunningham & Kwon), travel distance (Hansen & Gauthier, 1999; Kim & Chalip), and the risk of terrorist attacks (Gibson, 2004; Toohey, Taylor, & Lee, 2003; Toohey & Taylor, 2008) as potentially inhibiting people from traveling to attend sports-mega events like the Olympics Games.

To a lesser extent, researchers have also explored the motives and constraining factors associated with individuals' decisions to travel to a region after it has staged a sports mega-event (Kaplanidou, 2007; Shonk & Chelladurai, 2008). The motives underlying these decisions are probably much different than traveling to witness the actual event take place. For example, decisions to travel post-event are less likely to be linked to the primacy of the sport event itself (Gammon & Robinson, 2003). Instead, post-event travel intentions and behaviour might be more related to people's sense of nostalgia (e.g., Wilson, 2004), or enhanced perceptions of the destination's image (Funk & Bruun, 2007; Gibson et al., 2008; Gibson et al., 2002; Higham, 1999; Kaplanidou). Furthermore, perceived constraints may also be different for people deciding whether or not to travel to attend a sport event, compared to those deciding whether or not to visit a destination after the event has been staged. Indeed, factors such as the risk of terrorist attacks, perceived costs, and perceived availability of transportation and accommodations may be drastically disparate among individuals in each travel condition.

To date, there have only been a few studies in the sport tourism literature that have examined barriers to post-event travel. Kaplanidou's (2007) study appears to suggest that

Olympic travelers who hold unfavourable images of the host destination they visited (i.e., those that perceive the city to be unexciting and unpleasant), are less likely to report intentions to return to the city/region once the event has been staged. Moreover, Shonk and Chelladurai (2008) speculated that sport tourists will be less likely to return to a destination if they perceive their present experience to be of poor service quality (e.g., negative evaluations of the quality of accommodations, sporting venue, transportation access).

Not only do these studies illustrate potential barriers influencing people's decision to travel to a host city after a sports-mega event has been staged, but they also highlight how past travel behaviours (e.g., visiting a destination to attend the Olympic Games) might serve to influence people's intentions and subsequent travel behaviours (e.g., decisions to return to the host city in the future). For example, Gibson et al. (2008) found that destination image partially mediated the relationship between past international travel experience and intention to travel to the 2008 Beijing Olympics Games. As such, it is not surprising that *past behaviour* has been proposed as a theoretical extension to the TPB. Several researchers (e.g., Ajzen, 2002a; Bentler & Speckart, 1981; Conner & Armitage, 1998; Hagger et al., 2002) believe that this variable can supplement attitude toward the behaviour, subjective norms, and perceived behavioural control in the prediction of intentions and actual behaviours. The role of past behaviour in the TPB processes will be the focus of discussion in section 2.4.2 of this chapter.

Variables such as destination image, service quality, and structural constraints (e.g., risk of terrorist attacks, travel costs) have been used to understand the behaviour of sport tourists.

Despite some exceptions (e.g., Kaplanidou & Vogt, 2009; Kaplanidou & Gibson, 2010)

however, few researchers have employed measures of perceived behavioural control consistent

with that of the TPB when attempting to predict sport event-based travel decisions. According to Shonk and Chelladura (2008),

Alternative theories may also help better explain a tourist's intention to return [to a host city]. For instance, Ajzen's (1985) theory of planned behaviour, which has been applied to leisure activities (e.g., Ajzen & Driver, 1992) could also be applied to sport tourism. (p. 597)

Likewise, measures of perceived behavioural control have not been employed to predict the behaviour of major sport event volunteers. One exception to this trend is Cuskelly et al. (2004). As previously mentioned, these researchers used TPB constructs to predict the behavioural dependability of major sport event volunteers. The authors observed that those with high perceived behavioural control over the behaviour were more likely to show up on time and complete all their assigned tasks. According to Cuskelly et al., volunteers with high perceived behavioural control reported having the confidence needed to be an effective volunteer, the skills and abilities necessary to complete assigned tasks, an ability to choose their own hours, and no other commitments. It is interesting to note however, that Cuskelly et al. failed to assess perceived behavioural control in relation to people's decision to become a volunteer of the major sport event in the first place.

In addition to measures of perceived behavioural control, researchers have identified structural and interpersonal constraints to sport event volunteerism. These factors include (but are not limited to): lack of time (Ralston et al., 2004); lack of skills and abilities to complete tasks (Davis Smith, 1998); age (Davis Smith); lack of tangible and intangible rewards (Williams, Doss, & Tompkins, 1995); and not knowing any other volunteers (Ralston et al.). Moreover, decisions to terminate event volunteer commitments have been attributed to "volunteer burnout", which is thought to arise from factors such as intense energy and time investments,

insufficient numbers of volunteers, over-demanding workloads, and tensions between staff and/or other volunteers (Getz, 1997).

Sport scholars have also paid scant attention to the influence perceived behavioural control, self-efficacy, and perceived constraints might have on individuals' decisions to purchase products/services from major sport event sponsors. Recently however, O'Reilly, Lyberger, McCarthy, Séguin, and Nadeau (2008) conducted a longitudinal analysis of people's intentions to purchase products/services from sponsors of the Super Bowl from 1998 to 2006. The authors observed the following trends in their data:

Results pertaining to consumers' intent to purchase sponsors' products-one of the most sought after metrics in relating sponsorship effectiveness to sales-demonstrate that levels of intent-to-purchase inspired by sponsorship of the Super Bowl is relatively low and, most importantly, that increases are not being achieved over time. (p. 392)

In response to these findings, O' Reilly et al. (2008) offered both structural and intrapersonal constraints to sponsorship patronage intentions. Specifically, the authors suggested that the declining purchase intentions they observed might be attributable to factors that reside within individuals (i.e., intrapersonal factors) such as pre-sponsorship awareness levels, pre-sponsorship image of the sponsors and sponsee, decreasing levels of interest in the super bowl, and/or changing consumption patterns. Additionally, O'Reilly et al. identified constraints to forming purchase intentions that might exist external to the individual (i.e., structural factors) such as, increased clutter in the marketplace, the influence of ambush marketing (companies that falsely associate their brand with a sport event), and poor activation by sponsors (companies failing to adequately promote their partnership with the sport event).

Although these are all potentially valid constraints to sponsorship patronage decisions, it is worth noting that O'Reilly et al. (2008) did not include a measure of perceived behavioural control or self-efficacy in their model. Neither did the authors assess people's beliefs about

possessing the financial resources necessary to purchase products/services from event sponsors. These types of structural constraints might inhibit people from taking direct action in the marketplace. During times of economic hardship, for example, it is unlikely the majority of people will be able to afford "high-end" electronic equipment often promoted at events like the Super Bowl. Indeed, when predicting sponsorship patronage intentions and actual behaviours, sport researchers have tended to rely on intermediate antecedents such as awareness, image, and attitudes toward the sponsor(s) (e.g., Crompton, 2004; Madrigal, 2001, Meenaghan, 2001; Nicholls, Roslow, & Dublish, 1999; Potwarka, 2004; Quester, 1997; Tomasini, Frye, & Stotlar, 2004), as opposed to people's perceptions of having control over performing the actual behaviour (i.e., perceived behavioural control).

In summary, with the exception of sport and physical activity domains, few researchers (e.g., Cunningham & Kwon, 2003; Cuskelly et al., 2004) have employed measures of perceived behavioural control, as advocated by the TPB, when attempting to predict behaviours of interest to sport marketers. Sport scholars have, however, explored more generalized factors that might inhibit such behavioural achievement (Gibson, 2004; Kim & Chalip, 2004). Furthermore, although several researchers have assessed the behavioural intentions of sport consumers (Gibson et al., 2008; Gwinner & Bennett, 2008; Kaplanidou, 2007; O' Reilly et al., 2008; Shonk & Chelladurai, 2008), none of these investigations have sought to determine whether or not intentions led to behavioural action. Thus, the following section will explore the relationship between intention and behaviour as proposed within the TPB.

#### 2.3.4 Intention and Behaviour

The preceding discussion has outlined the three determinants of behavioural intentions proposed within the TPB (i.e., attitude toward the behaviour, subjective norm, and perceived behavioural control). Azjen (1991a) argued that the relative importance of attitudes, subjective norms, and

perceived behavioural control in the prediction of intention is expected to vary across behaviours and situations. Thus, "in some applications it may be found that only attitudes have a significant impact on intentions, in others that attitudes and perceived control are sufficient to account for intentions, and in still others all three predictors make independent contributions" (Ajzen, p. 189).

Within the TPB, *intentions* are thought to represent "a person's motivation in the sense of her or his conscious plan or decision to exert effort to enact the behaviour" (Conner & Armitage, 1998, p. 1430). As well, the intention construct has been described as a key index of a person's mental readiness to perform an action, and it has been used in both TPB-based and non-TPB-based social psychological models of behaviour (Sheeran, 2002). For instance, measures of intention have been used (albeit somewhat sparingly) to understand applied sport-related issues such as people's intentions to attend a live sport event (Cunningham and Kwon, 2003); purchase products/services from a sport event sponsor (Gwinner & Bennett, 2008; Lee, Sandler, & Shani, 1997; Madrigal, 2001; O' Reilly et al., 2008); travel to a region that has hosted a major sport event (Gibson et al., 2008; Kaplanidou, 2007; Shonk & Chelladurai, 2008), participate in sport or PA (Courneya, 1995), and become a sport event volunteer (Cuskelly et al., 2004).

According to the TPB, intentions are the most immediate and single best predictors of behaviour (Ajzen, 1991a; Ajzen, 2005; Ajzen & Albarracín, 2007; Montano & Kasprzyk, 2002; Sutton, 1998). Specifically, Ajzen (2005) described the process by which intentions turn into action:

a person forms an intention to engage in a certain behaviour. This intention remains a behavioral disposition until, at the appropriate time and opportunity, an attempt is made to translate the intention into action. Assuming that the behaviour is in fact under volitional control, the attempt will produce the desired act. (p. 99).

There appears to be much empirical evidence to support Ajzen's contention that specific behaviours can be predicted from intentions with considerable accuracy. For example, meta-analyses of studies spanning diverse behavioural domains (e.g., buying stocks, using birth control pills, donating blood, having an abortion, attending church, using homeopathic medicine) have reported mean intention-behaviour correlations of .63 (van den Putte, 1993), .47 (Armitage & Conner, 2001; Notani, 1998), .53 (Sheppard, Hartwick, & Warshaw, 1988), and 0.45 (Randall & Wolff, 1994). More recently, Sheeran (2002) conducted meta-analyses of these and other meta-analyses and reported an overall correlation of .53 between intention and behaviour.

As previously mentioned, Fishbein and Ajzen's (1975) notion of the *principal of correspondence* suggests that stronger attitude-behaviour associations can be achieved by increasing specificity in the measures of attitudes and behaviour (Trafimow, 2007). This principle also applies to perceived behavioural control-behaviour and intention-behaviour relationships (Ajzen, 2005). In other words, to accurately predict behaviour:

intentions and perceived behavioural control must be assessed in relation to the particular behaviour of interest, and the specified context must be the same as that in which the behaviour is to occur. For example, if the behaviour to be predicted is 'donating money to the Red Cross', then we must assess intentions 'to donate to the Red Cross' (not intentions 'to donate money' in general nor intentions 'to help the Red Cross'), as well as perceived behavioural control over "donating money to the Red Cross. (Ajzen, 1991a, p. 185).

As well, Ajzen argued that in order for accurate behavioural prediction in the TPB, intentions must remain stable in the interval between their assessment and observation of the behaviour (Ajzen, 1991a, 2005). In some cases, unforeseen events will produce changes in a person's intention to perform a particular behaviour. For example, people's intention to visit a city that had staged the Olympic Games might change after learning the region experienced major flooding, or some other form of natural disaster, just weeks before their departure. Therefore, measures of intention obtained before the changes took place cannot be expected to accurately

predict a person's behaviour (Ajzen, 2005). Not surprisingly then, the efficacy of intention in predicting behaviour tends to diminish as the amount of time between measurement of intention and observation of the behaviour increases (Ajzen, 2005).

# 2.3.4.1 Intention-behaviour relationships and sport consumption

Although it is encouraging that sport researchers (e.g., Crompton, 2004; Trail et al., 2003) have made calls for increased use of more proximal determinants of behaviour (i.e., intentions), few investigations have explored the extent to which intentions translate into action. One exception to this trend of particular importance to the present investigation is Bauman, Armstrong, and Davies's (2003) study, which attempted to determine if hosting the 2000 Sydney Olympic Games made Australian adults more active. Using surveillance data from a mass PA survey, the authors found that although Australians' intentions to engage in more bouts of PA increased as the Games drew nearer, there appeared to be no net impact of the event on actual activity levels. In fact, Bauman et al. (2003) reported that the activity levels of Australian adults were lower in 2000 (the year of the event) than in 1999 and 1997. In response to these somewhat surprising findings, they concluded that the Australian Olympic Games had little to no behavioural effect, but served only to increase people's intention to become more active.

The overall lack of intention-behaviour associations reported in the sport consumer literature may be due to some of the methodological challenges of designing studies to capture these relationships. For instance, it is often difficult to track respondents' behaviour after initially measuring their intentions to perform an action. Once again, this is especially true if the amount of time between measurement of intention and observation of the behaviour is substantial. In these more longitudinal instances, respondents may be unreachable when it is time to determine if they actually performed the action (e.g., watched the sport event on television, purchased a

sponsor's product). Further, they might not be able to recall whether or not they performed the behaviour in question.

To date, most models of sport consumer behaviour have not predicted intentions and behaviour using TPB-based antecedents (e.g., Bauman et al., 2003; Gibson et al., 2008; Gwinner & Bennett, 2008; Kaplanidou, 2007; O' Reilly et al., 2008; Madrigal, 2001; Shonk & Chelladurai, 2008; Trail et al., 2003). Consequently, future sport consumer investigations that utilize a TPB framework and adhere to the aforementioned principal of correspondence, might demonstrate stronger intention-behaviour relationships more consistently. Indeed, one should expect the same strength of intention-behaviour associations in sport consumer contexts, as those studies that have used the TPB in other behvaioural domains such as health (Godin & Kok, 1996; Hagger et al., 2002), gambling (Sheeran & Orbell, 1999), and illicit drug use (Conner, Sherlock, & Orbell, 1998).

In summary, this discussion has focused on the relationships between each of the core constructs of the TPB. However, researchers (Ajzen, 1991a; Armitage & Conner, 2001; Trafimow, 2007) have argued that other factors such as personality, past behaviour, and socioeconomic status can impact the formation of attitude, normative, and control beliefs. Moreover, some of these "other" factors can explain significant proportions of variance in people's intentions after controlling for attitudes, subjective norm, and perceived behavioural control (Ajzen & Albarracín, 2007). As such, the following discussion will review some of the proposed extensions to the TPB that might be applicable within sport consumer contexts.

## 2.4 Extensions to the Theory of Planned Behavior

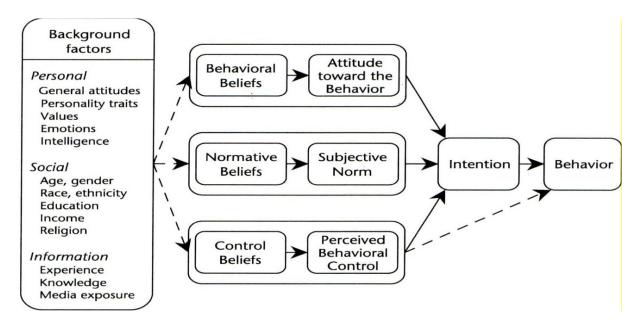
The TPB extended the original TRA by adding the perceived behavioural control construct (Ajzen, 1991a). Therefore, it was not surprising for Ajzen to state that the TPB "is, in principal,

open to the inclusion of additional predictors if it can be shown that they capture a significant proportion of variance in intention or behaviour after the theory's current variables have been taken into account" (p. 199). As noted, this section reviews some of the additional predictors put forth in the TPB literature (e.g., Ajzen; Ajzen & Albarracín, 2007; Conner & Armitage, 1998, Norman et al., 2005; Sheeran & Orbell, 1999), and which might be particularly useful in explaining the behaviour of sport consumers. Specifically, these variables (extensions to the TPB) include *background factors*, *past behaviour*, and *descriptive norms*.

## 2.4.1 Background Factors

According to Ajzen and Albarracín (2007), although the TPB focuses on determinants closely linked to a behaviour, the model "does not deny the importance of global dispositions, demographic factors, or other kinds of variables often considered in social psychological and related disciplines" (p.7). However, as can be seen in Figure 2, such factors are considered background variables that can influence behaviour indirectly by affecting behaviour, normative, and control beliefs (Ajzen & Albarracín).

Figure 2: Background Factors and The Theory of Planned Behaviour



(Adapted from: Ajzen & Albarracín, 2007, p. 6)

Specifically, Ajzen and Albarracín (2007) presented three categories of background factors (i.e., personal, social, and information) that can indirectly influence behaviour. First, personal factors reflect more generalized attitudes, personality traits, and values (Ajzen & Albarracín). Indeed, general attitudes/dispositions have been widely used in the sport consumer literature to predict loyal fan behaviours (Funk & Bruun, 2007; Funk et al., 2000; Mahony & Howard, 1998; Mahony & Moorman, 1999; Majid, Chandra, & Joy, 2007). However many of these sport consumer models attempt to make direct links between these more global attitudes (e.g., attitudes towards sport objects such as teams, sports, athletes, or host destinations) and actual behaviour (e.g., television viewership/spectatorship, post-event travel). In contrast, Ajzen would suggest that these types of personal factors hold their strongest influence on the formation of people's attitude, normative and control-based beliefs about the behaviour under investigation. For example, people who hold positive attitudes toward sports in general are likely to believe watching a particular sport event on television will result in valued outcomes (e.g., opportunities

to witness dramatic/heroic performances of athletes, feelings of excitement from an unanticipated victory, chances to celebrate a team/athlete's success, and feelings of interconnectedness with other fans) (Coakley & Donnelly, 2004; Majid et al., 2007; McDonald et al., 2002; Wann, 1995).

Second, social factors tend to reflect the potential influence of socio-demographic characteristics (e.g., age, gender, income, race, ethnicity, education) on the belief-based constructs proposed in the TPB (Ajzen & Albarracín, 2007). In particular, social factors might contribute to the formation of people's control beliefs vis-à-vis performing certain behaviours of interest to sport event marketers. For instance, people in low-income cohorts may perceive themselves as not having the ability to engage in certain resource intensive behaviours such as traveling internationally to attend a sport event or paying potentially higher prices to purchase products/services from certain sponsors' brands (e.g., Kim & Chalip, 2004). Likewise, low socio-economic status has been consistently identified as a barrier to actual sport/PA participation (e.g., Giles-Corti & Donovan, 2002; Trost et al., 2002). Indeed, relatively few investigations have attempted to examine the sport consumption motivations of marginalized populations (e.g., individuals with disabilities, people living in poverty, or recent immigrants to a host nation), especially in the context of mega-sport events such as the Olympic Games (Potwarka & McCarville, 2010). People with less discretionary income might also have less access to cable television sets necessary to watch coverage of the Olympic Games.

Social factors related to gender may also play a role in predicting the belief-based measures (i.e., behavioural, normative, and control beliefs) proposed in the TPB. Within sport behavioural domains, for example, researchers have reported that men's sports receive over 80 percent of the coverage in all media, and the images and narratives about gender tend to

reproduce traditional gender ideology (Coakley & Donnelly, 2004; Duncan & Messner, 1998). As such, it is possible that many females will differ from males in their normative beliefs about whether referent others would approve or disapprove of certain sport-related consumptive behaviours. According to the TPB, such beliefs can influence intentions and actual behaviour.

That being said, it is not surprising Bauman et al.'s (2003) study reported that Australian Men had higher sport/PA participation rates before and after the 2000 Sydney Olympic Games than Australian Women. Other behavioural domains of interest in the present investigation might be less male dominated. A poll conducted by Harris Interactive, found that U.S. women were more likely than men to say that they intended to watch televised coverage of the 2006 Turin Olympic Winter Games (The Hairs Poll, #15, February 13, 2006). The survey reported that women were almost twice as likely as men to say they were most interested in watching skating events, most notably figure skating (The Hairs Poll, #15, February 13, 2006). Men on the other hand, were more likely to say they were most interested in watching alpine skiing, bobsledding, and ice hockey (The Hairs Poll, #15, February 13, 2006).

In addition to gender, geographic-related factors might influence people's attitude, normative, and control-based beliefs within sport consumer domains. For instance, the further individuals live from where a major sport-event is set to take place, the more strongly they may believe to lack the time and/or money necessary to visit the destination post-event or become an event volunteer (c.f., Cunningham & Kwon, 2003; Kim & Chalip, 2004; Ralston et al., 2004). Conversely, geographic proximity to a sport event might have less of an impact on predicting control-beliefs regarding decisions to watch a major sport event on television (Majid et al., 2007), or to purchase rather ubiquitous product/service offerings from transnational corporate sponsors.

Moreover, geographic proximity variables may influence people's control beliefs about becoming more active as a result of a mega-sport event such as the Olympic Games. For example, people living in climates not conducive to staging the Winter Olympics may feel they lack access to certain facilities needed to support an inspired sporting behaviour (e.g., ski hills, luge tracks). With respect to PA activity levels more generally, research has demonstrated that people living great distances form mega-sport events tend to become less enthusiastic about sport and PA participation compared with those living close to where the event is to be staged (Waiit, 2003). Thus, people living further distances from the event may develop less favourable beliefs about the importance of sport and PA in daily life, which is a message often promoted to local communities who host mega sport-events such as the Olympic Games (Soteriades et al., 2006; Potwarka & McCarville, 2010). This contention appears to be corroborated by Bauman et al.'s (2003) examination of the PA levels of Australians from 1997 to 2000. The authors observed that people who lived in cities near, or that contained Olympic venues, were more likely to report positive intentions to engage in PA in 1999 and 2000 (the year of the Olympics) than those residing in cities further away from Olympic venues.

Age and education factors might also influence the formation of attitudinal, normative and control-based belief measures and subsequent behavioural intentions. As mentioned, the recent Harris Interactive Poll found that middle-aged (those aged 35-54) and older aged (those aged 55 and over) U.S citizens were less likely to intend to watch coverage of the Turin 2006 Winter Olympic Games than younger adults (those aged 18-34). The survey also reported that college educated adults in the U.S. were more likely to watch coverage of the Winter Olympics than adults with only holding a high school diploma (The Hairs Poll, #15, February 13, 2006).

Third, according to the TPB, attitude beliefs (i.e., beliefs that the behaviour is associated with certain outcomes), normative beliefs (i.e., beliefs about whether others approve/disapprove of the behaviour), and control beliefs (i.e., beliefs about the likelihood of encountering barriers to performing the behaviour) can be shaped by *information factors* such as prior knowledge and media exposure (Ajzen & Albarracín, 2007). For instance, carefully crafted promotional messages (e.g., television advertisements, newspaper articles) persuading people to travel to a host destination post-event, become an event volunteer, watch television coverage of the event, increase sport/PA participation in response to the event, or patronize event sponsors can greatly inform such beliefs (Ajzen, 2002b). As well, past experiences engaging in the behaviour of interest can also influence people's intentions to perform behaviours (Ajzen, 1991, 2002a; Ajzen & Albarracín; Conner & Armitage, 1998). The role these past experiences (i.e., past behaviours) might play in predicting future behaviour will be discussed in more detail in the following section.

### 2.4.2 Past Behavior

The dictum, 'past behaviour is the best predictor of future behaviour' has received considerable empirical support within a variety of behavioural domains (Ajzen, 1991; Conner & Armitage, 1998; Mullin, Hersey, & Iverson, 1987). It is important to note however, that past behaviour does not necessarily 'cause' subsequent behaviour (Conner & Armitage). Nevertheless, Conner and Armitage stated that "frequent performance of a behaviour may bring subsequent behaviour under the control of habitual processes, although behaviour does not necessarily become habitual just because it is performed many times" (p. 1436). According to the authors, scholars have tended to conceptualize past behaviour as "habit", rather than as frequency of past behaviour. In terms of measurement, the distinction between these two variables becomes further blurred as

measures of 'past behaviour' and 'habit' have typically been worded in exactly the same way (Conner & Armitage).

To date, significant correlations among past behaviour and all TPB constructs have been reported in the literature (Conner & Armitage, 1998). Perhaps of most importance has been the contribution of past behaviour to the predictions of intentions and behaviour once all other TPB variables (i.e., attitude toward the behaviour, subjective norm, and perceived behavioural control) have been taken into account (Conner & Armitage). For instance, Conner and Armitage examined 11 TPB-based studies using the past behaviour construct. The authors reported that after taking account of all TPB variables, past behaviour, on average, explained a further 7.2% of the variance in intentions. Similarly, they found that past behaviour explained, on average, 13.0% of the variance in behaviour after taking account of intentions and perceived behavioural control. Moreover, it has been suggested that the past behaviour-future behaviour relationship should be mediated by perceived behavioural control (Ajzen, 1991). This logic is based on the notion that repetition of behaviour should lead to enhanced perceptions of control (Ajzen).

Past behavior may help explain the future behaviour of sport consumers. For example, Godin, Valois, and Lepage (1993) reported that habit was the most important predictor of exercise behaviour over and above all other TPB variables. Likewise, past behaviour/habit might explain people's decisions to take up a sport on display at mega sport-events such as the Olympic Games. Recently, it has been speculated that the Olympic Games may only inspire those who are already somewhat active in sport-related behaviours (Potwarka & McCarville, 2010). For example, a study of a heavily publicized curling gold medal's impact on Scotland's curling participation rates found that the success had the greatest impact on citizens who were already active in sport (Sport-Scotland, 2004). Thus, it is possible that the Olympic Games tend to make

already moderately active people even more active, as opposed to motivating completely sedentary individuals to adopt at least some form of sport/physical activity in their daily lives. Moreover, using Bandura's modeling theories (e.g., Bandura, 1971), Wenner (1989) argued that viewing recreational sports (i.e., on television, or in person) can inspire activity.

Past behaviour/habit might also help predict other consumer responses to mega-sport events (e.g., the Olympic Games). For instance, researchers (e.g., Cunningham & Kwon, 2003; Trail & James, 2001; Wann, 1995) advocated for its use in predicting attendance at live sport events. Synder and Spreitzer (1983) for example, suggested that participating in sport raises the likelihood of being a sport spectator.

Additionally, it is reasonable to suspect that people who already habitually purchase products or services from a company because they sponsor an event would continue to do so as a result of the company's subsequent association with the sport event. In much the same way, those who have watched previous Olympic Games on television will likely intend to watch future coverage of the event. Furthermore, in TPB-based and non TPB-based investigations, past experiences performing the behaviour has been shown to influence people's decisions travel to a region after it has staged a sport-event (Gibson et al., 2008; Kaplanidou, 2007; Kaplanidou & Vogt, 2009; Shonk & Chelladurai, 2008), and become a sport event volunteer (Ralston et al., 2004). Recently however, Kaplanidou and Gibson (2010) found that past participation in an annual Seniors Games event was not associated with respondents' intentions to attend the event the following year. The authors explained this counter-intuitive finding by suggesting that these active sport tourists might seek novelty in their decision to attend this event. In other words, they might consider taking part in other local competitions around the state, rather than the same event hosted by the same community year after year.

## 2.4.3 Descriptive Norms

As noted, measures of attitude have typically outperformed subjective norm in the prediction of intention (Norman et al., 2005; Sheeran & Orbell, 1999). In response to the relatively weak correlations between subjective norm and intention reported in much of the TPB literature, several researchers have questioned the way in which the normative component of the model (i.e., subjective norm) has been assessed (e.g., Cialdini, Reno, & Kallgren, 1990; Conner & McMillan, 1999; Norman et al.; Sheeran & Orbell; Terry & Hogg, 1996). In particular, many scholars (e.g., Cialdini et al.) have noted that the TPB fails to distinguish between two types of normative pressure (i.e., injunctive and descriptive norms). According to Norman et al.,

first there are *injunctive norms* that focus on the individual's perception of other people's approval or disapproval. Thus, individuals may experience social pressure to perform a behavior because they believe that this is what important others would want them to do. This is the kind of normative pressure that is typically assessed by subjective norm measures. However, there is a second type of normative pressure that stems from *descriptive norms* that focus on the individual's perception of the behavior or attitudes of other people. Thus, individuals may experience social pressure to perform a behavior because they believe that important others also perform the behavior and have a positive attitude toward it. (p. 1010)

Simply put, unlike the subjective (i.e., injunctive) norms assessed in the TPB, descriptive norms refer to perceptions of other people's behaviour in the domain (Sheeran & Orbell, 1999). Here, the actions of important others motivates the person by showing him or her what is the normal and rational thing to do (e.g., "if everyone is doing it, it must be the sensible thing to do"; Sheeran & Orbell). Indeed, a number of studies have found that descriptive norms exert an independent influence on intentions, over and above 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; Rivis & Sheeran, 2003; Sheeran & Orbell; White, Terry, & Hogg, 1994).

Descriptive norms might be a useful addition to TPB-based models attempting to explain the behaviour of sport consumers. Based on the behaviours and/or attitudes of others, it is reasonable to speculate that people may choose to watch sport-events on television, purchase products/services from sport-event sponsors (e.g., Bennett, 1999), and/or become a volunteer of the sport-event. For example, if people believe many fellow citizens watch their nation's teams/athletes compete during the Olympic Games (e.g., "most Canadians watch Team Canada Olympic hockey games), they may perceive the action as being a "normal" and acceptable form of behaviour (e.g., "watching Team Canada play hockey at the Olympic Games is what Canadians do"). Very few studies have examined descriptive norms or related measures of social pressure in the context of consumer responses to sport-events. One such exception is Bennett's (1999) study of the influence of false consensus on sponsorship purchase intentions described earlier. Here again, the author found that soccer fans who believed that their team's sponsors' brands were purchased by a larger number of fellow supporters than was actually the case, were more likely to report positive intentions to purchase these sponsors' products/services.

### 2.5 Limitations of the Theory of Planned Behavior

Although the TPB has been described as the most successful and parsimonious model for predicting human behaviour is the history of social psychology (Trafimow, 2007), it is not without its inherent conceptual and methodological limitations. For instance, the TPB is thought to be a causal process. However, to date, "relatively few studies have addressed this assumption, most relying on correlational data among self–report measures" (Conner & Armitage, 1998, p. 1453). In the absence of causal evidence, sport marketers may have less confidence in relying on the TPB to inform the development of effective behavioural interventions (Conner & Armitage).

It has also been suggested that the TPB does not adequately capture the time sensitive nature of intention-behaviour relationships (Sutton, 1998). As mentioned, the ability for intentions to accurately predict behaviour tends to diminish as the amount of time between measurement of intention and observation of the behaviour increases (Ajzen, 2005).

Consequently, researchers (e.g., Sutton) have called for the inclusion of proximal and well as distal measures of intentions in the TPB. By doing so, changes in intention can be measured and the impact of the intention-behaviour relationship assessed. According to Sutton,

although Fishbein and Ajzen say little about the role of memory processes, these would seem crucial in understanding the relationship between intention and behavior. In order to influence behaviour, a distally formed intention has to be retrieved or re-formed when an opportunity to perform the behaviour arises. (p. 1335)

The TPB also tends to ignore situational factors (Sutton, 1998). In other words, the model does not address the notion that intentions can change because the context changes (Ajzen, Ajzen, 2005; Sutton, 1996). For example, an intention to watch the Olympic Games on television might change when a competing nation of interest has been performing poorly in a particular event.

## 2.6 Summary

This review offered insights about the usefulness of the TPB in predicting people's behavioural responses to mega-sport events such as the Olympic Games. Essentially, the TPB suggests that people's intentions to perform behaviours of interest to Olympic Stakeholders (i.e., television viewership, live attendance/spectatorship, sport/physical activity participation, post-event travel to host destinations, sponsorship patronage, and volunteerism) can be predicted with a great deal of accuracy from three main antecedents: (i) attitude toward the behaviour; (ii) subjective norms; and (iii) perceived behavioural control. In addition to TPB-based constructs, the review also

outlined the potential role *background factors* (e.g., gender, geographic proximity to the event), *past behaviour*, and *descriptive norms* might play in predicting behaviours of interest to Olympic stakeholders.

To date, few researchers have utilized the TPB to understand the motivations of sport consumers. As well, existing models of sport consumer behaviour (e.g., Pons et al., 2006; Wann, 1995) offer little practical insights for sport marketers who wish to develop promotional messages that elicit desired responses to a mega sport-event. Therefore, using a quantitative survey-based research design, the current study demonstrates the efficacy of the TPB in predicting people's intended behavioural responses to the Vancouver 2010 Winter Olympic Games.

Although this chapter outlined the TPB's potential application for explaining a multitude of responses to mega-sport events, the present investigation employed the model to help predict *three* behavioural intentions of interest to Vancouver 2010 Olympic Winter Games' stakeholders. The conceptual and practical rationale for selecting these particular responses to the event will be discussed in more detail in Chapter Three. Specifically, the TPB was used as a framework to explain selected Canadian undergraduate students' intentions to:

- i) increase their physical activity levels in response to the event.
- ii) watch the event on television.
- iii) purchase products or services from companies because they are sponsors of the event

Once again, it was expected that attitude toward the behaviour, subjective norm, and perceived behavioural control would combine to explain significant proportions of the variance in each of the behavioural intentions under investigation in the current study. As per the TPB, it was also expected that behavioural, normative, and control belief measures would emerge as a significant

predictors of attitude toward the behaviour, subjective norm, and perceived behavioural control (within each behavioural domain).

Moreover, this investigation hypothesized that additional variables could predict respondents' intentions to increase their physical activity levels, watch the event on television, and purchase products/services from event sponsors. In particular, the current study speculated that past behaviour and descriptive norms (i.e., people's perceptions about the degree to which other people actually perform the particular behaviour in question) would explain significant proportions of variance in respondents' intentions over and above TPB-based constructs. Lastly, it was anticipated that background factors (i.e., gender and geographic proximity to the event) would significantly influence behavioural, normative, and control belief measures included in the TPB. The measurement of each of these construct and the methods that were used to collect the data for this study are described in the following chapter.

#### 3. METHODOLOGY

### 3.1 Outline

The following chapter is divided into three main sections. The first section outlines the research design of the present investigation including study participants, pre-test data collection procedures and results, main study data collection procedures, and participant compensation and retention. The second section describes the measures of questionnaire variables, which include all TPB and non-TPB based constructs (i.e., background/demographic factors, descriptive norms, and past behaviour). The final section of this chapter will outline the data analyses plan.

## 3.2 Research Design

# 3.2.1 Study Participants

Participants for this study consisted of a sample of Canadian undergraduate students attending the University of Waterloo, in Waterloo, Ontario, as well as a sample of undergraduate students attending the University of Victoria, in Victoria British Columbia. These participants were selected for recruitment for two main reasons. First, research has shown that male and female citizens who were less than 50 years old, never married, and did not have dependent children were most enthusiastic about hosting the Sydney Olympic Games compared to other segments of the Australian population (Waitt, 2001). Based on these results, Canadian undergraduate students, most of whom fulfill these demographic criteria, might represent one of the salient segments on which to target promotional messages aimed at eliciting the desired responses to Vancouver Olympics of interest in the present investigation. Therefore, a better understanding of what motivates these individuals' to increase their activity levels in response to the event, watch the event on television, or purchase a product/service from an event sponsor may be of particular

interest to Olympic marketers. Members of the IOC have, for example, noted the opportunity and importance of appealing to members of this audience (IOC, 2004; personal communication, David Bedford, Executive Director of Marketing and Communications for the Canadian Olympic Committee, August 28, 2009). The results of the present investigation are by no means representative of the entire population of Canadian undergraduate students. However, this study may be a good starting point to further our conceptual understanding of people's response to mega-sport events via the use of the TPB. If this investigation proves to be effective at predicting people's response to the Vancouver 2010 Olympic Winter Games, it is recommended that future research apply the TPB within different sport-event contexts, among different samples of the population, and in relation to different behaviours of interest.

Second, comparing samples of students that reside in locations relatively close to the where the Vancouver Olympics will take place (i.e., students enrolled at the University of Victoria) with those that live thousands of kilometres away from the upcoming event (i.e., students enrolled at the University of Waterloo), can reveal unique insights about the role proximity to a mega-sport event plays in shaping public response to it. As noted in chapter two, geographic proximity to the Olympic Games might affect host residents' behavioural, normative, and control-based beliefs about performing certain behavioural responses to the event, and subsequently influence their intentions to perform the behaviour of interest. The procedures that were used to determine each of these sets of beliefs will be discussed in the following section.

### 3.2.2 Pre-Test Data Collection Procedures

As noted previously, TPB-based research requires extensive pre-test work in order to inform the development of the final instrument (Ajzen, 2006). Convenience samples of undergraduate students from the University of Waterloo (n=85) were asked to complete a brief questionnaire during selected fall 2009 term classes. The classes that were selected contained a range of

"lower" and "upper" year students from a variety of different disciplines on campus (e.g., arts, math, engineering, sociology, recreation and leisure studies, etc.). This pre-test questionnaire, including the in-class recruitment script, as well as the informed consent and feedback letters are presented in Appendix A through D. The purpose of the pre-test was to identify the salient behavioural beliefs (i.e., beliefs that performing the behaviour is associated with certain outcomes), normative beliefs (i.e., beliefs about whether others approve/disapprove of the behaviour), and control beliefs (beliefs about the likelihood of encountering barriers to performing the behaviour) associated with each behaviour of interest in the present investigation. Here again, these behaviours include: (i) becoming more physically active because of the Vancouver 2010 Olympic Winter Games; (iii) watching the event on television; and (iii) purchasing products/services from event sponsors. Once these salient sets of beliefs were identified, they were included as measurement items in the final version of the questionnaire. Actual measurement of these beliefs is outlined in later in this Chapter. The pre-test study was reviewed and received ethics clearance from the University of Waterloo's Research Ethics Broad.

Criteria for selecting these specific behaviours amidst the myriad of other possible responses to the Vancouver 2010 Olympic Winter Games were based on both practical and conceptual reasons. First, assessing all of the variables necessary to construct more than three complete TPB-based models of behaviour is likely to encourage non-response bias resulting from respondent fatigue in both pre-test and main study questionnaires (c.f., Sharp & Frankel, 1983). Second, the current study's questionnaire is designed to be administered during class time to samples of students attending two Canadian Universities. Thus, respondents must be able to complete the questionnaire within a reasonable time frame. Third, based on discussions with Mr.

David Bedford, Director of Marketing for the Canadian Olympic Committee (COC), understanding the motivational processes involved in these specific behavioural responses were top research priorities for the COC prior to staging the Vancouver 2010 Winter Olympic Games.

Fourth, samples of undergraduate students in both geographic locations may face nonnegotiable barriers to performing several of the other behavioural responses discussed in Chapters One and Two (i.e., attendance/spectatorship, post-event travel, and event volunteerism). For example, many undergraduate students would likely be unable to afford missing the amount of school necessary to become an event volunteer, much less have the monetary resources available to travel several hours to engage in the behaviour. Likewise, the time and monetary commitments necessary to watch any component of the event in person, or to travel to Vancouver post-event might be too much to overcome for most undergraduate students, especially among students residing in eastern provinces (i.e., the University of Waterloo). Consequently, assessing motivations to perform such behaviours among samples of undergraduate students might be unwarranted. For these reasons, it was felt that behaviours selected in the present investigation (i.e., increasing physical activity levels, sponsorship patronage, and television viewership) were more relevant responses in relation to the target audience of interest to the COC and the current study.

3.2.2.1 Elicitation of salient behavioural, normative, and control belief measures

The TPB assumes that beliefs provide the cognitive and affective foundations for attitudes, subjective norm, and perceptions of behavioural control (Ajzen, 1991). According to Ajzen (2006), before administering a TPB-based questionnaire, pilot work is required to identify the salient (i.e., readily accessible from memory) behavioural, normative, and control beliefs in relation to all behaviours under investigation. To elicit these beliefs, respondents were asked as a

series of questions adapted from Ajzen such as those illustrated below. These responses were then used to identify the *modal(salient) beliefs* (i.e., a list of the most commonly held beliefs in the research population) associated with *becoming more physically active because of the Vancouver 2010 Olympic Winter Games;* (iii) *watching the event on television;* and (iii) *purchasing products or services from companies because they were sponsors of the event.* As Ajzen stated, modal (salient) beliefs provide the basis for constructing the standard questionnaire that is then used in the main study.

Responses to each question were recorded and tallied to determine the most frequently occurring behavioural outcomes, normative referents, and control factors respondents associated with each of the behaviours. These modal responses are presented in Table 4, Table 5 and Table 6. Generally speaking, the top two most frequently recurring answers were considered to be the most salient among the sample of 85 students. For the most part, the top two most frequently recurring responses to each question were quite evident, with the third most frequent response being more that 10-15 instances behind the second most frequent response. On some occasions however, the third most frequent response was also considered salient if it was relatively close in frequency to the second most popular response (i.e., if its tally was within two or three responses of the second most frequent response). Responses were tallied based on the general idea conveyed in them, and did not require verbatim wording to be considered consistent with one another. The Tables below present summary quotes, which capture each of the modal (salient) behavioural, normative, and control-based beliefs relevant to the sample population under investigation (i.e., university-aged undergraduate students).

In particular, to elicit the salient *behavioural outcomes* that are measured in the final version of the survey, participants were given a few minutes to list their thoughts in response to the following questions:

- What are some anticipated *advantages* of your becoming more physically active because of the Vancouver 2010 Olympic Winter Games?
- What are some anticipated *disadvantages* of your becoming more physically active because of the Vancouver 2010 Olympic Winter Games?
- What do you believe are the *advantages* of your showing preference to (i.e., purchasing products from) companies that are sponsors of the Vancouver 2010 Olympic Winter Games?
- What do you believe are the *disadvantages* of your showing preference to companies that are sponsors of the Vancouver 2010 Olympic Winter Games?
- What do you believe are the *advantages* of your watching of coverage of the Vancouver 2010 Olympic Winter Games on television?
- What do you believe are the *disadvantages* of your watching of coverage of the Vancouver 2010 Olympic Winter Games on television?

Table 4 summarizes the modal (salient) *behavioural outcomes* respondents' (n=85) associated with becoming more physically active because of the Vancouver 2010 Olympic Winter Games, purchasing products/services from event sponsors, and watching the event on television.

Table 4: Modal Behavioural Outcomes Associated with Physical Activity, Sponsorship Patronage, and Television Viewership Responses to the Vancouver 2010 Olympic Winter Games

	Modal Behavioural Outcomes		
Item/Measure	Physical Activity	<b>Sponsorship Patronage</b>	<b>Television Viewership</b>
Advantage(s) associated with performing the behaviour.	"Becoming more physically active because of the Vancouver 2010 Olympic Winter Games will help me develop a healthier lifestyle" (n=34).	"Showing preference to (i.e., purchasing products/services from) companies that are sponsors of the Vancouver 2010 Olympic Winter Games will help financially support Canadian Olympic athletes" (n=19).	"Watching coverage of the Vancouver 2010 Olympic Winter Games on television will allow me to feel a sense of national pride" (n=17).
	"Becoming more physically active because of the Vancouver 2010 Olympic Winter Games will help make me more fit and in better shape" (n=22).	"Showing preference to (i.e., purchasing products/services from) companies that are sponsors of the Vancouver 2010 Olympic Winter Games will allow me to express my feelings of national pride or patriotism" (n=19).	"Watching coverage of the Vancouver 2010 Olympic Winter Games on television will allow me to show support for (i.e., cheer on) Canadian athletes without having to travel to Vancouver" (n=14). "Watching coverage of the Vancouver 2010 Olympic Winter Games
			on television will allow me to stay up to date with current events and have better conversations with my peers "(n=13).
Disadvantage(s) associated with performing the behaviour.	"My motivation to sustain the increased activity levels will decrease following the event" (n=26).	"Showing preference to (i.e., purchasing products/services from) companies that are sponsors of the Vancouver 2010	"Watching coverage of the Vancouver 2010 Olympic Winter Games on television will take me away from doing other things" (n=19).

	Modal Behavioural Outcomes		
Item/Measure	Physical Activity	Sponsorship Patronage	Television Viewership
Disadvantage(s) associated with performing the behaviour (Continued).	olympic Winter Games means that smaller (i.e. local) companies will suffer in the marketplace" (n= 18).		
		"The products/services of competing companies that do not sponsor the event might be better" (n=11)	

To elicit salient *normative referents* (i.e., the identities of relevant individuals and groups) that would approve or disapprove of the behaviour, participants were given a few minutes to list their thoughts in response to the following questions:

- List any individuals or groups who you are close with, and would *approve* of your becoming more physically active because of the Vancouver 2010 Olympic Winter Games (e.g., my roommate, my friends, my family, co-workers, etc).
- List any individuals or groups who you are close with, and would *disapprove* of your becoming more physically active because of the Vancouver 2010 Olympic Winter Games (e.g., my roommate, my friends, my family, co-workers, etc).
- List any individuals or groups you are close with and who would *approve* of your showing preference to companies that are sponsors of the Vancouver 2010 Olympic Winter Games (e.g., my roommate, my friends, my family, co-workers, etc).
- List any individuals or groups you are close with and who would *disapprove* of your showing preference to companies that are sponsors of the Vancouver 2010 Olympic Winter Games (e.g., my roommate, my friends, my family, co-workers, etc).
- List any individuals or groups who would *approve* of your watching of coverage of the Vancouver 2010 Olympic Winter Games on television (e.g., my roommate, my friends, my family, co-workers, etc.).
- List any individuals or groups who would *disapprove* of your watching of coverage of the Vancouver 2010 Olympic Winter Games on television (e.g., my roommate, my friends, my family, co-workers, etc.).

Table 5 summarizes the modal (salient) *normative referents* respondents' (n=85) associated with becoming more physically active because of the Vancouver 2010 Olympic Winter Games, purchasing products/services from event sponsors, and watching the event on television.

Table 5: Modal Normative Referents Associated with Physical Activity, Sponsorship Patronage, and Television Viewership Responses to the Vancouver 2010 Olympic Winter Games

	Modal Normative Referents		
Item/Measure	Physical Activity	<b>Sponsorship Patronage</b>	Television Viewership
Individuals or groups who would <i>approve</i> of the behaviour.	"Close family members (e.g., parents, brothers, and/or sisters)" (n=64).	"Close <b>friends</b> (including boy/girlfriends)" (n=32).	"Close <b>friends</b> (including boy/girlfriends)" (n=42).
	"Close <b>friends</b> (including boy/girlfriends)" (n=69).	"Close family members (e.g., parents, brothers, and/or sisters)" (n=22).	"Close family members (e.g., parents, brothers, and/or sisters)" (n=32).
Individuals or groups who would <i>disapprove</i> of the behaviour.	"Close <b>friends</b> (including boy/girlfriends)" (n=12).	"Close family members (e.g., parents, brothers, and/or sisters)" (n=12).	"Close <b>family</b> members (e.g., parents, brothers, and/or sisters)" (n=6).
	"Close family members (e.g., parents, brothers, and/or sisters)" (n=11).	"Close <b>friends</b> (including boy/girlfriends)" (n=8).	"Close <b>friends</b> (including boy/girlfriends)" (n=5).

Finally, to elicit the modal (salient) *control factors* that may facilitate or impede performance of the behaviour, participants were given a few minutes to list their thoughts in response to the following questions:

• If you chose to become more physically active because of the Vancouver 2010 Olympic Winter Games, what factors or circumstances make it *easier* for you to do so?

- If you chose to become more physically active because of the Vancouver 2010 Olympic Winter Games, what factors or circumstances make it *difficult* for you to do so?
- If you chose to show preference to (patronize) sponsors of the Vancouver 2010 Olympic Winter Games, what factors or circumstances would make it *easier* for you to do so?
- If you chose to show preference to (patronize) sponsors of the Vancouver 2010 Olympic Winter Games, what factors or circumstances would make it *difficult* for you to do so?
- If you chose to watch coverage of the Vancouver 2010 Olympic Winter Games on television, what factors or circumstances make it *easier* for you to do so?
- If you chose to watch coverage of the Vancouver 2010 Olympic Winter Games on television, what factors or circumstances make it *difficult* for you to do so?

Table 6 summarizes the modal (salient) *control factors* respondents' (n=85) associated with becoming more physically active because of the Vancouver 2010 Olympic Winter Games, purchasing products/services from event sponsors, and watching the event on television.

Table 6: Modal Control Factors Associated with Physical Activity, Sponsorship Patronage, and Television Viewership Responses to the Vancouver 2010 Olympic Winter Games

	Modal Control Factors		
Item/Measure	Physical Activity	Sponsorship Patronage	Television Viewership
Factors or circumstances that make it <i>easier</i> to perform the behaviour.	"Improved access to programs and facilities stimulated by the event" (n=31).  "Promotions/ advertisements encouraging me to become more active in conjunction with the Vancouver 2010 Olympic Winter Games" (n=13).  "Increasing my awareness (knowledge) of sport and physical activities (via advertisements) I can participate in" (n=11).	"The product/service is readily available in the marketplace" (n=33).  "Exposure to advertisements/promotions from companies indicating they are sponsors of the Vancouver 2010 Olympic Winter Games" (n=24).	"Access to a cable television set" (n=38).  "Possessing the available free time to watch coverage of the event" (n=21).
Factors or circumstances that make it difficult to perform the behaviour.	"If the Games do not stimulate the development of/improve access to sport/recreational programs and facilities in my community" (n=31).  "Lack of available free time to increase my activity levels" (n=27).	"if sponsors increase their prices because of their association with the event" (n=34)  "If sponsors products are not as easily accessible in the marketplace compared to competitors" (n=14).  "If the sponsors products/services are unsuitable for my lifestyle (i.e., if the sponsors products services and not relevant to me)" (n=11).	"Lack of available free time because of school and/or work commitments" (n=33).  "Lack of access to a cable television set" (n=21).

Once all modal (salient) behavioural outcomes, normative referents, and control factors needed to construct TPB belief-based measures were identified from the pre-test (Ajzen, 2002b; Ajzen,

2006), the standard version of the questionnaire was developed (see Appendix I). Based on the results of the pre-test, the specific consequences, referent individuals/groups, and barriers to performing each action were used to construct each belief based composite measure that appears in the questionnaire.

According to Ajzen (2006, p.7),

by measuring beliefs, we can, theoretically, gain insight into the underlying cognitive foundation, i.e., we can explore why people hold certain attitudes, subjective norms, and perceptions of behavioural control. This information can prove invaluable for designing effective programs of behavioral intervention. It is important to realize however, that this explanatory function is assumed only for *salient* beliefs or, to use the currently favoured term, beliefs that are readily *accessible* in memory. When evaluating the theory of planned behaviour, it is possible to model the total sets of salient beliefs, i.e., the belief composites, as antecedents or causes of the direct measures of attitude, subjective norms, and perceived behavioral control.

The direct and salient belief composite (i.e., determinant) measures of attitude toward the behaviour, subjective norms, and perceived behavioural will be described in a later section of this chapter, and are outlined in Table 7.

# **3.2.3** Main Study Data Collection Procedures

A purposive sampling technique was used to collect the data for the main investigation. Participants for the main study were enrolled in relatively large first and second year undergraduate classes at the University of Waterloo (n = 357) and the University of Victoria (n = 48) during the fall 2009 and Winter 2010 term. Contact with professors that were teaching five such classes (three at the University of Waterloo and two at the University of Victoria) was established, and permission was granted to administer the survey during class time.

These relatively large "survey" classes were selected for two reasons. First, they often have 100 or more students enrolled in them, which will helped to ensure a favourable sample size for data analyses. Second, they are typically open to students from different departments on

campus, thereby limiting potential responses biases from surveying potentially "likeminded" students. Students in leisure and sport-related fields for example, may have different orientations regarding the social phenomena of interest in the present investigation (i.e., sport/leisure consumption) compared to students immersed in general arts and science-related disciplines. A pilot-study was conducted to determine the approximate length of time needed to complete the instrument. On average, it took a convenience sample of student respondents (n=6) approximately 25 minutes to complete the questionnaire that was eventually used in the main study.

Participants completed the questionnaire on site during regularly scheduled class meeting times. The questionnaire, including the in-class recruitment script, as well as the information and feedback letter for each sample institution are presented in Appendix E, F, G, H and J. A total of 396 questionnaires were distributed to students attending classes at the University of Waterloo. From this sample of potential respondents, 357 questionnaires were completed and retained for subsequent analyses. In total, 39 students chose to submit a blank questionnaire. Thus, a 90% response rate was achieved for the sample of University of Waterloo students. In a similar fashion, a total of 56 surveys were distributed to students attending classes at the University of Victoria. From this sample of potential respondents, 48 questionnaires were completed and retained for subsequent analyses. In total, 8 students chose to submit a blank questionnaire. Thus, an 85% response rate was achieved for the sample of University of Victoria students. These two samples were combined and analyzed together (n=405).

At the end of the questionnaire, participants were asked whether they would be willing to be contacted via email to participate in a follow-up study, which will be conducted approximately six months to one year after the Vancouver 2010 Olympic Winter Games.

Participants were instructed that those who agreed to be contacted for the follow-up study will automatically be entered into the draw to win the apparel package. The follow-up study *will not* be conducted as part of the present investigation. The main purpose of this future research study will be to assess the degree to which the intentions measured in the present investigation led to behavioural action.

# 3.3 <u>Measures of Questionnaire Variables</u>

The questionnaire was designed to assess each TPB construct (excluding actual behaviour) in relation to each of the three responses to the Vancouver 2010 Olympic Winter Games noted previously. Table 7 outlines the most common ways TPB constructs have been measured in previous research.

**Table 7: Measurement of Theory of Planned Behaviour Constructs** 

Construct	Definition	Measurement
Behavioural Intention	Perceived likelihood of	Bipolar unlikely-likely scale;
	performing a behaviour	scored -3 to +3 or 1 to 7
Attitude toward the behaviour Direct measure:	Overall evaluation of the behaviour	Semantic differential scales: for example, good-bad scale; scored -3 to +3 or 1 to 7
Determinant measures: Behavioural belief	Belief that performance is associated with certain outcomes	Bipolar unlikely-likely scale; scored -3 to +3 or 1 to 7
Evaluation	Value attached to a behavioural outcome	Bipolar bad-good scale; scored -3 to +3 or 1 to 7
Subjective Norm		
Direct Measure:	Belief about whether most people approve or disapprove of the behaviour	Bipolar disagree-agree scale; scored -3 to +3 or 1 to 7
Determinant measures:		
Normative belief	Belief about whether each referent approves or disapproves of the behaviour	Bipolar disagree-agree scale; scored -3 to +3 or 1 to 7
Motivation to comply	Motivation to do what each referent thinks	Unipolar unlikely-likely scale scored 1-7
Perceived Behavioural Control		
Direct measure:	Overall measure of the perceived ease or difficulty of performing the behaviour	Semantic differential scales: for example, easy-difficult scale; scored -3 to +3 or 1 to 7
Determinant measures:		
Control belief	Perceived likelihood of occurrence of each facilitating or constraining condition	Unlikely-likely scale; scored -3 to +3 or 1 to 7
Perceived power		5
	Perceived effect of each condition in making behavioural performance difficult or easy	Bipolar difficult-easy scale; scored -3 to +3 or 1 to 7

Adapted from Montano & Kasprzyk (2002, p. 69)

The questionnaire also measured variables that have been proposed as possible extensions to the TPB (c.f., Ajzen & Albarracín, 2007; Conner & Armitage, 1998, Norman et al., 2005; Sheeran & Orbell, 1999) including *background/demographic factors* (i.e., gender and place of residence), *past behaviour*, and *descriptive norms*. These constructs were assessed to determine if they can account for significant proportions of the variance in people's behavioural intentions over and above TPB constructs, or, in the case of background factors, influence behavioural, normative or control-based beliefs (Ajzen, 1991). The following sections describe the scales that were used to measure each variable in the questionnaire. Once again, a copy of the questionnaire is presented in Appendix I.

#### 3.3.1 Intentions

Ajzen (1991a, 2006) argued that when developing scales for TPB-based questionnaires, measures must be directly compatible with the behaviour in terms of: (1) the specific *action/target* to be performed (e.g., be more physically active); (2) the *context* in which the action is to take place (e.g., because of the Vancouver 2010 Winter Olympic Games) and (3) the *time* when the action is to be performed (e.g., in the coming months). As such, the questionnaire assessed the degree to which respondents intend to:

- To become more physically active in the coming months because of the Vancouver 2010 Olympic Winter Games.
- 2. To watch coverage of the Vancouver 2010 Olympic Winter Games on television.
- 3. To purchase products or services from companies because they were sponsors of the Vancouver 2010 Olympic Winter Games.

In accordance with standardized scaling procedures proposed by Ajzen (2006), each of the above intentions was assessed using multiple bi-polar Likert-type scale items. Using the sponsorship patronage behavioural response as an example, participants were first presented with the statement, "When confronted with several options in the coming months, I will choose to purchase products or services from sponsors of the Vancouver 2010 Olympic Winter Games." From here, participants were asked to rate (on a seven-point scale) the degree to which they perceived themselves performing this behaviour as being "definitely true" or "definitely false." Second, participants were presented with the statement, "When I purchase a product/service, I look for the Vancouver 2010 Olympic logo." Participants were then asked to rate (on a sevenpoint scale) the degree to which they perceived themselves performing this behaviour as being "definitely true" or "definitely false." Third, participants were presented with the statement, "I intend to choose to purchase products/services from companies who sponsor the Vancouver 2010 Olympic Winter Games. Participants were then asked to rate (on a seven-point scale) the degree to which they perceived this statement as being "extremely likely" or "extremely unlikely" to occur. Fourth, participants were presented with the statement, "When given the choice in the coming months, I am more likely to buy products from companies that are official sponsors of the Vancouver 2010 Olympic Winter Games. Participants were then asked to rate (on a sevenpoint scale) the degree to which they would "strongly agree" or "strongly disagree" with this statement. Measures of intention were presented in non-systematic order, interspersed with items from other constructs (Ajzen, 2006). Raw scores for each item were summed to form an overall measure of intention for each behaviour of interest in the present investigation.

### 3.3.2 Attitude Toward Behaviour

Ajzen (2006) noted that semantic differential scaling procedures scales are most commonly employed to obtain a respondent's overall evaluation of the behaviour in question (i.e., a direct measure of attitude toward the behaviour). The author also noted that care must be taken in selecting the bipolar adjectives that make up such scales. Ajzen argued that empirical research has shown that people's overall evaluation of a given behaviour contains two distinct

components. The first component is *instrumental* in nature, and is typically represented by adjective pairs such as *valuable-worthless*, and *harmful-beneficial*. The second component has a more *experiential* quality, and is often reflected in such scales as *pleasant-unpleasant* and *enjoyable-unenjoyable*. Consequently, the attitude toward the behaviour scale items that appear in the questionnaire includes bipolar adjective pairs that assess both of these evaluative components. In addition, Ajzen suggested that attitude toward the behaviour measure in the questionnaire should include a *good-bad* scale, which has been shown to capture overall evaluation very well.

Thus, using the physical activity behavioural response as an example, respondents were first presented with the statement, "For me to become more physically active in the upcoming months because of the Vancouver 2010 Olympic Winter Games is..." Participants then rated (on a seven-point scale) the degree to which they perceived the behaviour as being harmful-beneficial, important-unimportant, pleasant-unpleasant, good-bad, worthless-valuable, and enjoyable-unenjoyable. Raw scores for each item were summed to form an overall measure of attitude toward the behaviour. This process was repeated for each behavioural response of interest in the present investigation.

# 3.3.3 Behavioural Beliefs and Evaluation of Outcomes

Once all modal salient behavioural outcomes had been identified from the pre-test, two questions were asked with respect to each outcome (i.e., consequence) generated (Ajzen, 2006). The first question assessed participants' behavioural *belief strength* (*b*) using a standardized scaling procedure adapted from Ajzen. With respect to the physical activity response domain for example, participants were presented with the statement, "The Vancouver 2010 Olympic Winter Games will make me more fit and in better shape by increasing my physical activity levels in the

coming months." Participants then rated (on a seven-point scale) the degree to which the outcome presented in the statement was "extremely unlikely" or "extremely likely" to occur.

The second question assessed people's *evaluation* (*e*) of each behavioural outcome generated from the pre-test using a standardized scaling procedure adapted from Ajzen (2006). In keeping with the previous example, participants were first be presented with the statement, "Becoming more fit and in better shape is..." Participants then rated (on a seven-point scale) the degree to which the outcome presented in the statement was "extremely bad" or "extremely good."

In summary, Ajzen (2006, p. 9) stated that,

the belief strengths and outcome evaluations for the different accessible beliefs provide substantive information about the attitudinal considerations that guide people's decisions to engage or not engage in the behaviour under consideration. Belief strength and outcome evaluation can also serve, however, to compute a belief composite that is assumed to determine the attitude toward the behaviour  $(A_b)$  in accordance with the expectancy-value model as shown symbolically in the following equation:

$$A_b \propto \Sigma b_i e_i$$

Raw scores for each belief strength item and associated outcome evaluation item were multiplied together. The resulting products were then summed to form an overall behavioural belief measure. This process was repeated for each behaviour of interest in the present investigation.

### 3.3.4 Subjective Norms

According to Ajzen (2006), several different questions should be formulated to obtain a direct measure of subjective norm (*SN*). In accordance with the author, each subjective norm measure employed in the present investigation consisted of two bipolar scale items, which were designed to capture respondents' beliefs about whether most people would approve or disapprove of the behaviour. Using the television viewership response domain as an example, the subjective norm measures were assessed as follows. First, participants were presented with the statement, "*Most* 

people who are important to me think that:" Participants then completed the statement by indicating (on a seven-point scale) the degree to which these important people think that, "I should not" or "I should" watch televised coverage of the Vancouver 2010 Olympic Winter Games. In the second subjective norm question, participants were presented with the statement, "The people in my life whose opinions I value would:" Participants then completed the statement by indicating (on a seven-point scale) the degree to which such people would "approve" or "disapprove" of you watching televised coverage of the Vancouver 2010 Olympic Winter Games. These sets of questions were posed in relation to all three behaviours of interest in the present investigation. Raw scores for each item were summed to form an overall measure of subjective norm. This process was repeated for each behaviour of interest in the present investigation.

### 3.3.5 Descriptive Norms

The scale items described in the previous section possess an *injunctive* quality (Ajzen, 2006). In other words, measures of subjective norm focus solely on capturing an individual's perception of other people's approval or disapproval of performing a particular behaviour (Ajzen). As noted in Chapter Two however, researchers (Conner & McMillan, 1999; Norman et al., 2005) have also advocated for the use of *descriptive norms* in the prediction of behaviour. Unlike subjective (i.e., injunctive) norms, measures of descriptive norms focus on capturing an individual's perception of the actual behaviour other people (Norman et al.). Indeed, such measures have been thought to be able to account for significant proportions of variance over and above other TPB variables (Conner et al., 1996; Conner & McMillan; Devries et al., 1995; Grube et al., 1986; Nucifora et al., 1993; Rivis & Sheeran, 2003; Sheeran & Orbell, 1999; White et al., 1994).

Each descriptive norm measure employed in the present investigation consisted of two bipolar scale items, which were designed to capture respondents' beliefs about whether most people perform a particular behaviour (Ajzen, 2006). Once again, using the television viewership

domain as an example, the descriptive norm measures were assessed as follows. First, participants were presented with the statement, "Most people who are important to me will watch televised coverage of the Vancouver 2010 Olympic Winter Games." Participants then indicated (on a seven-point scale) the degree to which the statement was "completely false" or "completely true." In the second descriptive norm question, participants were presented with the statement, "Many people like me will watch televised coverage of the Vancouver 2010 Olympic Winter Games." Participants then indicated (on a seven-point scale) the degree to which they perceived the statement to be "extremely unlikely" or "extremely likely" to occur. These sets of questions were posed in relation to each of the behaviours of interest in the present investigation. Raw scores for each item were summed to form an overall measure of descriptive norm. This process was repeated for each behaviour of interest in the present investigation.

### 3.3.6 Normative Beliefs and Motivation to Comply

Once all modal salient normative referents (i.e., each important individual or group who is readily accessible from memory, and who might approve or disapprove of each behaviour of interest in the present investigation) had been identified from the pre-test, two questions were asked with respect to each referent (Ajzen, 2006). The first question assessed *normative belief strength* (n) using a standardized scaling procedure adapted from Ajzen. For example, participants were presented with the statement, "My family thinks that..." Participants then completed the statement by indicating (on a seven-point scale) the degree to which they believed their family would think that, "I should not" or "I should" watch televised coverage of the Vancouver 2010 Olympic Winter Games.

The second question assessed participants' *motivation to comply* (*m*) with each referent group generated from the pre-test using a standardized scaling procedure adapted from Ajzen (2006). In keeping with the previous example, participants were first be presented with the

question, "When it comes to watching television, how much do you want to do what your family thinks you should do?" Participants then rated the amount of pressure they perceived from their family to perform the behaviour on a seven-point scale ranging from "not at all" or "very much." In summary, Ajzen (2006, p. 12) stated that,

measures of normative belief strength and motivation to comply with respect to each accessible [salient] referent offer a 'snap shot' of perceived normative pressure in a given population. An overall normative belief composite is obtained by applying the expectancy-value formula to these measures, as shown in the following equation:

$$SN \propto \Sigma n_i m_i$$

Raw scores for each belief strength item and associated motivation to comply item were multiplied together. The resulting products were then summed to form an overall normative belief measure. This process was repeated for each behaviour of interest in the present investigation.

#### 3.3.7 Perceived Behavioural Control

Ajzen (2006) noted that a direct measure of perceived behavioural control (*PCB*) "should capture people's confidence that they are capable of performing the behaviour under investigation" (p. 7). According to the author, a number of different items should be used for this purpose. In particular, some of these items have to do with the difficulty of performing the behaviour, or the likelihood that a person could do it (Ajzen). Azjen stated that items of this sort capture the respondent's perceived *capability* of performing the behaviour under investigation. Therefore, to capture the capability quality of perceived behavioural control, participants were asked the following two questions with respect to each response of interest in the present investigation. Using the sponsorship patronage response domain as an example, participants were presented with the statement, "For me to choose to purchase products/services from companies who sponsor the Vancouver 2010 Olympic Winter Games in the coming months would be..."

Participants then indicated (on a seven point scale) the degree to which they perceived the behaviour as being "impossible" or "possible" to perform. Second, participants were presented with the statement "If I wanted to, I could purchase products or services from sponsors of the Vancouver 2010 Olympic Winter Games in the coming months." Participants then rated (on a seven point scale) the degree to which the statement was "definitely true" or "definitely false."

Ajzen (2006) argued that direct measures of perceived behavioural control should also contain items that address "people's beliefs that they have control over the behaviour, that its performance is not up to them" (p. 7). The author stated that items of this sort refer to the behaviour's controllability. Thus, to capture the controllability quality of perceived behavioural control, participants were asked the following two questions with respect to each of the behaviours of interest in the present investigation. Once again, using the sponsorship patronage response domain as an example, participants were first presented with the question, "How much control do you believe you have over choosing to purchase products/services from companies who sponsor the Vancouver 2010 Olympic Winter Games in the coming months?" Participants then indicated (on a seven point scale) the degree to which they perceived themselves to have "no control" or "complete control" over performing the behaviour. Second, participants were presented with the statement "It is mostly up to me whether or not I choose to purchase products/services from companies who sponsors the Vancouver 2010 Olympic Winter Games in the coming months." Participants then indicated (on a seven-point scale) the degree to which they would "strongly disagree" or "strongly agree" with the statement. On a final note, Ajzen stated that perceived behavioural control scales should contain capability as well as controllability items, and care should be taken to ensure the set of items have a high degree of internal consistency (i.e., correlate well with one another). Raw scores for each item were summed to

form an overall measure of perceived behavioural control. This process was repeated for each behaviour of interest in the present investigation.

### 3.3.8 Control Beliefs and Perceived Power

Once all modal salient control factors (i.e., factors that facilitate or impede performance of the behaviour) had been identified from the pre-test, two questions were asked with respect to each factor (Ajzen, 2006). The first question assessed *control belief strength* (c) using a standardized scaling procedure adapted from Ajzen (2006). For example, in the case of the sponsorship patronage response domain, participants were first presented with the statement, "I expect companies who sponsor the Vancouver 2010 Olympic Winter Games will increase their prices in the coming months." Participants then indicated (on a seven-point scale) the degree to which they would "strongly agree" or "strongly disagree" with the statement. The second question assessed participants' control belief power (p) over each factor generated from the pre-test using a standardized scaling procedure adapted from Ajzen (2006). Participants were first presented with the statement, "Sponsors that increase their prices in the coming months would make it…" Participants then completed the statement by indicating (on a seven-point scale) the degree to which the factor would make it "more difficult" or, "nuch easier" for me to choose to purchase products/services from them in the coming months.

In summary, Ajzen (2006, p. 13) stated that,

examination of the average strength and power of the different control beliefs provides a picture of the factors that are viewed as facilitating or impeding performance of the behaviour. Using an expectancy-value formulation, as shown in the following formula, it is possible to compute a control belief composite.

PCB  $\propto \Sigma c_i p_i$ 

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Raw scores for each belief strength item and associated belief power item were multiplied together. The resulting products were then summed to form an overall control belief measure. This process was repeated for each behaviour of interest in the present investigation.

### 3.3.9 Background Factors

The questionnaire also assessed Ajzen and Albarracín's (2007) social category of background factors (refer to Figure 2 in Chapter 2). As noted, these *social factors* are thought to reflect the potential influence of socio-demographic characteristics on the belief-based (i.e., determinant) measures proposed in the TPB (Ajzen & Albarracín). Specifically, the present investigation examined the influence of *gender and geographic proximity to the event (i.e., whether students attended classes at the University of Waterloo or the University of Victoria at the time of the survey)* on each belief-based composite measure.

Data on respondents' age, program/year of study, living arrangements, and financial situation were also collected. However, these factors were not included in subsequent statistical analyses. This decision was made because the sample of student respondents appeared to be very similar in terms of life circumstances related age, program of study, living arrangements, and financial situation. Therefore, it was deemed that this lack of variability offered little explanatory power in relation to all three behavioural responses under investigation. Not to mention, these specific variables (i.e., age, program/year of study, living arrangements, and financial situation) were assessed more for the purposes of establishing the context for the study than for any explanatory purposes. In other words, these items were included in the questionnaire to create a socio-demographic profile of student respondents. For specific examples of how all background factors were assessed, please refer to section D of the questionnaire in Appendix I.

#### 3.3.10 Past Behaviour

In addition to measuring the constructs of the TPB and the background factors outlined above, the questionnaire also assessed respondents' past behaviour with respect to each response of interest in the current investigation. To measure past behaviours, participants were presented with single-item statements such as: "Previous Olympic Winter Games (e.g., Torino 2006; Salt Lake City 2002) have made me become more physically active in past years;" "I have watched televised coverage of at least some portion of previous Olympic Winter Games (e.g., Torino 2006; Salt Lake City 2002);" and "When confronted with several options in past years, I have chosen to purchase products/services from sponsors of previous Olympic Winter Games (e.g., Torino 2006; Salt Lake City 2002). Participants were asked to rate (on a seven-point scale) the degree to which they perceived each of these statements as being "definitely false" or "definitely true."

### 3.4 Data Analyses

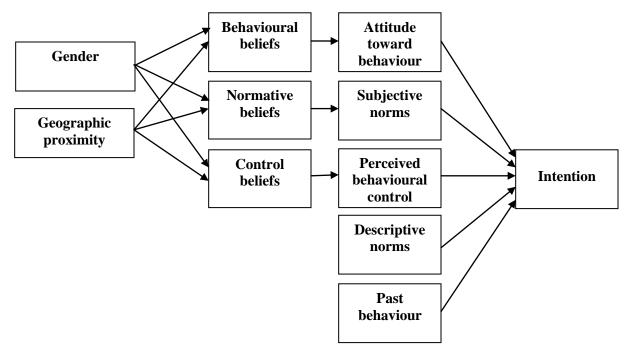
As noted in Chapter 1, the purpose of the present investigation was to develop a better understanding of why host residents (i.e., Canadian undergraduate students) might be motivated (or not motivated) to perform certain behaviours in response to the staging of the Vancouver 2010 Olympic Winter Games by means of the TPB. Specifically, it was expected that attitude toward the behaviour, subjective norm, and perceived behavioural control would combine to explain significant proportions of the variance in respondents' intentions (i) to become more physically active because of the Vancouver 2010 Olympic Winter Games; (ii) to watch coverage of the 2010 Olympic Winter Games on television; and (iii) to purchase products or services from companies because they were sponsors the Vancouver 2010 Olympic Winter Games. It was also hypothesized that background factors (i.e., gender and geographic proximity to the event) would

explain significant proportions of the variance in behavioural, normative, and control belief measures with respect to each of the behavioural intentions outlined above. It was also anticipated that behavioural, normative, and control belief measures would emerge as a significant predictors of attitude toward the behaviour, subjective norm, and perceived behavioural control respectively.

Finally, it was expected that descriptive norms and past behaviour would explain significant proportions of the variance in respondents' intentions above and beyond the combined influence of attitude toward behaviour, subjective norm, and perceived behavioural control.

Figure 3 shows a model of the hypothesized relationships that will be tested for each of the three behavioural intentions (responses) under investigation. In order to test these hypothesized relationships, a series of regression analyses were conducted in relation to each response (intention) domain. Results from these regression analyses are presented in Chapter 4.

Figure 3: Hypothesized Relationships Among TPB and Related Constructs



#### 4. RESULTS

### 4.1 Outline

This chapter presents the study's findings and is organized as follows: First, participant response rates and descriptions of background factors (i.e., socio-demographic characteristics of respondents) are presented. From here, the findings are categorized and presented in sections for each of the three responses (intentions) under investigation (i.e., physical activity, television viewership, and sponsorship patronage). Within each of these sections, descriptions and reliability of key measures in the prediction of each intention are offered, followed by the results of the sets of regression analyses that were employed to test the relationships in each TPB-based model (see

Figure 3).

# 4.2 <u>Study Participation and Response Rates</u>

Chapter Three described the methodology used to survey respondents. In total, 396 questionnaires were distributed to students attending classes at the University of Waterloo. From this sample of potential respondents, 357 questionnaires were completed and retained for subsequent analyses. A total of 39 students chose to submit a blank questionnaire. Thus, a 90% response rate was achieved for the sample of University of Waterloo students.

In a similar fashion, a total of 56 surveys were distributed to students attending classes at the University of Victoria. From this sample of potential respondents, 48 questionnaires were completed and retained for subsequent analyses. A total of 8 students chose to submit a blank questionnaire. Thus, an 85% response rate was achieved for the sample of University of Victoria students. Completed questionnaires from both samples were analyzed together (n = 405).

# 4.3 <u>Descriptions of Background Factors</u>

The following section describes selected background (i.e., socio-demographic) characteristics of the sample related to gender, place of residence (i.e., geographic proximity to the event), age, program/year of study, living arrangements, financial situation. For examples of how these background factors were assessed, please refer to section D of the questionnaire in Appendix I. For all variables, less than 7% 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 gender, 65.3% of the sample was female and 34.7% were male. Albeit anecdotally, this result seems to be somewhat consistent with the gender split of students in the Faculty of Applied Health Sciences at the University of Waterloo, which is where the majority (64.6%) of the study sample was drawn from. Thus, it is not surprising that 88.1% of respondents attended classes at the University of Waterloo and 11.9% attended classes at the University of Victoria. More specifically, 73.5% of respondents resided in the Kitchener-Waterloo region of Ontario, approximately 4500 kilometres away from the host city of Vancouver. On the other hand, 11.6% of the sample resided in the Victoria region, approximately 123 kilometres away from the host city of Vancouver.

The ages of respondents tended to be somewhat homogeneous. Over 75% of respondents were between the ages of 19-22, with an average age of 20.51 years. Most students (30.1%) were enrolled in their second year of studies, and more than half (52.1%) lived in a house or apartment with roommates. In terms of student respondents' financial position, most respondents (35%) reported that they had "enough money to get by," followed by 26.1% reporting that they were "quite comfortable" and by 22.4% reporting that they had "a little left over after they paid all

their bills." Only 10% of respondents reported being "barley able to make ends meet" while only 6.5% stated that they had "all they needed and more."

In summary, the majority of respondents were female, 20 years of age, in their second year of study, had "enough money to get by", and lived in a house or apartment with roommates in the K-W region. Based on the review of the literature, the influence of gender and geographic proximity (i.e., place of residence) on all behavioural, normative, and control belief measures were of particular interest in the current study. Although data were collected in relation to the other background factors noted above (i.e., age, program/year of study, living arrangements and financial situation), findings related to these variables were intended solely to describe the sociodemographic profile of the sample of student respondents. As such, these variables were not assessed for any explanatory or predictive purposes. Notwithstanding these purposes, it is reasonable to argue that the relative lack of variation within these factors would offer little explanatory power in relation to the responses under investigation. Thus, these factors will not be analyzed in subsequent regression analyses/model testing.

Gender and geographic proximity variables were treated as nominal dichotomous predictor variables in the subsequent regression analyses. Males were coded as "0" and female as "1". Likewise, University of Victoria students (residents) were coded as "0" and University of Waterloo students were coded as "1".

### 4.4 Physical Activity

The following sections present descriptive statistics for key study variables as they relate to the prediction of physical intentions, followed by the results of the sets of regression analyses that were conducted to test the model depicted in Figure 4.

# 4.4.1 Descriptions and Reliability of Physical Activity Response Measures

This section describes the means, standard deviations, and reliability statistics (coefficient alphas) for the different scales used to assess each variable depicted in Figure 4 (excluding gender and geographic proximity background variables). 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 372-385 of the 405 study participants. Skewness and kurtosis values for all measures fell within an acceptable range (3 to -3). Table 8 presents the means, standard deviations, and inter-correlations for all variables associated with the prediction of physical activity response (i.e., intention to become more physically active in response to the Vancouver 2010 Olympic Winter Games). Please refer to Part C of Appendix I to observe how each of the following scale items appeared in the questionnaire.

### 4.4.1.1 Behavioural beliefs

The behavioural belief (BB) scale was developed from the set of modal expected outcomes elicited in the pre-test (i.e., behavioural belief strength measures), and corresponding evaluation of each outcome associated with increasing physical activity levels in response to the Vancouver 2010 Olympic Winter Games. Two items were used to assess behavioural belief strength (i.e., the belief that increasing physical activity levels in response the event was associated with certain outcomes). First, participants were presented with the statement, "The Vancouver 2010 Olympic Winter Games will help me develop a healthier lifestyle by increasing my activity levels in the coming months." Participants then rated (on a seven-point scale) the degree to which this outcome was "extremely unlikely" or "extremely likely" to occur. Second, participants were presented with the statement, "The Vancouver 2010 Olympic Winter Games will make me more fit and in better shape by increasing my physical activity levels in the coming months." Once again, participants rated (on a seven-point scale) the degree to which this outcome was

"extremely unlikely" or "extremely likely" to occur. Scores for each behavioural belief strength item were coded on a continuum from 1 (extremely unlikely) to 7 (extremely likely).

Each behavioural belief strength item (b) had a corresponding outcome evaluation item (e), which was intended to capture the value respondents attached to each outcome. With respect to the first behavioural belief strength item, participants were presented with the statement, "Developing a healthier lifestyle because of the event would be..." Participants then rated (on a seven-point scale) the degree to which this outcome was "extremely bad" or "extremely good." In association with the second behavioural belief strength item, participants were presented with the statement, "Becoming more fit and in better shape is..." Once again, participants rated (on a seven-point scale) the degree to which this outcome was "extremely bad" or "extremely good." Scores for each outcome evaluation item were coded on a continuum from 1 (extremely bad) to 7 (extremely good), with a 4 indicating that the outcome was neither good nor bad.

Each behavioural belief strength item score was multiplied by its corresponding outcome evaluation item score, and the products were summed form an overall BB score ( $\Sigma b_i e_i$ ). Possible BB scores could range from 2 to 98, with higher scores indicating stronger beliefs that the event would help the individual attain valued outcomes of developing healthier lifestyles and become more fit via increased physical activity levels. The mean BB score was 43.60 (SD = 22.27). Coefficient alphas are not reported for any belief-based measures because these variables reflect composite scores of single-item (unique) measures.

# 4.4.1.2 Normative beliefs

The normative belief (NB) scale was developed from the set of modal normative referents elicited in the pre-test (i.e., normative belief strength measures), and corresponding motivation to comply with each referent group who respondents' perceived would approve or disapprove of

performing the behaviour in question. Two items were used to assess normative belief strength (i.e., respondents' beliefs about whether each referent group would approve or disapprove of increasing their physical activity levels in response to the event). First, participants were presented with the statement, "My family thinks that..." Participants then completed the statement by indicating (on a seven-point scale) the degree to which they believed their family would think that, "I should not" or "I should" become more active in the coming months because of the Vancouver 2010 Olympic Winter Games. Second, participants were presented with the statement, "My friends think that..." Participants then completed the statement by indicating (on a seven-point scale) the degree to which they believed their friends would think that, "I should not" or "I should" become more active in the coming months because of the Vancouver 2010 Olympic Winter Games. Scores for each normative belief strength item were coded on a continuum from 1 (I should not become more active in the coming months because of the Vancouver 2010 Olympic Winter Games) to 7 (I should become more active in the coming months because of the Vancouver 2010 Olympic Winter Games).

Each normative belief strength item (n) had a corresponding motivation to comply item (m), which was intended to capture respondents' motivation to do what each referent thinks. With respect to the first normative belief strength item, participants were presented with the statement, "When it comes to your activity levels, how much do you want to do what your family thinks you should do?" Participants then rated the amount of pressure they perceived from their family to perform the behaviour on a seven-point scale ranging from "not at all" or "very much." In association with the second normative belief strength item, participants were presented with the statement, "When it comes to your activity levels, how much do you want to do what your friends think you should do?" Once again, participants then rated the amount of pressure they

perceived from their friends to perform the behaviour on a seven-point scale ranging from "not at all" or "very much." Scores for each motivation to comply item were coded on a continuum from 1 (not at all) to 7 (very much).

Each normative belief strength item score was multiplied by its corresponding motivation to comply item score, and the products were summed form an overall NB score ( $\Sigma n_i m_i$ ). Possible NB scores could range from 2 to 98, with higher scores indicating stronger perceived pressure from friends and family to increase their physical activity levels in response to the event. The mean NB score was 35.37 (SD = 17.33).

### 4.4.1.3 Control beliefs

The control belief (CB) scale was developed from the set of modal control factors that facilitate or impede performance of the behaviour elicited in the pre-test (i.e., control belief strength measures), and corresponding perceived power (effect) of each condition in making increased physical activity levels in response to the event difficult or easy. Three items were used to assess control belief strength (i.e., the perceived likelihood of occurrence of each facilitating or constraining condition). First, participants were presented with the statement, "I expect that 2010 Olympic organizers and government agencies will promote the Vancouver 2010 Olympic Winter Games as a time for Canadian citizens to become more active." Participants then indicated (on a seven-point scale) the degree to which they would "strongly disagree" or "strongly agree" with the statement. Second, participants were presented with the statement, "I expect that 2010 Olympic organizers and government agencies will use the Vancouver 2010 Olympic Winter Games to promote increased awareness (knowledge) of sport and physical activity participation opportunities by developing advertisements." Participants then indicated (on a seven-point scale) the degree to which they would "strongly disagree" or "strongly agree" with the statement.

Finally, participants were presented with the statement, "I expect the Vancouver 2010 Olympic Winter Games will stimulate the development of additional recreational programs and/or facilities I can access in my community in the coming months." Participants then indicated (on a seven-point scale) the degree to which they would "strongly agree" or "strongly disagree" with the statement. Scores for each control belief strength item were coded on a continuum from 1 (strongly disagree) to 7 (strongly agree).

Each control belief strength item (c) had a corresponding perceived power item (p), which was intended to capture the perceived power of each condition in making performance of the behaviour difficult or easy. With respect to the first control belief item, participants were presented with the statement, "Promotions and advertisements encouraging me to become more active in conjunction with the Vancouver 2010 Olympic Winter Games would make it..." Participants then completed this statement by indicating (on a seven-point scale) the degree to which this factor would make it "more difficult" or, "much easier" for me to increase my activity levels in the coming months. In association with the second control belief strength item, participants were presented with the statement, "Increasing my awareness (knowledge) of sport and physical activities that I can participate in would make it..." Participants then completed this statement by indicating (on a seven-point scale) the degree to which this factor would make it "more difficult" or, "much easier" for me to increase my activity levels in the coming months because of the Vancouver 2010 Olympic Winter Games. In association with the third control belief item, participants were presented with the statement, "Access to additional sport and/or physical activity programs and facilities in my community would make it..." Once again, participants then completed this statement by indicating (on a seven-point scale) the degree to which this factor would make it "more difficult" or, "much easier" for me to increase my activity levels in the coming months because of the Vancouver 2010 Olympic Winter Games. Scores for each perceived power item were coded on a continuum from 1 (more difficult for me to increase my activity levels in the coming months because of the Vancouver 2010 Olympic Winter Games) to 7 (much easier for me to increase my activity levels in the coming months because of the Vancouver 2010 Olympic Winter Games).

Each control belief strength item score was multiplied by its corresponding perceived power item score, and the products were summed form an overall CB score ( $\Sigma c_i p_i$ ). Possible CB scores could range from 3 to 147, with higher scores indicating stronger control over the factors that facilitated or impeded increasing physical activity levels in response to the event. In other words, higher CB scores were a function of: strong beliefs that the Vancouver 2010 Olympic Winter Games would stimulate the development of activity promoting infrastructure in respondents' communities (i.e., programs, facilities, and advertisements); and strong beliefs that this infrastructure would make it easier for the individual to increase their activity levels in response to the event. The mean CB score was 60.92 (SD = 22.90).

### 4.4.1.4 Attitude toward the behaviour

Attitude toward increasing physical activity levels in response to the event was measured using a five-item semantic differential scale suggested by Ajzen (2006). This scale was intended to capture respondents overall evaluation of the behaviour. In particular, respondents were first presented with the statement, "For me to become more physically active in the upcoming months because of the Vancouver 2010 Olympic Winter Games is..." Participants then rated (on a seven-point scale) the degree to which they perceived the behaviour as being harmful-beneficial, unimportant-important, unpleasant-pleasant, bad-good, worthless-valuable, and unenjoyable-enjoyable. Scores for each item of the scale were coded to range from 1 (i.e., responses that

reflected negative attitude toward the behaviour adjectives including harmful, unimportant, unpleasant, bad, worthless, and unenjoyable) to 7 (i.e., corresponding responses that reflected positive attitude toward the behaviour adjectives including beneficial, important, pleasant, good, valuable, and enjoyable).

The scores for each item were summed to form and overall attitude toward the behaviour  $(A_b)$  score. Possible  $A_b$  scores could range from 5 to 35, with higher scores indicating a more positive overall evaluation of the behaviour (i.e., that becoming more physically active in response to the event was beneficial, important, good, valuable, and enjoyable). Cronbach's alpha for this scale was .93. The mean  $A_b$  score was 27.52 (SD = 6.11).

# 4.4.1.5 Subjective norms

Subjective norms (SN) were measured using two items suggested by Ajzen (2006). These items were intended to capture respondents' beliefs about whether most people would approve or disapprove of the behaviour (i.e., increasing physical activity levels in response to the event). Specifically, respondents were first presented with the statement, "Most people who are important to me would think that..." Participants then completed the statement by indicating (on a seven-point scale) the degree to which these important people think that, "I should not" or "I should" become more active in the coming months because of the Vancouver 2010 Olympic Winter Games. Scores for this item were coded on a continuum from 1 (I should not become more active in the coming months because of the Vancouver 2010 Olympic Winter Games) to 7 (I should become more active in the coming months because of the Vancouver 2010 Olympic Winter Games). Second, respondents were presented with the statement, "The people in my life whose opinions I value would..." Participants then completed the statement by indicating (on a seven-point scale) the degree to which these important people would "disapprove" or "approve"

of my becoming more active in the coming months because of the Vancouver 2010 Olympic Winter Games. Scores for this item were coded on a continuum from 1 (disapprove of my becoming more active in the coming months because of the Vancouver 2010 Olympic Winter Games) to 7 (approve of my becoming more active in the coming months because of the Vancouver 2010 Olympic Winter Games).

The scores for each item were summed to form and overall SN score. Possible SN scores could range from 2 to 14, with higher scores indicating stronger perceptions that others would approve of one increasing physical activity levels in response to the event. Cronbach's alpha for this measure was .71. The mean SN score was 9.25 (SD = 2.25).

### 4.4.1.6 Perceived behavioural control

Perceived behavioural control (PCB) was measured using four items suggested by Ajzen (2006). These items were intended to capture the degree of confidence and control respondents' felt in terms of being able of increasing their activity levels in response to the event. In particular, respondents were first presented with the statement, "For me to become even more active in the coming months because of the Vancouver 2010 Olympic Winter Games would be..." Participants then indicated (on a seven point scale) the degree to which they perceived the behaviour as being "impossible" or "possible" to perform. Scores for this item were coded on a continuum from 1 (impossible to perform) to 7 (possible to perform). Second, respondents were presented with the statement, "Adding even more activity in my life because of the Vancouver 2010 Olympic Winter Games would be..." Participants then indicated (on a seven point scale) the degree to which they perceived the behaviour as being "very difficult" or "very easy" to perform. Scores for this item were coded on a continuum from 1 (very difficult to perform) to 7 (very easy to perform). Third, participants were presented with the question, "How much control do you believe you have over

becoming more active in the coming months because of the Vancouver 2010 Olympic Winter Games? Participants then indicated (on a seven point scale) the degree to which they perceived themselves to have "no control" or "complete control" over performing the behaviour. Scores for this item were coded on a continuum from 1 (no control over performing the behaviour) to 7 (complete control over performing the behaviour). Finally, respondents were presented with the statement, "It is mostly up to me whether or not I become more active in the coming months because of the Vancouver 2010 Olympic Winter Games." Participants then rated (on a seven point scale) the degree to which they would "strongly disagree" or "strongly agree" with the statement. Scores for this item were coded on a continuum from 1 (strongly disagree) to 7 (strongly agree).

The scores for each item were summed to form an overall PCB score. Possible PCB scores could range from 4 to 28, with higher scores indicating stronger perceived confidence and control in terms of increasing physical activity levels in response to the event. In other words, respondents with higher PCB scores perceived the behaviour to be easier (and more within their control) to perform than individuals with lower PCB scores. Cronbach's alpha for this measure was .72. The mean PCB score was 20.86 (SD = 3.87).

# 4.4.1.7 Descriptive norms

Descriptive norms (DN) were measured using two items suggested by Ajzen (2006). These items were designed to capture respondents' beliefs about whether most people important to them actually perform a particular behaviour (i.e., increasing physical activity levels in response to the event). Specifically, respondents were first presented with the statement, "Most people who are important to me will become more active in the coming months because of the Vancouver 2010 Olympic Winter Games." Participants then indicated (on a seven-point scale) the degree to which

this statement was "completely false" or "completely true." Scores for this item were coded on a continuum from 1 (completely false) to 7 (completely true). In the second descriptive norm question, participants were presented with the statement, "Many people who are like me will become more active in the coming months because of the Vancouver 2010 Olympic Winter Games." Participants then indicated (on a seven-point scale) the degree to which they perceived the statement to be "extremely unlikely" or "extremely likely" to occur. Scores for this item were coded on a continuum from 1 (extremely unlikely) to 7 (extremely likely).

The scores for each item were summed to form an overall DN score. Possible DN scores could range from 2 to 14, with higher scores indicating stronger beliefs that other (important) people (e.g., peers and family) would increase their physical activity levels in response to the event. Cronbach's alpha for this measure was .88. The mean DN score was 7.59 (SD = 2.76).

Past behaviour (PB) was measured using a single item. Participants were presented with statement, "Previous Olympic Winter Games (e.g., Torino 2006; Salt Lake City 2002) have made me become more physically active in past years." Participants were asked to rate (on a seven-point scale) the degree to which they perceived the statements as being "definitely false" or "definitely true." Scores for this item were coded on a continuum from 1 (definitely false) to 7 (definitely true). Possible PB scores could range from 1 to 7, with higher scores indicating stronger beliefs that pervious Olympic Winter Games made the individual more active. The mean PB score was 3.21 (SD=1.7).

#### 4.4.1.9 *Intention*

4.4.1.8 Past behaviour

Intention to become more active in the coming months because of the Vancouver 2010 Olympic Winter Games (INT<sub>PA</sub>) was measured using two items suggested by Ajzen (2006). These items

were designed to capture respondents' perceived likelihood of increasing participation in Winter Olympic-like sport activities, non-Winter Olympic-like sport activities, and/or physical activities more generally. In particular, participants were first presented with the statement, "I plan on becoming even more active in the coming months because of the Vancouver 2010 Olympic Winter Games. Participants were then asked to rate (on a seven-point scale) the degree to which they would "strongly agree" or "strongly disagree" with this statement. Second, participants were presented with the statement, "I intend to become more active in the coming months because of the Vancouver 2010 Olympic Winter Games. Once again, participants were then asked to rate (on a seven-point scale) the degree to which they would "strongly disagree" or "strongly agree" with this statement. Scores for each of these items were coded on a continuum from 1 (strongly agree) to 7 (strongly disagree).

The scores from each item were summed to form and overall INT<sub>PA</sub> score. Possible INT<sub>PA</sub> scores could range from 2 to 14, with higher scores indicating a stronger perceived likelihood of becoming more active because of the Vancouver 2010 Olympic Winter Games. Cronbach's alpha for this measure was .86. The mean INT<sub>PA</sub> score was 6.77 (SD = 3.19).

The following sections will report the results the regression analyses that were conducted to test the relationships among the variables presented in Figure 4. Table 8 summarizes the descriptive statistics and inter-correlations among all variables involved in the prediction of physical activity intentions described above (excluding gender and geographic proximity to the event variables).

Table 8: Means, Standard Deviations, and Inter-Correlations Among Physical Activity Response Variables

Variable***	1.	2.	3.	4.	5.	6.	7.	8.	9.	M (SD)
1. Behavioural beliefs	1.00									43.60 (22.27)
2. Normative beliefs	.45	1.00								35.37 (17.33)
3. Control beliefs	.47	.36	1.00							79.13 (27.02)
4. Attitude toward behaviour	.53	.32	.37	1.00						27.52 (6.11)
5. Subjective norms	.50	.67	.44	.39	1.00					9.25 (2.25)
6. Perceived behavioural control	.36	.29	.51	37	.47	1.00				20.86 (3.87)
7. Descriptive norms	.61	.53	.34	.29	.46	.22	1.00			7.59 (2.76)
8. Past behaviour	.48	.39	.17	.23	.29	.16	.56	1.00		3.21 (1.67)
9. Intention	.77	.44	.32	.41	.38	.21	.63	.57	1.00	6.77 (3.19)

Notes: Scores for **behavioural beliefs** could range from 2 to 98, with higher scores indicating more positive beliefs about the consequences of performing the behaviour (i.e., increase PA levels in response to the event). Scores for **normative beliefs** could range from 2 to 98, with higher scores indicating stronger perceived pressure from friends and family to perform the behaviour. Scores for **control beliefs** could range from 3 to 147, with higher scores indicating stronger control over factors that facilitate or impede performance of the behaviour. Scores for **attitude toward the behaviour** could range from 5 to 35, with higher scores indicating a more positive overall evaluation of the behaviour. Scores for **subjective norms** could range from 2 to 14, with higher scores indicating stronger perceptions that others would approve of them performing the behaviour. Scores for **perceived behavioural control** could range from 4 to 28, with higher scores indicating greater perceived ease of performing the behaviour. Scores for **descriptive norms** could range from 2 to 14, with higher scores indicating stronger beliefs that other people would perform the behaviour. **Past behaviour** was measured on a scale from 1 to 7, with higher scores indicating stronger beliefs that pervious Olympic Games made the individual more physically active. Scores for **intention** could range from 2 to 14, with higher scores indicating a stronger perceived likelihood of performing the behaviour (i.e., increasing PA levels because of the event).\*\*\*All correlations were significant at the .001 level.

# 4.4.2 Regression Analyses

With respect to the physical activity response domain, a series of regression analyses were conducted to test the hypotheses outlined in Chapter 1 (see section 1.4). First, a simultaneous multiple linear regression analysis was conducted to determine the predictive influence of gender and geographic proximity on behavioural, normative, and control beliefs. Second, a series of simple linear regression analyses were employed to test the relationship between: (a) behavioural beliefs and attitudes toward the behaviour; (b) normative beliefs and subjective norm; and (c) control beliefs and perceived behavioural control. Third, a hierarchical multiple linear regression analysis was conducted to determine the degree to which attitude toward the behaviour, subjective norms, perceived behavioural control, descriptive norms, and past behaviour predicted respondents' intention to become more physically active because of the Vancouver 2010 Olympic Winter Games. Here, the expectation was that descriptive norms and past behaviour would combine to explain significant proportions of the variance in respondents' intensions above and beyond attitude toward the behaviour, subjective norms, and perceived behavioural control. The simple linear regression analyses and the hierarchical multiple linear regression analysis were conducted for the entire sample of participants (i.e., these analyses did not control for gender or geographic proximity to the event).

Results from these regression analyses are presented in the following sections. Figure 4 depicts the standardized beta coefficients ( $\beta$ ) 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 multicollinearlity. Tolerance values for each predictor variable (i.e., attitude toward behaviour, subjective norms, perceived behavioural control, descriptive norms, and past behaviour) were deemed acceptable (>.10) and ranged from .58 to .80.

4.4.2.1 Prediction of behavioural, normative, and control beliefs from gender and geographic proximity to the event

Results from the first simultaneous linear regression analysis revealed that gender and geographic proximity to the event were able to explain 0.8% of the variance ( $R^2 = .008$ ) in behavioural beliefs, which is not a statistically significant amount of the total variance (F = 1.58, p = .21). The standardized beta weights for the gender-behavioural belief relationship ( $\beta = -.054$ , p = .30) and the geographic proximity-behavioural belief relationship ( $\beta = -.077$ , p = .14) were not significant.

Similarly, the results from the second simultaneous linear regression analysis revealed that gender and geographic proximity were able to explain 0.1% of the variance ( $R^2 = .001$ ) in normative beliefs, which is not a statistically significant amount of the total variance (F = .118, p = .89). The standardized beta weights for the gender-normative belief relationship ( $\beta = .015$ , p = .78) and the geographic proximity-normative belief relationship ( $\beta = 0.21$ , p = .69) were not significant.

Finally, results from the third simultaneous linear regression analysis revealed that gender and geographic proximity were able to explain 3.3% of the variance in control beliefs ( $R^2 = .033$ ), which is a statistically significant amount of the total variance (F = 6.211, p <.01). The standardized beta weight was significant for the relationship between geographic proximity to the event and control beliefs ( $\beta = -.161$ , p < .01). The negative beta value suggested that being a University of Waterloo student was associated with lower control belief scores (where University of Victoria students were coded as 0 and University of Waterloo students as 1). In particular, University of Victoria students held stronger beliefs that: (a) the Vancouver 2010 Olympic Winter Games would stimulate the development of activity promoting infrastructure in their

communities (i.e., programs, facilities, and advertisements); and (b) that this infrastructure would make it easier for them to increase their activity levels in response to the event. The standardized beta weight was not significant for the gender-control belief relationship ( $\beta$  = -.091, p = .08). The results from each of these simultaneous regression analyses including standardized beta weights and  $R^2$  values are depicted in Figure 4.

4.4.2.2 Prediction of attitude toward behaviour, subjective norms, and perceived behavioural control from behavioural, normative, and control beliefs (respectively)

Results from the first simple linear regression analysis revealed that behavioural beliefs were able to explain 28.4% of the variance in attitude toward the behaviour ( $R^2$  = .284), which is a statistically significant amount of the total variance (F = 150.40, p < .001). Behavioural beliefs were a significant positive predictor of attitude toward the behaviour ( $\beta$  = .533, p < .001). Specifically, a more positive evaluation of performing the behaviour (i.e., that becoming more physically active in response to the event was beneficial, important, good, valuable, and enjoyable) was associated with stronger beliefs in the Vancouver 2010 Olympic Winter Games' ability to help respondents develop healthier lifestyles and become fitter via increased activity levels.

Results from the second simple linear regression analysis revealed that normative beliefs were able to explain 44.5% of the variance in subjective norms ( $R^2 = .445$ ), which is a statistically significant amount of the total variance (F = 301.14, p < .001). Normative beliefs were a significant positive predictor of subjective norms ( $\beta = .667$ , p < .001). In particular, a stronger perception that important others would approve of performing the behaviour was associated with more perceived pressure from friends and family to become more active in response to the event.

Results from the third simple linear regression analysis revealed that control beliefs were able to explain 26.5% of the variance in perceived behavioural control ( $R^2$  = .265), which is a statistically significant amount of the total variance (F =132.25, p <.001). Control beliefs were a significant positive predictor of perceived behavioural control ( $\beta$  = .515, p < .001). Specifically, a stronger perceived ease of becoming more physically active in response to the event was associated with: (a) a stronger belief that the Vancouver 2010 Olympic Winter Games would stimulate the development of activity promoting infrastructure in respondents' communities (i.e., programs, facilities, and advertisements); and (b) a stronger belief that this infrastructure would make it easier for the individual to increase their activity levels in response to the event. The results from each of these simple regression analyses including standardized beta weights and  $R^2$  values are depicted in Figure 4.

4.4.2.3 Prediction of intention from attitude toward behaviour, subjective norms, perceived behavioural control, descriptive norms, and past behaviour

Means, standard deviations, and correlations for all variables are presented in Table 8. A twostep, hierarchical regression analysis was performed to test the degree to which: (a) TPB constructs predicted respondents' intention to become more physically active in response to the Vancouver 2010 Olympic Winter Games; and (b) whether descriptive norms and past behaviour could explain significant proportions of the variance in these intentions above and beyond TPB constructs. TPB constructs (i.e., attitude toward the behaviour, subjective norms, and perceived behavioural control) were entered in step one (block1). Descriptive norms and past behaviour were entered in step two (block 2). Standardized beta weights ( $\beta$ ), Adjusted  $R^2$  values, and change in  $R^2$  values ( $\Delta R^2$ ) for this analysis are presented in Table 9.

Table 9: Summary of Hierarchical Regression Analysis for Variables Predicting Physical Activity Intention (n = 366)

Variable	Standardized Coefficients B	Adjusted R <sup>2</sup>	$\Delta R^2$
Step 1	Ρ		
Attitude toward behaviour	.312***		
Subjective norms	.269***		
Perceived behavioural control	031		
		.215***	
Step 2			
Attitude toward behaviour	.218***		
Subjective norms	.037		
Perceived behavioural control	021		
Descriptive norms	.396***		
Past behaviour	.287***		
		.507***	.292***

Table 9 Notes: \*\*\*p <.001.

Results of step one of this hierarchical regression analysis revealed that the three TPB constructs accounted for 21.5% of the variance in respondents' intentions to become more physically active in response to the Vancouver 2010 Olympic Winter Games ( $R^2 = .215$ ), which is a statistically significant amount of the total variance (F = 34.36, p < .001). Attitude toward the behaviour ( $\beta = .312$ , p < .001) and subjective norms ( $\beta = .269$ , p < .001) were significant positive predictors of respondents' intention to become more physically active in response to the event. In summary, a stronger intention to become more physically active in response to the event was associated

with: (a) a more favourable evaluation of performing the behaviour (i.e., that becoming more physically active in response to the event was beneficial, important, good, valuable, and enjoyable); and (b) a stronger perception of important others' (i.e., friends and family) approval of performing the behaviour. Perceived behavioural control was not a significant predictor of physical activity intention in this step of the analysis.

Step two of the hierarchical regression analysis involved the simultaneous addition of descriptive norms and past behaviour to the existing TPB model. The addition of these constructs meant that 29.2% more variance in physical activity intention was explained ( $\Delta R^2 = .292$ , p < .001). In total, 50.7% of the variance in respondents' physical activity intention scores were explained by the five variables in the model ( $R^2 = .507$ ), which is a statistically significant amount of the total variance (F = 75.94, p < .001). Descriptive norms ( $\beta = .396$ , p < .001), past behaviour ( $\beta = .287$ , p < .001), and attitude toward the behaviour ( $\beta = .218$ , p < .001) were significant positive predictors of intention within the model. In summary, a stronger intention to become more physically active in response to the event was associated with: (a) a stronger belief that important others would perform the behaviour; (b) a stronger belief that previous Olympic Games made the individual more physically active; and (c) a more favourable evaluation of performing the behaviour.

Perceived behavioural control did not emerge as a significant predictor of physical activity intention in this step of the analysis ( $\beta = -.021$ , p = .627). Similarly, subjective norms did not emerge as a significant predictor of intention after the addition of descriptive norms and past behaviour in step two ( $\beta = .037$ , p = .426). Thus, a movement from step one to step two of the hierarchical regression analysis revealed that subjective norms no longer made an independent contribution to the prediction of physical activity intention, above and beyond that

of attitude toward the behaviour, descriptive norms, and past behaviour. The strength of attitude toward the behaviour in predicting physical activity intention decreased when descriptive norms and past behaviour were considered (i.e., from  $\beta=.312$  to  $\beta=.218$ ). The results from this hierarchical regression analysis including standardized beta weights and adjusted  $R^2$  values are depicted in Figure 4.

**Figure 4: Prediction of Physical Activity Intention** 

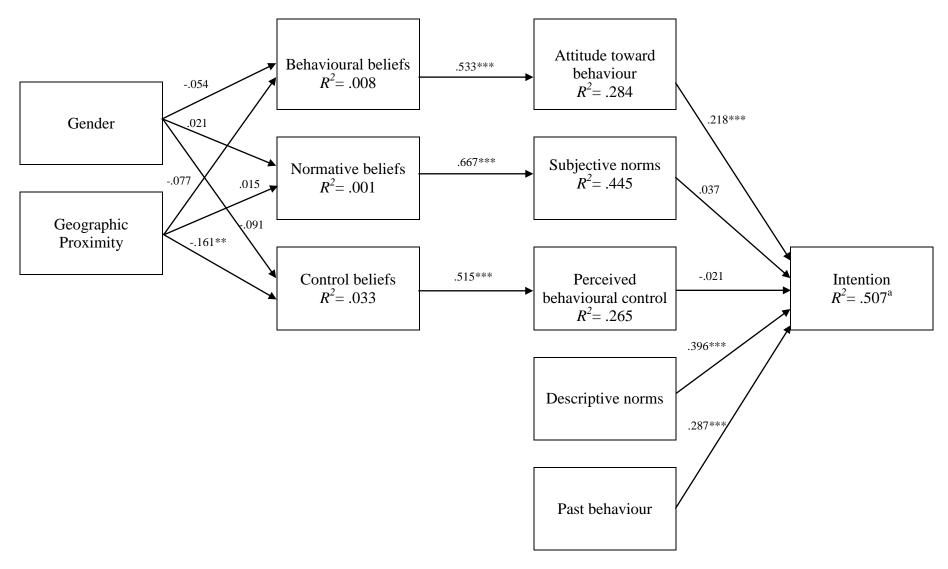


Figure 4 Notes: <sup>a</sup>Adjusted *R*<sup>2</sup> value based on step two of the hierarchical regression analysis; standardized beta weights are depicted; \*\*Relationship is significant at the 0.01 level; \*\*\* Relationship is significant at the 0.001 level.

# 4.5 Television Viewership

The following sections present descriptive statistics for study variables as they relate to the prediction of television viewership intentions, followed by the results of the sets of regression analyses that were conducted to test the model depicted in Figure 5.

### 4.5.1 Descriptions and Reliability of Television Viewership Response Measures

This section describes the means, standard deviations, and reliability statistics (coefficient alphas) for the different scales used to assess each variable depicted in Figure 5 (excluding gender and geographic proximity background variables). 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 389-398 of the 405 study participants. Skewness and kurtosis values for all measures fell within an acceptable range (3 to -3). Table 10 presents the means, standard deviations, and inter-correlations for all variables associated with the prediction of television viewership response (i.e., intention to watch at least some portion of the Vancouver 2010 Olympic Winter Games on television). Please refer to Part B of Appendix I to observe how each of the following scale items appeared in the questionnaire.

### 4.5.1.1 Behavioural beliefs

The behavioural belief (BB) scale was developed from the set of modal expected outcomes elicited in the pre-test (i.e., behavioural belief strength measures), and corresponding evaluation of each outcome associated with watching the Vancouver 2010 Olympic Winter Games. Three items were used to assess behavioural belief strength (i.e., the belief that watching the event was associated with certain outcomes). First, participants were presented with the statement, "My watching televised coverage of the Vancouver 2010 Olympic Winter Games will allow me to feel a sense of national pride." Participants then rated (on a seven-point scale) the degree to which the outcome was "extremely unlikely" or "extremely likely" to occur. Second, participants were

presented with the statement, "My watching televised coverage of the Vancouver 2010 Olympic Winter Games allows me to show support for (i.e., cheer on) Canadian athletes without having to travel to Vancouver." Participants then indicated (on a seven-point scale) the degree to which they would "strongly disagree" or "strongly agree" with the statement. Third, participants were presented with the statement, "My watching televised coverage of the Vancouver 2010 Olympic Winter Games will allow me to stay up to date with current events and have better conversations with my peers." Once again, participants then indicated (on a seven-point scale) the degree to which they would "strongly disagree" or "strongly agree" with the statement. Scores for each behavioural belief strength item were coded on a continuum from 1 (extremely unlikely or strongly disagree) to 7 (extremely likely or strongly agree).

Each behavioural belief strength item (b) had a corresponding outcome evaluation item (e), which was intended to capture the value respondents attached to each outcome. With respect to the first behavioural belief strength item, participants were presented with the statement, "Feeling a sense of national pride is..." Participants then rated (on a seven-point scale) the degree to which this outcome was "extremely bad" or "extremely good." In association with the second behavioural belief strength item, participants were presented with the statement, "Supporting (i.e., cheering for) Canadian Olympic athletes is..." Participants rated (on a seven-point scale) the degree to which this outcome was "extremely bad" or "extremely good." In association with the third behavioural belief strength item, participants were presented with the statement, "Being able to talk to my peers about current events is..." Once again, participants rated (on a seven-point scale) the degree to which this outcome was "extremely bad" or "extremely bad" or "extremely bad" or "extremely bad"." Scores for each outcome evaluation item were coded on a continuum from 1

(extremely bad) to 7 (extremely good); with a 4 indicating that the outcome was neither good nor bad.

Each behavioural belief strength item score was multiplied by its corresponding outcome evaluation item score, and the products were summed form an overall BB score ( $\Sigma b_i e_i$ ). Possible BB scores could range from 3 to 147, with higher scores indicating stronger beliefs that watching the event on television would allow the individual to attain valued outcomes in the form of feeling a sense of national pride, cheering on Canadian athletes without having to travel to Vancouver, and improving their conversations with peers by staying up to date with current events. The mean BB score was 97.18 (SD = 30.21).

# 4.5.1.2 Normative beliefs

The normative belief (NB) scale was developed from the set of modal normative referents elicited in the pre-test (i.e., normative belief strength measures), and corresponding motivation to comply with each referent group who respondents' perceived would approve or disapprove of performing the behaviour in question. Two items were used to assess normative belief strength (i.e., respondents' beliefs about whether each referent group would approve or disapprove of watching the event on television). First, participants were presented with the statement, "My family thinks that..." Participants then completed the statement by indicating (on a seven-point scale) the degree to which they believed their family would think that, "I should not" or "I should" watch televised coverage of the Vancouver 2010 Olympic Winter Games. Second, participants were presented with the statement, "My friends think that..." Participants then completed the statement by indicating (on a seven-point scale) the degree to which they believed their friends would think that, "I should not" or "I should" watch televised coverage of the Vancouver 2010 Olympic Winter Games. Scores for each normative belief strength item were

coded on a continuum from 1 (I should not watch televised coverage of the Vancouver 2010 Olympic Winter Games) to 7 (I should watch televised coverage of the Vancouver 2010 Olympic Winter Games).

Each normative belief strength item (n) had a corresponding motivation to comply item (m), which was intended to capture respondents' motivation to do what each referent thinks. With respect to the first normative belief strength item, participants were presented with the statement, "When it comes to watching television, how much do you want to do what your family thinks you should do?" Participants then rated the amount of pressure they perceived from their family to perform the behaviour on a seven-point scale ranging from "not at all" or "very much." In association with the second normative belief strength item, participants were presented with the statement, "When it comes to watching television, how much do you want to do what your friends think you should do?" Once again, participants then rated the amount of pressure they perceived from their friends to perform the behaviour on a seven-point scale ranging from "not at all" or "very much." Scores for each motivation to comply item were coded on a continuum from 1 (not at all) to 7 (very much).

Each normative belief strength item score was multiplied by its corresponding motivation to comply item score, and the products were summed form an overall NB score ( $\Sigma n_i m_i$ ). Possible NB scores could range from 2 to 98, with higher scores indicating stronger perceived pressure from friends and family to watch televised coverage of the Vancouver 2010 Olympic Winter Games. The mean NB score was 39.66 (SD = 19.15).

## 4.5.1.3 Control beliefs

The control belief (CB) scale was developed from the set of modal control factors that facilitate or impede performance of the behaviour elicited in the pre-test (i.e., control belief strength

measures), and corresponding perceived power (effect) of each condition in making watching televised coverage of the event difficult or easy. Two items were used to assess control belief strength (i.e., the perceived likelihood of occurrence of each facilitating or constraining condition). First, participants were presented with the statement, "My school and/or work obligations will place high demands on my time during mid-February (i.e., the time when the Vancouver 2010 Olympic Winter Games are being staged)." Participants then indicated (on a seven-point scale) the degree to which they would "strongly disagree" or "strongly agree" with the statement. Second, participants were presented with the statement, "I will have access to a television set in my place of residence in February (i.e., during the time when the Vancouver 2010 Olympic Winter Games are being staged)." Participants then indicated (on a seven-point scale) the degree to which this factor was "extremely unlikely" or "extremely likely" to occur. Scores for the first control belief strength item were reverse-coded on a continuum from 1 (strongly disagree). Scores for the second control belief strength item were coded on a continuum from 1 (strongly disagree) to 7 (strongly agree).

Each control belief strength item (c) had a corresponding perceived power item (p), which was intended to capture the perceived power of each condition in making performance of the behaviour difficult or easy. With respect to the first control belief item, participants were presented with the statement, "My school and/or work obligations placing high demands on my time in February would make it..." Participants then completed this statement by indicating (on a seven-point scale) the degree to which this factor would make it "more difficult" or, "much easier" for me to watch televised coverage of the Vancouver 2010 Olympic Winter Games. In association with the second control belief strength item, participants were presented with the statement, "Not having access to a television set in February would make it..." Participants then

completed this statement by indicating (on a seven-point scale) the degree to which this factor would make it "more difficult" or, "much easier" for me to watch televised coverage of the Vancouver 2010 Olympic Winter Games. Scores for the first perceived power item were coded on a continuum from 1 (more difficult for me to watch televised coverage of the Vancouver 2010 Olympic Winter Games) to 7 (much easier for me to watch televised coverage of the Vancouver 2010 Olympic Winter Games). Scores for the second perceived power item were reverse-coded on a continuum from 1 (much easier for me to watch televised coverage of the Vancouver 2010 Olympic Winter Games) to 7 (more difficult for me to watch televised coverage of the Vancouver 2010 Olympic Winter Games).

Each control belief strength item score was multiplied by its corresponding perceived power item score, and the products were summed form an overall CB score ( $\Sigma c_i p_i$ ). Possible CB scores could range from 2 to 98, with higher scores indicating stronger control over the factors that facilitated or impeded watching televised coverage of the event. In other words, higher CB scores were a function of: (a) strong beliefs that the work or school obligations would not impede respondents' ability watch the event on television; and (b) strong beliefs that having access to a television set in one's place of residence would make it easier to watch the event on television. The mean CB score was 18.33 (SD = 11.60).

### 4.5.1.4 Attitude toward the behaviour

Attitude toward watching televised coverage of the Vancouver 2010 Olympic Winter Games was measured using a five-item semantic differential scale suggested by Ajzen (2006). This scale was intended to capture respondents overall evaluation of the behaviour. In particular, respondents were first presented with the statement, "My watching televised coverage of the 2010 Olympic Winter Games would be..." Participants then rated (on a seven-point scale) the degree to which

they perceived the behaviour as being *harmful-beneficial*, *unimportant-important*, *unpleasant-pleasant*, *bad-good*, *worthless-valuable*, and *unenjoyable-enjoyable*. Scores for each item of the scale were coded to range from 1 (i.e., responses that reflected negative attitude toward the behaviour adjectives including harmful, unimportant, unpleasant, bad, worthless, and unenjoyable) to 7 (i.e., corresponding responses that reflected positive attitude toward the behaviour adjectives including beneficial, important, pleasant, good, valuable, and enjoyable).

The scores for each item were summed to form an overall attitude toward the behaviour  $(A_b)$  score. Possible  $A_b$  scores could range from 5 to 35, with higher scores indicating a more positive overall evaluation of the behaviour (i.e. that watching televised coverage of the event was beneficial, important, good, valuable, and enjoyable). Cronbach's alpha for this scale was .90. The mean  $A_b$  score was 27.87 (SD = 5.17).

## 4.5.1.5 Subjective norms

Subjective norms (SN) were measured using two items suggested by Ajzen (2006). These items were intended to capture respondents' beliefs about whether most people would approve or disapprove of the behaviour (i.e., watching televised coverage of the Vancouver 2010 Olympic Winter Games). Specifically, respondents were first presented with the statement, "Most people who are important to me would think that..." Participants then completed the statement by indicating (on a seven-point scale) the degree to which these important people think that, "I should not" or "I should" watch televised coverage of the Vancouver 2010 Olympic Winter Games. Scores for this item were coded on a continuum from 1 (I should not watch televised coverage of the Vancouver 2010 Olympic Winter Games) to 7 (I should watch televised coverage of the Vancouver 2010 Olympic Winter Games). Second, respondents were presented with the statement, "The people in my life whose opinions I value would..." Participants then

completed the statement by indicating (on a seven-point scale) the degree to which these important people would "disapprove" or "approve" of me watching televised coverage of the Vancouver 2010 Olympic Winter Games the Vancouver 2010 Olympic Winter Games. Scores for this item were coded on a continuum from 1 (disapprove of me watching televised coverage of the Vancouver 2010 Olympic Winter Games) to 7 (approve of me watching televised coverage of the Vancouver 2010 Olympic Winter Games).

The scores for each item were summed to form and overall SN score. Possible SN scores could range from 2 to 14, with higher scores indicating stronger perceptions that others would approve of watching televised coverage of the event. Cronbach's alpha for this measure was .79. The mean SN score was 10.89 (SD = 2.26).

#### 4.5.1.6 Perceived behavioural control

Perceived behavioural control (PCB) was measured using four items suggested by Ajzen (2006). These items were intended to capture the degree of confidence and control respondents' felt in terms of being able watch televised coverage of the Vancouver 2010 Olympic Winter Games. In particular, respondents were first presented with the statement, "For me to watch televised coverage of the Vancouver 2010 Olympic Winter Games in February would be..." Participants then indicated (on a seven point scale) the degree to which they perceived the behaviour as being "impossible" or "possible" to perform. Scores for this item were coded on a continuum from 1 (impossible to perform) to 7 (possible to perform). Second, respondents were presented with the statement, "Watching televised coverage of the Vancouver 2010 Olympic Winter Games in February would be ..." Participants then indicated (on a seven point scale) the degree to which they perceived the behaviour as being "very difficult" or "very easy" to perform. Scores for this item were coded on a continuum from 1 (very difficult to perform) to 7 (very easy to perform).

Third, participants were presented with the question, "How much control do you believe you have over watching televised coverage of the Vancouver 2010 Olympic Winter Games in February?" Participants then indicated (on a seven point scale) the degree to which they perceived themselves to have "no control" or "complete control" over performing the behaviour. Scores for this item were coded on a continuum from 1 (no control over performing the behaviour) to 7 (complete control over performing the behaviour). Finally, respondents were presented with the statement, "It is mostly up to me whether or not I watch televised coverage of the Vancouver 2010 Olympic Winter Games in February." Participants then rated (on a seven point scale) the degree to which they would "strongly disagree" or "strongly agree" with the statement. Scores for this item were coded on a continuum from 1 (strongly disagree) to 7 (strongly agree).

The scores for each item were summed to form an overall PCB score. Possible PCB scores could range from 4 to 28, with higher scores indicating stronger perceived confidence and control in terms of watching televised coverage of the event. In other words, respondents with higher PCB scores perceived the behaviour to be easier (and more within their control) to perform than individuals with lower PCB scores. Cronbach's alpha for this measure was .85. The mean PCB score was 22.27 (SD = 5.32).

#### 4.5.1.7 Descriptive norms

Descriptive norms (DN) were measured using two items suggested by Ajzen (2006). These items were designed to capture respondents' beliefs about whether most people important to them actually perform a particular behaviour (i.e., watching televised coverage of the Vancouver 2010 Olympic Winter Games). Specifically, respondents were first presented with the statement, "Most people who are important to me will watch televised coverage of the Vancouver 2010

Olympic Winter Games." Participants then indicated (on a seven-point scale) the degree to which this statement was "completely false" or "completely true." Scores for this item were coded on a continuum from 1 (completely false) to 7 (completely true). In the second descriptive norm question, participants were presented with the statement, "Many people who are like me will watch televised coverage of the Vancouver 2010 Olympic Winter Games." Participants then indicated (on a seven-point scale) the degree to which they perceived the statement to be "extremely unlikely" or "extremely likely" to occur. Scores for this item were coded on a continuum from 1 (extremely unlikely) to 7 (extremely likely).

The scores for each item were summed to form an overall DN score. Possible DN scores could range from 2 to 14, with higher scores indicating stronger beliefs that other (important) people (e.g., peers and family) would watch televised coverage of the event. Cronbach's alpha for this measure was .89. The mean DN score was 10.72 (SD = 2.67).

# 4.5.1.8 Past behaviour

Past behaviour (PB) was measured using a single item. Participants were presented with statement, "I have watched televised coverage of at least some portion of previous Olympic Winter Games (e.g., Torino 2006; Salt Lake City 2002). Participants were asked to rate (on a seven-point scale) the degree to which they perceived each of these statements as being "definitely false" or "definitely true." Scores for this item were coded on a continuum from 1 (definitely false) to 7 (definitely true). Possible PB scores could range from 1 to 7, with higher scores indicating stronger beliefs that the individual watched televised coverage of at least some portion of pervious Olympic Winter Games. The mean PB score was 6.16 (SD=1.41).

#### 4.5.1.9 *Intention*

Intention to watch televised coverage of the Vancouver 2010 Olympic Winter Games (INT<sub>TV</sub>) was measured using three items suggested by Ajzen (2006). These items were designed to capture respondents' perceived likelihood of watching at least some portion of the event on television. In particular, participants were first presented with the statement, "I intend to watch at least some portion of coverage of the 2010 Olympic Winter Games on television." Participants were then asked to rate (on a seven-point scale) the degree to which this statement was "extremely unlikely" or "extremely likely" to occur. Scores for each of these items were coded on a continuum from 1 (extremely unlikely) to 7 (extremely likely). Second, participants were presented with the statement, "I will try to watch televised coverage of the Vancouver 2010 Olympic Winter Games." Participants were then asked to rate (on a seven-point scale) the degree to which the statement was "definitely false" or "definitely true." Scores for each of these items were coded on a continuum from 1 (definitely false) to 7 (definitely true). Finally, participants were presented with the statement, "I plan on watching at least some portion of televised coverage of the 2010 Olympic Winter Games." Participants were then asked to rate (on a sevenpoint scale) the degree to which they would "strongly disagree" or "strongly agree" with this statement. Scores for each of these items were coded on a continuum from 1 (strongly agree) to 7 (strongly disagree).

The scores from each item were summed to form and overall INT<sub>TV</sub> score. Possible INT<sub>TV</sub> scores could range from 3 to 21, with higher scores indicating a stronger perceived likelihood of watching at least some portion of the Vancouver 2010 Olympic Winter Games on television. Cronbach's alpha for this measure was .90. The mean INT<sub>TV</sub> score was 17.89 (SD = 4.02).

The following sections will report the results the regression analyses that were conducted to test the relationships among the variables presented in Figure 5. Table 10 summarizes the descriptive statistics and inter-correlations among all variables involved in the prediction of television viewership intentions described above (excluding gender and geographic proximity to the event variables).

Table 10: Means, Standard Deviations, and Inter-Correlations Among Television Viewership Response Variables

Variable	1.	2.	3.	4.	5.	6.	7.	8.	9.	M (SD)
1.Behavioural beliefs	1.00									97.18 (30.21)
2. Normative beliefs	.45***	1.00								39.66 (19.15)
3. Control beliefs	01	.12***	1.00							18.33 (11.60)
4. Attitude toward behaviour	.63***	.41***	02	1.00						27.87 (5.17)
5. Subjective norms	.65***	.51***	05	.60***	1.00					10.89 (2.26)
6. Perceived behavioural control	.36***	.16***	.14***	.31***	.35***	1.00				22.27 (5.32)
7. Descriptive norms	.63***	.41***	04	.56***	.75***	.40***	1.00			10.72 (2.67)
8. Past behaviour	.37***	.20***	11	.40***	.39***	.33***	.47***	1.00		6.16 (1.41)
9. Intention	.57***	.33***	04	.67***	.61***	.54***	.69***	.59***	1.00	17.89 (4.02)

Table 10 Notes: Scores for **behavioural beliefs** could range from 3 to 147, with higher scores indicating more positive beliefs about the consequences of performing the behaviour (i.e., watching at least some televised coverage of the Vancouver 2010 Olympic Winter Games). Scores for **normative beliefs** could range from 2 to 98, with higher scores indicating stronger perceived pressure from friends and family to perform the behaviour. Scores for **control beliefs** could range from 2 to 98, with higher scores indicating stronger control over factors that facilitate or impede performance of the behaviour. Scores for **attitude toward the behaviour** could range from 5 to 35, with higher scores indicating a more positive overall evaluation of the behaviour. Scores for **subjective norms** could range from 2 to 14, with higher scores indicating stronger perceptions that others would approve of them performing the behaviour. Scores for **perceived behavioural control** could range from 4 to 28, with higher scores indicating greater perceived ease of performing the behaviour. Scores for **descriptive norms** could range from 2 to 14, with higher scores indicating stronger beliefs that other people would perform the behaviour. **Past behaviour** was measured on a scale from 1 to 7, with higher scores indicating stronger beliefs that the individual watched at least some televised coverage of pervious Olympic Winter Games. Scores for **intention** could range from 3 to 21, with higher scores indicating a stronger perceived likelihood of performing the behaviour. \*\*\*Correlation was significant at the .001 level.

## 4.5.2 Regression Analyses

With respect to the television viewership response domain, a series of linear regression analyses were conducted to test the hypotheses outlined in Chapter 1 (see section 1.4). First, a simultaneous multiple linear regression analysis was conducted to determine the predictive influence of gender and geographic proximity on behavioural, normative, and control beliefs. Second, a series of simple linear regression analyses were employed to test the relationship between: (a) behavioural beliefs and attitudes toward the behaviour; (b) normative beliefs and subjective norm; and (c) control beliefs and perceived behavioural control. Third, a hierarchical multiple linear regression analysis was conducted to determine the degree to which attitude toward the behaviour, subjective norms, perceived behavioural control, descriptive norms, and past behaviour predicted respondents' intention to watch televised coverage of the Vancouver 2010 Olympic Games. Here, the expectation was that descriptive norms and past behaviour would combine to explain significant proportions of the variance in respondents' intensions above and beyond attitude toward the behaviour, subjective norms, and perceived behavioural control. The simple linear regression analyses and the hierarchical multiple linear regression analysis were conducted for the entire sample of participants (i.e., these analyses did not control for gender or geographic proximity to the event).

Results from these regression analyses are presented in the following sections. Figure 5 depicts the standardized beta coefficients ( $\beta$ ) 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 multicollinearlity. Tolerance values for each predictor variable (i.e., attitude toward behaviour, subjective norms, perceived behavioural control, descriptive norms, and past behaviour) were deemed acceptable (>.10) and ranged from .39 to .82.

4.5.2.1 Prediction of behavioural, normative, and control beliefs from gender and geographic proximity to the event

Results from the first simultaneous linear regression analysis revealed that gender and geographic proximity to the event explained 1.5% of the variance ( $R^2 = .015$ ) in behavioural beliefs, which is not a statistically significant amount of the total variance (F = 2.79, p = .06). Given the magnitude of the F value and its associated probability, there is a strong possibility of making a Type II error in this instance. Thus, although the standardized beta weight for the geographic proximity-behavioural belief relationship did emerge as being significant ( $\beta = -.120$ , p < .05), it will not be deemed as such. In the event that a Type II error has occurred here, the negative beta value would suggest that being a University of Waterloo student was associated with lower behavioural belief scores (where University of Victoria students were coded as 0 and University of Waterloo students as 1). In particular, University of Victoria students would have held significantly stronger beliefs that watching televised coverage of the event would allow them to attain valued outcomes in the form of: (a) feeling a sense of national pride, (b) cheering on Canadian athletes without having to travel to Vancouver, and (c) improving conversations with peers by staying up to date with current events. The standardized beta weight for the gender-behavioural belief relationship was not significant ( $\beta$  = .014, p = .79).

Similarly, the results from the second simultaneous linear regression analysis revealed that gender and geographic proximity explained 1.2% of the variance ( $R^2 = .012$ ) in normative beliefs, which is not a statistically significant amount of the total variance (F = 2.19, p = .11). Here again, given the magnitude of the F value and its associated probability, there is a strong possibility of making a Type II error. Thus, although the standardized beta weight for the geographic proximity-normative belief relationship did emerge as being significant ( $\beta = -.108$ , p

< .05), it will not be deemed as such. In the event that a Type II error has occurred here, the negative beta value would suggest that being a University of Waterloo student was associated with lower normative belief scores (where University of Victoria students were coded as 0 and University of Waterloo students as 1). In particular, University of Victoria students would have perceived significantly more pressure from friends and family to watch televised coverage of the Vancouver 2010 Olympic Winter Games. The standardized beta weight for the gender-normative belief relationship was not significant ( $\beta$  < .001, p = .99).

Finally, results from the third simultaneous linear regression analysis revealed that gender and geographic proximity explained 2.5% of the variance in control beliefs ( $R^2$  = .025), which is a statistically significant amount of the total variance (F = 4.742, p <.01). The standardized beta weight was significant for the relationship between gender and control beliefs ( $\beta$  = -.127, p <.05). The negative beta value suggested that being female was associated with lower control belief scores (where males were coded as 0 and females as 1). In particular, male students held significantly stronger beliefs that the (a) work or school obligations would not impede their ability watch the event on television; and (b) that having access to a television set in their place of residence would make it easier to watch the event on television. The standardized beta weight was not significant for the geographic proximity-control belief relationship ( $\beta$  = .089, p = .08). The results from each of these simultaneous regression analyses including standardized beta weights and  $R^2$  values are depicted in Figure 5.

4.5.2.2 Prediction of attitude toward behaviour, subjective norms, and perceived behavioural control from behavioural, normative, and control beliefs (respectively)

Results from the first simple linear regression analysis revealed that behavioural beliefs explained 39.4% of the variance in attitude toward the behaviour ( $R^2 = .395$ ), which is a statistically significant amount of the total variance (F = 251.49, p < .001). Behavioural beliefs

were a significant positive predictor of attitude toward the behaviour ( $\beta$  = .628, p < .001). Specifically, a more positive evaluation of performing the behaviour (i.e., that watching televised coverage of the event was beneficial, important, good, valuable, and enjoyable) was associated with a stronger belief that watching televised coverage of the event would allow the individual to attain valued outcomes in the form of: (a) feeling a sense of national pride, (b) cheering on Canadian athletes without having to travel to Vancouver, and (c) improving conversations with peers by staying up to date with current events.

Results from the second simple linear regression analysis revealed that normative beliefs explained 26.3% of the variance in subjective norms ( $R^2$  = .263), which is a statistically significant amount of the total variance (F = 139.94, p < .001). Normative beliefs were a significant positive predictor of subjective norms ( $\beta$  = .513, p < .001). In particular, a stronger perception that important others would approve of performing the behaviour was associated with more perceived pressure from friends and family to watch televised coverage of the event.

Results from the third simple linear regression analysis revealed that control beliefs explained 2% of the variance in perceived behavioural control ( $R^2 = .020$ ), which is a statistically significant amount of the total variance (F = 7.92, p < .01). Control beliefs were a significant positive predictor of perceived behavioural control ( $\beta = .141$ , p < .01). Specifically, a stronger perceived ease of watching televised coverage of the event was associated with: (a) a strong belief that work or school obligations would not impede one's ability watch the event on television; and (b) a strong belief that having access to a television set in their place of residence would make it easier to watch the event on television. The results from each of these simple regression analyses including standardized beta weights and  $R^2$  values are depicted in Figure 5.

4.5.2.3 Prediction of intention from attitude toward behaviour, subjective norms, perceived behavioural control, descriptive norms, and past behaviour

Means, standard deviations, and correlations for all variables are presented in Table 10. A two-step, hierarchical regression analysis was performed to test the degree to which: (a) TPB constructs predicted respondents' intention to watch televised coverage of the Vancouver 2010 Olympic Winter Games; and (b) whether descriptive norms and past behaviour could explain significant proportions of the variance in these intentions above and beyond TPB constructs. TPB constructs (i.e., attitude toward the behaviour, subjective norms, and perceived behavioural control) were entered in step one (block1). Descriptive norms and past behaviour were entered in step two (block 2). Standardized beta weights ( $\beta$ ), Adjusted  $R^2$  values, and change in  $R^2$  values ( $\Delta R^2$ ) for this analysis are presented in Table 11.

Table 11: Summary of Hierarchical Regression Analysis for Variables Predicting Television Viewership Intention (n = 377)

Variable	Standardized Coefficients $\beta$	Adjusted R <sup>2</sup>	$\Delta R^2$
Step 1	•		
Attitude toward behaviour	.415***		
Subjective norms	.250***		
Perceived behavioural control	.307***		
		.574***	
Step 2			
Attitude toward behaviour	.311***		
Subjective norms	.040		
Perceived behavioural control	.220***		
Descriptive norms	.289***		
Past behaviour	.231***		
		.666***	.093***

Table 11 Notes: \*\*\*p <.001.

Results of step one of this hierarchical regression analysis revealed that the three TPB constructs accounted for 57.4% of the variance in respondents' intentions to watch televised coverage of the Vancouver 2010 Olympic Winter Games ( $R^2 = .574$ ), which is a statistically significant amount of the total variance (F = 169.89, p < .001). Attitude toward the behaviour ( $\beta = .415$ , p < .001), subjective norms ( $\beta$  = .250, p < .001), and perceived behavioural control ( $\beta$  = .307, p < .001), were significant positive predictors of respondents' intention watch televised coverage of the event. In summary, a stronger intention to watch televised coverage of the event was associated with: (a) a more favourable evaluation of performing the behaviour (i.e., that watching televised coverage of the event was beneficial, important, good, valuable, and enjoyable); (b) a stronger

perception of important others' (i.e., friends and family) approval of performing the behaviour; and (c) a stronger perceived ease of performing the behaviour (i.e., control over factors such as work or access to a television set, which might impede performance of the behaviour).

Step two of the hierarchical regression analysis involved the simultaneous addition of descriptive norms and past behaviour to the existing TPB model. The addition of these constructs meant that 9.3% more variance in television viewership intention was explained ( $\Delta R^2 = .093$ , p <.001). In total, 66.6% of the variance in respondents' television viewership intention scores were explained by the five variables in the new model ( $R^2 = .666$ ), which is a statistically significant amount of the total variance (F = 150.62, p < .001). Descriptive norms ( $\beta = .289$ , p < .001), past behaviour ( $\beta = .231, p < .001$ ), attitude toward the behaviour ( $\beta = .311, p < .001$ ), and perceived behavioural control ( $\beta = .220, p < .001$ ) were significant positive predictors of intention within the model. In summary, a stronger intention to watch televised coverage of the event was associated with: (a) a stronger belief that important others would perform the behaviour; (b) a stronger belief that the individual watched at least some televised coverage of pervious Olympic Winter Games; (c) a more favourable evaluation of performing the behaviour; and (d) a stronger perceived ease of performing the behaviour (i.e., control over factors such as work commitments or access to a television set, which might impede performance of the behaviour).

Subjective norms did not emerge as a significant predictor of intention after the addition of descriptive norms and past behaviour in step two of the analysis ( $\beta = .040$ , p = .40). Thus, a movement from step one to step two of the hierarchical regression analysis revealed that subjective norms no longer made an independent contribution to the prediction of intention, above and beyond that of attitude toward the behaviour, perceived behavioural control,

descriptive norms, and past behaviour. The strength of attitude toward the behaviour and perceived behavioural control in predicting television viewership intention decreased when descriptive norms and past behaviour were considered (i.e., from  $\beta=.415$  to  $\beta=.311$  and from  $\beta=.307$  to  $\beta=.220$  respectively). The results from this hierarchical regression analysis including standardized beta weights and adjusted  $R^2$  values are depicted in Figure 5.

Attitude toward Behavioural beliefs behaviour  $R^2 = .015$ 628\*\*\* .014  $R^2 = .394$ .311\*\*\* Gender .000 Subjective norms  $R^2 = .263$ Normative beliefs .513\*\*\* .040 -.108 -.120  $R^2 = .012$ Geographic .127\* Proximity .089 .220\*\*\* Perceived Control beliefs Intention .141\*\*  $R^2 = .025$ behavioural control  $R^2 = .666^a$  $R^2 = .020$ .289\*\*\* Descriptive norms .231\*\*\* Past behaviour

**Figure 5: Prediction of Television Viewership Intention** 

Figure 5 Notes: <sup>a</sup>Adjusted *R*<sup>2</sup> value based on step 2 of the hierarchical regression analysis; standardized beta weights are depicted; \*Relationship is significant at the 0.05 level; \*\*Relationship is significant at the 0.01 level; \*\*\*Relationship is significant at the 0.001 level.

## 4.6 Sponsorship/Patronage

The following sections present descriptive statistics for study variables as they relate to the prediction of sponsorship patronage intentions, followed by the results of the sets of regression analyses that were conducted to test the model depicted in Figure 6.

#### 4.6.1 Descriptions and Reliability of Sponsorship Patronage Response Measures

This section describes the means, standard deviations, and reliability statistics (coefficient alphas) for the different scales used to assess each variable depicted in Figure 6 (excluding gender and geographic proximity background variables). 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 398-405 of the 405 study participants. Skewness and kurtosis values for all measures fell within an acceptable range (3 to -3). Table 12 presents the means, standard deviations, and inter-correlations for all variables associated with the prediction of sponsorship patronage (i.e., intention to purchase products or services from companies because they sponsor the Vancouver 2010 Olympic Winter Games). Please refer to Part A of Appendix I to observe how each of the following scale items appeared in the questionnaire.

## 4.6.1.1 Behavioural beliefs

The behavioural belief (BB) scale was developed from the set of modal expected outcomes elicited in the pre-test (i.e., behavioural belief strength measures), and corresponding evaluation of each outcome associated with choosing to purchase products/services from Vancouver 2010 Olympic Winter Game sponsors. Four items were used to assess behavioural belief strength (i.e., the belief that patronizing event sponsors was associated with certain outcomes). First, participants were presented with the statement, "If I choose to purchase products or services

from sponsors of the Vancouver 2010 Olympic Games' I will be helping financially support Canadian Olympic athletes. Participants then rated (on a seven-point scale) the degree to which the outcome was "extremely unlikely" or "extremely likely" to occur. Second, participants were presented with the statement, "Choosing to purchase products or services from Vancouver 2010 Olympic Winter Games' sponsors will allow me to express my feelings of national pride or patriotism." Participants then indicated (on a seven-point scale) the degree to which they would "strongly disagree" or "strongly agree" with the statement. Third, participants were presented with the statement, "Choosing to purchase products or services from sponsors of the Vancouver 2010 Olympic Winter Games means that smaller (i.e., local) companies will suffer in the marketplace." Once again, participants then indicated (on a seven-point scale) the degree to which they would "strongly disagree" or "strongly agree" with the statement. Fourth, participants were presented with the statement, "Companies that sponsor the Vancouver 2010 Winter Olympic Games offer better quality products or services than their competitors who do not sponsor the Games..." Once again, participants were then asked to rate (on a seven-point scale) the degree to which the statement was "definitely false" or "definitely true." Scores for the first two behavioural belief strength items were coded on a continuum from 1 (extremely unlikely or strongly disagree) to 7 (extremely likely or strongly agree). Scores for the third belief strength item were reverse-coded on a continuum from 1 (strongly agree) to 7 (strongly disagree). Scores for the fourth behavioural belief strength items were coded on a continuum from 1 (definitely false) to 7 (definitely true).

Each behavioural belief strength item (b) had a corresponding outcome evaluation item (e), which was intended to capture the value respondents attached to each outcome. With respect to the first behavioural belief strength item, participants were presented with the statement,

"Financially supporting Canadian Olympic athletes is..." Participants then rated (on a seven-point scale) the degree to which this outcome was "undesirable" or "desirable." In association with the second behavioural belief strength item, participants were presented with the statement, "Expressing my feelings of national pride/patriotism is..." Participants rated (on a seven-point scale) the degree to which this outcome was "extremely bad" or "extremely good." In association with the third behavioural belief strength item, participants were presented with the statement, Purchasing products or services from larger (i.e., international) corporations is ..." Once again, participants rated (on a seven-point scale) the degree to which this outcome was "extremely bad" or "extremely good." In association with the fourth behavioural belief strength item, participants were presented with the statement, "Choosing to purchase better quality products or services is..." Once again, participants rated (on a seven-point scale) the degree to which this outcome was "unimportant" or "important" to them. Scores for each outcome evaluation item were coded on a continuum from 1 (undesirable, extremely bad, or unimportant) to 7 (desirable, extremely good, or important); with a 4 indicating that the outcome was neither good nor bad.

Each behavioural belief strength item score was multiplied by its corresponding outcome evaluation item score, and the products were summed form an overall BB score ( $\Sigma b_i e_i$ ). Possible BB scores could range from 4 to 196, with higher scores indicating stronger (and more valued) beliefs that choosing to purchase products/services from event sponsors would: (a) help financially support Canadian athletes, (b) allow the individual to express their feelings of national pride/patriotism, (c) not have adverse economic impacts for smaller (i.e., local) companies who were unable to sponsor the event, and (d) allow the individual to consume products/services that are of better quality than those available from competing organizations who did not sponsor the event. The mean BB score was 85.54 (SD = 26.68).

#### 4.6.1.2 Normative beliefs

The normative belief (NB) scale was developed from the set of modal normative referents elicited in the pre-test (i.e., normative belief strength measures), and corresponding motivation to comply with each referent group who respondents' perceived would approve or disapprove of performing the behaviour in question. Two items were used to assess normative belief strength (i.e., respondents' beliefs about whether each referent group would approve or disapprove of their choosing to patronize event sponsors). First, participants were presented with the statement, "My family thinks that..." Participants then completed the statement by indicating (on a sevenpoint scale) the degree to which they believed their family would think that, "I should not" or "I should' choose to purchase products or services from companies because they sponsor the Vancouver 2010 Olympic Winter Games in the coming months. Second, participants were presented with the statement, "My friends think that..." Participants then completed the statement by indicating (on a seven-point scale) the degree to which they believed their *friends* would think that, "I should not" or "I should" choose to purchase products or services from companies because they sponsor the Vancouver 2010 Olympic Winter Games in the coming months. Scores for each normative belief strength item were coded on a continuum from 1 (I should not choose to purchase products or services from companies because they sponsor the Vancouver 2010 Olympic Winter Games) to 7 (I should choose to purchase products or services from companies because they sponsor the Vancouver 2010 Olympic Winter Games).

Each normative belief strength item (n) had a corresponding motivation to comply item (m), which was intended to capture respondents' motivation to do what each referent thinks.

With respect to the first normative belief strength item, participants were presented with the statement, "When it comes to making purchase decisions, how much do you want to do what your

family thinks you should do?" Participants then rated the amount of pressure they perceived from their family to perform the behaviour on a seven-point scale ranging from "not at all" or "very much." In association with the second normative belief strength item, participants were presented with the statement, "When it comes to making purchase decisions, how much do you want to do what your friends think you should do?" Finally, participants then rated the amount of pressure they perceived from their friends to perform the behaviour on a seven-point scale ranging from "not at all" or "very much." Scores for each motivation to comply item were coded on a continuum from 1 (not at all) to 7 (very much).

Each normative belief strength item score was multiplied by its corresponding motivation to comply item score, and the products were summed form an overall NB score ( $\Sigma n_i m_i$ ). Possible NB scores could range from 2 to 98, with higher scores indicating stronger perceived pressure from friends and family to choose to purchase products or services from companies because they sponsored the event. The mean NB score was 31.59 (SD = 14.51).

### 4.6.1.3 Control beliefs

The control belief (CB) scale was developed from the set of modal control factors that facilitate or impede performance of the behaviour elicited in the pre-test (i.e., control belief strength measures), and corresponding perceived power (effect) of each condition in making sponsorship patronage decisions the event difficult or easy. Five items were used to assess control belief strength (i.e., the perceived likelihood of occurrence of each facilitating or constraining condition). First, participants were presented with the statement, "I expect companies who sponsor the Vancouver 2010 Olympic Winter Games will increase their prices in the coming months." Participants then indicated (on a seven-point scale) the degree to which they would "strongly disagree" or "strongly agree" with the statement. Second, participants were presented

with the statement, "Sponsors of the Vancouver 2010 Olympic Winter Games typically charge higher prices than their competitors who do not sponsor the Games." Participants then indicated (on a seven-point scale) the degree to which they would "strongly disagree" or "strongly agree" with the statement. Third, participants were presented with the statement, "In general, sponsors of the Vancouver 2010 Olympic Winter Games' products or services are relevant (of use) to me." Participants then indicated (on a seven-point scale) the degree to which they would "strongly disagree" or "strongly agree" with the statement. Fourth, participants were presented with the statement, "I expect that product or service offerings from sponsors of the Vancouver 2010 Olympic Winter Games will be MORE readily available for me to purchase (i.e., easier to access) in the coming months than competitors who do not sponsor the Games. Participants then indicated (on a seven-point scale) the degree to which they would "strongly disagree" or "strongly agree" with the statement. Fifth, participants were presented with the statement, "I expect companies will create advertisements and promotions indicating that they are sponsors of the Vancouver 2010 Olympic Winter Games." Participants then indicated (on a seven-point scale) the degree to which they would "strongly disagree" or "strongly agree" with the statement. Scores for the first two control belief strength item were reverse-coded on a continuum from 1 (strongly agree) to 7 (strongly disagree). Scores for the remaining control belief strength items were coded on a continuum from 1 (strongly disagree) to 7 (strongly agree).

Each control belief strength item (c) had a corresponding perceived power item (p), which was intended to capture the perceived power of each condition in making performance of the behaviour difficult or easy. With respect to the first control belief item, participants were presented with the statement, "Sponsors that increase their prices in the coming months would make it..." Participants then completed this statement by indicating (on a seven-point scale) the

degree to which this factor would make it "more difficult" or, "much easier" for me to choose to purchase products or services from them in the coming months.

In association with the second control belief strength item, participants were presented with the statement, "Sponsors that charge more than their competitors in the coming months would make it..." Participants then completed this statement by indicating (on a seven-point scale) the degree to which this factor would make it "more difficult" or, "much easier" for me to choose to purchase products or services from them in the coming months. In association with the third control belief strength item, participants were presented with the statement, "Relevant products or services make it..." Participants then completed this statement by indicating (on a seven-point scale) the degree to which this factor would make it "more difficult" or, "much easier" for me to choose to purchase products or services from companies who sponsors the Vancouver 2010 Olympic Winter Games in the coming months.

In association with the fourth control belief strength item, participants were presented with the statement, "Sponsors whose products or services are more readily available than competitors (i.e., easier to access in the marketplace) would make it ..." Participants then completed this statement by indicating (on a seven-point scale) the degree to which this factor would make it "more difficult" or, "much easier" for me to choose to purchase products or services from them in the coming months. In association with the fifth control belief strength item, participants were presented with the statement, "Exposure to advertisements and promotions from companies indicating they are sponsors of the Vancouver 2010 Olympic Winter Games would make it..." Participants then completed this statement by indicating (on a seven-point scale) the degree to which this factor would make it "more difficult" or, "much easier" for me to choose to purchase their products or services from among different providers in the

coming months. Scores for each perceived power item were coded on a continuum from 1 (more difficult...) to 7 (much easier...).

Each control belief strength item score was multiplied by its corresponding perceived power item score, and the products were summed form an overall CB score ( $\Sigma c_i p_i$ ). Possible CB scores could range from 5 to 245, with higher scores indicating stronger control over the factors that facilitated or impeded decisions to purchase products or services from event sponsors. In other words, higher CB scores were a function of stronger beliefs that: (a) sponsors would not increase their prices, nor would doing so impede sponsor patronage decisions; (b) sponsors do not charge higher prices than their competitors, nor would this reality impede sponsor patronage decisions; (c) sponsors' products/services are relevant (i.e., of use), which would make sponsor patronage decisions easier; (d) sponsors' products/services are more readily available in the marketplace compared to competitors, which would make sponsor patronage decisions easier; and (e) sponsors will create advertisements and promotions indicating that they are sponsors of the Vancouver 2010 Olympic Winter Games, and exposure to these advertisements would sponsor patronage decisions easier. The mean CB score was 95.22 (SD = 24.94).

### 4.6.1.4 Attitude toward the behaviour

Attitude toward patronizing sponsors of the Vancouver 2010 Olympic Winter Games was measured using a five-item semantic differential scale suggested by Ajzen (2006). This scale was intended to capture respondents overall evaluation of the behaviour. In particular, respondents were first presented with the statement, "My choosing to purchase products or services from companies because they sponsor the Vancouver 2010 Olympic Winter Games would be..."

Participants then rated (on a seven-point scale) the degree to which they perceived the behaviour as being *harmful-beneficial*, *unimportant-important*, *unpleasant-pleasant*, *bad-good*, *worthless-valuable*, and *unenjoyable-enjoyable*. Scores for each item of the scale were coded to range from 1 (i.e., responses that reflected negative attitude toward the behaviour adjectives including harmful, unimportant, unpleasant, bad, worthless, and unenjoyable) to 7 (i.e., corresponding responses that reflected positive attitude toward the behaviour adjectives including beneficial, important, pleasant, good, valuable, and enjoyable).

The scores for each item were summed to form and overall attitude toward the behaviour  $(A_b)$  score. Possible  $A_b$  scores could range from 5 to 35, with higher scores indicating a more positive overall evaluation of the behaviour (i.e. that patronizing event sponsors was beneficial, important, good, valuable, and enjoyable). Cronbach's alpha for this scale was .91. The mean  $A_b$  score was 23.62 (SD = 6.00).

#### 4.6.1.5 Subjective norms

Subjective norms (SN) were measured using two items suggested by Ajzen (2006). These items were intended to capture respondents' beliefs about whether most people would approve or disapprove of the behaviour (i.e., choosing to purchase products or services from companies because they are sponsors of the Vancouver 2010 Olympic Winter Games). Specifically, respondents were first presented with the statement, "Most people who are important to me would think that..." Participants then completed the statement by indicating (on a seven-point scale) the degree to which these important people think that, "I should not" or "I should" choose to purchase products or services from companies because they sponsor the Vancouver 2010 Olympic Winter Games in the coming months. Scores for this item were coded on a continuum

from 1 (I should not choose to purchase products or services from companies because they sponsor the Vancouver 2010 Olympic Winter Games) to 7 (I should choose to purchase products or services from companies because they sponsor the Vancouver 2010 Olympic Winter Games). Second, respondents were presented with the statement, "The people in my life whose opinions I value would..." Participants then completed the statement by indicating (on a seven-point scale) the degree to which these important people would "disapprove" or "approve" of me choosing to purchase products or services from companies because they sponsor the Vancouver 2010 Olympic Winter Games in the coming months. Scores for this item were coded on a continuum from 1 (disapprove of me purchasing products or service from companies because they sponsor the Vancouver 2010 Olympic Winter Games) to 7 (approve of me purchasing products or service from companies because they sponsor the Vancouver 2010 Olympic Winter Games).

The scores for each item were summed to form and overall SN score. Possible SN scores could range from 2 to 14, with higher scores indicating stronger perceptions that others would approve of purchasing products or services from companies because they sponsor the event. Cronbach's alpha for this measure was .65. The mean SN score was 8.82 (SD = 2.00). 4.6.1.6 Perceived behavioural control

Perceived behavioural control (PCB) was measured using four items suggested by Ajzen (2006). These items were intended to capture the degree of confidence and control respondents' felt in terms of choosing to purchase products or services from companies because they sponsor the Vancouver 2010 Olympic Winter Games. In particular, respondents were first presented with the statement, "For me to choose to purchase products or services from companies because they sponsor the Vancouver 2010 Olympic Winter Games in the coming months would be..."

Participants then indicated (on a seven point scale) the degree to which they perceived the

behaviour as being "impossible" or "possible" to perform. Scores for this item were coded on a continuum from 1 (impossible to perform) to 7 (possible to perform). Second, respondents were presented with the statement, "Making the conscious effort (i.e., choosing) to purchase products or services from Vancouver 2010 Olympic Winter Games' sponsors in the coming months would be... "Participants then indicated (on a seven point scale) the degree to which they perceived the behaviour as being "very difficult" or "very easy" to perform. Scores for this item were coded on a continuum from 1 (very difficult to perform) to 7 (very easy to perform). Third, participants were presented with the question, "How much control do you believe you have over choosing to purchase products or services from companies because they sponsor the Vancouver 2010 Olympic Winter Games in the coming months?" Participants then indicated (on a seven point scale) the degree to which they perceived themselves to have "no control" or "complete control" over performing the behaviour. Scores for this item were coded on a continuum from 1 (no control over performing the behaviour) to 7 (complete control over performing the behaviour). Finally, respondents were presented with the statement, "It is mostly up to me whether or not I choose to purchase products or services from companies because they sponsor the Vancouver 2010 Olympic Winter Games in the coming months." Participants then rated (on a seven point scale) the degree to which they would "strongly disagree" or "strongly agree" with the statement. Scores for this item were coded on a continuum from 1 (strongly disagree) to 7 (strongly agree).

The scores for each item were summed to form an overall PCB score. Possible PCB scores could range from 4 to 28, with higher scores indicating stronger perceived confidence and control in terms of choosing to purchase products or services from companies because they sponsor the Vancouver 2010 Olympic Winter Games. In other words, respondents with higher

PCB scores perceived the behaviour to be easier (and more within their control) to perform than individuals with lower PCB scores. Cronbach's alpha for this measure was .76. The mean PCB score was 20.94 (SD = 3.92).

#### 4.6.1.7 Descriptive norms

Descriptive norms (DN) were measured using two items suggested by Ajzen (2006). These items were designed to capture respondents' beliefs about whether most people important to them actually perform a particular behaviour (i.e., choose to purchase products or services from companies because they sponsor the Vancouver 2010 Olympic Winter Games). Specifically, respondents were first presented with the statement, "Most people who are important to me will choose to purchase products or services from companies because they sponsor the Vancouver 2010 Winter Games in the coming months. Participants then indicated (on a seven-point scale) the degree to which this statement was "completely false" or "completely true." Scores for this item were coded on a continuum from 1 (completely false) to 7 (completely true). In the second descriptive norm question, participants were presented with the statement, "Many people who are like me will choose to purchase products or services from companies because they sponsor the Vancouver 2010 Olympic Winter Games in the coming months." Participants then indicated (on a seven-point scale) the degree to which they perceived the statement to be "extremely unlikely" or "extremely likely" to occur. Scores for this item were coded on a continuum from 1 (extremely unlikely) to 7 (extremely likely).

The scores for each item were summed to form an overall DN score. Possible DN scores could range from 2 to 14, with higher scores indicating stronger beliefs that other (important) people (e.g., peers and family) would choose to purchase products or services from companies

because they sponsor the Vancouver 2010 Olympic Winter Games. Cronbach's alpha for this measure was .83. The mean DN score was 7.68 (SD = 2.52).

#### 4.6.1.8 Past behaviour

Past behaviour (PB) was measured using a single item. Participants were presented with statement, "When confronted with several options in past years, I have chosen to purchase products or services from sponsors of previous Olympic Winter Games (e.g., Torino 2006; Salt Lake City 2002). Participants were asked to rate (on a seven-point scale) the degree to which they perceived this statements as being "definitely false" or "definitely true." Scores for this item were coded on a continuum from 1 (definitely false) to 7 (definitely true). Possible PB scores could range from 1 to 7, with higher scores indicating stronger beliefs that in past years, the individual had chosen to patronize sponsors of previous Olympic Winter Games. The mean PB score was 2.92 (SD=1.69).

#### 4.6.1.9 Intention

Sponsorship patronage intention (INT<sub>SP</sub>) was measured using four items suggested by Ajzen (2006). These items were designed to capture respondents' perceived likelihood of choosing to purchased products or services from companies because they sponsor the Vancouver 2010 Olympic Games. In particular, participants were first presented with the statement, "When confronted with several options in the coming months, I will choose to purchase products or services from companies because they sponsor the Vancouver 2010 Olympic Winter Games."

Participants were then asked to rate (on a seven-point scale) the degree to which the statement was "definitely false" or "definitely true." Scores for each of these items were coded on a continuum from 1 (definitely false) to 7 (definitely true). Second, participants were presented with the statement, "When I purchase a product or service, I look for the Vancouver 2010

Olympic logo." Participants were then asked to rate (on a seven-point scale) the degree to which the statement was "definitely false" or "definitely true." Third, participants were presented with the statement, "I intend to purchase products or services from companies because they sponsor the Vancouver 2010 Olympic Winter Games." Participants were then asked to rate (on a seven-point scale) the degree to which this statement was "extremely unlikely" or "extremely likely" to occur. Finally, participants were presented with the statement, "When given the choice in the coming months, I am more likely to buy products or services from companies that are sponsors of the Vancouver 2010 Olympic Winter Games." Participants were then asked to rate (on a seven-point scale) the degree to which they would "strongly disagree" or "strongly agree" with this statement. Scores for each of these items were coded on a continuum from 1 (strongly agree) to 7 (strongly disagree).

The scores from each item were summed to form and overall INT<sub>SP</sub> score. Possible INT<sub>SP</sub> scores could range from 4 to 28, with higher scores indicating a stronger perceived likelihood of choosing to purchase products or services from companies because they sponsor the Vancouver 2010 Olympic Winter Games. Cronbach's alpha for this measure was .85. The mean INT<sub>TV</sub> score was 13.76 (SD = 5.44).

The following sections report the results the regression analyses that were conducted to test the relationships among the variables presented in Figure 6. Table 12 summarizes the descriptive statistics and inter-correlations among all variables involved in the prediction of sponsorship patronage intentions described above (excluding gender and geographic proximity to the event variables.

Table 12: Means, Standard Deviations, and Inter-Correlations Among Sponsorship Patronage Response Variables

Variable	1.	2.	3.	4.	5.	6.	7.	8.	9.	M (SD)
1.Behavioural beliefs	1.00									85.54 (26.68)
2. Normative beliefs	.40***	1.00								31.56 (14.51)
3. Control beliefs	.48***	.50***	1.00							95.22 (24.94)
4. Attitude toward behaviour	.60***	.33***	.50***	1.00						23.62 (6.00)
5. Subjective norms	.54***	.53***	.52***	.52***	1.00					8.82 (2.00)
6. Perceived behavioural control	.48***	.22***	.50***	.36***	.40***	1.00				20.94 (3.92)
7. Descriptive norms	.55***	.51***	.48***	.47***	.62***	.32***	1.00			7.68 (2.52)
8. Past behavior	.28***	.28***	.29***	.27***	.28***	.098*	.44***	1.00		2.92 (1.69)
9. Intention	.59***	.46***	.46***	.54***	.57***	.31***	.71***	.52***	1.00	13.76 (5.44)

Table 12 Notes: Scores for **behavioural beliefs** could range from 4 to 196, with higher scores indicating more positive beliefs about the consequences of performing the behaviour (i.e., patronizing event sponsors) Scores for **normative beliefs** could range from 2 to 98, with higher scores indicating stronger perceived pressure from friends and family to perform the behaviour. Scores for **control beliefs** could range from 5 to 245, with higher scores indicating stronger control over factors that facilitate or impede performance of the behaviour. Scores for **attitude toward the behaviour** could range from 5 to 35, with higher scores indicating a more positive overall evaluation of the behaviour. Scores for **subjective norms** could range from 2 to 14, with higher scores indicating stronger perceptions that others would approve of them performing the behaviour. Scores for **perceived behavioural control** could range from 4 to 28, with higher scores indicating greater perceived ease of performing the behaviour. Scores for **descriptive norms** could range from 2 to 14, with higher scores indicating stronger beliefs that other people would perform the behaviour. **Past behaviour** was measured on a scale from 1 to 7, with higher scores indicating stronger beliefs the individual had chosen to patronize sponsors of previous Olympic Winter Games. Scores for **intention** could range from 4 to 28, with higher scores indicating a stronger perceived likelihood of performing the behaviour. \*\*\*Correlation was significant at the .001 level; \*Correlation was significant at the .05 level.

## 4.6.2 Regression Analyses

With respect to the sponsorship patronage response domain, a series of linear regression analyses were conducted to test the hypotheses outlined in Chapter 1 (see section 1.4). First, a simultaneous multiple linear regression analysis was conducted to determine the predictive influence of gender and geographic proximity on behavioural, normative, and control beliefs. Second, a series of simple linear regression analyses were employed to test the relationship between: (a) behavioural beliefs and attitudes toward the behaviour; (b) normative beliefs and subjective norm; and (c) control beliefs and perceived behavioural control. Third, a hierarchical multiple linear regression analysis was conducted to determine the degree to which attitude toward the behaviour, subjective norms, perceived behavioural control, descriptive norms, and past behaviour predicted respondents' intention to purchase products or services from companies because they were sponsors of the Vancouver 2010 Olympic Winter Games. Here, the expectation was that descriptive norms and past behaviour would combine to explain significant proportions of the variance in respondents' intensions above and beyond attitude toward the behaviour, subjective norms, and perceived behavioural control. The simple linear regression analyses and the hierarchical multiple linear regression analysis were conducted for the entire sample of participants (i.e., these analyses did not control for gender or geographic proximity to the event).

Results from these regression analyses are presented in the following sections. Figure 6 depicts the standardized beta coefficients ( $\beta$ ) 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 multicollinearlity. Tolerance values for each predictor variable (i.e., attitude toward

behaviour, subjective norms, perceived behavioural control, descriptive norms, and past behaviour) were deemed acceptable (>.10) and ranged from .51 to .80.

4.6.2.1 Prediction of behavioural, normative, and control beliefs from gender and geographic proximity to the event

Results from the first simultaneous linear regression analysis revealed that gender and geographic proximity to the event explained 0.3% of the variance ( $R^2 = .003$ ) in behavioural beliefs, which is not a statistically significant amount of the total variance (F = .657, p = .52). The standardized beta weights for the gender-behavioural belief relationship ( $\beta = .012$ , p = .81) and the geographic proximity-behavioural belief relationship ( $\beta = .058$ , p = .26) were not significant.

Results from the second simultaneous linear regression analysis revealed that gender and geographic proximity to the event explained 1.2% of the variance ( $R^2$  = .012) in normative beliefs, which is not a statistically significant amount of the total variance (F = 2.19, p = .11). Given the magnitude of the F value and its associated probability, there is a strong possibility of making a Type II error in this instance. Thus, although the standardized beta weight for the geographic proximity-normative belief relationship did emerge as being significant ( $\beta$  = -.108, p < .05), it will not be deemed as such. In the event that a Type II error has occurred here, the negative beta value would suggest that being a University of Waterloo student was associated with lower normative belief scores (where University of Victoria students were coded as 0 and University of Waterloo students as 1). In particular, University of Victoria students would have perceived significantly more pressure from friends and family to purchase products or services from companies because they were sponsors of the event. The standardized beta weight for the gender-normative belief ( $\beta$ = -.005, p = .92) was not significant.

Results from the third simultaneous linear regression analysis revealed that gender and geographic proximity to the event explained 0.1% of the variance ( $R^2 = .001$ ) in control beliefs, which is not a statistically significant amount of the total variance (F = .263, p = .77). The standardized beta weights for the gender-control belief relationship ( $\beta = .037$ , p = .48) and the geographic proximity-control belief relationship ( $\beta = .010$ , p = .85) were not significant. The results from each of these simultaneous regression analyses including standardized beta weights and  $R^2$  values are depicted in Figure 6.

4.6.2.2 Prediction of attitude toward behaviour, subjective norms, and perceived behavioural control from behavioural, normative, and control beliefs (respectively)

Results from the first simple linear regression analysis revealed that behavioural beliefs explained 35.4% of the variance in attitude toward the behaviour ( $R^2$  = .354), which is a statistically significant amount of the total variance (F = 247.78, p <.001). Behavioural beliefs were a significant positive predictor of attitude toward the behaviour ( $\beta$  = .595, p < .001). Specifically, a more positive evaluation of performing the behaviour (i.e., that patronizing event sponsors was beneficial, important, good, valuable, and enjoyable) was associated with a stronger belief that performing the behaviour would have valued consequences in the form of: (a) helping financially support Canadian athletes, (b) allowing the individual to express their feelings of national pride/patriotism, (c) not having adverse economic impacts for smaller (i.e., local) companies who were unable to sponsor the event, and (d) allowing the individual to consume products/services that are of better quality than those available from competing organizations who did not sponsor the event.

Results from the second simple linear regression analysis revealed that normative beliefs explained 28.5% of the variance in subjective norms ( $R^2 = .285$ ), which is a statistically significant amount of the total variance (F = 159.56, p < .001). Normative beliefs were a

significant positive predictor of subjective norms ( $\beta$  = .534, p < .001). In particular, a stronger perception that important others would approve of performing the behavior was associated with more perceived pressure from friends and family to purchase products or services from companies because they were sponsors of the event.

Results from the third simple linear regression analysis revealed that control beliefs explained 24.4% of the variance in perceived behavioural control ( $R^2 = .244$ ), which is a statistically significant amount of the total variance (F = 127.79, p < .001). Control beliefs were a significant positive predictor of perceived behavioural control ( $\beta$  = .494, p < .001). Specifically, a stronger perceived ease of purchasing products or services from companies because they were sponsors of the event was associated with stronger beliefs that: (a) sponsors would not increase their prices, nor would doing so impede sponsor patronage decisions; (b) sponsors do not charge higher prices than their competitors, nor would this reality impede sponsor patronage decisions; (c) sponsors' products/services are relevant (i.e., of use), which would make sponsor patronage decisions easier; (d) sponsors' products/services are more readily available in the marketplace compared to competitors, which would make sponsor patronage decisions easier; and (e) sponsors will create advertisements and promotions indicating that they are sponsors of the Vancouver 2010 Olympic Winter Games, and exposure to these advertisements would sponsor patronage decisions easier. The results from each of these simple regression analyses including standardized beta weights and  $R^2$  values are depicted in Figure 6.

4.6.2.3 Prediction of intention from attitude toward behaviour, subjective norms, perceived behavioural control, descriptive norms, and past behaviour

Means, standard deviations, and correlations for all variables are presented in Table 12. A twostep, hierarchical regression analysis was performed to test the degree to which: (a) TPB constructs predicted respondents' intention to purchase products or services from companies because they were sponsors of the Vancouver 2010 Olympic Winter Games; and (b) whether descriptive norms and past behaviour could explain significant proportions of the variance in these intentions above and beyond TPB constructs. TPB constructs (i.e., attitude toward the behaviour, subjective norms, and perceived behavioural control) were entered in step one (block1). Descriptive norms and past behaviour were entered in step two (block 2). Standardized beta weights ( $\beta$ ), Adjusted  $R^2$  values, and change in  $R^2$  values ( $\Delta R^2$ ) for this analysis are presented in Table 13.

Table 13: Summary of Hierarchical Regression Analysis for Variables Predicting Sponsorship Patronage Intention (n = 395)

Variable	Standardized Coefficients	Adjusted R <sup>2</sup>	$\Delta R^2$
Step 1			
Attitude toward behaviour	.314***		
Subjective norms	.392***		
Perceived behavioural control	.048		
		.405***	
Step 2			
Attitude toward behaviour	.197***		
Subjective norms	.124***		
Perceived behavioural control	.028		
Descriptive norms	.431***		
Past behaviour	.242***		
		.615***	.210***

Table 13 Notes: \*\*\*p <.001.

Results of step one of this hierarchical regression analysis revealed that the three TPB constructs accounted for 40.5% of the variance in respondents' intentions to purchase products or services

from companies because they were sponsors of the Vancouver 2010 Olympic Winter Games ( $R^2$  = .405), which is a statistically significant amount of the total variance (F = 90.52, p < .001). Attitude toward the behaviour ( $\beta$  = .314, p < .001) and subjective norms ( $\beta$  = .392, p < .001) were significant positive predictors of respondents' intention to purchase products or services from companies because they were sponsors of the event. In summary, a stronger intention to patronize event sponsors was associated with: (a) a more favourable evaluation of performing the behaviour (i.e., that patronizing event sponsors was beneficial, important, good, valuable, and enjoyable); and (b) a stronger perception of important others' (i.e., friends and family) approval of performing the behaviour. Perceived behavioural control was not a significant predictor of sponsorship patronage intention in this step of the analysis.

Step two of the hierarchical regression analysis involved the simultaneous addition of descriptive norms and past behaviour to the existing TPB model. The addition of these constructs meant that 21% more variance in sponsorship patronage intention was explained ( $\Delta R^2 = .210$ , p < .001). In total, 61.5% of the variance in respondents' sponsorship patronage intention scores were explained by the five variables in the model ( $R^2 = .615$ ), which is a statistically significant amount of the total variance (F = 127.02, p < .001). Descriptive norms ( $\beta = .431$ , p < .001), past behaviour ( $\beta = .242$ , p < .001), attitude toward the behaviour ( $\beta = .197$ , p < .001), and subjective norms ( $\beta = .124$ , p < .01) were significant positive predictors of intention within the model. In summary, a stronger intention to patronize event sponsors was associated with: (a) a stronger belief that important others would perform the behaviour; (b) a stronger belief that the in past years, the individual had chosen to patronize sponsors of previous Olympic Winter Games (c) a more favourable evaluation of performing the behaviour; and (d) a stronger perception that important others would approve of performing the behaviour.

Perceived behavioural control also was not a significant predictor of sponsorship patronage intention in this step of the analysis. The strength of attitude toward the behaviour and subjective norms in predicting sponsorship intention decreased when descriptive norms and past behaviour were considered (i.e., from  $\beta$  = .314 to  $\beta$  = .197 and from  $\beta$  = .392 to  $\beta$  = .124 respectively). The results from this hierarchical regression analysis including standardized beta weights and adjusted  $R^2$  values are depicted in Figure 6.

Attitude toward Behavioural beliefs .595\*\*\* behaviour  $R^2 = .003$ .012  $R^2 = .354$ .197\*\*\* Gender -.005 Subjective norms  $R^2 = .285$ .534\*\*\* Normative beliefs .124\*\* .058  $R^2 = .012$ -.108 Geographic .037 .010 Proximity .028 Control beliefs Perceived Intention .494\*\*\*  $R^2 = .008$  $R^2 = .615^a$ behavioural control  $R^2 = .244$ .431\*\*\* Descriptive norms .242\*\* Past behaviour

**Figure 6: Prediction of Sponsorship Patronage Intention** 

Figure 6 Notes:  $^{a}$ Adjusted  $R^{2}$  value based on step 2 of the hierarchical regression analysis; standardized beta weights are depicted. \*\*Relationship is significant at the 0.01 level. \*\*\*Relationship is significant at the 0.001 level.

#### 5. DISCUSSION

### 5.1 Outline

This chapter is divided into four sections. The results of the regression analyses for each of the three response domains are interpreted and discussed first. The chapter then concludes with a discussion of the implications of the findings for research and practice.

## 5.2 Physical Activity

The following section interprets the results associated with the prediction of physical activity intention (see Figure 4). First, the findings related to the influence of gender and geographic proximity to the event on behavioural, normative and control beliefs will be discussed. Second, the respective relationships between behavioural, normative, and control beliefs and overall measures of attitude toward the behaviour, subjective norms, and perceived behavioural control is described. Finally, this section will attempt to explain the predictive influence of attitude toward the behaviour, subjective norms, perceived behavioural control, descriptive norms and past behaviour on respondents' intention to increase their physical activity levels in response to the Vancouver 2010 Olympic Winter Games.

## 5.2.1 The Influence of Gender and Geographic Proximity to the Event on Behavioural, Normative and Control Beliefs.

Social factors such as gender and place of residence (i.e., geographic proximity to the event) have the potential to influence the belief-based constructs proposed in the TPB (Ajzen & Albarracín, 2007). Within the current investigation, University of Victoria students held significantly stronger control beliefs (i.e., control over the factors that facilitate or impede performance of the behaviour) compared to University of Waterloo students. In particular, University of Victoria students held stronger beliefs that: (a) the Vancouver 2010 Olympic

Winter Games would stimulate the development of activity promoting infrastructure in their communities (i.e., programs, facilities, and advertisements); and (b) that this infrastructure would make it easier for them to increase their activity levels in response to the event.

This finding is consistent with previous research. For instance, Bauman, Armstrong, and Davies (2003) examined the influence of proximity to the Olympics on changes in physical activity (PA) participation rates and intention to become more active. The authors reported that Australians who lived in cities near (or that contained) Olympic venues (sport facilities) were more likely to report positive intentions to engage in PA in both 1999 and 2000 than those residing in cities further away. Thus, it appears as though people's belief about access to supporting infrastructure plays an important role in determining the extent to which they intend to become more active because of the Olympic Games. Indeed, proximity and access to activity promoting infrastructure in the built environment (e.g., parks, playgrounds, sport fields, etc.) has been a well-documented correlate of PA participation (Kaczynski, Potwarka, Smale, & Havitz, 2009; Kaczynski, Potwarka, & Saelens, 2008; Potwarka, Kaczynski, & Flack, 2008).

Proximity and access to particular sport infrastructure is especially important for promoting activities that resemble those on display at the Olympic Winter Games. For example, it may be challenging for someone to take up the sport of luge without living in relative close proximity to a luge track. However, the present study did not attempt to tease out any differences that may have existed in people's control beliefs or intention as they related to specific types of sport and/or physical activities. Instead, a more general measure of physical activity was employed, which included an assessment of respondent's control beliefs and intention related to participation in winter Olympic-like sport activities, non-winter Olympic-like sport activities, and/or physical activities more generally.

Geographic proximity (i.e., whether students attended classes at the University of Waterloo or the University of Victoria at the time of the survey) did not appear to influence behavioural or normative beliefs. Researchers (e.g., Bauman et al., 2003; Potwarka & McCarville, 2010; Waitt, 2003) have hypothesized that the closer citizens live in relation to the event, the more likely it is they will become captivated by the event, and thus, feel motivated to alter their activity patterns in response to that event. Aside from this somewhat anecdotal claim, there is little theoretical support for an expectation that University of Victoria and University of Waterloo respondents would differ in terms of their behavioural beliefs scores (i.e., beliefs about the positive consequences of performing the behaviour). Respondents could become fitter and develop healthier lifestyles from increasing their activity levels regardless of where they lived in relation to the event (especially given the general assessment of PA that was used in the current investigation). Likewise, there is little reason to expect that respondents from either geographic location would vary in terms of their normative beliefs scores (i.e., the degree of perceived pressure from friends and family to perform the behaviour). As was observed, respondents felt the same degree of pressure to increase their activity levels in response to the event regardless of where they lived at the time of the investigation.

Researchers (e.g., Murphy & Bauman, 2007; Potwarka & McCarville, 2010) have suggested that the activity-related consequences of the Olympics may vary greatly between males and females. Murphy and Bauman however, note that results from PA participation surveys conducted in conjunction with the event are rarely organized by gender. One exception to this trend is Bauman et al.'s (2003) study, which compared male and female general PA levels before and after 2000 Sydney Olympics. The authors found that Australian men reported slightly higher participation rates before and after the event.

Within the current study however, gender was not associated with the normative beliefs respondents held in relation to performing the behaviour (i.e., the degree of perceived pressure from friends and family to increase their activity levels in response to the event). As well, being male or female was not associated varying perceptions of behavioural beliefs (i.e., beliefs that increasing activity levels because of the games would result in the individual becoming fitter and developing healthier lifestyles) or control beliefs. These results are not consistent with past research (e.g., Trinh, Rhodes, & Ryan, 2008; Troped & Saunders, 1998), which has examined the gender differences in the normative, control, and behavioural beliefs people associate with participating in new forms of PA.

For instance, Troped and Saunders (1998) reported differences between males and females in terms of social influences on physical activity during various stages of exercise adoption. They found that women reported greater motivation than men to comply with "most people," "my regular doctor," "spouse," and "parents" when beginning a new exercise regime. According to Troped and Saunders, gender differences in normative beliefs and social influences were more pronounced at earlier stages of exercise adoption. Likewise, Trinh et al. (2008) found that males and females differed with respect to the behavioural and control beliefs they associated with participating in new PA programs. In particular, the authors found that Canadian adolescent males and females differed in terms of their control over factors that might have facilitated or impeded performance of the behaviour such as schoolwork, weather, and/or having other plans. Additionally, Trinh et al. reported gender differences in relation to the consequences (i.e., behavioural beliefs) respondents associated with preforming the behaviour including: feeling embarrassed, improved mental health, improved fitness, and opportunities for social interaction.

The salient outcomes (i.e., becoming fitter and healthier), normative referents (i.e., friends and family), and control factors (i.e., access to activity promoting infrastructure and promotions) that emerged in the present investigation did not appear to be as sensitive to gender compared to those which emerged in previous investigations. Perhaps, increasing activity levels in the context of the Vancouver 2010 Olympic Winter games was perceived by respondents as more of a "gender-neutral" form of behaviour change. This notion might be especially true because for many, the source of inspiration to increase activity levels stemmed from the anticipated performances of both male and female Olympic athletes.

The Olympic Winter Games promote sports associated with traditionally feminine characteristics (e.g., aesthetical, beautiful, graceful, and sexy) and masculine characteristics (e.g., danger, risk, and speed) (Koivula, 2001). It should be noted however, that these "characteristics" are socially constructed. As such, the Olympics can be sites for athletes to challenge dominate gender ideologies associated with participating in certain sports, which can inspire people's decisions to take part in activities typically perceived as being part of the "male" or "female" sporting realm (Coakley & Donnelly, 2009).

## 5.2.2 The Influence of Behavioural, Normative and Control Beliefs on Attitude Toward The Behaviour, Subjective Norms and Perceived Behavioural Control

Ajzen (2006) argued that measuring beliefs allows researchers to understand the underlying cognitive foundations of behaviour. By measuring beliefs, one can explore why people hold certain attitudes, subjective norms, and perceptions of behavioural control in relation to a particular behaviour (Ajzen). Within the current study, respondents' behavioural beliefs (i.e., their beliefs about valued outcomes associated with performing the action) were positively related to their attitude toward increasing their activity levels in response to the Vancouver 2010 Olympic Winter Games.

Specifically, a more favourable attitude toward performing the behaviour (i.e., that becoming more physically active in response to the event was beneficial, important, good, valuable, and enjoyable) was associated with stronger beliefs in the Vancouver 2010 Olympic Winter Games' ability to help respondents develop healthier lifestyles and become fitter via increased activity levels. Becoming "fitter" and "healthier" are often cited as reasons for engaging in a variety of different PA behaviours, especially among young adult and adolescent populations (Kilpatrick, Hebert, & Bartholomew, 2005; Trinh et al., 2008).

Normative beliefs (i.e., the degree of perceived pressure to perform the behaviour from each referent individual or group) were positively related to subjective norms (i.e., the degree to which respondents perceived important others would approve or disapprove of performing the behaviour). In particular, a stronger belief that important others would approve of performing the behaviour was associated with more perceived pressure from friends and family to increase PA levels in response to the event. Here again, "friends" and "family members" are often identified by undergraduate students as important social influences on their PA behaviours (e.g., Trinh et al., 2008).

Finally, control beliefs (i.e., perceived control over factors that facilitate or impede performance of the behaviour) were positively related to perceived behavioural control (i.e., the overall perceived ease or difficulty of performing the behaviour). Specifically, a stronger perceived ease of becoming more physically active in response to the event was associated with:

(a) a stronger belief that the Vancouver 2010 Olympic Winter Games would stimulate the development of activity promoting infrastructure in respondents' communities (i.e., programs, facilities, and advertisements); and (b) a stronger belief that this infrastructure would make it easier for the individual to increase their activity levels in response to the event. As mentioned,

access to activity promoting infrastructure in the built environment is often cited as key determinant of PA behaviour (Kaczynski et al., 2009; Kaczynski et al., 2008; Potwarka et al., 2008).

Moreover, the idea that developing sport infrastructure and PA promotions improves the perceived ease of performing the behaviour speaks to the importance of leveraging the activity-related consequences of the Olympic Games. Soteriades et al. (2006) suggested that the Olympics constitute a first-class opportunity to promote healthy messages to the general population, and to inspire people of all ages to become physically fit. Nevertheless, Murphy and Bauman (2007) argued that one reason there is only marginal evidence of trickle-down effects is that the sport and health sector has generally failed to engage with the opportunities provided by mega-events to promote the PA message and develop facilities and programs.

Increased activity levels among undergraduate students are more likely to result from the combined impacts of staging the Olympic Games and implementing sport and PA-related interventions in conjunction with them (Coalter, 2004; Murphy & Bauman, 2007; Potwarka & McCarville, 2010; Soteriades et al., 2006). However, few sport and health professionals have utilized the unique opportunity of hosting the Olympics to design, implement, and evaluate programs and facilities that encourage people to become more active. Soteriades et al. suggested that little is known about impact of the Games on the development of health-promotion programs and facilities for the general population.

## 5.2.3 The Influence of Attitude Toward The Behaviour, Subjective Norms, Perceived Behavioural Control, Descriptive Norms and Past Behaviour on Intention

The results of the hierarchical regression analysis revealed that attitude toward the behaviour, descriptive norms, and past behaviour were significant positive predictors of respondents' intention to increase their physical activity levels in response to the Vancouver 2010 Olympic

Winter Games. Subjective norms and perceived behavioural control did not emerge as significant predictors of intention within this behavioural response domain. The following sections will discuss the results relating to each predictor of intention included in the model (see Figure 4).

5.2.3.1 Attitude toward behaviour

Attitude toward the behaviour was positively associated with respondents' intention to increase their activity levels in response to the event. In particular, respondents who perceived increasing their activity levels in this manner as being beneficial, important, good, valuable, and enjoyable were more likely to intend to perform the action. As noted, favourable evaluations of the behaviour were determined by the extent to which respondents believed performing the action would allow them to *develop healthier lifestyles* and become *fitter*. These outcomes represented the cognitive foundation of respondents' attitude toward the behaviour, and appeared to be key motivating factors they associated with performing the behaviour.

Respondents with favourable intentions to become more active in response to the Games were more likely to view the event as an opportunity to enhance their well-being. Research has suggested that undergraduate-aged students believe becoming fitter and healthier from their participation in physical activity will improve their appearance/sexual attractiveness, reduce stress, increase mental alertness required to complete tasks, improve the quality of their work, and enhance their overall self-concept (e.g., Brown, 2005; Grubbs & Carter, 2002).

It should be noted that becoming "fitter" and "healthier" seems to be more indicative of outcomes people typically associate with exercise behaviour (e.g., going to the gym, jogging, working out, etc) than participation in sport-related activities. Previous research supports this claim. For instance, Frederick and Ryan (1993) found that "enjoyment" and "competence" motives were more important among sport participants than fitness participants; whereas body-

related concerns were more salient among fitness participants than those involved in sports.

Within the current study however, efforts were not taken to tease out any differences that may have existed in people's attitudes or intentions as they related to specific categories or types of PA.

### 5.2.3.2 Subjective norms

Subjective norms were not a significant predictor of respondents' intention to become more active because of the Vancouver 2010 Olympic Winter Games. Respondents' who believed important others would approve of becoming more active in response to the Games were not more likely to form a stronger intention to do so. Although respondents may have felt much normative pressure from friends and family to perform the behaviour (i.e., reported strong normative beliefs), this pressure did not appear to translate into heightened levels of activity intention via its influence on subjective norms.

The lack of influence of subjective norms on respondents' intention to increase activity levels in responses to the event is consistent with previous research. For instance, Hausenblas, et al.'s (1997) meta-analysis of TPB-based research within physical activity contexts found that subjective norms tended to show a smaller correlation with both intent to exercise and exercise behaviour than did other components of the theory (i.e., attitude toward the behaviour and perceived behavioural control). Similar findings have been reported in other more recent reviews and investigations (Courneya, Plotnikoff, Hotz, & Birkett, 2000; Sheeran & Orbell, 2000).

Lutz, Linder, and Greenwood (2004) stated that findings such as these suggest that although subjective norms appear to play a role in people's decision to participate in physical activity, they do not play a particularly large role. The authors argued that one reason for the failure to find a strong, consistent relationship between subjective norms and intent to exercise is

that another variable might moderate this relationship. For example Chatzisarantis and Biddle (1998) examined type of motivation as a moderator of the subjective norm—intent relationship. The authors found that a positive relationship existed between subjective norms and intent when respondents were extrinsically motivated to engage in the exercise behaviour. On the other hand, Chatzisarantis and Biddle reported that a negative relationship existed between subjective norm and intent when respondents were intrinsically motivated to perform the exercise behaviour. The authors argued that one type of extrinsic reward is that of social recognition or approval, and it makes sense that people who exercise for these rewards would be more sensitive to the influence of subjective norms.

Perhaps some of the respondents in the present investigation were motivated to increase their activity levels in response to the event for more intrinsic reasons. For these individuals, feeling a sense of social pressure to perform the action may have actually served to decrease their intentions to perform the action (Lutz, Linder, & Greenwood, 2004). This speculation is consistent with Brehm's (1966) theory of psychological reactance, which suggests that increased pressure to behave in a certain way, even if that behaviour is intrinsically motivated, increases the attractiveness of not performing the behaviour.

#### 5.2.3.3 Perceived behavioural control

Perceived behavioural control was not a significant predictor of respondents' intention to their activity levels in response to the Vancouver 2010 Olympic Winter Games. The extent to which respondents perceived performing the behaviour to be easy was determined by their beliefs about their control over factors that would facilitate or impede performance of the behaviour (i.e., their control beliefs). Specifically, a stronger perceived ease of becoming more physically active in response to the event was associated with: (a) a stronger belief that the

Vancouver 2010 Olympic Winter Games would stimulate the development of activity promoting infrastructure in respondents' communities (i.e., programs, facilities, and advertisements); and (b) a stronger belief that this infrastructure would make it easier for the individual to increase their activity levels in response to the event. Nevertheless, a greater perceived ease of becoming more active because of the event did not translate into a more favourable intention to perform the action.

There may be one methodological explanation for this finding. Perceived ease or difficulty of performing the action was assessed in relation to increasing "activity levels" more generally. In the questionnaire, respondents were instructed that the terms "active" or "activity levels" referred to participation in winter Olympic-like sport activities, non-winter Olympic-like sport activities, and/or physical activities in general. This lack of specificity may have contributed to the marginal relationship that was observed between measures of perceived behavioural control and intention.

Indeed, perceived behavioural control might have played a larger role in the prediction of intention had it been assessed in relation to a particular sport or exercise-related activity. For example, respondents would likely perceive increasing their participation in luge as being more difficult than working out more regularly at an on-campus fitness centre (especially in terms of access to supporting infrastructure). That said however, it would not have been feasible for the present investigation to examine the myriad of possible sport and exercise behaviours.

### 5.2.3.4 Descriptive norms

Descriptive norms were the best predictor of respondents' intention to increase their physical activity levels in response to the Vancouver 2010 Olympic Winter Games (after controlling for TPB constructs). Descriptive norms suggest that the actions of important others often motivate

people to engage in a particular by showing them it is the normal and rational thing to do (e.g., "if everyone is doing it, it must be the sensible thing to do"; Sheeran & Orbell, 1999).

Respondents' reporting stronger beliefs that other people "like them" would perform the action, were more likely to intend to become more physically active because of the event.

This finding is consistent with recent research in physical activity contexts. For example, Priebe and Spink (in press) found that descriptive norms predicated self-reported weekly physical activity levels among the sample of undergraduate students. In particular, the authors reported that descriptive norm perceptions associated with 'friends' activity were most associated with individuals' behaviour. It is interesting to note that "friends" emerged as an important and relevant group that could influence PA-related behaviours among undergraduate students in the current study, as well as in the Priebe and Spink study. These findings appear to be aligned with Terry and Hogg's (1996) *social identity theory* for understanding behaviour. The theory suggests that the norms of a relevant group should influence intentions (and subsequent behaviour) when the individual strongly identifies with that reference group. People who perceive similarities between themselves and other group members (i.e., have strong perceptions of group identity) are more likely to aspire to imitate the actions of those members (Rimal & Real, 2005).

#### 5.2.3.5 Past behaviour

Past behaviour was a significant predictor of respondents' intention to increase their physical activity levels in response to the Vancouver 2010 Olympic Winter Games (after controlling for TPB constructs). Respondents who reported strong beliefs that previous Olympic Winter Games made them more active were more likely to form a favourable intention to perform the behaviour. The notion that past behaviour is one of the best predictors of future behaviour has

received considerable empirical support within a variety of behavioural domains, including physical activity (e.g., Godin et al., 1993; Hagger et al., 2001). For instance, Hagger et al. reported that past physical activity behaviour predicted young people's intention to participate in physical activities. Likewise, Godin et al. reported that habit was the most important predictor of exercise behaviour over and above all other TPB variables.

Moreover, the current study's finding in this regard appears to confirm the speculation that the Olympic Winter Games may tend to be most effective at increasing the activity levels among those who are already moderately active (Potwarka & McCarville, 2010). For example, a study of a heavily publicized curling gold medal's impact on Scotland's curling participation rates found that the success had the greatest impact on citizens who were already active in sport (Sport-Scotland, 2004). Results such as these may call into question the ability of the Olympics motivate completely sedentary individuals to incorporate at least some form of sport/physical activity in their daily lives.

## 5.3 Television Viewership

The following section will interpret the results associated with the prediction of television viewership intention (see Figure 5). First, the findings related to the influence of gender and geographic proximity to the event on behavioural, normative and control beliefs will be discussed. Second, the respective relationships between behavioural, normative, and control beliefs and overall measures of attitude toward the behaviour, subjective norms, and perceived behavioural control is described. Finally, this section will attempt to explain the predictive influence of attitude toward the behaviour, subjective norms, perceived behavioural control, descriptive norms and past behaviour on respondents' intention to watch at least some portion of the Vancouver 2010 Olympic Winter Games on television.

## 5.3.1 The Influence of Gender and Geographic Proximity to the Event on Behavioural, Normative and Control Beliefs.

As noted, Ajzen and Albarracín (2007) argued that socio-demographic factors such as gender and place of residence have the potential to influence the belief-based constructs proposed in the TPB. Within the present study, male students held significantly stronger control beliefs (i.e., control over the factors that facilitate or impede performance of the behaviour) compared to females. Specifically, they believed more strongly than females that (a) work or school obligations would not impede their ability watch the event on television; and (b) that having access to a television set in their place of residence would make it easier to watch the event on television.

Previous research conducted by Dietz-Uhler, Harrick, End, and Jacquemotte (2000) may help explain some of these findings. These authors examined the sex differences in sport fan behaviour and reasons for being a sports fan within a sample of undergraduate students in the U.S. Dietz-Uhler et al. found that males identified more strongly with being a sport fan compared to female students. They suggested that even though females consider themselves to be sport fans, it is often not an identity that is especially important to them. The authors interpreted their findings by suggesting that sport is often perceived as more of a male domain, and that men are socialized into sports significantly more than women.

Possessing a strong identity as being a "sport fan" may translate into heightened levels of involvement, commitment, and loyalty toward watching televised coverage of the Vancouver 2010 Olympic Winter Games (Kyle, Graefe, Manning, & Bacon, 2004; Iwasaki & Havitz, 2004; Wood, Snelgrove, & Danylchuk, 2010). Kyle et al. found that when an activity was considered by a participant to be central to his or her life, that individual was more likely to continue participating in that activity (i.e., hiking) over an extended period of time. Moreover, if males

were more committed or loyal to watching the event on television compared to females, they may have been more likely to expend effort to negotiate constraints (i.e., work or school obligations) that might have impeded performance of the behaviour (Mannell & Loucks-Atkinson, 2005; Loucks-Atkinson, 2002; Snelgrove, Taks, Chalip, & Greem, 2008). This idea is consistent with the findings of Snelgrove et al. The authors reported that people were more likely to travel to a sport event (overcome a structural constraint) if they identified with the sport subculture at hand.

It was also interesting to observe that males were more firmly entrenched in their beliefs that having access to a television set in their place of residence would make it easier to watch the event on television. The manner in which the Olympic Games are covered on cable television affords individuals to opportunity to watch the event almost 24 hours per day. Recently, over 24 million Canadian viewers watched as the four networks of CBC offered a record 2,400 hours of Summer Olympic coverage from Beijing (CBC Sports, 2008). Consistent with previous research (e.g., Gantz & Wenner, 1991; Uhler et al., 2000), it reasonable to speculate that males would typically spend more time watching the event on television than females would. In other words, it is possible that the extent to which males in the present study desired to watch the event (in terms of length of time) would be higher than that of female respondents. Thus, to fulfill some of the possible desired viewing habits, among predominantly male respondents, would almost certainly necessitate access to a cable television set in one's dwelling. Such access would allow the individual to consume continual coverage of the event in the morning, afternoon, as well as evening hours. This desired level of television consumption might be possible for many of the adolescents sampled in the current investigation (i.e., first and second year undergraduate students), many of whom are likely not constrained by full-time employment obligations.

Geographic proximity (i.e., whether students attended classes at the University of Waterloo or the University of Victoria at the time of the survey) did not emerge as a significant predictor of control beliefs. This result seems to suggest that regardless of their place of residence, respondents perceived relatively the same degree of control over factors that facilitated (i.e., having access to a cable television set in one's place of residence) or impeded performance of the behaviour (i.e., work or school obligations). Simply stated, respondents' perceived ability (ease or difficulty) to watch at least some portion of the event on television did not vary significantly from one geographic location to the next. This finding makes sense when considering the relatively "homogenous" sample of student respondents surveyed in the current investigation. It is reasonable the suspect that undergraduate students in both geographic locations would be faced with somewhat similar school and/or work place demands to negotiate, as well as have equal opportunities to access a cable television set in their living quarters. Also, a lack of significant findings in this regard might be directly attributable to sample size. Far fewer University of Victoria students were surveyed, which might have masked any significant differences between the two groups as it pertained to control belief scores.

Moreover, gender did not emerge as a significant predictor of behavioural beliefs. With respect to gender, being male or female did not seem to influence respondents' perceptions of the consequences associated with watching televised coverage of the event. In particular, these consequences included feeling a sense of national pride, cheering on Canadian athletes without having to travel to Vancouver, and improving conversations with peers by staying up to date with information on current events. This finding appears to run counter to those observed in previous studies. For instance, Dietz-Uhler et al. (2000) found differences between males and females in terms of the outcomes they associated with watching televised sport events. The

authors reported that female undergraduate students were more likely be motivated to watch televised sport events to achieve social outcomes (i.e., to be in the company of friends and family). On the other hand, male undergraduate students in their study were more likely to be motivated to watch televised sport event to acquire information and to become more knowledgeable sport fans.

In terms of geographic proximity, being a University of Waterloo or University of Victoria student did not influence respondents' behavioural beliefs. In other words, the aforementioned beliefs about the outcomes associated with watching televised coverage of the Vancouver 2010 Olympic Winter Games did not appear to be geographically dependent. This result was somewhat surprising. For instance, University of Waterloo students reside much further away from Vancouver than University of Victoria students. As such, University of Waterloo respondents would probably perceive more severe structural constraints related to traveling to the event for any given purpose. Thus, one might have expected that the outcome of "cheering on Canadian athletes without having to travel to Vancouver" would be more salient and valued among University of Waterloo students, thereby contributing to higher overall behavioural belief scores among this cohort of respondents.

It is possible that there might be a 'threshold effect' of distance to the event at work here (Giles-Cortis, Broomhall, Knuiman, Collins, Douglas, & Ng, 2005; Kaczynski et al., 2009). For instance, once the geographic distance necessary to travel to the event exceeded a certain amount (in this case, greater than approximately 4 to 5 hours in terms of travel time) than any additional distance may not have heightened respondents' perceptions of travel constraints commensurately. In other words, travelling four hours by car and/or ferry from Victoria to Vancouver to witness an Olympic-related event may not have been perceived as any more or less

challenging than a four hour flight, or a 20 hour drive from Ontario to Vancouver for the same purposes; especially given the cost and relative scarce supply of tickets that were made available for many of the Games' events. If this speculation were true, one might expect that the value and saliency respondents' attached to the outcome of "cheering on Canadian athletes without having to travel to Vancouver" would be similar across both adolescent cohorts. Once again, a lack of significant findings in this regard might also be attributable to sample size. Far fewer students were surveyed at the University of Victoria than at the University of Waterloo.

Gender did not emerge as significant predictors of normative beliefs. Being male or female did not influence the degree to which people perceived pressure from friends and family to watch televised coverage of the event. After controlling for barriers and constraints to participation (i.e., control beliefs), watching at least some portion of televised coverage of the Olympic Games may be a less gendered activity compared to other sport event contexts.

Pervious research (e.g., Gantz & Wenner, 1995) has found that watching televised coverage of more routine and regularly occurring North American professional sport events tended to be a more male dominated activity.

In contrast however, evidence has suggested that the appeal of the Olympics may be greater among female television viewers. According to the Nielsen Company, the television audience for the Vancouver 2010 Olympic Winter Games was predominantly female. Through February 21, 2010, an estimated 56% of Olympic viewers were female, whereas 44% were male. The viewership for the 2010 Super Bowl was almost the exact opposite, with 54% of its audience being composed of males and 46% females. Given these recent trends in veiwership, it was not surprising to observe that there were no differences between males and females in terms of their normative belief scores.

The greater appeal of the Olympic Games among female viewers compared to other sport events is likely a function of the more prominent role female athletic competitions play within such telecasts. While there may be gender differences in terms of the raw number of viewers (i.e., frequency), males may still spend more time watching the event (i.e., duration), as well as consider the event to be more salient to their identity (Dietz-Uhler et al., 2000). As noted, the degree of identity salience and subsequent commitment to the activity might still be key factors in explaining the gender differences that were associated with control beliefs and possible constraint negotiation strategies. For instance, females in the present investigation may have tended to watch the event only during convenient times (i.e., times free from work or school obligations). On the other hand, males might have more strongly identified with the event, and thus, may have been more likely than females to change or alter their daily school and/or work routines to accommodate the time necessary to attain their desired level of consumption (Mannell & Loucks-Atkinson, 2005; Snelgrove et al., 2008).

In spite of the recent trends reported by the Nielsen Company, male respondents could still have perceived school and work obligations to be less of a barrier to watching the event on television than female respondents. According to Mahony and Moorman (1999), people characterized as having a high degree of psychological commitment to a team represent those who frequently watch, read, or think about their favourite team and who are resistant to changing these habits in response to "negative" information or experiences. Not to mention, given the potential for gender differences in the amount of time dedicated to viewership, it is not surprising that males believed more strongly than females that access to a television set in their place of residence would make it easier to watch their desired level of coverage of the event.

On a final note, the observation that gender was not associated with the degree to which people perceived pressure from friends and family to watch televised coverage of the event contradicts previous research. For example, Dietz-Uhler et al. (2000) reported that female undergraduate students were more likely than males to be motivated to watch televised sport events to be in the company of friends and family. In light of this finding, it was somewhat surprising that females did not reporter greater amounts of perceived pressure from friends and family to perform the behaviour.

Likewise, geographic proximity to the event did not predict normative beliefs. In other words, being a University of Waterloo or University of Victoria student was not related to the degree to which respondents' perceived pressure from friends and family to watch televised coverage of the event. This finding could be conceived as counterintuitive. For example, Wiatt (2003) found that levels of excitement, enthusiasm, and attitudes (including beliefs about positive social and economic impacts) regarding the 2000 Olympic Summer Games in Sydney varied among Australian citizens depending on how close they lived to the epicenter of the event. The author found that citizens in western Australian communities (i.e., those citizens who lived close to where the events were to be staged) sustained higher levels of enthusiasm compared to residents who lived in northern communities (i.e., those who live in "non-exposed" regions).

Assuming University of Victoria respondents resided in communities characterized by higher degrees of excitement and euphoria in relation to hosting the Olympic Games, it is reasonable to speculate that these individuals would experience more pressure from friends and family to watch the event.

Although not statistically significant, it was interesting to observe that descriptively,

University of Victoria respondents experienced more perceived pressure from friends and family

to watch at least some coverage of the event on television. The source of this heightened sense of normative pressure may be linked to notions of place identity (e.g., Kyle, Graefe, Manning, & Bacon, 2003; Proshansky, 1978). According to Proshansky's, place identity refers to "those dimensions of the self that define the individual's personal identity in relation to the physical environment by means of a complex pattern of conscious and unconscious ideas, beliefs, preferences, feelings, values, goals and behavioural tendencies and skills relevant to this environment" (p. 155). Moreover, Kyle et al. argued that in addition to conceptualizing place identity as being a resource to satisfy behavioural or experiential goals, a place may be viewed as an essential part of oneself, resulting in strong emotional attachment to places.

When considering their geographic proximity to the event, University of Victoria respondents may have felt a stronger sense of place identity in relation to British Columbia and the city of Vancouver compared to University of Waterloo respondents. In particular, based on their day-to-day lived experiences, University of Victoria respondents may have felt more intense emotional and affective bond in relation to British Columbia and the city of Vancouver than University of Waterloo respondents (Giuliani & Feldman, 1993; Williams & Patterson, 1999). Not to mention, stronger feelings of place identity among University of Victoria students may have resulted in more intense desires to express a "collective" or "shared" sense of place identity via watching the event on television (Hummon, 1992; Moore & Graefe, 1994). Indeed, the 2010 Olympic Winter Games provided an ideal social context for Canadians to share in the celebration of British Columbia and the city of Vancouver on the global stage.

It is possible that perceptions of place identity and normative pressure to watch televised coverage of the event were related. The heightened sense of pressure to perform the behaviour among University of Victoria respondents may have been influenced by a greater perceived need

to live up to some sort of "civic expectation" or "duty." In other words, University of Victoria respondents may have been more firmly entrenched in the belief that not watching the event on television would be viewed by their friends and family as abandoning what it meant to be Canadian, and even more importantly, British Columbian. University of Victoria respondents may have been more likely to perform the behaviour out of a concern that actions to the contrary might be construed with abandoning a part of one's identity, that of being a native of British Columbia.

## 5.3.2 The Influence of Behavioural, Normative and Control Beliefs on Attitude Toward The Behaviour, Subjective Norms and Perceived Behavioural Control

As mentioned, behavioural, normative, and control beliefs are important because they underpin measures of attitude, subjective norms, and perceived behavioural control (Ajzen, 1991a; Fishbein & Ajzen, 2010; Madrigal, 2001). Within the present study, respondents' behavioural beliefs (i.e., their beliefs about valued outcomes associated with performing the action) were positively related to their attitude toward watching the 2010 Olympic Winter Games on television.

Specifically, a more favourable attitude toward performing the behaviour (i.e., that watching televised coverage of the event was beneficial, important, good, valuable, and enjoyable) was associated with a stronger belief that watching televised coverage of the event would allow the individual to attain valued outcomes in the form of: (a) feeling a sense of national pride, (b) cheering on Canadian athletes without having to travel to Vancouver, and (c) improving conversations with peers by staying up to date with current events. In other words, favourable attitudes toward watching the event on television were likely a function of desires to feel a sense of connection to larger cohort of like-minded fans without having to travel to the

event. Additionally, respondents appeared to hold favourable attitudes toward the behaviour because they believed it would improve their social interactions with peers and family members.

In many ways, the salient outcomes associated with the prediction of attitude toward the behaviour seem to be what one might expect to find amongst an adolescent population of respondents. For example, it was not surprising to observe that a desire to experience a sense of belonging or connection to a larger group, as well as a need to stay up to date when having conversations with peers were of particular importance within this sample of young adults. Not to mention, one can assume that undergraduate students tend to rely greatly on television to experience sport events because they often lack the monetary resources necessary to witness them in person.

Normative beliefs (i.e., the degree of perceived pressure to perform the behaviour from each referent individual or group) were positively related to the subjective norms respondents associated with watching the event on television (i.e., the degree to which they perceived important others would approve or disapprove of performing the behaviour). In particular, a stronger belief that important others would approve of performing the behaviour was associated with more perceived pressure from friends and family to watch televised coverage of the event.

When considering the sample population under investigation, it was not surprising that friends and family members emerged as salient referent groups, which had the power to influence respondents' decisions to watch televised coverage of the event. Among adolescents, seeking the approval of these individuals is likely a key motivating factor in determining decisions to perform particular behaviours. For example, de Vries, Dijkstra, and Kuhlman (1988) found that subjective norms related to mother, father, brother, sister, and friends were significant predictors of adolescents' decisions not to smoke.

Finally, control beliefs are believed to predict overall measures of perceived behavioural control (Ajzen, 1991a; Fishbein & Ajzen, 2010). Within the present study, control beliefs (i.e., perceived control over factors that facilitate or impede performance of the behaviour) were a positive predictor of perceived behavioural control (i.e., the overall perceived ease or difficulty of performing the behaviour). Specifically, a stronger perceived ease of watching televised coverage of the event was associated with: (a) a strong belief that work or school obligations would not impede one's ability watch the event on television; and (b) a strong belief that having access to a television set in their place of residence would make it easier to watch the event on television.

Here again, the factors respondents believed would make performance of the behaviour more difficult or easier to perform seem to make sense relative to the sample population of interest in the current study. For example, watching live televised coverage of the event likely required undergraduate students to negotiate class schedules and work routines accordingly. Generally speaking however, adolescents may be less restricted in terms of their ability to negotiate their work schedules to accommodate their viewing habits compared to older adults with established professional careers and/or family obligations.

Moreover, having access to a cable television set in one's dwelling would certainly make desired viewing habits much more convenient among undergraduate students. Such access would have allowed these students the freedom to watch desired portions of the event between classes or other work obligations. In other words, access to a television set in one's dorm room or apartment likely afforded these individuals the opportunity to incorporate desired viewing habits into the demands of daily life.

# 5.3.3 The Influence of Attitude Toward the Behaviour Subjective Norms, Perceived Behavioural Control, Descriptive Norms and Past Behaviour on Intention

The results of the hierarchical regression analysis revealed that attitude toward the behaviour, perceived behavioural control, descriptive norms and past behaviour were significant positive predictors of respondents' intention to watch at least some televised coverage of the Vancouver 2010 Olympic Winter Games. Subjective norms however, did not emerge as a significant predictor of intention within this behavioural response domain. The following sections will discuss the results relating to each predictor of intention included in the model (see Figure 5).

#### 5.3.3.1 Attitude toward behaviour

Attitude toward the behaviour was the strongest predictor of respondents' intention to watch televised coverage of the Vancouver 2010 Olympic Winter Games. In particular, respondents who perceived watching televised coverage of the event to be beneficial, important, good, valuable, and enjoyable were more likely to intend to perform the action. As noted, favourable evaluations of the behaviour were determined by the extent to which respondents believed performing the action would have valuable consequences for them in the form of: (a) feeling a sense of national pride, (b) cheering on Canadian athletes without having to travel to Vancouver, and (c) improving conversations with peers by staying up to date with current events.

These outcomes represented the cognitive foundation of respondents' attitude toward watching televised coverage of the event, and appeared to be key motivating factors they associated with performing the behaviour. As such, an understanding of the role attitude toward the behaviour played in predicting respondents' intention requires further exploration of these valued outcomes. Therefore, the following discussion will explore these consequences in terms of their significance in motivating respondents to watch televised coverage of the event.

First, "feeling a sense of national pride" emerged as a salient consequence of watching the event on television. The importance of feeling a sense of national pride in motivating respondents to watch televised coverage of the event appears to be consistent with previous research conducted by Waitt (2003). For example, Waitt (2003) examined the social impacts of the Sydney 2000 Olympic Summer Games. The author stated that the most powerful psychological reward Australian respondents associated with hosting the event was that of "community" and "national spirit." Although these were prominent psychological rewards related to hosting the event more generally, it is reasonable to speculate that similar benefits could accrue (and may be desired) from watching the event on television.

Furthermore, the desire to feel a sense of national pride as a positive outcome of watching the Olympic Games may best understood in terms of the disposition theory of sport spectatorship (Raney, 2003; Bryant & Raney, 2000; Zillmann, Bryant, & Sapolsy, 1989). According to the theory, fans gain enjoyment (i.e., experience positive affect) from witnessing two types of sporting events: watching their team (or Nation's athletes) perform well and watching a rival team (or Nation's athletes) perform poorly (Raney). The greatest amount of enjoyment is expected to occur when a favoured team or nation defeats a despised rival (Raney). As it relates to the present investigation, perhaps the anticipation (and hope) of witnessing Team Canada's athletes defeat those of rival nations was at the root of expected feelings of national pride, and motivated strong desires to watch televised coverage of the event. As Mahony and Howard (1998) reported, a "strong" positive attitude toward a favourite sports team, and a "strong" negative attitude toward a disliked team, was related to the consumption of televised sports events featuring these teams.

Second, "cheering on Canadian athletes without having to travel to Vancouver" emerged as a salient consequence of watching the event on television. For many adolescents in the current study, watching televised coverage of the event may have been perceived as being less of a hassle and requiring less effort costs compared to experiencing the event in person. As noted in the literature review, Kim and Chalip (2004) found that financial constraints associated with travel negatively affected people's sense that they could attend the FIFA world cup of soccer. According to the authors, "the higher the sense that cost [of travel] was a constraint, the less able respondents felt to attend the event" (p. 703).

Additionally, watching televised coverage of the event likely provided respondents with opportunities to feel connected to a larger audience of "like-minded" viewers, derive valued social benefits, and experience a sense of escapism without having to travel significant distances or put extensive effort into re-arranging school or work schedules. As Gantz and Wenner (1995) stated:

For many, in-person attendance at the sports arena is problematic; commutes and ticket prices often are prohibitive. But, with sports programming saturating the airways and with VCRs there for timeshifting purposes, viewership is as easy as finding a moment's respite and a comfortable chair facing one's television set. (p. 59)

However, the "comfortable chair" Gants and Wenner (1995) referred to need not be located in the home. Undergraduate students may have also preferred to watch and experience the event in bars, pubs, or in common areas located in residence halls surrounded by friends and/or family members. Indeed, these spaces can mimic the social environment created in the live sporting arena (Duncan & Brummett, 1989; Eastman & Land, 1997). Communal interactions among fans watching a televised sport event in a public place generates what Duncan and Burmmett referred to as a minispectacle, whereby group viewing reinforces the specialness of

the sporting occasion, raising it beyond ordinary. Here again, spectators consuming the sport event on television can still experience the thrill and excitement of a crowd without having to travel to be there in person. More recently, Sullivan (2006) referred to this phenomenon as the intimacy effect of televised sport spectatorship. According to the author, broadcast television exposure amplifies the significance of sport events and the athletes who participate in them.

More specifically, Sullivan argued that the medium imitates the interpersonal situation, infusing a sense of intimacy between the viewer and the event being telecast. He went on to suggest that this sense of intimacy heightens the viewer's identification with athletes, teams, and nations, and fosters a communal feeling among viewers, especially for big events such as the Olympic Games.

Third, "improving conversations with peers by staying up to date with current events" emerged as a salient consequence of watching the event on television. These findings are consistent with previous research, which has examined the motives of sport media consumption. For example, social interaction motives concerning conversational utility ("something to talk about") and companionship ("something to do with family and friends") are often cited as two key motives for watching sport events on television (Raney, 2006; Wenner & Gantz, 1998).

As well, these results suggest that many respondents in the current investigation possessed an *instrumental orientation* toward what they hoped to gain from watching televised coverage of the event. For instance, Rubin (2002) defined this instrumental orientation as a "viewer's use and subsequent gratification from media content for informational purposes" (p. 535). The author noted that such use of media content is active and purposive and suggests utility, intention, selectivity, and involvement. According to Raney (2006), one of the most common cognitive motivations for viewing sports on television is learning about athletes and teams.

In summary, much of these results seem to be consistent with previous sport consumer research. As previously mentioned in the literature review, numerous sport scholars have cited factors such social interaction, bonding with family, and acquisition of knowledge as reasons people choose to become both spectators and participants of sport (e.g., Funk & James, 2004; Funk et al., 2003; Kahle, Kambara, & Rose, 1996; McDonald et al., 2002; Melnic, 1993; Milne & McDonald, 1999; Trail & James, 2001; Stewart et al., 2003; Wann, 1995).

### 5.3.3.2 Subjective norms

Subjective norms were not a significant predictor of respondents' intention to watch televised coverage of the Vancouver 2010 Olympic Winter Games. Respondents' who believed important others would approve of watching the event were not more likely to form an intention to do so. Although respondents may have felt much normative pressure from friends and family to perform the behaviour (i.e., reported strong normative beliefs), this pressure did not appear to translate into heightened levels of intention to perform the behaviour via its influence on subjective norms.

There may be a statistical explanation for this finding. A movement from step one to step two of the hierarchical regression analysis revealed that subjective norms no longer made an independent contribution to the prediction of television viewership intention, above and beyond that of attitude toward the behaviour, perceived behavioural control, descriptive norms, and past behaviour. In other words, the addition of descriptive norms and past behaviour to the model may have diluted much the unique contribution subjective norms made to the prediction of intention. Specifically, there may have been considerable overlap among subjective norms and descriptive norms in sharing the explained variation of intention. This is not to say that

multicollinearity was at work here, but the high correlation between the two constructs (r = .75) may have distorted some of the findings in this regard.

The lack of influence of subjective norms on behavioural intention observed in the current study is consistent with previous research. Meta-analyses have revealed that average correlations between subjective norms and intentions are often weaker than those observed for attitude toward the behaviour and perceived behavioural control constructs (Ajzen & Albarracín, 2007; Godin & Kok, 1996; Hausenblas, Carron, & Mach, 1997; Norman et al., 2005).

### 5.3.3.3 Perceived behavioural control

Perceived behavioural control was a significant predictor of respondents' intention to watch televised coverage of the Vancouver 2010 Olympic Winter Games. Respondents who perceived watching televised coverage of the event as being relatively "easy" to do were more likely to intend to perform the action. As noted, the degree to which respondents perceived performing the behaviour to be easy was determined by their beliefs about their control over factors that would facilitate or impede performance of the action (i.e., their control beliefs). In particular, these factors included: (a) a strong belief that work or school obligations would not impede one's ability watch the event on television; and (b) a strong belief that having access to a television set in their place of residence would make it easier to watch the event on television.

These control factors represented the cognitive foundation of respondents' perceived behavioural control in relation to watching televised coverage of the event (i.e., their perceptions about the perceived ease or difficulty of performing the behaviour). Work and/or school obligations, as well as access to a cable television set played a key role in determining the degree to which respondents' intended to perform the behaviour. As such, an understanding of the role perceived behavioural control in predicting respondents' intention requires further exploration of

these factors. The following discussion will explore each of these factors in terms of their significance in prohibiting or facilitating respondents' ability to watch televised coverage of the event.

First, a belief that "work or school obligations would not impede one's ability watch the event on television" emerged as a salient control factor respondents associated with their ability to watch the event on television. Watching televised coverage of the event likely required undergraduate students to negotiate class schedules and work routines to accommodate their desired viewing habits. Those respondents who perceived fewer restrictions in terms of their ability to overcome such obstacles were probably more likely to form a favourable intention to perform the behaviour. This speculation bears a striking resemblance to the leisure literature's notion of constraint negotiation efficacy (c.f., Hubbard & Mannell, 2001; Mannell & Loucks-Atkinson, 2005), whereby people who are more confident in their ability to overcome obstacles associated with performing the behaviour, are more likely to perform the action.

Second, a strong belief that "having access to a television set in their place of residence would make it easier to watch the event on television also emerged as a salient control factor respondents associated with their ability to watch the event on television. Once again, this factor was important in determining overall measures of perceived behavioural control, which was found to be a significant positive predictor of respondents' intention to watch televised coverage of the event. As noted, given the nature of 24 hour coverage of the Olympic Games, fulfilling some individuals desired viewing habits would almost certainly necessitate access to a cable television set in one's dwelling. Moreover, having access to a cable television set in one's dwelling would certainly make desired viewing habits much more convenient among

undergraduate students, whereby the individual could more readily incorporate desired viewing habits into the demands of daily life.

The current study was concerned with the extent to which respondents' intended to watch coverage of the event on cable television sets specifically. Thus, the fact that not having access to a cable television set was identified by respondents as a barrier to performing the action, might help explain some of the recent trends in the media consumption of the Olympic Games. More and more viewers are turning to internet consumption of streaming footage of the Olympics, which makes it easier to overcome barriers associated with traditional television viewership (Real, 2006). Indeed, the internet can increase peoples' control over consuming the event because it is less sensitive to time and access issues. Jordan (2000) found that television began to decline at the 2000 Sydney Summer Olympic Games, and internet was on the rise. The author reported that one third of internet users reported watching less television as a result, which prompted him to wonder whether a nation of computer-outfitted households would ever again be content to turn on television for events that ended hours before.

Descriptively, respondents indicated stronger intentions to watch the event on television than to become more active in response to it. It is likely that respondents perceived watching televised coverage of the event to be "easier" than emulating the activities they were observing. Indeed, these types of results reinforce the tendency for the Olympic Games to have a "couch potato" effect than a trickle-down participation effect (Veal, 2003).

## 5.3.3.4 Descriptive norms

Descriptive norms were a significant predictor of respondents' intention to watch televised coverage of the Vancouver 2010 Olympic Winter Games (after controlling for TPB constructs). Respondents' who reported stronger beliefs that other people "like them" would perform the

behaviour, were more likely to intend perform the behaviour themselves. The relationship between descriptive norms and intention suggests that media consumption of the event might be motivated by a desire to feel connected to a larger group of fans or fellow citizens (Krohn, Clarke, Preston, McDonald, & Preston, 1998; Smith, 1988). Smith argued that sports can promote the integration of schools, communities, cities, and even nations. Additionally, Wann (1995) suggested that the group-affiliation motivation for sport's television viewing tends to be more prominent among younger sports fans such as those respondents surveyed in the current study.

Although some individuals view notions of enhanced community/national pride and cohesion to be positive outcomes of the Olympic Games, some argue that excessive pride and nationalism run counter to the ideals upon which the event was founded (Coakley, 2009). The principles of Olympism highlight the importance of the promotion of global peace and unity through sport. However, Olympic reformers argue that patriotic displays and nationalistic themes in media coverage promote "us" versus "them" mentalities, which might have negative implications for peace and diplomatic relationships among competing nations.

The relationship between descriptive norms and intention to watch the event on television might also be understood in terms of the classic economic principal of *herd behaviour*, which is very similar to Bandura's notion of social learning (Rohner, Weinstein, & Frey, 2006). Herd behaviour has been used to explain mass behaviour associated with the consumption of primetime television shows and other fashion-related fads. The theory suggests that when people are unsure or lack information regarding choices between what programs to watch, different styles of paintings, different genres of music, different cinema movies, or different kinds of architecture, people tend to extract information by observing the actions of others who they deem as being

important (Rohner et al., 2006). Moreover, Bikhchandani, Hirshleifer, and Welch (1992) suggested that herd behaviour implies a situation where at a certain point, people begin to ignore their private information (i.e., their own beliefs/values and begin to side with perceived public beliefs) and start to herd, or follow the actions of those ahead of them in line. The notion of herd behaviour might explain the unique pervasiveness and appeal of watching the Olympic Games on television. Albeit anecdotally, many people who do not typically watch or identify with being a "sports fan" watch extensive coverage of the Olympic Games. These individuals may abandon their own beliefs and values in relation to sport consumption for the sake of the being part of the herd.

#### 5.3.3.5 Past behaviour

Past behaviour was a significant predictor of respondents' intention to watch televised coverage of the Vancouver 2010 Olympic Winter Games (after controlling for TPB constructs).

Respondents who reported watching at least some televised coverage of pervious Olympic Winter Games were more likely to intend to watch the upcoming event. This result seems to be aligned with a study conducted by Rothenbuhler (1988). The author examined the pattern of celebratory activities in U.S homes that accompanied watching the 1984 Summer Olympic Games on television. Rothenbuhler concluded that "watching the Olympics on television proved to be a media event for which people planned their viewing, paid close attention to the television, and arranged to have visitors with whom they ate, drank, and talked about what they saw" (p. 61). Not only does this quote underscore the importance and appeal of the social context within such events are consumed, but it also implies that decisions to watch the Olympic Games may be motivated out of a need to be a immersed in some form of viewing tradition related to the event.

## 5.4 Sponsorship Patronage

The following section will interpret the results associated with the prediction of sponsorship intention (see Figure 6). First, the findings related to the influence of gender and geographic proximity to the event on behavioural, normative and control beliefs will be discussed. Second, the respective relationships between behavioural, normative, and control beliefs and overall measures of attitude toward the behaviour, subjective norms, and perceived behavioural control is described. Finally, this section will attempt to explain the predictive influence of attitude toward the behaviour, subjective norms, perceived behavioural control, descriptive norms and past behaviour on respondents' intention to purchase products or services from companies because they were sponsors of the Vancouver 2010 Olympic Winter Games.

## 5.4.1 The Influence of Gender and Geographic Proximity to the Event on Behavioural, Normative and Control Beliefs.

As noted, socio-demographic characteristics such as gender and place of residence are thought to influence people's behvaioural, normative and control-beliefs in relation to performing a particular behaviour (Ajzen & Albarracín, 2007). Within the present study, neither gender nor geographic proximity emerged as a significant predictor of behavioural, normative or control beliefs. Specifically, being male or female did not influence respondents' behavioural beliefs that purchasing products or services from companies because they were sponsors of the event was associated with certain valued outcomes or consequences in the form of: (a) helping financially support Canadian athletes, (b) allowing the individual to express their feelings of national pride/patriotism, (c) not having adverse economic impacts for smaller (i.e., local) companies who were unable to sponsor the event, and (d) allowing the individual to consume products/services that are of better quality than those available from competing organizations who did not sponsor the event.

One's gender was also not related to the degree of normative pressure respondents perceived from friends and family to perform the behaviour (i.e., normative beliefs). As well, being male or female did seem to influence participants' beliefs about their control over the factors that might have facilitated or impeded performance of the behaviour (i.e., control beliefs). For instance, gender was not associated with the extent to which respondents believed that: (a) sponsors would not increase their prices, nor would doing so impede sponsor patronage decisions; (b) sponsors do not charge higher prices than their competitors, nor would this reality impede sponsor patronage decisions; (c) sponsors' products/services were relevant (i.e., of use), which would make sponsor patronage decisions easier; (d) sponsors' products/services were more readily available in the marketplace compared to competitors, which would make sponsor patronage decisions easier; and (e) sponsors would create advertisements and promotions indicating that they are sponsors of the Vancouver 2010 Olympic Winter Games, and exposure to these advertisements would sponsor patronage decisions easier.

Gender may not have played a prominent role in predicting behavioural, normative or control beliefs because of the lack of specificity in these dependent measures. For instance, to elicit the salient behavioural, normative, and control beliefs associated with sponsorship patronage intentions among the sample, participants in the pre-test were asked questions such as: What do you believe are the advantages of your showing preference to (i.e., purchasing products from) companies that are sponsors of the Vancouver 2010 Olympic Winter Games? List any individuals or groups you are close with and who would approve of your showing preference to companies that are sponsors of the Vancouver 2010 Olympic Winter Games; If you chose to show preference to (patronize) sponsors of the Vancouver 2010 Olympic Winter Games, what factors or circumstances would make it easier for you to do so? Indeed, these questions do not

specify a particular "company" or "sponsor" they should consider in relation to making patronage decisions.

However, more pronounced gender differences among the belief-based measures may have been observed if actual companies that sponsored the event were included in the pre-test and main study questionnaires. For example, one could speculate that there would be vast differences between males and females regarding their beliefs about the valued consequences, degree of normative pressure, and perceived obstacles associated with purchasing cosmetics versus high performance automobiles. In other words, decisions to patronize 'event sponsors' is probably less gendered than decisions to patronize event sponsors who sell traditionally male or female-oriented products or services.

The previous paragraph underscores the importance of being specific when constructing TPB-based measures. According to Ajzen (2006), when developing scales for TPB-based questionnaires, measures must be directly compatible with the behaviour in terms of the specific *action/target* to be performed as well as the *context* in which the action is to take place. As Ajzen (1991a) noted, "if the behaviour to be predicted is 'donating money to the Red Cross', then we must assess intentions 'to donate to the Red Cross' (not intentions 'to donate money' in general nor intentions 'to help the Red Cross')" (p. 185). Certainly, specificity is important to the accurate prediction of behaviour. Within the present study however, it was not feasible to assess sponsorship patronage decisions in relation to over 30 national and international sponsors of the event.

It was somewhat surprising to observe that geographic proximity to the event (i.e., whether students attended classes at the University of Waterloo or the University of Victoria at the time of the survey) did not emerge as a significant predictor behavioural, normative, or

control beliefs. Communities in relatively close proximity to the Olympic Games are thought to experience heightened levels of enthusiasm and excitement to host the event (e.g., Waitt, 2001). Nevertheless, such conditions did not appear translate into enhanced belief-based measures within this behavioural domain.

There are a few possible explanations for the lack of significant findings here. With respect to behavioural beliefs, it is important to consider that the market in which sponsors' products are produced, distributed, and consumed remains relatively stable across geographic locations. Therefore, there would be no reason to suspect that respondents in either location would differ in terms of their beliefs that patronizing event sponsors would have adverse impacts for local companies, or that sponsors products are of higher quality than non-sponsors products. As well, valued consequences associated with performing the behaviour such as helping financially support Canadian athletes or expressing feelings of national pride/patriotism are not geographically dependent. These outcomes can occur regardless of where the product is purchased and consumed.

Moreover, the manner in which sponsors' products or services (and the event itself) are marketed and promoted is relatively similar in each location. Not to mention, there is little evidence to suggest that the social context in which respondents might be motivated to consume sponsors' products varies drastically from one location to the next. Thus, in terms of normative beliefs, it is difficult to say why University of Victoria respondents would perceive any more pressure from friends or family to patronize event sponsors than University of Waterloo students.

The similar economic conditions and marketing forces that likely exist within each consumer location might also help explain the lack of influence of geographic proximity on control beliefs. Here again, there is little evidence to suggest why University of Victoria or

University of Waterloo students would be any more or less sensitive to issues related to price, product relevance, product accessibility, and/or any form of sponsorship leveraging technique when making patronage decisions. Finally, a lack of significant findings in these regards might be directly attributable to sample size. Far fewer University of Victoria students were surveyed, which might have masked any significant differences between the two groups as it pertained to control belief scores.

## 5.4.2 The Influence of Behavioural, Normative and Control Beliefs on Attitude Toward The Behaviour, Subjective Norms and Perceived Behavioural Control

Once again, "by measuring beliefs, we can, theoretically, gain insight into the underlying cognitive foundation, i.e., we can explore why people hold certain attitudes, subjective norms, and perceptions of behavioural control" (Ajzen, 2006, p. 7). Within the current study, respondents' behavioural beliefs (i.e., their beliefs about valued outcomes associated with performing the action) were positively related to their attitude toward purchasing products or services from companies because they were sponsors of the Vancouver 2010 Olympic Winter Games.

Specifically, a more favourable attitude toward the behaviour (i.e., that patronizing event sponsors was beneficial, important, good, valuable, and enjoyable) was associated with a stronger belief that performing the action would: (a) help financially support Canadian athletes, (b) allow the individual to express their feelings of national pride/patriotism, (c) not have adverse economic impacts for smaller (i.e., local) companies who were unable to sponsor the event, and (d) allow the individual to consume products/services that are of better quality than those available from competing organizations who did not sponsor the event.

In summary, it appears as though respondents held favourable attitudes toward performing the behaviour because they believed patronizing event sponsors was an altruistic

form of patriotic expression. In other words, those with positive attitudes viewed the action as opportunities to help Canadian athletes afford to compete in the Games and display to others their feelings of national pride. Additionally, respondents held favourable attitudes because they believed patronizing event sponsors would not have adverse economic effects for smaller (i.e., local) competing companies, and that sponsorship of the event was a cue to enhanced product or service quality. These findings seem to suggest a relatively socially and economically conscious sample of undergraduate consumers that demand quality product and service offerings.

Normative beliefs (i.e., the degree of perceived pressure to perform the behaviour from each referent individual or group) were positively related to the subjective norms respondents associated with patronizing event sponsors (i.e., the degree to which they perceived important others would approve or disapprove of performing the behaviour). In particular, a stronger belief that important others would approve of performing the behaviour was associated with more perceived pressure from friends and family to purchase products or services from companies because they were sponsors of the event.

Given the sample population under investigation, it was not surprising that friends and family members emerged as salient referent groups, which had the power to influence respondents' decisions to patronize event sponsors. Among young adults, seeking the approval of these individuals has been found to be key motivating factors in determining decisions to perform a variety of behaviours (e.g., de Vries et al., 1988; Madrigal, 2000). Madrigal, for example, found that the approval of fellow fans (e.g., students) was an important influence on U.S. college students' decisions to buy products from sponsors of an NCAA football team.

Finally, control beliefs (i.e., perceived control over factors that facilitate or impede performance of the behaviour) were positively related to perceived behavioural control (i.e., the

overall perceived ease or difficulty of performing the behaviour). Specifically, greater perceived ease of patronizing event sponsors was associated with beliefs that (a) sponsors would not increase their prices; (b) sponsors do not charge higher prices than their competitors; (c) sponsors' products/services were relevant (i.e., of use); (d) sponsors' products/services were more readily available in the marketplace compared to competitors; and (e) exposure to sponsors advertisements and promotions indicating that they were sponsors of the Vancouver 2010 Olympic Winter Games.

The factors respondents believed would make performance of the behaviour easier seem to make sense in relation to lifestyle characteristics often associated with undergraduate students. Undergraduate students are probably more likely to be constrained by economic, time, and transportation issues when making purchase decisions in the consumer marketplace. Thus, it was not surprising to observe that issues related to price and ease of access to products and services emerged salient factors that would make sponsorship patronage decisions easier. As well, it was interesting to note the degree of importance respondents placed on product relevance, and promotions identifying companies as event sponsors when making patronage decisions. To summarize, these results suggest that respondents' decisions to patronize event sponsors were made easier when they perceived fewer structural barriers in terms of price and access, and when they were made aware of the sponsorship and interested in the product or service.

# 5.4.3 The Influence of Attitude Toward The Behaviour, Subjective Norms, Perceived Behavioural Control, Descriptive Norms and Past Behaviour on Intention

The results of the hierarchical regression analysis revealed that attitude toward the behaviour, subjective norms, descriptive norms, and past behaviour were significant positive predictors of respondents' intention to purchase products or services from companies because they were sponsors of the Vancouver 2010 Olympic Winter Games. Perceived behavioural control

however, did not emerge as a significant predictor of intention within this behavioural response domain. The following sections will discuss the results relating to each predictor of intention included in the model (see Figure 6).

### 5.4.3.1 Attitude toward behaviour

Attitude toward the behaviour was positively associated with respondents' intention to purchase products or services from companies because they were sponsors of the event. In particular, respondents who perceived patronizing event sponsors as beneficial, important, good, valuable, and enjoyable were more likely to intend to perform the action. As noted, favourable evaluations of the behaviour were determined by the extent to which respondents believed performing the action would have valuable consequences for them in the form of: (a) helping financially support Canadian athletes, (b) allowing the individual to express their feelings of national pride/patriotism, (c) not having adverse economic impacts for smaller (i.e., local) companies who were unable to sponsor the event, and (d) allowing the individual to consume products/services that are of better quality than those available from competing organizations who did not sponsor the event.

These outcomes represented the cognitive foundation of respondents' attitude toward patronizing event sponsors, and appeared to be key motivating factors they associated with performing the behaviour. As such, an understanding of the role attitude toward the behaviour played in predicting respondents' intention requires further exploration of these valued outcomes. Therefore, the following discussion will explore these consequences in terms of their significance in motivating respondents to purchase products or services from companies because they were sponsors of the event.

First, intention to patronize event sponsors was associated with a belief that doing so would *help financially support Canadian athletes*. It seems as though many of the respondents who intended to purchase products or services from event sponsors, tended to perceive the action as being more of a financial donation to Canadian athletes than a profit-driven goal of commercial organizations. The notion that Canadian Olympic athletes were significantly underfunded compared to athletes from other nations was a widespread claim made in the media leading up to the Games. According to reports, Canadian Olympic athletes receive \$18,000 each year from the government if they reach certain qualifications, and also turn to sponsors to help cover costs (Coutts, 2010). The media often reported that many Canadian Olympic athletes had to hold down regular jobs to make ends meet, and that such jobs needed to accommodate rigorous training regiments (Coutts). Indeed, these types of reports and public sentiments may have played a key role in shaping respondents' beliefs about the consequences of patronizing event sponsors.

This belief blurs the distinction between sponsorship patronage and charitable behaviours. As such, this finding might be best understood by examining the motivations of athletic donors. For instance, previous research on intercollegiate fundraising has documented that donor behaviour is often influenced by a desire to improve the quality and image of the athletic program (Comstock, 1988; Gladden, Mahoney, & Apostolopoulou, 2005; Hammersmith, 1985; Webb, 1989) and to promoting the image of the university and the state (Hammersmith). Thus, on a larger scale, perhaps respondents in the present investigation believed that helping financially support Canadian athletes via sponsorship patronage would serve to improve their performance at the Games, thereby raising the profile and image of Canada and Canadian athletes.

Nevertheless, the underlying motivational factor of helping finically support athletes is likely unique to sponsorship patronage decisions in the context of the Olympic Games. In professional sport contexts for example, sponsorship revenues are probably less likely perceived as being necessary for athletes who sign multi-million dollar contracts. As well, in professional sport contexts, sponsorship is probably more likely to be associated with financially supporting team owners as opposed to athletes.

Second, intention to patronize event sponsors was associated with a belief that doing so would *allowing the individual to express their feelings of national pride/patriotism*. It was interesting to observe that a desire to "feel" a sense of national pride was associated with respondents' intention to watch television coverage of the event, and a desire to "express" feelings of national pride/patriotism was associated with intention to patronize event sponsors. In other words, it appears as though some perceived decisions to buy sponsors' products as an opportunity for an outward display of their affiliation with Canada and/or Canadian Olympic athletes. These notions bear striking resemblance to the "sign" dimension of the ego-involvement construct, which suggests that people can be motivated to purchase products or services because of the symbolic meaning they hold (Dimanche, Havitz, & Howard, 1993; Laurent & Kapferer. 1985; Pritchard et al., 1999).

Likewise, these findings seem to be consistent with Solomon (1983). The author examined the role of consumer products as social stimuli from a *symbolic interactionism* perspective. According to Solomon, adolescent consumers often buy products not for their functional attributes, but rather for their image attributes or value as consumption symbols. Essentially, products are often bought because they are believed to project positive social roles or images (i.e., being a proud Canadian who cheers for Team Canada), which in turn lead to higher

perceptions of self-worth (Solomon; Perchmann, Levine, Loughlin, & Leslie, 2005). Matson (2004) suggested that undergraduate students tend to highly attuned to image advertising (sponsorship) because it is a primary mechanism by which brands convey their value as consumption symbols. The goal of most image advertising is to suggest that the featured brands may help a person look better, feel better, attract sexual interest, impress friends, or in the case of purchasing sponsors' brands, express feelings of national pride/patriotism (Masten). In fact, Belk, Bahn, and Mayer (1982) found that an understanding of brand images and consumption symbols begins as early as age eight, increases through early adolescence, peaks in college, and declines thereafter. Therefore, respondents in the current investigation were probably at a prime point in their lives to be heavily motivated to patronize event sponsors based on the symbolic patriotic meaning of the action.

Third, intention to patronize event sponsors was associated with a belief that doing so would *not have adverse economic impacts for smaller (i.e., local) companies who were unable to sponsor the event*. Respondents who were more likely to purchase products or services from event sponsors tended to rationalize their decision on the belief that it would not have negative economic influences for smaller, local companies. It is possible that these respondents did not perceive event sponsors to be in direct competition with smaller local firms. For instance, it is challenging to think of many locally-based soda companies that would compete directly with Coca-Cola.

On the other hand, this result may imply that respondents who were less likely to patronize event sponsors felt this way because they did perceive decisions to do so would hurt smaller firms. Perhaps, these respondents are more committed to engaging in socially and economically responsible consumer behaviours (Mohr, Webb, & Harris, 2001). In particular,

they may make conscious efforts to patronize local firms over multinational corporations who possess the resources necessary sponsor the Olympic Games.

Finally, intention to patronize event sponsors was associated with a belief that doing so would allow the individual to consume products or services that were of better quality than those available from competing organizations who did not sponsor the event. Respondents who were more likely to patronize event sponsors perceived the sponsorship effort as a cue to enhanced product or service quality. This finding appears to be aligned with previous research, which has explored the ways in which sponsorship can be used by companies to achieve a sustainable competitive advantage (Amis, Pant, & Slack, 1997; McDonald, 1991; Meenaghan, 1983).

According to Amis et al. sport sponsorship, if implemented judiciously, can be a valuable and cost-effective tool with which to develop a firm's image and reputation. In the present context, sponsorship appeared to trigger an image and reputation of superior product or service quality. It should be noted however, that it can be challenging to sustain a competitive advantage via sponsorship. Unfortunately, such arrangements are often vulnerable to ambush marketing activities, whereby companies attempt to falsely associate with sport events (Seguin & O'Reilly, 2008).

## 5.4.3.2 Subjective norms

Subjective norms were a significant predictor of respondents' intention to patronize sponsors of the Vancouver 2010 Olympic Winter Games. Respondents' who believed important others would approve of purchasing products or services from companies because they were sponsors of the event, were more likely to form a stronger intention to do so. Specifically, heightened perceptions of normative pressure from friends and family to perform the behaviour (i.e., strong normative beliefs), translated into more favourable intentions to patronize event sponsors.

This finding is consistent with Madrigal (2000) who found that group norms (i.e., perceived social pressure from fellow fans to perform a behaviour), could predict people's intentions to purchase products or services from sponsors of a NCAA Division I-A college football team. According to Madrigal:

Favorable purchase intentions are more likely to occur when such intentions are perceived as important to other members of the group. This implies that psychological connectedness to a sports team represents an important aspect of self-identity that contributes to a group norm which, in turn, prescribes certain behavioural intentions that are considered to be supportive of the team. (p.21)

In the present study, respondents with more favourable intentions to patronize event sponsors might have believed being a fan of Team Canada connected them to a larger group of "Canadian" fans (of which their friends and family were also members). Therefore, being a fan of Team Canada might have contributed to a sense of group belonging and social identity. Central to the idea of social identity is that groups adopt informal rules or group norms to regulate and judge members behaviour (Madrigal). Perhaps, in the current investigation, these informal rules might have related to the importance of buying sponsors' brands, especially those that proudly display national team logos.

As Feldman (1984) argued, group norms often specify what members are expected to do in a given situation and are positively related to behaviours that express the values of the group and clarify its distinctiveness. In this way, decisions to patronize event sponsors might have been viewed by some respondents as a duty, which was necessary to express their proud affiliation as a fan of Team Canada during the Olympics. Research has suggested that although compliance is not expected to ever be universal, there are clear normative tendencies toward actions that exemplify and reinforce group norms (e.g., Grube et al., 1986; Terry & Hogg, 1996). Thus, Madrigal stated, "an intention to purchase products from a company that provides financial

support to the object of a psychological group's affection is likely to be greater when such an intention is viewed as an informal norm that is supported by members of the group" (p. 14).

### 5.4.3.3 Perceived behavioural control

Perceived behavioural control was not a significant predictor of respondents' intention to patronize sponsors of the Vancouver 2010 Olympic Winter Games. The degree to which respondents perceived performing the behaviour to be easy was determined by their beliefs about their control over factors that would facilitate or impede performance of the behaviour (i.e., their control beliefs). Specifically, greater perceived ease of patronizing event sponsors was associated with beliefs that (a) sponsors would not increase their prices; (b) sponsors do not charge higher prices than their competitors; (c) sponsors' products/services were relevant (i.e., of use); (d) sponsors' products/services were more readily available in the marketplace compared to competitors; and (e) exposure to sponsors advertisements and promotions indicating that they were sponsors of the Vancouver 2010 Olympic Winter Games. Nevertheless, a greater perceived ease of patronizing event sponsors did not translate into more favourable intentions to perform the action.

There may be a methodological explanation for this finding. Perceived ease or difficulty of performing the action was assessed in relation to purchasing products or services from "sponsors" in general. This lack of specificity may have contributed to some of the disconnect that was observed between measures of perceived behavioural control and intention. Indeed, perceived behavioural control probably would have played a larger role in the prediction of intention had it been assessed in relation to specific sponsors' products or services. For example, respondents would likely perceive purchasing fast food items as being much easier than

automobiles. Here again however, it was not feasible for the present study to investigate perceived behavioural control-intention relationships for more than 30 different companies.

## 5.4.3.4 Descriptive norms

Descriptive norms were the largest predictor of respondents' intention to purchase products or services from companies because they were sponsors of the Vancouver 2010 Olympic Winter Games (after controlling for TPB constructs). Respondents' reporting stronger beliefs that other people "like them" would perform the action, were more likely to intend to patronize event sponsors. Descriptive norms demonstrate that the actions of important others often motivate the person by showing him or her what is the normal and rational thing to do (e.g., "if everyone is doing it, it must be the sensible thing to do"; Sheeran & Orbell, 1999).

Measures of descriptive norms have not been extensively employed to explain sponsorship patronage. One such exception is Bennett's (1999) study of the influence of false consensus on sponsorship purchase intentions. The author found that soccer fans who believed that their team's sponsors' brands were purchased by a larger number of fellow supporters than was actually the case, were more likely to report positive intentions to purchase these sponsors' products/services. The construct has however, been shown to be important in the explanation of consumer behaviour within more general product domains and among university students (e.g., Smith, Terry, Manstand, Louis, Kotterman, & Wolfs, 2008). For example, Smith et al. found that descriptive norms predicted undergraduate students' intention to purchase their preferred brand of soft drink.

It was not surprising to observe that descriptive norms played a prominent role in predicting intention to patronize event sponsors. Research has suggested that undergraduate-aged students are more likely than younger individuals to identify peers as important role models that

can guide and influence their behaviour (Brown, 1990; Pechmann et al., 2005). For many of these people, purchasing certain products or services (e.g., sponsors' brands) might be viewed as a means of fitting in socially with peers (Perchmann et al.). This might be especially true of sponsors' products that display national emblems or Olympic logos. Once again, such products may signal to important others compliance to an informal social norm (i.e., that I value being Canadian and Canadian Olympic athletes), which might ease their "acceptance" into like-minded peer groups (Rimal & Real, 2005).

### 5.4.3.5 Past behaviour

Past behaviour was a significant predictor of respondents' intention to purchase products or services from companies because they were sponsors of the Vancouver 2010 Olympic Winter Games (after controlling for TPB constructs). Respondents who reported patronizing sponsors from previous Olympic Winter Games were more likely to do so within the context of the current event. As noted, purchasing products or services from sponsors may be motivated out of a desire to conform to an informal set of group norms and to identify with (or fell connected to) a particular peer group (Madrigal, 2000). Oliver (1999) argued that group identification and group norms can contribute to social alliances that lead to consumer loyalty. He argued that the motivation to become loyal to a consumable object (e.g., sponsors' products or services) often stems from a consumer's desire to be part of the group. Oliver stated that the object is not limited merely to products or services, rather the object that is consumed is the camaraderie offered by the group. Thus, habitually buying products or services from Olympic sponsors from one event to the next, may be a way for individuals to continually forge (and express) a psychological connection to a particular group of peers or fans. In other words, sponsorship patronage may be

understood as means to express and facilitate feelings of belonging over and over again, in the context of each event.

The nature of sponsors' products might also lend some insight into the role past behaviour played in predicting purchase intention. Often, sponsors will try to leverage the influence of their sponsorship investment by producing commemorative merchandise celebrating a particular nation and/or nation's Olympic athletes (Papadimitriou & Apostolopoulou, 2009). Therefore, repeat patronage decisions might be motivated by a sense of nostalgia. For instance, respondents may wish to collect a certain year's (or event's) version of a particular product (e.g., an article of clothing, a commemorative coin, a glass, etc.) or an "Olympic edition" of a product's packaging. As such, leveraging their investment can allow sponsors to promote their association with the event and encourage habitual purchase behaviour of ancillary or core product offerings.

## 5.5 <u>Implications for Research and Practice</u>

The TPB-based models were well supported within each response domain. The models accounted for 50.7%, 61.5% and 66.6% of the variance in respondents' intentions to become more active in response to the event, watch the event on television, and purchase products or services from event sponsors respectively. These percentages seem to be slightly higher than the mean percentages of explained variance reported in meta-analyses of research utilizing the TPB. For instance, Sutton's meta-analysis of studies using the TPB in a variety of behavioural contexts found that the models explained an average between 40% and 50% of the variance in intention.

Attitude toward the behaviour was the only TPB construct to play a prominent in the prediction of all three responses of interest in the present investigation. Here again, meta-analyses of TPB-based research has revealed that measures of attitude often outperform

measures of subjective norms and perceived behavioural control in the prediction of intention (Godin & Kok, 1996). The importance of the attitude construct in predicting such a diverse set of intentions suggests that sport consumer behaviour might be best understood in terms of expectancy-value cognitive theories such as the TPB. These theories suggest that people will be motivated to perform a particular behaviour (e.g., watching a sport event on television) when they expect to attain a valued outcome as a result of performing the behaviour (e.g., feelings of national pride). Sport marketing researchers and practitioners should elicit the valued consequences target audiences associate with performing a particular behaviour if they desire to understand what motivates it.

There may be a conceptual explanation for the lack of consistency observed in the associations between subjective norms and intention. Whether or not the behaviour was intrinsically or extrinsically motivated might have moderated the relationship between the two variables (Chatzisarantis & Biddle, 1998). For instance, decisions to become more active in response to the event and to patronize event sponsors might have been intrinsically motivated. For these individuals, increased pressure to behave in a certain way, even if the behaviour was intrinsically motivated, might have decreased the attractiveness of performing the behaviour (c.f., Brehm, 1966; Chatzisarantis & Biddle, 1998; Lutz et al., 2004). Future research should examine the extent to which the "type" of motivation moderates the subjective norms-intention relationship. Moreover, measures of descriptive and subjective norms may have a tendency to share too much variance in the prediction of certain intentions.

There may be a methodological explanation for the lack of consistency observed in the associations between perceived behavioural control and intention. Within the response domain of physical activity and sponsorship patronage for example, the degree of correspondence between

the perceived ease or difficulty of becoming more active or purchasing from sponsors' brands more generally. Without a more specific target of action (e.g., skiing more often, choosing to buy Coca-Cola), it may have been challenging for respondents to assign a degree of perceived ease or difficulty to performing the action. Future research should ensure a relatively high degree of correspondence between TPB-based constructs and the particular behaviour of interest (Ajzen & Albarracín, 2007; Trafimo, 2007).

It was intriguing to find that descriptive norms and past behaviour emerged as such prominent predictors of intention in all three response domains. After taking into account all TPB variables, descriptive norms and past behaviour explained an additional 29%, 9.3%, and 21% of the variance in respondents' intention to become more active in response to the event, watch the event on television, and patronize event sponsors. The added value of these constructs in predicting intention appears to be higher than those reported in previous TPB-based investigations (Conner & Armtiage, 1998). The results suggest that sport consumer motives among this particular demographic (i.e., undergraduate students attending classes at the University of Waterloo and University of Victoria) relate heavily to a perception that 'if everyone else is doing it, it must be the sensible thing to do' (Sheeran & Orbell, 1999). In keeping with this notion, future research might consider exploring the role group identity plays in shaping the behaviour of sport consumers. As well, much of what motivates sport consumer behaviour among this segment of the population appears to be associated with a desire to fulfill some sort of behavioural tradition or sense of nostalgia in relation to the event. Indeed, sport marketing researchers should continue to explore the role descriptive norms and past behaviour play in predicting particular behaviours of interest. In particular, descriptive norms might

influence behaviour directly. Almost subconsciously, people might follow the actions of others without forming an intention to perform the behaviour. Future research should explore the descriptive norm-behaviour relationship.

It was unfortunate to observe that gender and geographic proximity to the event only influenced control beliefs in relation to intention to become more active in response to the event and watch televised coverage of the event. The rather abysmal performance of the geographic proximity variables is likely linked to poor sample size. In terms of gender, the findings seem to suggest that certain responses to mega-sport events like the Olympic Games (e.g., watching the event on television) may be more likely to challenge traditional gender ideologies associated with performing the behaviour compared to other sporting contexts. Future investigations should continue to incorporate socio-demographic variables into models of sport consumer behaviour.

The current study possesses certain limitations. Measures of intention were assessed at a single point in time. However, one's intention to perform a particular action can change from one point in time to the next (Sutton, 1998). Thus, it may be wise for future research in this area to assess intention at several different intervals preceding the action. On a similar note, the present investigation did not assess the extent to which intention translated into action. Longitudinal follow-up research in this regard may reveal unique insights into the models' ability to predict respondents' actual behaviours. This research might show when particular intentions (i.e., to become more active, to purchase from event sponsors) were acted upon (e.g., one month following the event, six months following the event, one year following the event, etc.).

Moreover, it is challenging to generalize the results of TPB-based research beyond the specific sample population and behaviour under investigation. The salient consequences, referents, and control factors elicited in the pre-test were of utmost relevance to the actions as

they were intended to be performed by the respondents in the current study. Therefore, future research might consider applying the TPB with measures of descriptive norms and past behaviour to understand different behavioural responses to mega-sport events (e.g., post-event travel, volunteerism, live attendance at events); and among different samples of a population (e.g., older adults, middle-aged adults, and children).

As noted from the outset, TPB-based research has implications for the design of behaviour change interventions and service strategies (Ajzen, 2002; Montano & Kasprzyk, 2002). First, the present investigation has implications for sponsors who wish to leverage their investment in a mega-sport event by encouraging consumption of their products/services among young adults (i.e., undergraduate students) residing within the host nation. The results suggest that sponsors might consider creating promotional efforts which highlight the benefits of patronage decisions in the form of: helping financially support Olympic athletes; expressing feelings of national pride/patriotism; consumption of better quality products/services; and assuring consumers their decision will not have adverse impacts for smaller (i.e., more local) companies. Messages suggesting that important others will also patronize event sponsors and that purchasing a particular product or services is part of a larger nationalistic tradition or sense of nostalgia might prove to be particularly effective.

The results of the current study may also have implications for promoting media consumption of Olympic events (i.e., television viewership). When trying to promote to the event to television audiences of young adults, networks might wish to communicate ideas that watching the Olympics can allow individuals to feel a sense of national pride, cheer on athletes without having to travel to the host city, and improve their social interactions with peers. Here again, it may be wise for networks to encourage people to think of watching the Olympic Games

as viewing tradition to be observed with family and friends, and which connects them to a larger community of fellow citizens.

Finally, the present investigation's findings might be particularly useful for government agencies who hope to amplify the activity-related consequences of staging mega sport-events such as the Olympic Games. Specifically, public health agencies and University athletic organizations may wish to consider developing interventions and promotional materials that present the Olympic Games as an opportunity for undergraduate students to become fitter and healthier. Interventions that promote regularly increasing activity levels every four years (in conjunction with the Olympic Games) might be effective. Also, encouraging groups of friends to collectively increase their activity levels in this manner might resonate particularly well among samples of undergraduate students.

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### APPENDIX A: PRE-TEST IN-CLASS RECRUITMENT SCRIPT

Hello, my name is Luke Potwarka, and I am currently working on my Doctoral (PhD) dissertation under the supervision of Dr. Ron McCarville in the Department of Recreation and Leisure Studies at UW. I am studying how Canadian undergraduate students plan on reacting to the upcoming 2010 Vancouver Olympic Winter Games. This research will hopefully lead to a better understanding of why people might be motivated to: (i) become more active as a result of the games; (ii) purchase products from corporate sponsors of the event; and (iii) to watch the event on television.

If you volunteer as a participant in this study, you will be asked to complete a brief questionnaire. Participation will have no effect on your grade or standing in the course. The questionnaire should approximately 20 minutes to complete. The questions are quite general, (for example, what do you believe are the <u>advantages</u> of your showing preference to (i.e., purchasing products from) companies that are sponsors of the Vancouver 2010 Olympic Winter Games?). There is a mix of both close ended and open ended response type questions. You may decline answering any questions you feel you do not wish to answer. All information you provide will be considered confidential. Further, you will not be identified by name in my thesis or in any report or publication resulting from this study. The data collected through this study will be kept for a period of 1 year in a locked filing cabinet in my office at University of Waterloo.

You are under no obligation to complete the study and your decision to participate will not affect your final grade in REC 472/REC 203/SOC 210. Mr. Windekind Buteau-Duitschaever will be assisting me with administering the survey and your decision about whether or not to participate in the survey will remain anonymous.

If after reading the consent letter you have any questions about this study, or would like additional information to assist you in reaching a decision about participation, please feel free to contact Professor Ron McCarville at 519-888-4567, Ext. 33048.

I would like to assure you that this study has been reviewed and received ethics clearance through the Office of Research Ethics at the University of Waterloo. However, the final decision about participation is yours. Should you have comments or concerns resulting from your participation in this study, please contact Dr. Susan Sykes in the Office of Research Ethics at 519-888-4567, Ext. 36005.

Thank you in advance for your assistance with this project.

### APPENDIX B: PRE-TEST STUDY INTRODUCTION/CONSENT LETTER

# Waterloo

#### **Recreation and Leisure Studies**

*Title* of Project: Understanding Public Response to Hosting the Vancouver 2010 Winter Olympic Games: A Pilot Investigation.

Investigators: Luke R. Potwarka

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I would like to use the information you provide in the context of my doing some preliminary work for my PhD thesis research. I am studying how Canadian undergraduate students plan on reacting to the upcoming 2010 Vancouver Olympic Winter Games. This research will hopefully lead to a better understanding of why people might be motivated to: (i) become more active as a result of the games; (ii) purchase products from corporate sponsors of the event; and (iii) to watch the event on television.

If you volunteer as a participant in this study, you will be asked to complete a brief questionnaire. The questionnaire should take you approximately 15 minutes to complete. The questions are quite general, (for example, what do you believe are the <u>advantages</u> of your showing preference to (i.e., purchasing products from) companies that are sponsors of the Vancouver 2010 Olympic Winter Games?). There is a mix of both close ended and open-ended response type questions. You may decline answering any questions you feel you do not wish to answer. All information you provide will be considered confidential. Further, you will not be identified by name in my thesis or in any report or publication resulting from this study. The data collected through this study will be securely stored for 1 year in the Department of Recreation and Leisure Studies at University of Waterloo.

You are under no obligation to provide your consent to participate in this research. Further, a decision to participate or not will have no impact on your grade in REC 472 or REC 203/SOC 210. Mr. Windekind Buteau-Duitschaever will collect your questionnaire when you have finished. If you do not wish to participate in the study you can choose to not complete the questionnaire and hand in a blank questionnaire. Professor Luke Potwarka will not be able to make use of the questionnaires for his research until after the final grades have been submitted.

You may decide to withdraw from this study at any time by advising Windekind Buteau-Duitschaever and may do so without any penalty. A decision to participate in this evaluation study or not, or a later decision to withdraw agreement will have no consequence on your standing in the course. Mr. Windekind Buteau-Duitschaever can be contacted at 519-888-4567 extension 37169 or through email at <a href="wcbuteau@uwaterloo.ca">wcbuteau@uwaterloo.ca</a>

All information you provide is considered completely confidential; indeed, your name will not be written on, or in any way associated with the data collected in this study. Data used in this evaluation study will be retained for 1 year in a locked room in the department of recreation and leisure studies to which only the researcher has access and then will be confidentially destroyed. There are no known or anticipated risks associated with participation in this evaluation study. This project has been reviewed and received ethics clearance through the Office of Research Ethics at the University of Waterloo. If you have any questions or concerns resulting from your participation in this study, please contact Dr. Susan Sykes at this office at 519-888-4567 extension 36005 or ssykes@uwaterloo.ca. Thank you for your assistance with the project.

Luke R. Potwarka

### APPENDIX C: PRE-TEST QUESTIONNAIRE

## **2010 Olympic Winter Games Behavioural Survey**

## **Part A: Physical Activity**

1a. The 2010 Olympic year (place an "X" o						e more	physically active in the coming
strongly disagree :	:	:	:	:	:	:	: strongly agree
2a. I intend to become Games are being hele			•		year <b>bec</b>	cause ti	he 2010 Olympic Winter
strongly disagree :	:	:	<b>:</b>	<b>:</b>	:	:	: strongly agree
3a. What are some an the Vancouver 2010 (	-				becomi	ng mor	re physically active because of
4a. What are some an of the Vancouver 201	-				our beco	oming n	nore physically active because
•	e becaus	se of the	Vanco	ouver 2	010 Oly		ould <u>approve</u> of your becoming Vinter Games (e.g., my

6a. List any individuals or groups who would <u>disapprove</u> of your becoming more physically active because of the Vancouver 2010 Olympic Winter Games (e.g., my roommate, my friends, my family, co-workers, etc).
7a. If you chose to become more physically active because of the Vancouver 2010 Olympic Winter Games, what factors or circumstances make it <u>easier</u> for you to do so?
Winter Games, what factors or circumstances would make it difficult for you to do so?
Part B: Sponsorship Patronage
1b. When confronted with several options, I will choose to purchase products or services from sponsors of the 2010 Olympic Winter Games.
strongly disagree ::::: strongly agree
2b. When confronted with several options, I will choose to purchase products or services from sponsors of the 2010 Olympic Winter Games because the event is being held in Canada (Vancouver).
strongly disagree ::::_strongly agree

<b>3b.</b> What do you believe are the <u>advantages</u> of your showing preference to (i.e., purchasing products from) companies that are sponsors of the Vancouver 2010 Olympic Winter Games?
<b>4b.</b> What do you believe are the <u>disadvantages</u> of your showing preference to companies that ar sponsors of the Vancouver 2010 Olympic Winter Games?
<b>5b.</b> List any individuals or groups you are close with and who would <u>approve</u> of your showing preference to companies that are sponsors of the Vancouver 2010 Olympic Winter Games (e.g., my roommate, my friends, my family, co-workers, etc).
<b>6b.</b> List any individuals or groups who would <u>disapprove</u> of your showing preference to companies that are sponsors of the Vancouver 2010 Olympic Winter Games.
<b>7b.</b> If you chose to show preference to (patronize) sponsors of the Vancouver 2010 Olympic Winter Games, what factors or circumstances would make it <u>easier</u> for you to do so?

<b>8b.</b> If you chose to sho Winter Games, what f				,	-	·	e Vancouver 2010 Olympic <u>ficult</u> for you to so?	
Part C: Television	/Medi	a Con	sump	tion				
1c. I intend to watch co	overage	of the	2010 C	Olympio	c Winte	r Gam	es on television.	
strongly disagree :	:	:	:	:	:	:	: strongly agree	
2c. I intend to watch coevent is being held in	_	v			c Winte	er Gam	es on television <b>because the</b>	
strongly disagree :	<b>:</b>	<b>:</b>	<b>:</b>	<b>:</b>	:	<b>:</b>	: strongly agree	
3c. What do you believ Olympic Winter Game				of you	r watch	hing of	coverage of the Vancouver 2	010
4c. What do you believ 2010 Olympic Winter					our wo	atching	of coverage of the Vancouve	r
							atching of coverage of the coommate, my friends, my fan	nily,

6c. List any individuals or groups who Vancouver 2010 Olympic Winter Gam	o would <u>disapprove</u> of your watching of coverage of the ness on television.
7c. If you chose to watch coverage of t what factors or circumstances make it	the Vancouver 2010 Olympic Winter Games on television, easier for you to do so?
what factors or circumstances would n	the Vancouver 2010 Olympic Winter Games on television, make it <u>difficult</u> for you to do so?
9. I intend to follow the Vancouver 20 in some way (e.g., blogs, websites, t.v.	010 Olympic Winter Games through the use of the internet a, video, chat rooms, etc).
strongly disagree :::	_::_::strongly agree
	<b>element</b> my television viewership of the Games, but not to
strongly disagree :::	_::: strongly agree
11. I would rather follow the Games vi	ia the internet than watch coverage of them on television.
strongly disagree :::	_::: strongly agree
12. Please list as many sponsors of the (Please use the back of this page in v	e Vancouver 2010 Olympic Games as you can remember

### APPENDIX D: PRE-TEST FEEDBACK LETTER TO PARTICIPANTS

#### Recreation and Leisure Studies



Date: July, 2008

Dear Participant,

I would like to thank you for your participation in this study. As a reminder, the purpose of this study is to identify UW undergraduate students' beliefs about (i) the positive and negative outcomes associated with becoming more physically active in response to the Vancouver 2010 Olympic Winter Games; patronizing corporate sponsors, and watching the event on television. (ii) the referent individuals or groups who might approve/disapprove of them becoming more physically active in response to the Vancouver 2010 Olympic Winter Games; patronizing sponsors, and watching the event on television; and (iii) the factors or circumstances that might enable or make it difficult to become more physically active in response to the Vancouver 2010 Olympic Winter Games; patronize sponsors, and watch the event on television

The data collected during this survey will contribute to a better understanding of what motivates people to respond to the Vancouver Olympic Games in particular ways.

Please remember that any data pertaining to you as an individual participant will be kept confidential. Once all the data are collected and analyzed for this project, I plan on sharing this information with the research community through seminars, conferences, presentations, and journal articles. If you are interested in receiving more information regarding the results of this study, or if you have any questions or concerns, please contact Mr. Windekind Buteau-Duitschaever at 519-888-4567 extension 37169 or through email at wcbuteau@uwaterloo.ca. If you would like a summary of the results, please let him know now by providing your email address. When the study is completed, he will send it to you. The study is expected to be completed by August 1, 2010.

As with all University of Waterloo projects involving human participants, this project was reviewed by, and received ethics clearance through, the Office of Research Ethics at the University of Waterloo. Should you have any comments or concerns resulting from your participation in this study, please contact Dr. Susan Sykes in the Office of Research Ethics at 519-888-4567, Ext., 36005. ssykes@uwaterloo.ca.

Luke R. Potwarka

Department of Recreation and Leisure Studies, University of Waterloo,

email: lrpotwar@ahsmail.uwaterloo.ca

phone: 519-888-4567 x37098 fax: 519-886-2440

## APPENDIX E: MAIN STUDY IN-CLASS RECRUITMENT SCRIPT (UNIVERSITY OF WATERLOO)

Hello, my Name is Luke Potwarka. I am currently working on my Doctoral (PhD) dissertation under the supervision of Dr. Ron McCarville in the Department of Recreation and Leisure Studies at the University of Waterloo. I am trying to understand why host residents, particularly Canadian undergraduate students might be motivated (or not motivated) to perform certain behaviours in response to the staging of the Vancouver 2010 Olympic Winter Games. These behaviours include: (i) increasing activity levels in response to the event; (ii) watching the event on television; and (iii) purchasing products/services from event sponsors.

If you volunteer as a participant in this study, you will be asked to complete a brief questionnaire. Participation will have no effect on your grade or standing in the course. The questionnaire should take approximately 20 minutes to complete. Once you have completed your questionnaire, please place it in the envelop that will be circulated around the room. The questions are quite general, (for example, *I intend to watch at least some portion of coverage of the 2010 Olympic Winter Games on television*. You would then be asked to rate on a scale the degree to which that behaviour is *extremely likely* or *extremely unlikely* to occur). There is a mix of both close ended and open-ended response type questions. You may decline answering any questions you feel you do not wish to answer. All information you provide will be considered confidential and anonymous. Students will not be asked to provide their name or student number anywhere in the questionnaire. Further, you will not be identified by name in my thesis, or in any report or publication resulting from this study. The data collected through this study will be kept for a period of 1 year in a locked filing cabinet in my office at University of Waterloo.

You are under no obligation to complete the study. If you do not wish to participate in the study you can choose to not complete the questionnaire and hand in a blank questionnaire. If after reading the information/consent letter you have any questions about this study, or would like additional information to assist you in reaching a decision about participation, please feel free to contact University of Waterloo Professor Ron McCarville at 519-888-4567, Ext. 33048 or Dr. Susan Sykes in the Office of Research Ethics at 519-888-4567, Ext., 36005. ssykes@uwaterloo.ca.

I would like to assure you that this study has been reviewed and received ethics clearance through the Office of Research Ethics at the University of Waterloo. However, the final decision about participation is yours. Should you have comments or concerns resulting from your participation in this study, please contact Dr. Susan Sykes in the Office of Research Ethics (University of Waterloo) at 519-888-4567, Ext. 36005.

Thank you in advance for your assistance with this project.

## APPENDIX F: MAIN STUDY IN-CLASS RECRUITMENT SCRIPT (UNIVERSITY OF VICTORIA)

Hello, my Name is Dr. John Meldrum. Luke Potwarka is currently working on his Doctoral (PhD) dissertation under the supervision of Dr. Ron McCarville in the Department of Recreation and Leisure Studies at the University of Waterloo. Luke is trying to understand why host residents, particularly Canadian undergraduate students might be motivated (or not motivated) to perform certain behaviours in response to the staging of the Vancouver 2010 Olympic Winter Games. These behaviours include: (i) increasing activity levels in response to the event; (ii) watching the event on television; and (iii) purchasing products/services from event sponsors.

If you volunteer as a participant in this study, you will be asked to complete a brief questionnaire. Participation will have no effect on your grade or standing in the course. The questionnaire should take approximately 20 minutes to complete. Once you have completed your questionnaire, please place it in the envelop that will be circulated around the room. The questions are quite general, (for example, *I intend to watch at least some portion of coverage of the 2010 Olympic Winter Games on television*. You would then be asked to rate on a scale the degree to which that behaviour is *extremely likely* or *extremely unlikely* to occur). There is a mix of both close ended and open-ended response type questions. You may decline answering any questions you feel you do not wish to answer. All information you provide will be considered confidential and anonymous. Students will not be asked to provide their name or student number anywhere in the questionnaire. Further, you will not be identified by name in Luke's thesis, or in any report or publication resulting from this study. The data collected through this study will be kept for a period of 1 year in a locked filing cabinet in Luke's office at University of Waterloo.

You are under no obligation to complete the study. If you do not wish to participate in the study you can choose to not complete the questionnaire and hand in a blank questionnaire. If after reading the information/consent letter you have any questions about this study, or would like additional information to assist you in reaching a decision about participation, please feel free to contact University of Waterloo Professor Ron McCarville at 519-888-4567, Ext. 33048 or Dr. Susan Sykes in the Office of Research Ethics at 519-888-4567, Ext., 36005. ssykes@uwaterloo.ca.

I would like to assure you that this study has been reviewed and received ethics clearance through the Office of Research Ethics at the University of Victoria. However, the final decision about participation is yours. Should you have comments or concerns resulting from your participation in this study, please contact Dr. Susan Sykes in the Office of Research Ethics (University of Waterloo) at 519-888-4567, Ext. 36005.

Thank you in advance for your assistance with this project.

## APPENDIX G: MAIN STUDY INTRODUCTION/CONSENT LETTER (UNIVERSITY OF WATERLOO)

# Waterloo

#### **Recreation and Leisure Studies**

Title of Project: Understanding Response to the Vancouver 2010 Olympic

Winter Games.

Investigators: Luke R. Potwarka, Ph.D. (Candidate)

Department of Recreation and Leisure Studies

University of Waterloo

email: lrpotwar@ahsmail.uwaterloo.ca

phone: 519-888-4567 x37098 fax: 519-886-2440

Ron E. McCarville (Ph.D. Supervisor)

Department of Recreation and Leisure Studies

University of Waterloo Waterloo, ON N2L 3G1

email: mcarville@healthy.uwaterloo.ca

phone: 519 888 4567 x33048

I am trying to understand why host residents, particularly Canadian undergraduate students might be motivated (or not motivated) to perform certain behaviours in response to the staging of the Vancouver 2010 Olympic Winter Games. These behaviours include: (i) increasing activity levels in response to the event; (ii) watching the event on television; and (iii) purchasing products/services from event sponsors. This study is being conducted for my PhD thesis research.

If you volunteer as a participant in this study, you will be asked to complete a brief questionnaire. The questionnaire should take you approximately 20 minutes to complete. The questions are quite general, (for example, *I intend to watch at least some portion of coverage of the 2010 Olympic Winter Games on television*. You would then be asked to rate on a scale the degree to which that behaviour is *extremely likely* or *extremely unlikely* to occur). There is a mix of both close ended and open-ended response type questions. You may decline answering any questions you feel you do not wish to answer. All information you provide will be considered confidential and anonymous. Students will not be asked to provide their name or student ID number anywhere in the questionnaire. Further, you will not be identified by name in my thesis or in any report or publication resulting from this study.

You are under no obligation to provide your consent to participate in this research. The course instructor will not know who participated in the study or declined to participate. Further, a decision to participate or not will have no impact on your grade or standing in the course. Luke Potwarka will collect your questionnaire when you have finished. If you do not wish to participate in the study you can choose to not complete the questionnaire and hand in a blank questionnaire. You may decide to withdraw from this study at any time by advising Luke, and do so without any penalty. A decision to participate in this study or not, or a later decision to

withdraw will have no consequence on your standing in the course. Luke Potwarka can be contacted at the University of Waterloo at 519-888-4567 ext. 37098 or lrpotwar@uwaterloo.ca.

All information you provide is considered completely confidential; indeed, your name will not be written on, or in any way associated with the data collected in this study. Data used in this study will be retained for 1 year in a locked room in the Department of Recreation and Leisure Studies at the University of Waterloo to which only the researcher (Luke Potwarka) has access, and then will be confidentially destroyed. There are no known or anticipated risks associated with participation in this study.

This project has been reviewed and received ethics clearance through the Office of Research Ethics at the University of Waterloo. If you have any questions or concerns resulting from your participation in this study, please contact Dr. Susan Sykes at this office at 519-888-4567 extension 36005 or ssykes@uwaterloo.ca.

Thank you for your assistance with the project.

Luke R. Potwarka

## APPENDIX H: MAIN STUDY INTRODUCTION/CONSENT LETTER (UNIVERSITY ${\sf OF\ VICTORIA})$



#### **Recreation and Leisure Studies**

Title of Project: Understanding Response to the Vancouver 2010 Olympic

Winter Games.

Investigators: Luke R. Potwarka, Ph.D. (Candidate)

Department of Recreation and Leisure Studies

University of Waterloo

email: lrpotwar@ahsmail.uwaterloo.ca

phone: 519-888-4567 x37098 fax: 519-886-2440

Ron E. McCarville (Ph.D. Supervisor)

Department of Recreation and Leisure Studies

University of Waterloo Waterloo, ON N2L 3G1

email: mcarville@healthy.uwaterloo.ca

phone: 519 888 4567 x33048

I am trying to understand why host residents, particularly Canadian undergraduate students might be motivated (or not motivated) to perform certain behaviours in response to the staging of the Vancouver 2010 Olympic Winter Games. These behaviours include: (i) increasing activity levels in response to the event; (ii) watching the event on television; and (iii) purchasing products/services from event sponsors. This study is being conducted for my PhD thesis research.

If you volunteer as a participant in this study, you will be asked to complete a brief questionnaire. The questionnaire should take you approximately 20 minutes to complete. The questions are quite general, (for example, *I intend to watch at least some portion of coverage of the 2010 Olympic Winter Games on television*. You would then be asked to rate on a scale the degree to which that behaviour is *extremely likely* or *extremely unlikely* to occur). There is a mix of both close ended and open-ended response type questions. You may decline answering any questions you feel you do not wish to answer. All information you provide will be considered confidential and anonymous. Students will not be asked to provide their name or student ID number anywhere in the questionnaire. Further, you will not be identified by name in my thesis or in any report or publication resulting from this study.

You are under no obligation to provide your consent to participate in this research. Further, a decision to participate or not will have no impact on your grade or standing in the course. The course instructor will not know who participated in the study or declined to participate. Dr. John Meldrum will collect your questionnaire when you have finished. If you do not wish to participate in the study you can choose to not complete the questionnaire and hand in a blank questionnaire. You may decide to withdraw from this study at any time by advising Dr. John

Meldrum, and do so without any penalty. A decision to participate in this study or not, or a later decision to withdraw will have no consequence on your standing in the course. Dr. John Meldrum can be contacted at the University of Victoria at 250-721-7212 or jmeldrum@uvic.ca.

All information you provide is considered completely confidential; indeed, your name will not be written on, or in any way associated with the data collected in this study. Data used in this study will be retained for 1 year in a locked room in the Department of Recreation and Leisure Studies at the University of Waterloo to which only the researcher (Luke Potwarka) has access, and then will be confidentially destroyed. There are no known or anticipated risks associated with participation in this study.

This project has been reviewed and received ethics clearance through the Office of Research Ethics at the University of Waterloo. If you have any questions or concerns resulting from your participation in this study, please contact Dr. Susan Sykes at this office at 519-888-4567 extension 36005 or ssykes@uwaterloo.ca.

Thank you for your assistance with the project.

Luke R. Potwarka

## APPENDIX I: MAIN STUDY QUESTIONNAIRE

### **Instructions**

Many questions in this survey make use of rating scales with 7 places; you are to circle the number that best describes your opinion. For example, if you were asked to rate "The Weather in Waterloo" on such a scale, the 7 places should be interpreted as follows:

The Weather in Waterloo is:													
bad:1:2:3:4:5:6:7: good extremely quite slightly neither slightly quite extremely													
If you think the weather in Waterloo is <i>extremely bad</i> , then you would circle the <i>number 1</i> , as follows:  The Weather in Waterloo is:													
bad: 1 : 2 : 3 : 4 : 5 : 6 : 7 : good													
If you think the weather in Waterloo is <i>quite good</i> , then you would circle the <i>number 6</i> , as follows.  The Weather in Waterloo is:													
bad:1:2:3:4:5:(6):7: good													
If you think the weather in Waterloo is <i>slightly bad</i> , then you would circle the <i>number 3</i> .													
The Weather in Waterloo is:													
bad:1:2:3:4:5:6:7: good													
If you think the weather in Waterloo is <i>neither good nor bad</i> , then you would circle the <i>number</i> 4.  The Weather in Waterloo is:													
bad: 1 : 2 : 3 : 4 : 5 : 6 : 7 : good													

In making your ratings, please remember the following points:

- \* Be sure to answer all items do not omit any.
- \* Never circle more than one number on a single scale (to change clearly cross out or erase your initial response).
- \* Please read each question CAREFULLY and answer it to the best of your ability. There are no correct or incorrect responses. We are interested in your personal point of view.

rating scale). A1. When confronted with several options in the coming months, I will choose to purchase products or services from companies because they sponsor the Vancouver 2010 Olympic Winter Games. definitely false : 1 : 2 : 3 : 4 : 5 : 6 : 7 : definitely true A2. My choosing to purchase products or services from companies because they sponsor the Vancouver 2010 Olympic Winter Games would be: beneficial **unwise** : 1 : 2 : 3 : 4 : 5\_\_:\_ wise **bad**: 1: 2: 3: 4: 5: 6: 7: good 3 : 5: worthless: 1:2: 4 : 6: valuable unimportant : 1 : 5 : 3 4 : 6: important A3. If I choose to purchase products or services from sponsors of the Vancouver 2010 Olympic *Games I will be helping financially support Canadian Olympic athletes.* extremely unlikely : 1 : 2 : 3 : 4 : 5 : 6 : 7 : extremely likely A4. Financially supporting Canadian Olympic athletes is **undesirable**: 1 : 2 : 3 : 4 : 5 : 6 : 7 : **desirable** A5. Choosing to purchase products or services from Vancouver 2010 Olympic Winter Games sponsors will allow me to express my feelings of national pride or patriotism. strongly disagree : 1 : 2 : 3 : 4 : 5 : 6 : 7 : strongly agree A6. Expressing my feelings of national pride/patriotism is extremely bad : 1 : 2 : 3 : 4 : 5 : 6 : 7 : extremely good A7. Choosing to purchase products or services from sponsors of the Vancouver 2010 Olympic Winter Games means that smaller (i.e., local) companies will suffer in the marketplace. strongly disagree : 1 : 2 : 3 : 4 : 5 : 6 : 7 : strongly agree

**Part A: Sponsorship Patronage** (please CIRCLE the appropriate number on the

A8. Purchasing product	's o	r se	rvic	ces f	ron	n la	rge	r (i.	e., i	inte	rna	tion	al)	cor	por	ations is
extremely bad	:_	1	_:_	2	_:_	3	_:_	4	_:_	5	_:_	6	_:_	7	_:	extremely good
A9. When I purchase a	pro	oduc	ct o	r se	rvic	e, I	loc	ok fo	or th	he V	ano	couv	er	201	0 C	Olympic logo.
definitely false	:_	1	_:_	2	_:_	3	_:_	4	_:_	5	_:_	6	_:_	7	_:	definitely true
A10. Companies that sp products or services the												•				offer better quality
definitely false	:_	1	_:_	2	_:_	3	_:_	4	_:_	5	_:_	6	_:_	7	_:	definitely true
A11. Choosing to purch	has	e be	ettei	r qu	alit <sub>.</sub>	y pr	odı	ıcts	or	serv	vice	s is				
unimportant to me	:_	1	_:_	2	_:_	3	_:_	4	_:_	5	_:_	6	_:_	7	_:	important to me
A12. I intend to purcha Vancouver 2010 Olymp	-						es j	fron	n co	тр	anie	es b	еса	use	the	y sponsor the
extremely unlikely	:_	1	_:_	2	_:_	3	_:_	4	_:_	5	_:_	6	_:_	7	_:	extremely likely
A13. Most people who	are	imp	ori	tant	to i	me 1	wou	ıld 1	hin	k th	at					
I should not choose to purchase pr	odi		or	serv	ice	s fro	om	con	npa	nies	be	cau	se t	hey	spo	
A14. My family thinks t	hai	t														
I should not choose to purchase pr	odi		or	serv	ice	s fro	om	con	npa	nies	be	cau	se t	hey	spc	
A15. When it comes to family thinks you should		_	g pu	ırch	ase	dec	cisic	ons,	ho	w m	uch	do	yoı	ı wo	ant	to do what your
not at all	:_	1	_:_	2	_:_	3	_:_	4	_:_	5	_:_	6	_:_	7	_:	very much

A16. My friends think that
I should not : 1 : 2 : 3 : 4 : 5 : 6 : 7 : I should choose to purchase products or services from companies because they sponsor the Vancouver 2010 Olympic Winter Games in the coming months.
A17. When it comes to making purchase decisions, how much do you want to do what your friends think you should do?
not at all : 1 : 2 : 3 : 4 : 5 : 6 : 7 : very much
A18. The people in my life whose opinions I value would
<b>disapprove</b> : 1: 2: 3: 4: 5: 6: 7: approve of me choosing to purchase products or services from companies because they sponsor the Vancouver 2010 Olympic Winter Games in the coming months.
A19. Most people who are important to me will choose to purchase products or services from companies because they sponsor the Vancouver 2010 Winter Games in the coming months.
completely false $: 1 : 2 : 3 : 4 : 5 : 6 : 7 :$ completely true
A20. Many people who are like me will choose to purchase products or services from companies because they sponsor the Vancouver 2010 Olympic Winter Games in the coming months.
extremely unlikely $: 1 : 2 : 3 : 4 : 5 : 6 : 7 :$ extremely likely
A21. I expect companies who sponsor the Vancouver 2010 Olympic Winter Games will increase their prices in the coming months.
strongly disagree $:$ 1 $:$ 2 $:$ 3 $:$ 4 $:$ 5 $:$ 6 $:$ 7 $:$ strongly agree
A22. Sponsors that increase their prices in the coming months would make it
more difficult : 1 : 2 : 3 : 4 : 5 : 6 : 7 : much easier for me to choose to purchase products or services from them in the coming months.
A23. Sponsors of the Vancouver 2010 Olympic Winter Games typically charge higher prices than their competitors who do not sponsor the Games.
strongly disagree : 1 : 2 : 3 : 4 : 5 : 6 : 7 : strongly agree

A24. Sponsors that charge more than their competitors in the coming months would make it
more difficult: 1: 2: 3: 4: 5: 6: 7: much easier for me to choose to purchase products or services from them in the coming months.
A25. In general, sponsors of the Vancouver 2010 Olympic Winter Games' products or services are relevant (of use) to me.
strongly disagree $: 1 : 2 : 3 : 4 : 5 : 6 : 7 :$ strongly agree
A26. Relevant products or services make it
more difficult: 1: 2: 3: 4: 5: 6: 7: much easier for me to choose to purchase products or services from companies who sponsors the Vancouver 2010 Olympic Winter Games in the coming months.
A27. I expect that product or service offerings from sponsors of the Vancouver 2010 Olympic Winter Games will be <u>MORE readily available</u> for me to purchase (i.e., easier to access) in the coming months <u>than competitors</u> who do not sponsor the Games.
strongly disagree : 1 : 2 : 3 : 4 : 5 : 6 : 7 : strongly agree
A28. Sponsors whose products or services are more readily available than competitors (i.e., easier to access in the marketplace) would make it
more difficult: 1: 2: 3: 4: 5: 6: 7: much easier for me to choose to purchase products or services from them in the coming months.
A29. I expect companies will create advertisements and promotions indicating that they are sponsors of the Vancouver 2010 Olympic Winter Games.
strongly disagree : 1 : 2 : 3 : 4 : 5 : 6 : 7 : strongly agree
A30. Exposure to these advertisements and promotions from companies indicating they are sponsors of the Vancouver 2010 Olympic Winter Games would make it
more difficult : 1 : 2 : 3 : 4 : 5 : 6 : 7 : much easier for me to choose to purchase their products or services from among different providers in the coming months.

the Vancouver 2010 Olympic Winter Games in the coming months would be
impossible : 1 : 2 : 3 : 4 : 5 : 6 : 7 : possible
A32. Making the conscious effort (i.e., choosing) to purchase products or services from Vancouver 2010 Olympic Winter Games' sponsors in the coming months would be
very difficult : 1 : 2 : 3 : 4 : 5 : 6 : 7 : very easy
A33. How much control do you believe you have over choosing to purchase products or services from companies because they sponsor the Vancouver 2010 Olympic Winter Games in the coming months?
no control : 1 : 2 : 3 : 4 : 5 : 6 : 7 : complete control
A34. It is mostly up to me whether or not I choose to purchase products or services from companies because they sponsor the Vancouver 2010 Olympic Winter Games in the coming months.
strongly disagree : 1 : 2 : 3 : 4 : 5 : 6 : 7 : strongly agree
A35. When given the choice in the coming months, I am more likely to buy products or services from companies that are sponsors of the Vancouver 2010 Olympic Winter Games.
strongly disagree : 1 : 2 : 3 : 4 : 5 : 6 : 7 : strongly agree
A36. When confronted with several options <u>in past years</u> , I have chosen to purchase products or services from sponsors of previous Olympic Winter Games (e.g., Torino 2006; Salt Lake City 2002).
definitely false $: 1 : 2 : 3 : 4 : 5 : 6 : 7 :$ definitely true
A37. In the space provided, please list all the corporate sponsors of the Vancouver 2010 Olympic Games you can recall:

A38. Is there any specific sponsor(s) of the Vancouver 2010 Olympic Winter Games you would choose to purchase products or services from? Please list any and briefly indicate WHY you would patronize/purchase from them.

**Part B: Television Viewership** (please <u>CIRCLE</u> the appropriate number on the rating scale).

The following questions refer to watching the Vancouver 2010 Olympic Winter Games on a *television set*. These questions **DO NOT REFER to the use of other electronic mediums** that can be used to view the event (e.g., hand held devices or via computer/internet).

B1. I intend to watch at least some portion of coverage of the 2010 Olympic Winter Games on television.

extremely unlikely	:_	1	_:_	2	_:_	3	_:_	4	_:_	5	_:_	6	_:_	7	_:	extremely	y like	ly
--------------------	----	---	-----	---	-----	---	-----	---	-----	---	-----	---	-----	---	----	-----------	--------	----

B2. On average, how many hours of coverage of the Vancouver 2010 Olympic Winter Games do you hope to watch on television **EACH DAY** over the course of the event?

\_\_\_\_\_ hour(s)

# WHEN ANSWERING THE REMAINING QUESTIONS IN THIS SECTION, PLEASE THINK ABOUT THE AMOUNT OF TIME YOU JUST INDICATED IN QUESTION B2.

B3. My watching televised coverage of the 2010 Olympic Winter Games would be

harmful	:_	1	_:_	2	_:_	3	_:_	4	_:_	5	_:_	6	_:_	7	_:	beneficial
unpleasant	:_	1	_:_	2	_:_	3	_:_	4	_:_	5	_:_	6	_:_	7	_:	pleasant
bad	:_	1	_:_	2	_:_	3	_:_	4	_:_	5	_:_	6	_:_	7	_:	good
worthless	:_	1	_:_	2	_:_	3	_:_	4	_:_	5	_:_	6	_:_	7	_:	valuable
unenjoyable	:	1	:	2	:	3	:	4	:	5	:	6	:	7	:	enjoyable

me to feel a sense of na		_	of ti	ne v	'anc	couv	ver .	201	00	lym	іріс	Winte	r Games will allow
extremely unlikely	: 1	: 2	:_	3	_:_	4	_:_	5	_:_	6	_:_	<u>7</u> :	extremely likely
B5.Feeling a sense of n	ationa	l pride	e is										
extremely bad	: 1	: 2	:_	3	_:_	4	_:_	5	_:_	6	_:_	<u>7</u> :	extremely good
B6. My watching televishow support for (i.e., o		_								-	-		
strongly disagree	:1_	: 2	_:_	3	_:_	4	_:_	5	_:_	6	_:_	<u>7</u> :	strongly agree
B7. Supporting (i.e., ch	eering	for) C	Cana	dian	o Oly	ymp	oic o	athl	etes	s is			
extremely bad	:1_	: 2	:_	3	_:_	4	_:_	5	_:_	6	_:_	<u>7</u> :	extremely good
B8. My watching televime to stay up to date wi		_								-	_		
strongly disagree	:1_	: 2	_:_	3	_:_	4	_:_	5	_:_	6	_:_	<u>7</u> :	strongly agree
B9. Being able to talk to	o my p	eers ai	bout	cur	rent	t ev	ents	s is					
unimportant to me	:_1_	: 2	:_	3	_:	4	_:_	5	_:_	6	_:_	<u>7</u> :	important to me
B10. Most people who	_												
I should not watch telev													
B11. My family thinks t	hat												
I should not watch telev													
B12. When it comes to you should do?	watchi	ng tele	evisio	on, I	how	ти	ıch	do y	you	wai	nt to	o do w	hat your family thinks
not at all	: 1	: 2	:	3	:	4	:	5	:	6	:	7 :	very much

	3: 4: 5: 6: 7: I should ne Vancouver 2010 Olympic Winter Games.
B14. When it comes to watching television you should do?	n, how much do you want to do what your friends think
not at all : 1 : 2 :	3 : 4 : 5 : 6 : 7 : <b>very much</b>
B15. The people in my life whose opinion.	s I value would
	3 : 4 : 5 : 6 : 7 : approve of the Vancouver 2010 Olympic Winter Games.
B16. Most people who are important to m Olympic Winter Games.	te will watch televised coverage of the Vancouver 2010
completely false : 1 : 2 :	3 : 4 : 5 : 6 : 7 : <b>completely true</b>
B17. Many people who are like me will we Winter Games.	atch televised coverage of the Vancouver 2010 Olympic
extremely unlikely : 1 : 2 :	3 : 4 : 5 : 6 : 7 : extremely likely
B18. I will try to watch televised coverage	e of the Vancouver 2010 Olympic Winter Games.
definitely false : 1 : 2 :	3 : 4 : 5 : 6 : 7 : <b>definitely true</b>
	will place high demands on my time during mid- ver 2010 Olympic Winter Games are being staged).
strongly disagree : 1 : 2 :	3 : 4 : 5 : 6 : 7 : <b>strongly agree</b>
B20. My school and/or work obligations p make it	placing high demands on my time in February would
more difficult : 1 : 2 :	3 : 4 : 5 : 6 : 7 : much easier

B13. My friends think that

time when the Vancouv						-									ary (i.e., during the
extremely unlikely	:	1	: 2	:_	3	_:_	4	_:_	5	_:_	6	_:_	7	_:	extremely likely
B22. Not having access	to a	ı tel	evisio	n se	et in	Fe	bru	ary	wo	uld	ma	ke i	t		
more difficult for me to watch															
B23. For me to watch t February would be	elevi	ised	cove	rage	e of	the	Var	ico	uvei	r 20	010	Oly	трі	ic V	Vinter Games in
impossible	:	1	: 2	:_	3	_:_	4	_:_	5	_:_	6	_:_	7	_:	possible
B24. Watching televised would be	d co	vera	ige of	the	Vai	nco	uvei	r 20	010	Oly	mp	ic V	Vint	er (	Games in February
very difficult	:	1	: 2	_:_	3	_:_	4	_:_	5	_:_	6	_:_	7	_:	very easy
B25. How much contro Vancouver 2010 Olymp		-								chi	ng t	elev	vise	d co	overage of the
no control	:	1	: 2	:_	3	_:_	4	_:_	5	_:_	6	_:_	7	_:	complete control
B26. It is mostly up to r Olympic Winter Games					t I n	atc	h te	lev	isea	l co	vero	age	of t	he	Vancouver 2010
strongly disagree	:	1	: 2	_:_	3	_:_	4	_:_	5	_:_	6	_:_	7	_:	strongly agree
B27. I plan on watching Games.	g at i	leas	t som	е ро	ortic	on o	f tei	levi	sed	<i>CO</i> 1	vera	ige	of th	he 2	2010 Olympic Winte
strongly disagree	:	1	: 2	:_	3	_:_	4	_:_	5	_:_	6	_:_	7	_:	strongly agree
B28. What event(s) (if a Olympic Winter Games	-		-			-									

B29. I have watched televised coverage of at least some portion of <u>previous</u> Olympic Winte Games (e.g., Torino 2006; Salt Lake City 2002).	?r
definitely false : 1 : 2 : 3 : 4 : 5 : 6 : 7 : definitely true	<b>;</b>
Part C: Sport/Physical Activity Participation (please <u>CIRCLE</u> the appropring number on the rating scale).	iate
C1. The <u>Vancouver 2010 Olympic Winter Games</u> will make me	
(a) <u>increase</u> my participation in <u>Winter Olympic-like sport events</u> (e.g., skiing, ice skat ice hockey, curling).	ing,
strongly disagree : 1 : 2 : 3 : 4 : 5 : 6 : 7 : strongly agree	÷
(b) <u>increase</u> my participation in <u>non-Winter Olympic-like sport events</u> (e.g., basketbal volleyball, baseball, golf, soccer).	l,
extremely unlikely : 1 : 2 : 3 : 4 : 5 : 6 : 7 : extremely like	ely
(c) <u>increase</u> my participation in <u>physical activities more generally</u> (e.g., going to the gym/working out, jogging, walking, joining a fitness class).	
definitely false : 1 : 2 : 3 : 4 : 5 : 6 : 7 : definitely true	<u> </u>
WHEN ANSWERING THE REMAINING QUESTIONS IN TH	<u>IIS</u>
<b>SECTION, THE TERM "ACTIVE" or "ACTIVITY LEVELS"</b>	
REFERS TO PARTICIPATION IN WINTER OLYMPIC-LIKE	<u> </u>
SPORT ACTIVITIES, NON-WINTER OLYMPIC-LIKE SPOR	<u>T</u>
<b>ACTIVITES, AND/OR PHYSICAL ACTIVITIES MORE</b>	
GENERALLY!	
C2. I plan on becoming <u>EVEN MORE ACTIVE</u> in the coming months <u>BECAUSE OF</u> the Vancouver 2010 Olympic Winter Games.	
strongly disagree : 1 : 2 : 3 : 4 : 5 : 6 : 7 : strongly agree	<b>;</b>

C3. For <u>me</u> to become	<b>EVEN</b>	MORE A	CTIVE	in the	ирсот	ing mo	nths <u>BE</u>	ECAUSE OF the
Vancouver 2010 Olymp	oic Win	ter Games	s would	be				
harmful unimportant bad worthless unenjoyable	: 1 : 1 : 1 : 1 : 1	: 2 :		4 : 4 :	5 : 5 :	6 : 6 :	7 7 :	beneficial important good valuable enjoyable
C4. The Vancouver 201 increasing my activity l					help m	e develo	op a hed	althier lifestyle by
extremely unlikely	: 1	: 2 :	3 :	4 :_	5 :	6 :	<u>7</u> :	extremely likely
C5. Developing a healt	hier life	estyle bec	ause of	the eve	nt wou	ld be		
extremely bad	:1_	: 2 :	3 :	<u>4</u> :_	<u>5</u> :	6 :	<u>7</u> :	extremely good
C6. The Vancouver 201 increasing my activity l	-	-			nake n	ne more	e fit and	in better shape by
strongly disagree	: 1	: 2 :	3 :	4 :_	5 :	6 :	<u>7</u> :	strongly agree
C7. Becoming more fit	and in	better sha	pe beco	ause of	the eve	ent wou	ld be	
extremely bad	: 1	: 2 :	3 :	4 :	5 :	6 :	<u>7</u> :	extremely good
C8. If the Vancouver 20 coming months, my months the event.	-	-						
extremely unlikely	:1_	: 2 :	3 :	<u>4</u> :_	<u>   5                                 </u>	6 :	<u>7</u> :	extremely likely
C9. Having my activity	levels i	return to	"norma	l" follo	wing t	he even	t would	! be
extremely bad	:_1_	: 2 :	3 :	4 :_	<u>   5                                 </u>	6 :	<u>7</u> :	extremely good
C10. I intend to become Olympic Winter Games		active in 1	the com	ing mo	nths be	ecause o	of the V	ancouver 2010
strongly disagree	:1_	: 2 :	3 :	4 :	<u>5</u> :	6 :	<u>7</u> :	strongly agree

C11. Most people who are important to me would think that		
I should not : 1 : 2 : 3 : 4 : 5 : 6 : 7 : I should become more active in the coming months because of the Vancouver 2010 Olympic Winter Games.		
C12. My family would think that		
I should not : 1 : 2 : 3 : 4 : 5 : 6 : 7 : I should become more active in the coming months because of the Vancouver 2010 Olympic Winter Games.		
C13. When it comes to your activity levels, how much do you want to do what your family thinks you should do?		
not at all : 1 : 2 : 3 : 4 : 5 : 6 : 7 : very much		
C14. My friends would think that		
I should not : 1 : 2 : 3 : 4 : 5 : 6 : 7 : I should become more active in the coming months because of the Vancouver 2010 Olympic Winter Games.		
C15. When it comes to your activity levels, how much do you want to do what your friends think you should do?		
not at all : 1 : 2 : 3 : 4 : 5 : 6 : 7 : very much		
C16. The people in my life whose opinions I value would		
<b>disapprove</b> : 1 : 2 : 3 : 4 : 5 : 6 : 7 : <b>approve</b> of my becoming more active in the coming months because of the Vancouver 2010 Olympic Winter Games.		
C17. Most people who are important to me will become more active in the coming months because of the Vancouver 2010 Olympic Winter Games.		
completely false $: 1 : 2 : 3 : 4 : 5 : 6 : 7 :$ completely true		
C18. Many people who are like me will become more active in the coming months because of the Vancouver 2010 Olympic Winter Games.		
extremely unlikely : 1 : 2 : 3 : 4 : 5 : 6 : 7 : extremely likely		

C19. I expect that 2010 Olympic organizers and government agencies will promote the Vancouver 2010 Olympic Winter Games as a time for Canadian citizens to become more active.		
strongly disagree : 1 : 2 : 3 : 4 : 5 : 6 : 7 : strongly agree		
C20. Promotions and advertisements encouraging me to become more active in conjunction with the Vancouver 2010 Olympic Winter Games would make it		
more difficult : 1 : 2 : 3 : 4 : 5 : 6 : 7 : much easier for me to increase my activity levels in the coming months.		
C21. I expect that 2010 Olympic organizers and government agencies will use the Vancouver 2010 Olympic Winter Games to promote increased awareness (knowledge) of sport and physical activity participation opportunities by developing advertisements.		
strongly disagree : 1 : 2 : 3 : 4 : 5 : 6 : 7 : strongly agree		
C22. Increasing my awareness (knowledge) of sport and physical activities that I can participate in would make it		
more difficult : 1 : 2 : 3 : 4 : 5 : 6 : 7 : much easier for me to increase my activity levels in the coming months because of the Vancouver 2010 Olympic Winter Games.		
C23. I expect the Vancouver 2010 Olympic Winter Games will stimulate the development of additional recreational programs and/or facilities <u>I can access</u> in my community in the coming months.		
strongly disagree : 1 : 2 : 3 : 4 : 5 : 6 : 7 : strongly agree		
C24. Access to additional sport and/or physical activity programs and facilities <i>in my</i> community would make it		
more difficult : 1 : 2 : 3 : 4 : 5 : 6 : 7 : much easier for me to increase my activity levels in the coming months because of the Vancouver 2010 Olympic Winter Games.		
C25. For me to become even more active in the coming months because of the Vancouver 2010 Olympic Winter Games would be		
impossible : $1$ : $2$ : $3$ : $4$ : $5$ : $6$ : $7$ : possible		

C26. Adding even more activity in my life Games would be	because of the Vancouver 2010 Olympic Winter
<b>very difficult</b> : 1 : 2 :	3 : 4 : 5 : 6 : 7 : <b>very easy</b>
C27. How much control do you believe yo months because of the Vancouver 2010 Oc	u have over becoming more active in the coming lympic Winter Games?
no control : 1 : 2 :	3 : 4 : 5 : 6 : 7 : complete control
C28.It is mostly up to me whether or not I the Vancouver 2010 Olympic Winter Gam	become more active in the coming months because of es.
strongly disagree : 1 : 2 :	3 : 4 : 5 : 6 : 7 : strongly agree
C29. Previous Olympic Winter Games (e.g become more active in past years.	g., Torino 2006; Salt Lake City 2002) have made me
definitely false : 1 : 2 :	3 : 4 : 5 : 6 : 7 : <b>definitely true</b>
Part D: Demographics (place an "	$X$ " or " $\sqrt{\ }$ " in the appropriate space).
D1. What is your <i>sex</i> ?	☐ Male ☐ Female
D2. What is your age?	I am years old
D3. What <i>year</i> of university are you in?	I am in year.
D4. What university <i>Faculty</i> are you in? (	e.g., Arts, Science)
D5. What <i>city/town/village</i> will you be liv	ing in come February 2010?
D6. What will be your <i>living arrangement</i>	ts in February 2010? [please check one]
☐ In residence	☐ At home with family
☐ In house or apartment with roommates	In house or apartment living alone

D7. Which one of the following statements best de	scribes your current financial situation?			
☐ I have barely enough to make ends meet	☐ I have enough to get by			
☐ I have a little left over after I pay all my bills	☐ I am quite comfortable			
☐ I have all that I need and more				
All those who agree to participate in a follow-up survey <u>will be entered into a draw for a Canadian Olympic Team apparel package</u> . Winners will be notified via the email address provided <u>below.</u>				
I am willing to be contacted for a follow-up survey: yes / no (please circle).				
If yes, can you please provide us with your E-mail	E-mail address?( <b>PRINT CLEARLY</b> ).			

Thank you very much for your help with this research project!

### APPENDIX J: MAIN STUDY FEEDBACK LETTER TO PARTICIPANTS



#### **Recreation and Leisure Studies**

Date: November 2009

Dear Participant,

I would like to thank you for your participation in this study. As a reminder, the purpose of this study is to develop a better understanding of why host residents, particularly Canadian undergraduate students might be motivated (or not motivated) to perform certain behaviours in response to the staging of the Vancouver 2010 Olympic Winter Games. These behaviours include: (i) increasing activity levels in response to the event; (ii) watching the event on television; and (iii) purchasing products/services from event sponsors.

The data collected during this survey may help Olympic researchers to identify a small set of causal factors that should permit the explanation and prediction many behaviours of interest to Olympic stakeholders. Moreover, the results of this analysis may directly inform the development of promotional efforts aimed at eliciting these desired behavioural responses.

Please remember that any data pertaining to you as an individual participant will be kept confidential. Once all the data are collected and analyzed for this project, I plan on sharing this information with the research community through seminars, conferences, presentations, and journal articles. If you are interested in receiving more information regarding the results of this study, or if you have any questions or concerns, please contact me. If you would like a summary of the results, please let me know now, and when the study is completed, I will send it to you. The study is expected to be completed by August 1, 2010.

As with all projects involving human participants, this project was reviewed by, and received ethics clearance through, the Office of Research Ethics at the University of Waterloo and the University of Victoria. Should you have any comments or concerns resulting from your participation in this study, please contact Dr. Susan Sykes in the Office of Research Ethics at 519-888-4567, Ext., 36005. ssykes@uwaterloo.ca.

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