

**University of Alberta**

Time Perspective, Well-being, and Hope

by

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## **Dedication**

This thesis is dedicated to my two incredible nieces, Finley and Aisling, and my remarkable godchildren, Hanna and Landon. You bring more happiness and joy into my life than I could have ever imagined possible. I would also like to dedicate this thesis to my dear friend, Tammy Pompu. You are the pea to my carrot and I could not ask for a better friend.

## **Abstract**

Time perspective (TP) represents a person's tendency to focus more on the past, present or future and has been shown to predict measures of individual well-being (Boniwell, et al., 2010). This study examined the relationship between one's time perspective and measures of hedonic and eudaimonic well-being, specifically positive and negative affect, satisfaction with life, and self-actualization. Furthermore, this study explored hope across the different time perspectives. Two hundred and eighty eight Canadian adults were recruited via social media websites. Hierarchical cluster analysis was used to validate the Balanced Time Perspective construct and suggests that the Hedonism time profile is as adaptive as the Balanced Time Perspective. Correlational analysis was used to examine the association between hope and the five different time perspectives. Results indicate that the past positive time perspective is most predictive of high levels of hope. Results were discussed and integrated into current time perspective and hope research.

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## CHAPTER I

### INTRODUCTION

*Once I knew only darkness and stillness...*

*my life was without past or future...*

*But a little word from the fingers of another*

*fell into my hand that clutched at emptiness,*

*and my heart leaped to the rapture of living.*

*~ Helen Keller (Optimism, 1903)*

What is a good life? What makes people happy? What does living well look like? Finding the answers to these questions is the primary goal of the field of positive psychology. Leading researchers within this field have defined positive psychology as “the study of positive emotions, character strengths, and the way in which institutions can help facilitate positive outcomes such as happiness, positive emotions, and optimistic thinking in human beings” (Seligman, 2000, p. 5). Generally speaking, positive psychology is the study of what is going well in people’s lives and the ways in which wellness can be further augmented. Moreover, it seeks to establish an understanding of positive human traits that have long been neglected or over-looked given the almost exclusive focus on pathology in the history of psychology. Of primary importance to the field of positive psychology is the concept of well-being (Seligman & Csikszentmihalyi, 2000). Well-being is a complex construct but generally refers to peak or ideal

experiences and functioning (Ryan & Deci, 2001), and perhaps can be best understood as what constitutes “the good life” (p. 142).

In recent years, a small but growing body of literature has begun to explore how an individual’s understanding of time may impact their experience of well-being. Time perspectives are unconscious cognitive filters that have a subtle yet pervasive effect on conscious thoughts and behaviours (Boniwell & Zimbardo, 2004). They provide the underlying framework that allows humans to meaningfully partition events into discrepant temporal phases or time zones of past, present and future, and provide a lens through which people select and pursue both short and long-term goals (Zimbardo & Boyd, 1999). Research concerning which temporal zone (i.e., past, present, or future) is most conducive to well-being is divided. However, there is growing evidence that a blend of all three dimensions is necessary for optimal experiences of well-being (Boniwell, Osin, Linley, & Ivanchenko, 2010; Drake, Duncan, Sutherland, Abernethy, & Henry, 2008).

One facet of well-being that has yet to be explored within the context of time perspective is that of hope. Hope has been defined in various ways including as a cognitive process, in which individuals identify and work towards their goals (Synder, 1995), as a “multidimensional resource that contributes to adaptive coping during times of illness” (Herth, 1991, p. 39), and as a life force marked by a belief that a positive future is possible (Dufault & Martacchio, 1985). Regardless of the definition used, it is clear that hope is a universal human experience that is inextricably related to experiences of well-being. Moreover, the majority of hope definitions include some type of temporal component, typically with reference to the future. Anecdotally, the future characteristic

of hope can be seen when one completes the sentence: ‘I hope...’. By finishing that simple sentence it is clear that hope is directed towards some future outcome or experience. Although there has been no systematic analysis of hope and time perspective together, Zimbardo and Boyd (1999) claim that some time perspectives are more hopeful than others.

### **Present Study**

The present study was designed to further explore the relationship between time perspective, well-being, and hope. Seeking to validate previous findings on the balanced time perspective (Boniwell, et al., 2010), this study examined well-being in a sample of Canadian adults. Measuring life satisfaction in three temporal domains (i.e., past, present, and future), self-actualization, positive and negative affect, and hope, this study was designed to explore well-being across the different time perspectives and to test whether having a balanced time perspective was associated with higher levels of both hedonic and eudaimonic well-being. Secondly, this study used a multi-dimensional measure of hope to explore how hope and its constitutive dimensions relate to the five different time perspectives.

### **Overview of Thesis**

Chapter two begins by reviewing relevant literature on time, time perspective, and the theoretical construct of a balanced time perspective. This is followed by a review of both facets of well-being (i.e., hedonic and eudaimonic well-being), and how these dimensions of well-being relate to time perspective and a balanced time perspective. From there, the concept of hope is explored and integrated into the literature on well-being and time perspective. The methodology chapter that follows will outline criteria

for participation in the study, recruitment strategies, and the procedures used. It will also outline the measures used and ethical practices followed. The results chapter will describe the analyses employed for descriptive and correlational analyses, and the evaluation of the hypotheses tested. Finally, a discussion chapter will summarize the findings in light of time perspective and hope literature in order to gain an understanding of how a balanced time perspective and experiences of hope are shaped by an individual's past.

## **CHAPTER II**

### **LITERATURE REVIEW**

#### **Time**

Time is an ever-present, seldom-acknowledged companion as we journey through life. Proverbs (e.g., “Today is the tomorrow you worried about yesterday”), idioms (e.g., “time heals all wounds”), authors (“Time = Life. Therefore, waste your time and waste your life, or master your time and master your life” - Alan Lakein), and scientists (“For us convinced physicists, the distinction between past, present, and future is an illusion, although a persistent one” - Albert Einstein) have all tried to define and understand this ubiquitous yet remarkably elusive concept. Time pervades all aspects of human life, yet how we see, define and experience time can be very different. It is impossible to understand time without first locating it within a specific cultural context as each culture views time differently (Levine, 1997). Some cultures understand time as a cyclical process that is often linked to the seasons (e.g., traditional First Nations cultures), while other cultures see time as a linear progression (e.g., as is the dominant Western understanding of time). Ultimately, learning how humans understand and interact with time within each unique cultural context undoubtedly adds to our understanding of the human experience.

#### **Time as a Psychological Construct**

The concept of time has been long debated in the realms of philosophy, psychology and science. Scientifically speaking, Einstein’s theory of relativity established the subjective nature of the physical phenomena of time (McGrath & Kelly, 1986). The nature of psychological time, however, is still being debated within the field of

psychology. One of the unresolved questions pertaining to time concerns whether time is best understood as an objective or subjective experience (McGrath & Kelly, 1986).

Stemming from Newtonian physics, the belief that time is an objective experience would posit that there is an objective, “real” or “true” time that exists, and can be measured. Time, in this sense, is infinitely large and contains all events, but it is divisible, linear, abstract, and absolute. In this way, time can be understood as objective in two ways (Boniwell, 2009). First, it is objective in that it is infinite and exists independent of the observer. Second, it is objective in that humans have developed an agreed upon representation of time. This theoretical concept of time is based on the idea of a “clock” and is viewed as the universal way in which we all perceive and use time. This view of time is dominant in Western societies where time can be scheduled, measured, and managed. Studies viewing time in this manner typically look at perception of timing intervals, time use, or time management (Harvey & Pentland, 1999; Robinson, 1999).

Conversely, time can also be viewed as a subjective phenomenon that exists within the psychological experience of the individual (McGrath & Kelly, 1986). In this understanding, time is conceptualized as an internal, subjective phenomena often considered psychological or “lived time” (Gorman & Wessman, 1977, p. 227). Psychological or lived time events occur within the context of the objective western calendar system but can be experienced in many different ways (Boniwell, 2009). An event may feel like it happened ‘yesterday’ or ‘ages ago’ despite the actual amount of calendar time that has passed. Subjective time is influenced by pace of life, stages of life, cultural values, individual values, thoughts, feelings, and the activity one is currently engaged in (Levine, 1997). Subjective time is marked by a discontinuous flow with some

moments seeming to slip by all too quickly (e.g., having dinner with loved ones or close friends) while other moments seem to ‘take forever’ (e.g., being at the dentist).

Furthermore, psychological time has the ability to flow backwards and forwards (Zimbardo & Boyd, 2008). Through the remembrance of past events and by projecting into the future, we have the ability to navigate through time in a non-linear fashion.

Research on subjective time is extremely diverse and has included a multitude of topics including time estimation, time personality, time congruity, time urgency, and time intensity (Boniwell, 2005; Kaufman, Lane, & Lindquist, 1991; McGrath, 1988).

One area within subjective time research that has garnered an increasing amount of scholarly attention in the last 15 years is that of time perspective. However, that is not to say that time perspective is a new concept. A founder of American psychology, William James (1890/1890, as cited in Zimbardo & Boyd, 1999) felt the topic of time was central to psychological research and dedicated an entire chapter to “time perception” in his classic work *The Principles of Psychology*. James described time perspective as the “knowledge of some other part of the stream, past or future, near or remote, that is always mixed in with your knowledge of the present thing” (Zimbardo & Boyd, 2008, p.51). Social psychologist, Kurt Lewin felt that time perspectives were the totality of the individual’s views of his/her psychological future and psychological past that exist at any given moment (Zimbardo & Boyd, 2008). Writer of *The Psychology of Time* and arguably father of the psychological study of time, Paul Fraisse defined the concept of time perspectives thusly:

Our actions at any given moment do not depend only on the situation in which we find ourselves at that instant, but also on everything we have already experienced



and on all our future expectations. Every one of our actions takes these into account, sometimes explicitly, always implicitly. (Zimbardo & Boyd, 2008, p. 51).

The current focus on time perspective research can be attributed to Philip Zimbardo and John Boyd who developed one of the first multidimensional, psychometrically sound measures of time perspective (Zimbardo Time Perspective Inventory; 1999). The following discussion will focus on the conceptual model of time perspective as proposed by Zimbardo and Boyd (1999).

### **Conceptual Model of Time Perspective**

Zimbardo and Boyd (1999) describe time perspective as a “nonconscious process” that allows individuals to meaningfully partition events into discrepant temporal phases or time zones of past, present and future, thereby providing some type of order, coherence, and meaning to those events. In other words, by parceling personal and social events into the past, present, or future, individuals can develop an understanding of their lived experiences. The process of dividing events into the past, present, and future can perhaps best be understood in how it is taught to young children. A mother may inform her young child that her Grandma is coming to visit next weekend (i.e., she is preparing the child for an event that will happen in the future). The morning of Grandma’s arrival, the mother may wake the child with the news that “Grandma gets here today.” This reframes the event from a future state to a present state. After the visit, the mother and child may look at pictures and tell stories about all the fun they had while Grandma was visiting. Through this process they have now transferred the event to the past. As

children develop the process of characterizing and understanding events in temporal frames becomes an automatic process.

Zimbardo and Boyd (1999) argue that time perspectives are used in encoding, storing, and recalling experienced events. How an event was experienced may be remembered differently depending on individual's time perspective. For example, a concert-goer who attends an outdoor music festival where it rained the entire time may initially complain that the festival was terrible mainly because he was cold and wet, but as time passes he may reflect on the new bands he saw and later recall the festival as an amazing experience despite being cold and wet. It is through the process of remembering the event that his underlying time perspectives may influence or shift how it is remembered. Similarly, time perspectives also play a role in forming expectations, goals, and possibilities related to future events. Continuing with the outdoor music festival example, the initial evaluation of the festival being a terrible experience has the potential to inform future expectations about what outdoor music festivals are like. Due to the negative experience the concert-goer may forgo future festivals in fear of spending a day cold and wet again.

Zimbardo and Boyd (1999) and Boniwell (2005) maintain that time perspective plays an influencing role in an individual's decision making process and behaviours. These authors argue that an individual's tendency to focus on one temporal frame (i.e., a focus on the past, present, or future) will impact his/her decision making process and subsequent behaviours. For example, individuals with a dominant past temporal orientation may base their decisions solely on previous experiences and an analysis of how those situations turned out. Novel situations may lead to overly cautious behaviours

or high levels of anxiety because the person does not have an experience base from which they can make decisions. Furthermore, they may restrict their decision making and behaviours so as to avoid new situations altogether. For individuals with a dominant future orientation decision making is based upon achieving some desired future state. As such, these individuals may forgo the pleasure of today to save for the future. They too may restrict their behaviour, not for fear of the unknown but for fear that it may impact their goal for the future. Unlike the past and future dominant individuals whose decision making involves analyzing the situation for the costs and benefits, individuals with a present temporal orientation tend to focus on the present-moment stimuli, situational factors, and their biological state. These individuals tends to make decisions based on what 'feels right' in the moment and pay little attention to future consequences. An over-emphasis on any one temporal frame can lead to a dispositional style that becomes characteristic of how a person will respond across a variety of circumstances (Zimbardo and Boyd, 1999).

Zimbardo and Boyd (1999) argue that an individual's time perspective is developed and influenced by his/her culture, education, religion, social class, and family. These factors interplay to create situations where one temporal frame may be used more often, potentially leading an individual to adopt it as her dominant temporal orientation. For example, a young woman who grew up in a family that had little money and was unsure of where her next meal would come from would likely have a present temporal orientation due to the precarious nature of how she grew up. Depending on the individual and their situation, the contribution of each factor (i.e., culture, education, etc.) may have varying degrees of influence. That is, no single factor contributes solely to the

development of an individual's time perspective. Time perspectives are also influenced by situational factors such as stress, being on vacation or under hypnosis.

According to Zimbardo and Boyd (1999) there are five distinct time perspectives: 1) past-negative, 2) past-positive, 3) present-hedonistic, 4) present-fatalistic, and 5) future. Each time perspective and its associated behavioural, emotional, and social traits will be discussed below. A past-negative time perspective is characterized by a pessimistic, negative view of the past (Zimbardo & Boyd, 2008). It is marked by regrets and rumination about past harms. Individuals high in this time perspective tend to be more aggressive, depressed, and anxious, have poor impulse control, and low self-esteem (Zimbardo & Boyd, 1999). Furthermore, these individuals often engage in more lying, stealing, and novelty seeking behaviours. Individuals with the past-negative time perspective also have smaller social networks, less involvement with family (i.e., parents, grandparents, etc.), and report higher degree of conflict within their social network (Holman & Zimbardo, 2009).

Unlike the past-negative time perspective, a past-positive time perspective reflects a warm, sentimental attitude towards the past (Zimbardo & Boyd, 2008). The past is viewed as "the good old days" with plenty of fond memories of events, places and people. Individuals high in past-positive tend to be less depressed, less anxious, and have higher self-esteem. These individuals tend to be more out-going, creative, and conscientious. Holman and Zimbardo (2009) found that they tend to have larger social networks and close ties with their families.

The present-hedonistic time perspective is characterized by a risk-taking, pleasure-seeking attitude (Zimbardo & Boyd, 2008). It is an orientation towards present

pleasure or benefit with little concern for future consequences. Individuals high in the present-hedonistic time perspective tend to have higher scores on depression and aggression, and are less emotionally stable. These individuals tend to have poor impulse control, and engage in more gambling, novelty, and sensation seeking behaviours. Perhaps in a more positive vein, these individuals are more energetic, creative, exercise more often, and report higher levels of happiness. Present-hedonistic individuals tend to have large social networks that are characterized by supportive friendships (Holman & Zimbardo, 2009).

The present-fatalistic time perspective embodies a helpless, hopeless attitude towards the future and life in general (Zimbardo & Boyd, 2008). This orientation is characterized by an attitude of “why try?” and focuses on luck or chance playing a large role in how the future unfolds. Individuals high in a present-fatalistic time perspective have higher scores on aggression, depression, and anxiety; they have poor impulse control, lower levels of self-esteem, and engage in stealing and lying more often than the other time perspectives.

A future time perspective reflects a general orientation toward the future which is often associated with goal-directed behaviours (Zimbardo & Boyd, 2008). People who are high in the future time perspective are able to delay gratification and are driven by the promise of future rewards. Those who are high in the future time perspective are less aggressive, depressed, and anxious when compared to other time perspectives. They tend to be more creative, open, energetic, and have higher levels of self-esteem. Furthermore, they tend to study more, have a balanced cheque-book, and consume less alcohol and

drugs. Individuals with a future time perspective also tend to have more supportive partners or spouses than the other time perspectives (Holman & Zimbardo, 2009).

Zimbardo and Boyd (2008) argue that the five different time perspectives are theoretically unrelated. That is, scores on one dimension are unrelated to the scores on the other dimensions, and it is theoretically possible to score high on all five dimensions. However, results indicate that there are five common time perspective profiles (i.e., common profiles with scores being high or low on the different dimensions (Boyd & Zimbardo, 2004; Boniwell, et al., 2010)). Of primary interest for this project is the balanced time perspective profile which will now be examined in greater detail.

### **Balanced Time Perspective**

Zimbardo and Boyd (1999) initially proposed the idea of a balanced time perspective in their seminal article *Putting Time in Perspective: A Valid, Reliable Individual-Difference Metric*, and suggest that it is “an idealized mental framework that allows individuals to flexibly switch temporal frames among past, future, and present depending on situational demands, resource assessments, or personal and social appraisals” (p. 1272). A balanced time perspective profile consists of higher scores on the future, present-hedonistic, and past-positive scales, with lower scores on present-fatalistic and past-negative, and is thought to be the ideal time perspective (Boniwell & Zimbardo, 2004; Boyd & Zimbardo, 2005). High scores on present-hedonism mean that the individual is able to enjoy life and to take pleasure in daily activities. High future scores allow the individual to prepare for the future by having goals and planning for how they will be achieved. Past-positive scores allow the individual to feel rooted in the traditions and stories of her life; she has a firm understanding of past triumphs and

knowledge of her ability to overcome adversity. Boniwell and Zimbardo (2004) postulate that the key to developing and maintaining emotional well-being is a balanced time perspective that can be defined as possessing the flexibility to negotiate between past, present and future orientations depending on the situational demands and ones' needs and values.

### **Well-Being**

In general, well-being refers to an individual experiencing optimal psychological functioning and experience (Ryan & Deci, 2001). Well-being is not simply the absence of mental illness, nor does it refer to a singular concept or construct. Rather, it can be more broadly understood as how individuals flourish within their lives. Research on well-being can be grouped into two main categories: hedonic well-being and eudaimonic well-being. Hedonic well-being research looks at an individual's subjective feelings of happiness and life satisfaction, whereas eudaimonic well-being research focuses on how individuals reach their human potential. Both facets of well-being will be explored in greater detail below.

#### **Hedonic Well-being**

Keyes (2006) argues that hedonic well-being research is "a specific dimension that consists of perceptions of avowed interest in life, happiness and satisfaction with life, and the balance of positive to negative affect" (p.4). Within the domain of hedonic well-being research, well-being is understood to consist of pleasure or happiness, and is not merely limited to bodily experiences, as is often assumed, but also includes the preferences and pleasure of the mind as well (Ryan & Deci, 2001). Many psychologists who take a hedonic approach to well-being, assert that well-being concerns both

subjective happiness and the experience of pleasure versus displeasure, in a fairly general sense (Ryan & Deci, 2001). That is, well-being should be broadly understood to include all judgements of the good and bad elements of life (i.e., life should be viewed from a holistic standpoint), not simply as a measure of a specific moment or experience. Furthermore, the goal of hedonic psychology is to maximize human happiness in the hopes of increasing individual experiences of well-being.

Throughout the literature, the hedonic approach operationalizes well-being as subjective well-being (SWB), which consists of three components: life satisfaction, the presence of positive mood or affect, and the absence of negative affect (Biswas-Diener, Diener & Tamir, 2004). Further articulated by Diener, Oishi and Lucas (2009), SWB can be understood as a person's cognitive and affective evaluations of his or her life. That is, SWB does not solely consist of the frequent experiences of positive emotions (i.e., happiness, contentment, etc.) and lack of negative emotions (i.e., anger, fear, etc.), but also includes a cognitive evaluation of one's life as being good. The most common way to measure SWB is through self-report measures. The most common measures look at happiness, life satisfaction, and positive and negative affect (Diener, 2009).

### **Eudaimonic Well-being**

The second vein of well-being research focuses on a eudaimonic definition of well-being. Eudaimonia “occurs when people's life activities are most congruent or meshing with deeply held values and are holistically or fully engaging” (Ryan & Deci, 2001, p. 146). Therefore, eudaimonic well-being emerges when a person lives in accordance with their daimon or true self (Waterman, 1993). The daimon represents the potential that exists within each person and which, when fulfilled, leads to the most



fulfilling life possible. The eudaimonic tradition of well-being research operationalizes well-being as psychological well-being (PWB), with a focus on human potential and an individual engagement in the existential challenges of life (Keyes, Shmotkin, Ryff, 2002). In this way, psychological well-being is based upon Aristotle's idea that true happiness is found in what is worth doing and therefore involves individuals striving to reach their potentials (Ryan & Deci, 2001). While hedonic approaches focus almost exclusively on pleasure, eudaimonic psychologists argue that not everything that is conducive to well-being yields happiness. For example, a student working on a large term paper or project may not enjoy or find pleasure in the experience per se, but may find meaning in the finished product. Thus, Eudaimonic well-being can best be understood as a form of well-being derived from self-actualization and living life authentically.

### **Well-being and Time Perspective**

In the past decade, there have been an increasing number of studies focused on individual time perspective and human wellness. Results indicate that an individual's temporal orientation (i.e., focus on the past, present or future) does lead to differing levels of wellness, both physically and psychologically. However, the literature seems divided on exactly which temporal orientation is most conducive to well-being.

Fortunato and Furey (2011) found that variations in past, present and future thinking styles correspond with differing levels of depression, anxiety, resiliency, optimism and cynicism. High scores in future thinking correlated positively with scores on optimism and resiliency, and negatively with scores on anxiety and depression. High present thinking scores were correlated positively with scores on resiliency, optimism,

and negatively with scores on cynicism, anxiety and depression. Scoring high on past thinking was correlated positively with scores on cynicism, anxiety, and depression, and negatively with scores on resilience and optimism.

In the domain of health related studies, having a future time perspective has been linked with smoking cessation in adults (Adams, 2009). Conversely, a present-oriented time perspective is highly correlated with engaging in drinking, smoking, and reckless driving when compared to individuals who are more future oriented (Keough, Zimbardo & Boyd, 1999; Zimbardo, Keough, & Boyd, 1997). Similarly, Henson and colleagues (2006) found that a future time perspective was related to more protective health behaviours (i.e., wearing a seatbelt, using protection during intercourse) and a reduced amount of risky health behaviours (i.e., alcohol, drug, and tobacco use) among adolescents, whereas a present time perspective (both hedonistic and fatalistic) was a strong predictor of an increase in risky health behaviours and a decrease in protective behaviours.

In a cardiac rehabilitation study with older adults, Hamilton and colleagues (2003) found that having a future time perspective was not related significantly to health responsibility (i.e., desire to increase one's knowledge about health related concerns) after controlling for demographics, but that a present-hedonistic or past positive time perspective was significantly related to health responsibility. The authors suggest that the future time perspective may be less predictive of health responsibility in an older population due to an acknowledgment that the future is limited. Research by Kooij and Van De Voorde (2011) support this idea; they found that adults with an open-ended future time perspective (i.e., time is viewed as being expansive) had higher levels of

subjective general health (i.e., how an individual rates his/her own health) than adults who had a limited future time perspective. Similarly, Coudin and Lima (2011) found that an open-ended future time perspective was related to higher levels of subjective well-being and lower levels of depression when compared to a limited future time perspective.

Some of the inconsistencies in these findings may be the result of methodological differences, such as inconsistent definitions or conceptualizations of time perspective, the use of differing time measures, and/or focusing on a singular time zone (i.e., past, present, or future). Moreover, it must be noted that one of the main criticisms of current work on time perspectives is the use of only a singular time dimension in the research design (Lang & Carsetnsen, 2002; Fieulaine & Martinez, 2010) which was consistently the case in the above review. While the results suggest that one's time perspective is related to different facets of wellness in varying degrees, it is clear that further research needs to be done to clarify the role that all three temporal dimensions and all five time perspectives play in shaping individual well-being. Furthermore, there is little research dedicated to understanding how the differing time profiles (i.e., profiles of scores based upon all five TP) relate to well-being. More specifically, there are few studies that examine a balanced time perspective and its relationship with well-being. The following review will explore four studies that used similar definitions and instrumentation in the exploration of time perspective and subsequent time profiles in order to address some of the methodological weaknesses of previous research.

**Well-being and a balanced time perspective.** Drake and colleagues (2008) conducted one of the first studies that explored all five time perspectives and two measures of subjective well-being, but perhaps more importantly they were the first

researchers to systematically analyze the theoretical balanced time perspective construct. Using an undergraduate student sample, the researchers found that a past positive or present hedonistic TP were positively correlated with subjective happiness, while the past negative TP was negatively correlated with happiness. There was no significant relationship between the future or present fatalistic TPs and measures of well-being. Following the theoretical idea of a balanced time perspective proposed by Boniwell and Zimbardo (2004; i.e., moderate to high scores in future, past positive and present hedonistic, and low scores in past negative and present fatalistic), the researchers used a cut-off point approach to divide the TP scores for each of the five factors into thirds. Individuals scoring above the 66<sup>th</sup> percentile (top third) were considered to be ‘high’ in that TP and individuals who scored below the 33<sup>rd</sup> percentile (bottom third) were considered ‘low’. Individuals who fell within the balanced time perspective (BTP) profile had significantly higher levels of subjective happiness and mindfulness than the individuals in the non-BTP group. Although, these researchers should be recognized for the first attempt at operationalizing the BTP construct, their use of the cut-off point at the 33<sup>rd</sup> percentile was not backed by any empirical reasoning and appears somewhat arbitrary. Furthermore, this study only explored two measures of hedonic well-being and did not examine any measure of eudaimonic well-being.

Breaking from the BTP conceptualization proposed by Boniwell and Zimbardo (2004), Webster (2011) argued for a conceptualization of the balanced time perspective that focused solely on the past positive and future TPs. Following Lewin’s (1951) definition of time perspective as the “totality of the individual’s view of his psychological future and psychological past at a given time” (p. 75, as cited in Zimbardo & Boyd,

1999), Webster posits that the present is merely a balancing point between one's past and one's future, and as such does not contribute to the balanced time perspective. Utilizing the past positive and future subscales from the Zimbardo Time Perspective Inventory (ZTPI: Zimbardo & Boyd, 1999) and the Janus Index (Webster, 2006), Webster validated a new scaled called the Balanced Time Perspective Scale (BTPS) designed to measure an individual's positive feelings and uses on one's personal past and future. A four category model emerged. The first category consists of below average scores on both past and future subscales and is called time restrictive. The second category, reminiscers, are individuals who score above average on the past subscale but below average on the future scale. The third category consists of above average future scores and below average past scores, and is called the futurists. Finally, the last category has above average scores on both past and future subscales and is called the time expansive group. The time expansive group is considered the balanced time perspective, and was found to have significantly higher scores in happiness, life satisfaction, and self-esteem when compared to most of the other groups. Although a different conceptualization of a BTP was employed, results indicate that a BTP is related to higher levels of subjective well-being.

Building upon the work of Drake et al. (2008), Boniwell and colleagues (2010) further refined the empirical operationalization of the BTP construct, while also expanding the definition of well-being to include both hedonic and eudaimonic measures. Furthermore, by studying both British and Russian undergraduate students, this project provided the first cross-cultural validation of the BTP construct. The researchers employed three different statistical analyses to define a BTP on both the British and Russian samples.

The first results discussed come from the British sample. First, they utilized the 33<sup>rd</sup> percentile cut-off approach first used by Drake et al. (2008), and found that the BTP group had significantly higher life satisfaction and eudaimonic well-being scores (eudaimonic well-being was measured via a self-actualization scale) and significantly lower negative affect when compared to the non-BTP group. The second analysis utilized a 50<sup>th</sup> percentile cut-off approach with high scores being above the 50<sup>th</sup> percentile and low scores being below the 50<sup>th</sup> percentile. With this approach, the BTP group had significantly higher life satisfaction, positive affect, and self-actualization scores than the non-BTP group. Finally, the researchers used a person-oriented cluster analysis to identify individual's who had similar score patterns. Within the British sample, four unique profiles were identified: 1) hedonistic, present-oriented, 2) future-oriented, 3) balanced time perspective, and 4) negative orientation. On measures of well-being, there were no significant differences between the hedonistic, presented-oriented group and the balanced time perspective group, but both groups were significantly higher than the future oriented and negative groups.

Within the Russian sample, the 33<sup>rd</sup> and 50<sup>th</sup> percentile cut-off approaches yielded identical results with the BTP group having significantly higher scores on measures of hedonic and eudaimonic well-being (Boniwell, et al. 2010). They had higher scores on happiness, satisfaction with life, purpose in life, and optimism when compared to the non-BTP group. Using the person-oriented cluster analysis method, five unique profiles were found: 1) risk-taking, 2) balanced time perspective, 3) future-oriented, 4) hedonistic, and 5) negative. The BTP group scored significantly higher on all measures of well-being (i.e., life satisfaction, subjective happiness, purpose in life, optimism, and self-

efficacy) when compared to the non-BTP group, and of a higher magnitude than the British sample.

Similarly, Gao (2011) also used a person-oriented hierarchical cluster analysis to define the BTP on a sample of Taiwanese young adults. Gao found that a two cluster design fit accounted for 79.41% of the participants and classified the clusters as a BTP group and a non-BTP group. The BTP group had significantly higher scores of life satisfaction when compared to the non-BTP group. Overall, the results from British, Russian and Taiwanese samples indicate that a BTP is consistently related to higher levels of both hedonic and eudaimonic well-being. Furthermore, these results hold across multiple styles of analyzing the BTP construct.

### **Hope**

Hope is a small, simple word that has the power to uplift the human spirit, brighten the darkest day, and encourage the most defeated to carry on. Over the years and by a variety of researchers, hope has been defined and theorized in many different ways. Some researchers argue that hope is uni-dimensional in nature. Typically, these hope theories focus on hope being either an emotion (Lazarus, 1999) or cognition (Breznitz, 1985). Other researchers argue that uni-dimensional approaches are too narrow or one-sided in their understandings of hope, and think that hope can best be understood as a two dimensional construct that consists of both an affective and cognitive component (Lopez, Snyder & Teramoto-Pedrotti, 2003). Still others think that hope is more complex than a two dimensional model and argue that hope is a multidimensional process (Scioli, Ricci, Nyugen & Scioli, 2011; Farren, Herth & Popovich, 1995). Still other researchers argue that hope can best be understood as it is used in language

(Bruininks & Malle, 2005; Elliott & Olver, 2002) or how it manifests in specific populations (Benzein, Norberg & Saveman, 1998). The following section will briefly explore three different hope theories that cover the spectrum of dimensionality and research paradigms.

The most well-known and researched hope theory is that of Carl R. Snyder (1995). Snyder's hope theory was initially purely cognitive in nature; he argued that hope is a cognitive process, in which individual's identify and work toward their goals. However, his theory has since evolved to include the role that emotion plays in the hoping process (Lopez, Snyder & Teramoto-Pedrotti, 2003). Within this theory, hope is defined both as goal-directed thinking in which people believe they can find different routes to their desired goals (pathways thinking) and as having the necessary motivation to use those routes (agency thinking). Paramount to this theory is the belief that much of human behaviour is goal-directed and that goals guide human action (Rand & Cheavens, 2008). Goals can vary in temporality (i.e., they can be short-term or long-term), specificity, value, and importance, but they are necessary for almost all action. Once a goal has been identified, pathway thoughts are generated to determine ways or routes to achieve that goal. In tandem with pathway thoughts, agency thoughts (i.e., one's perceived ability and determination to use those routes) are generated. Within this model, positive emotions stem from movement towards one's goal, while negative emotions result from perceived stagnation or setbacks.

Within this framework, hope can perhaps be understood as a thinking process, influenced by emotions, which takes place as an individual moves towards his or her goals. Snyder has been prolific in his research and writing on this model of hope (1995,



2000, 2002), and subsequently it has become one of the most cited hope theories.

However, other researchers argue that the concept of hope is far more complex than is captured within this model (te Riele, 2010; Scioli, et al., 2011). Scioli and colleagues argue that the multidimensional approach to hope is needed to appropriately explore its different facets.

One of the earliest multidimensional hope theories was that of Dufault and Martocchio (1985). In their seminal article, they argue that hope is comprised of two spheres and six dimensions. The spheres of hope are generalized and particularized. Generalized hope is a broad, global perspective that good things can and will happen and is not linked to any particular hope object; it serves to restore meaning in life. Particularized hope involves a specific, identified “outcome, good or state of being” (p. 380) and involves investment or action in the specific hope object. Further, they posit that there are six dimensions of hope. The affective dimension of hope involves the emotions and sensations that are associated with hope. The affiliative dimension involves a person’s relatedness to things outside of oneself; this can include relationships to others, a sense of belonging, or a connection to a higher power. The cognitive dimension is marked by how a person thinks, wishes, imagines, wonders, interprets, and remembers hope. How a person chooses to achieve her hopes – the actions she takes to work towards that hope – marks the behavioural dimension. The temporal dimension of hope includes how a person experiences time (i.e., the past, present and future) in regards to hope, and finally, the contextual dimension involves the life situations that surround and influence a person’s experience of hope. Overall, Dufault and Martocchio posit that hope is a multidimensional construct (i.e., developed through and influenced by different

dimensions) and that it can vary between general feelings of hope to more particularized hopes or goals.

Unlike the structured models discussed previously, some researchers have chosen instead to focus on exploring what hope looks like in specific populations. Benzein, Norberg and Saveman (1998) found that for healthy, Pentecostal adults in Sweden their experiences of hope were directly related to their religious beliefs. The ultimate hope was life after death, and a promised eternity with God, with hope being strengthened by their faith. Hope unconnected with their beliefs was not reported as significant. When these researchers explored hope in healthy, non religious Swedes, their findings were very different (Benzein, Saveman, & Norberg, 2000). In this study, hope was understood as a reciprocal process that involves both internal and external themes. Internal themes of hope included hope being an inner process felt by the self and hope felt as being part of a bigger, collective whole. The external part of hope involved setting goals, having hope for others, experiencing meaningful relationships, expecting positive outcomes, and experiencing subjective well-being. Further, the external part of hope involved an understanding of how hope changes and transitions throughout one's life. The internal and external facets of hope are engaged in a reciprocal relationship with the external influencing the internal and vice versa.

From this brief review of selected hope models, it is clear that there is no one definition of hope that is accepted across all disciplines or by all researchers. A more extensive review of the hope literature would reveal more definitions and various hope models proposed across a variety of disciplines (i.e., psychology, health sciences, social work, etc.). It is far beyond the scope of this project to try to define hope or determine

which model best fits this almost intangible phenomenon. For the purposes of this thesis project, hope is understood to be a multidimensional process that includes dimensions of time, goals, control, relations, and personal characteristics (Schrank, et al., 2010).

### **Hope and well-being**

The relationship between hope and individual well-being has been well documented in a variety of research settings. In the domain of health research, higher levels of hope have been linked with a variety of preventive health strategies such as stronger intentions to engage in cancer prevention activities (Irving, Snyder, and Crowson, 1998) and being less likely to engage in risky sexual activities (Floyd & McDermott, 1998, as cited in Rand & Cheavans, 2009). Furthermore, higher levels of hope correspond with greater treatment adherence (Berg, Rapoff, Snyder, & Belmont, 2007).

Ong, Edwards, and Bergeman (2006) found that individuals high in trait hope showed diminished stress reactivity and more effective emotional recovery. Results further suggest that state hope provides protective benefits by keeping negative emotions low, while also contributing to recovery from stress. Hirsh and colleagues (2011) found that functional impairment in older adults was worsened by depressive symptoms, but that hope had a significant mitigating effect on the depressive symptoms. Higher hope individuals had less depressive symptoms and a lower degree of functional impairment when compared to lower hope individuals.

Compared to health and psychological wellness literature, the research looking at measures of hedonic and eudaimonic well-being and hope is far more limited. The majority of research in this area has focused on life satisfaction and has had varying

results. O'Sullivan (2011) found that when measuring levels of self-efficacy, hope, and eustress on undergraduates that hope was the best predictor of life satisfaction.

Conversely, Danoff-Burg and colleagues (2004) found that hope had no direct effect on satisfaction with life with black college students coping with race-related stress. Using three measures of subjective well-being (i.e., positive and negative affect, and life satisfaction), Vacek, Coyle, and Vera (2010) found that hope was a significant predictor of positive affect but not satisfaction with life for ethnic minority adolescents; there was a weak negative correlation between hope and stress.

In a study designed to explore how hope and optimism relate to hedonic and eudaimonic well-being, Gallagher and Lopez (2009) found that hope was a unique predictor of both types of well-being. That is, hope and optimism were not a unitary construct and each had predictive value for measures of well-being. Interestingly, optimism was more strongly associated with components of hedonic well-being (although hope was still related to these measures), and hope was more strongly associated with components of eudaimonic well-being. Results indicate that hope plays a unique role and different role than optimism in individual experiences of well-being.

### **Hope and time**

Hope is continually operationalized to include some form of temporal dimension or time component, with most literature linking hope to a future, goal-oriented outlook (Dufault & Martocchio, 1985; Snyder, 2000). Dufault and Martocchio (1985) suggest that hope is directed toward a future good, but that the past and present are also involved in the hoping process. Farren, Herth and Popovich (1995) argue that time plays a role in the rational thought process of hope; they suggest that hope is learned through one's past,

present and future. Whereas Scioli and colleagues (2011) suggest hope is a future-directed emotion network. Regardless of the hope theory utilized, it is clear that hope and time are inextricably related.

In 2006, Snyder, Rand and Ritschel provided the first detailed exploration of hope across all three temporal dimensions. They maintain that hopeful thoughts begin with an abstract representation or picture of some future state. These representations or imaginings are labelled as goals and subsequent thought processes, emotions, and behaviours are directed towards attaining said goals. Whether the goals be approach or avoidance driven, they result in the development of pathways or routes in which a person can work towards his or her goal. Thus pathways can be understood as a way of connecting the present to a potential future state. Despite the fact that hopeful thinking is primarily a future-oriented process, the past plays an influential role in the hoping process (Snyder, Rand, & Ritschel, 2006). The authors argue that dispositional or trait hope is first established in the infant/toddler years as the child becomes aware of sequencing, cause and effect (i.e., the concept that “this follows that”), and that she has the power to influence how events take place. For example, the infant quickly learns that pointing at an object will often result in the object being given to her. Furthermore, the past serves as an important educator in teaching individuals how to deal with goal blockages or dead-ended pathways.

Ultimately, future goals and the remembrance of past experiences interact in the present moment and as such, may be impacted by the emotions associated with previous goal pursuits (Snyder, Rand, & Ritschel, 2006). Individuals with a history of many successful goal pursuits may experience positive emotions and excitement as they peer

into the future. Whereas individuals with a history of failed goal pursuits may feel defeated and overwhelmed, thus resulting in very different dispositional styles of approaching goal pursuits. An individual's dispositional hope interacts in the present moment with the pathway and agency thoughts and the emotions elicited by the current goal and its barriers. That is, "each individual brings a trait-like set of agency and pathway cognitions and emotional sets to the goal-pursuit process" (p. 106). As an individual moves towards the goal there is a feed-forward and feedback loop between cognitions and emotions which determine if the individual will continue with the identified goal. In sum, the authors argue that while hope is a future-directed process it is shaped by the past and experienced in the moment.

Turning now to time perspective literature, Zimbardo and Boyd (1999) claim that individuals with a future time perspective will have higher levels of hope, whereas present-fatalistic individuals will be hopeless. Individuals high in a future time perspective are characterized by planning for and achieving future goals; they tend to have a high degree of focus on future consequences and are very conscientious. This conceptualization of a future TP is very similar to Snyder's (2000) understanding of the cognitive process of hope. Individuals high in the present-fatalistic time perspective are thought to reflect an absence of a focused time perspective; they do not have the focus of future-oriented individuals, the passion of the present-hedonists, nor the nostalgia or resentment of the two past time perspectives. With no clear connection to the future, individuals high in present-fatalism are resigned to have fate determine their destinies. Given that hope is consistently related to some type of future outcome (Snyder, 2000; Dufault & Martocchio, 1985; Scioli, et al., 2011), it is natural and logical to expect that

individuals with no future-orientation would have low levels of hope. However, no research has analyzed time perspective and hope together.

### **Rationale for the Study and Hypotheses**

The purpose of this study is threefold. First, this study aims to validate previous findings that a balanced time perspective is linked with higher levels of subjective well-being, specifically with higher levels of life satisfaction, positive affect and self-actualization, and lower levels of negative affect. Second, this study aims to test how hope correlates with the five different time perspectives and the balanced time perspective construct. Third, this study aims to add to time perspective research conducted on a Canadian sample. To date, there is only one published time perspective article (Webster, 2011) that used a Canadian sample.

Although a great deal of time perspective research has utilized broad-based adult samples, the majority of time perspective research exploring individual well-being has been conducted on undergraduate student samples (Zimbardo & Boyd, Boniwell, et al., 2010, Gao, 2011). Arnett (2000) argues that the emerging adulthood stage (made up primarily of undergraduate students) is characterized by identity exploration, instability, being self-focused, feeling in-between and being a time of possibilities. Adults in this stage are often moving out from their family homes for the first time, beginning and/or completing post-secondary education, travelling, and may be changing jobs and/or residences often (Arnett, 2004). Arnett (2000) argues that this stage is very different than later adult stages where identity formation is complete and life is often more stable. As such, previous research on well-being and time perspective may not be reflective of the general adult population, and may provide results unique to that one developmental stage.

This study sought to explore time perspectives, specifically a balanced time perspective and measures of well-being within the broader context of adulthood. Furthermore, this study was designed to provide confirmatory results that a balanced time perspective is associated with higher levels of hedonic and eudaimonic well-being.

Despite the fact that the term ‘hope’ is often used in time perspective research (Zimbardo & Boyd, 1999; Boniwell & Zimbardo, 2004) and that the majority of hope theorists suggest a temporal dimension to hope (Snyder, 2000; Dufault & Martocchio, 1985; Scioli, et al., 2011), there has been no published research examining the relationship between time perspective and hope. In fact, there is a dearth of research that systematically explores these two inextricably related constructs (Snyder, Raqnd, Ritschel, 2006). This project was designed to address the absence of literature related to the relationship of an individual’s time perspective and his/her experiences of hope.

### **Research Questions and Hypotheses**

The current study addressed the following research questions:

- 1) Do individuals with a balanced time perspective (BTP) experience higher levels of subjective well-being when compared to individuals with different time profiles?
- 2) What is the relationship between hope and the five different time perspectives? Is the future TP the most hopeful? Is the present-fatalistic TP hopeless? How will the past positive, past negative, and present hedonistic TP relate to hope?

Following the work of Drake et al. (2008) and Boniwell et al. (2010), it is hypothesized that individuals with BTP will have a higher level of subjective well-being. Previous studies have found that individuals with a BTP are significantly more happy



(Webster, 2011), more mindful (Drake, et al., 2008), have greater life satisfaction (Gao, 2011), more positive affect, and are more self-actualized (Boniwell, et al., 2010). It is also hypothesized that the future TP will be highly positively related to measures of hope (Snyder, 2000; Zimbardo and Boyd, 1999), and that the present fatalistic TP will be associated with low levels of hope (Zimbardo & Boyd, 1999).

The specific hypotheses tested in this study are as follows:

- 1) That individuals with a BTP will score significantly higher than non-BTP individuals on measures of life satisfaction (total, past, present, and future), positive affect, and self-actualization, and will have significantly lower levels of negative affect.
- 2) That the future TP will have strong positive correlations with hope and its dimensions.
- 3) That the present fatalistic TP will have strong negative correlations with hope and its dimensions.
- 4) That the past positive TP will have moderate positive correlations with hope and its dimensions.
- 5) That the past negative TP will have moderate negative correlations with hope and its dimensions.
- 6) That the present hedonistic TP will have weak positive correlations with hope and its dimensions.

## **CHAPTER III**

### **METHOD**

This chapter describes the inclusionary and exclusionary criteria for participation, recruitment strategies, and the study procedure. The measures that were administered and the ethical practices followed are also described.

#### **Participants**

##### **Study Criteria**

All participants in this study were Canadian citizens or Canadian residents (i.e., landed immigrants) over the age of majority (18 years of age). Non-Canadian residents were excluded as the aim of this study was to validate previous time perspective findings (i.e., Boniwell, et. al, 2010) on a Canadian sample. Individuals below the age of 18 were excluded as they would require parental consent to participate.

##### **Recruitment Strategies**

Two recruitment strategies were employed in order to inform potential participants about the study. First, numerous notices advertising a study for Canadian citizens and residents over the age of majority were placed around the University of Alberta campus. Notices advised that the anonymous online survey would take less than 50 minutes to complete, and included tear-away strips with the researcher's email and the link to the survey. Second, participants were recruited from postings on social networking and community-based internet sites (i.e., Facebook and Kijiji). Utilizing snowball and convenience sampling techniques, an open event invitation was created on the social networking site Facebook, and distributed to friends and family members of the researcher. Invited members were encouraged to participate in the study and share the

event information with their friends and family. Reminders about the study were sent to group members every two to three weeks, at which time the researcher would provide updates on the number of completed surveys and remaining space available in the research project. A request for volunteers was placed on the community-based Kijiji website. This website allows members of a community (i.e., the city of Edmonton) to place classified ads about services or items available. The request for volunteers provided information about the study, the researcher's email, and a link to the online survey.

### **Procedure**

Upon clicking or entering the survey link into a web-browser, the participants were presented with the title of the survey and a consent form providing information about the survey, anonymity, the ability to withdraw at any point, and contact information for the primary researcher and her supervisor (Appendix A). Consent to participate was implied by the overt action of selecting "Proceed to the survey." After consenting, participants were randomly assigned to one of three different versions of the survey. Due to the length of the survey (i.e., 149 questions), three versions were created to mitigate survey fatigue effects that may result in specific response patterns. Each page of the survey consisted of one scale (i.e., demographics, ZTPI, etc.), with a total of seven pages being presented to the participants (excluding consent and debriefing pages). Participants were unable to advance to the next page if any questions were left unanswered, and were directed to the questions that had been missed. Following the completion of all scales, participants were presented with a debriefing page that provided information about the survey and the contact information for the researcher and her supervisor (Appendix B).

## **Measures**

The research measures were presented to participants in the form of an online survey. Each page of the survey presented all the items for one scale. Instruments included measures of 1) basic demographic information, 2) time perspective, 3) hedonic well-being, 3) eudaimonic well-being, and 4) hope. A description of each measure is provided in detail below.

### **Demographic Information**

Background information will be collected on country of residence (i.e., Canada or outside of Canada), year of birth, gender, ethnicity, marital status, location (i.e., rural or city), and highest education level completed (Appendix C).

### **Time Perspective**

The Zimbardo Time Perspective Inventory (ZTPI; Zimbardo & Boyd, 1999) is designed to measure participant's attitudes, preferences, and behaviours regarding experiences that are temporally based (Appendix D). The ZTPI has a five-factor structure consisting of Future, Past-Positive, Past-Negative, Present-Hedonistic and Present-Fatalistic sub-scales. The scale provides a profile of relative values on each of the five factors (TP) for individuals, thus creating a unique time profile for each participant. This scale consists of 56 items that are assessed on a five-point Likert scale ranging from (1) very uncharacteristic (5) to very characteristic of the respondent. Test-retest reliabilities of the five subscale of the ZTPI were established over a four week period and ranged from 0.70 to 0.80 for the five different factors. Convergent and discriminant validity was established through the identification and subsequent testing of 12 related psychological constructs (i.e., aggression, depression, conscientiousness, future considerations, ego-

control, impulse control, novelty seeking, preference for consistency, reward dependence, self-esteem, sensation seeking, and anxiety). Results indicate that that ZTPI has high external validity and satisfactory internal reliability (Zimbardo & Boyd, 1999).

### **Hedonic Well-being**

The first measure of hedonic well-being was life satisfaction. The Temporal Satisfaction with Life Scale (TSWLS; Pavot, Diener & Suh, 1998) is designed to measure participants total life satisfaction and also provides three sub-scales relating to past satisfaction with life, con-current satisfaction with life, and future expectations of life satisfaction (Appendix E). This scale consists of 15 items to which participants are asked to rate the degree to which they agree or disagree on a seven-point Likert scale (ie., strongly disagree (1) to strongly agree (7)). This 15 item scale is comprised of five past-oriented, five present-oriented, and five future-oriented statements. It has been shown to possess strong psychometric properties with alpha coefficients ranging from 0.92–0.93 and test retest reliability ranging from 0.82-0.88, and has been shown to be a dependable measure of life satisfaction (Pavot, et al., 1998).

A second measure was used to measure the affective component of hedonic well-being. The Positive and Negative Affect Schedule (PANAS; Watson, Clark & Tellegen, 1988) is designed to measure an individual's level of both positive and negative affect (Appendix F). The PANAS is comprised of two 10 item scales; one scale consists of 10 positive affect words and the other of 10 negative affect words. The positive and negative words are presented in a random order in a written format. Each word is rated on a five-point Likert scale ranging from very slightly or not at all (1) to extremely (5) indicating the amount of time they spend experiencing that emotions. This scale has

seven time instructions ranging from how the respondent feels “at the present moment’ to “how you feel on average.” In this survey participants were directed to “Indicate to what extent you generally feel this way, that is, how you feel on average.” The PANAS has been shown to be highly internally consistent, with the positive affect (PA) and negative affect (NA) sub-scales largely uncorrelated with each other.

### **Eudaimonic Well-being**

The Measure of Actualization of Potential (MAP; Lefrançois, Leclerc, Dubé, Hébert, & Gaulin, 1997) scale is designed to measure self-actualization or eudaimonic well-being (Appendix G). The items reflect openness to experience, including other peoples’ and one’s own emotional experience, autonomy, acceptance of life, and adaptation. This scale consists of 27 paired-opposite statements of values and behaviours that measure self-actualization with items being assessed on a five-point Likert scale. The MAP has adequate internal consistency reliability, and strong external validity (Lefrançois, et al., 1997).

### **Hope**

The Integrative Hope Scale (IHS; Schrank, Woppman, Sibitz, & Lauber, 2010) is designed to measure hope and its constitutive dimensions (Appendix H). This scale was created by combining three previous measures of hope (i.e., Miller Hope Scale (MHS); Herth Hope Index (HHI), and Snyder Hope Scale (SHS)) thought to cover the multiple dimensions of hope. Factor analysis resulted in four dimension scores measure the difference aspect of hope. The first dimension, trust and confidence, reflects a reference to past experience, individual characteristics, spirituality and trust, as well as the motivational aspects of goal striving. The second dimension, lack of perspective, reflects

the absence of hope or a hopelessness (ie., lack of inner strength, future orientation, and support). The third dimension, positive future orientation, reflects the belief that a good future is possible, and the fourth dimension, social relations and personal values, reflects the relational side of hope. This scale consists of 23 items assessed on a six-point Likert scale ranging from strongly disagree (1) to strongly agree (6). Scores range from 23 to 138 with higher scores representing higher hopefulness. This scale has adequate convergent and divergent validity, and satisfactory internal consistency reliability.

### **Ethical Practices**

In accordance with the requirements of the University of Alberta and the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (Canadian Institutes of Health Research, Natural Sciences and Engineering Research Council of Canada, & Social Sciences and Humanities Research Council of Canada, 2010), an ethics proposal was submitted to the University of Alberta Research Ethics Board 2 for review. This proposal included information regarding the nature, length, and purpose of the study, data collection procedures, copies of study advertisements, consent/debrief forms, and procedures for providing anonymity and confidentiality for all survey participants. Ethics approval was received on August 2, 2011 at which time data collection commenced.

Data integrity and security was the utmost of importance, therefore data was collected with Psych Data Surveys ([www.psychdata.com](http://www.psychdata.com)), which offers the highest level of online protection for online survey research. In accordance with University of Alberta ethics guidelines all data was stored in an SPSS file on a flash-drive and the researcher's computer hard drive with no identifying information.

## CHAPTER IV

### RESULTS

#### Preliminary Analyses

All data analyses were conducted using IBM SPSS version 19 published in 2011. A total of 326 participants (255 females, 71 males) participated in this study. Data from 36 participants was discarded due to missing data (i.e., incomplete surveys), with two additional participants being discarded due to selecting a residence outside of Canada. Data analysis was completed on 288 participants (228 female, 60 male) with fully completed surveys.

Prior to all analyses, an examination for outliers on the primary measures was undertaken. Participants whose scores exceeded one standard deviation from the second highest score were truncated to three standard deviations from the mean. This included one participant with a low future score, one participant with a low past positive score, two participants with low total hope scores, two participants with low scores on the trust and confidence, positive future orientation, and social relations and personal values sub-scales subscale on the hope measure, one participant with low scores on the lack of perspective subscale on the hope measure, one participant with low scores positive affect scale, two participants with high scores on the negative affect scale, one participant with low scores on life satisfaction total, and four participants with low scores on the future subscale of the life satisfaction measure. Skewness (the asymmetry of a distribution) and kurtosis (the clustering of scores in the tails of the distribution) were also examined. Two measures had values for skewness and kurtosis that far exceeded the value of 0 that represents a normal distribution. In order to reduce the impact of outliers even further



and correct for distributional problems, transformations were conducted. A square root transformation was performed on the data for measures of Hope: Positive Future Orientation (skewness = -0.99, kurtosis = 0.78), and Hope: Social Relations and Personal Values (skewness = -1.25, kurtosis = 1.90) Following Field (2005) these measures were reversed prior to transformation due to the skew being negative. The descriptive analyses were reported using the non-transformed data. The primary analyses utilized the transformed data.

### **Descriptive Analyses**

A total of 288 (228 female, 60 male) participants were used in descriptive data analyses. Table 1 below shows the demographic characteristics of the sample. Participants ranged in age from 18 to 78 years, with a mean age of 37.02 years and a median age of 34.00 years. The predominant ethnic backgrounds of the participants were Caucasian (90.3%), Asian (1.4%), and First Nations (1.0%). Among the participants, 90 (31.3%) were single, 130 (45.1%) were married, 20 (6.9%) were divorced or separated, 42 (14.6%) were common-law, and 6 (2.1%) were widowed. Of the 288 participants, 4 participants (1.4%) had achieved less than a Grade 12, 18 (6.3%) had a Grade 12 diploma, 96 (33.3%) had some post-secondary or trade training, 123 (42.7%) had a Bachelors degree, 42 (14.6%) had a Masters degree, and 5 (1.7%) had a Doctorate degree.

Table 1

*Demographics Information*

Characteristics	Frequency	Percent	<i>M (SD)</i>
Gender			
Female	228	79.2%	
Male	60	20.8%	
Age			37.02 (11.83)
Ethnicity			
Caucasian	260	90.3%	
First Nations	3	1.0%	
African Canadian	1	0.3%	
East Indian	2	0.7%	
Asian	4	1.4%	
Hispanic	2	0.7%	
Other	16	5.6%	
Marital Status			
Single	90	31.3%	
Married	130	45.1%	
Divorced/Separated	20	6.9%	
Common-law	42	14.6%	
Widowed	6	2.1%	
Education Level			
Less than Grade 12	4	1.4%	
Grade 12 Diploma	18	6.3%	
Some Post-Secondary/Trade	96	33.3%	
Bachelors Degree	123	42.7%	
Masters Degree	42	14.6%	
Doctorate Degree (PhD, MD)	5	1.7%	

### Correlational Analyses

The intercorrelations between the ZTPI scales (see Table 2) obtained in this sample followed the same patterns as those reported in Boniwell and colleagues (2010) and Zimbardo and Boyd (1999). The correlation between past negative and present fatalistic (0.44) was somewhat higher in the present sample when compared to the British, Russian, and American samples (Boniwell, et al. 2010; Zimbardo & Boyd, 1999). Unlike both samples in Boniwell, et. al (2010) correlations between present hedonistic and present fatalistic were higher in this sample, and comparable to results found by Zimbardo and Boyd (1999). The alpha reliability coefficients for all five ZTPI scales were slightly higher than reported in previous studies: 0.82 for Past Negative, 0.79 for Present Hedonistic, 0.75 for Future, 0.82 for Past Positive, and 0.72 for Present Fatalistic.

Table 3 shows the various correlations among the five different TP of the ZTPI and the measures of well-being, as well as the alpha reliability coefficients for all the well-being measures. The past negative TP has moderate to strong negative correlations with all measures of well-being, and is positively correlated with negative affect. The present fatalistic presents a similar picture with somewhat weaker correlations. The present hedonistic TP has weak positive correlations with some measures of well-being, specifically life satisfaction (total and future), self-actualization, and positive affect. In comparison to the other TP, the future TP has few significant correlations; the future TP is weakly correlated with self-actualization and positive affect. The past positive TP has moderate to strong correlations with all measures of well-being, and is negatively correlated with negative affect.

Table 2

*Pearson Correlations between the ZTPI Scales (N = 288)*

	Cronbach's alpha	1	2	3	4	5
1. Past Negative	0.82	—	0.10	-0.10	-.31**	0.44**
2. Present Hedonistic	0.79		—	-0.32**	0.16**	0.29**
3. Future	0.75			—	0.12	-0.30**
4. Past Positive	0.82				—	-0.03
5. Present Fatalistic	0.72					—

Note: \*\*p < 0.01

Table 3

*Pearson correlations between the ZTPI and well-being scales (N = 288)*

Scale	Cronbach's alpha	Past Negative	Present Hedonistic	Future	Past Positive	Present Fatalistic
Life Satisfaction (LS) Total	0.93	-0.56**	0.13*	0.03	0.47**	-0.27**
LS Past	0.85	-0.54**	0.07	-0.02	0.51**	-0.16**
LS Present	0.93	-0.49**	0.07	0.04	0.32**	-0.31**
LS Future	0.91	-0.37**	0.18**	0.06	0.33**	-0.19**
Self- Actualization	0.88	-0.43**	0.25**	0.12*	0.39**	-0.29**
Positive Affect	0.87	-0.39**	0.26**	0.18**	0.31**	-0.31**
Negative Affect	0.87	0.54**	0.34	-0.07	-0.26**	0.31**

Note: \*\*p < 0.01; \*p < 0.05

## **Tests of Main Hypotheses**

### **Balanced Time Perspective and Well-being**

An operationalization of BTP based on the person-oriented approach proposed by Magnusson (1999) and colleagues (Magnusson & Törestad, 1993; Magnusson & Mahoney, 2003) was utilized. Utilizing a holistic person-oriented research paradigm, Magnusson and Törestad (1993) suggest using pattern analysis to characterize groups based upon their patterns of values for variables relevant to the issue under consideration, which in this case is how individual's interact with and understand time. More specifically, they argue that in correlational studies hierarchical cluster analysis can be used to identify groups based upon typical score patterns.

In hierarchical cluster analysis, you begin with a number of cases and cluster them into homogenous groups based upon their score patterns (Norusis, 2008). The Squared Euclidean distance is used to measure the distance between two points (i.e., how similar any two cases are), and clusters the cases based on the highest degree of similarity. When more than two cases are clustered together a hierarchical clustering method must be applied to determine how the new cluster (i.e., the cluster comprised of multiple cases) will be compared to other clusters (also made of multiple cases). There are multiple methods that can be used to determine how the clusters are merged. Ward's method uses a complete enumeration process and maximizes the within cluster homogeneity by using the summed Squared Euclidean distance for all cases and merging clusters based upon the smallest increase in the overall within-cluster distances. This method ensures the highest level of similarity among cluster members.

Therefore, hierarchical cluster analysis using Ward's method, a Squared Euclidian metric was applied to the standardized scores on the five ZTPI sub-scales in order to identify groups of individuals with similar score patterns. As suggested by Boyd and Zimbardo (2005) a BTP consists of high scores of future, present hedonistic, and past positive, combined with low scores of past negative and present fatalistic. The number of clusters chosen was based upon increasing the number of clusters as long as each cluster remained statistically significant, while also being interpretable. That is, each cluster is significantly different from the other clusters and each cluster is as homogeneous as possible to retain meaning. Based upon this strategy a five-cluster model emerged.

The first cluster (N = 83) was characterized by above average present hedonistic and past positive scores, below average future scores, average present fatalistic scores, and below average past negative scores. This pattern was interpreted as hedonistic orientation towards the present as it satisfies Boyd and Zimbardo's (2005) criteria. The second cluster (N= 64) was characterized by high past negative and low past positive scores. Present fatalistic scores were above average; while future and present hedonistic scores were average. This cluster was interpreted as a negative TP as it demonstrates the inverse of the BTP (discussed later) and it most closely resembles the fatalistic time profile posited by Boyd and Zimbardo (2005). The third cluster (N = 50) was characterized by high scores in both present fatalistic and present hedonistic, as well as high scores in past negative; past positive and future had below average scores. This pattern of scores corresponds most closely with the risk-taking profile (Boyd & Zimbardo, 2005). The fourth cluster (N = 50) had above average future scores and very low scores in present hedonistic. Past positive and present fatalistic scores were below

average, and past negative scores were average. This pattern was interpreted as a future orientation. The fifth cluster ( $N = 41$ ) was characterized by high scores in future and past positive, very low scores in past negative, and below average scores in present fatalistic and present hedonistic. This pattern was considered the balanced TP as it followed the profile suggested by Boyd and Zimbardo (2005).

The differences between the BTP (cluster 5) and non-BTP group (clusters 1-4) on measures of well-being were compared using a one-way analysis of variance (ANOVA; see Table 4). Results reveal significant differences on all measure of subjective well-being. The BTP group showed higher life satisfaction ( $F(4, 283) = 21.88, p = 0.001$ ) in the past ( $F(4, 283) = 28.70, p = 0.001$ ), present ( $F(4, 283) = 11.77, p = 0.001$ ), and future ( $F(4, 283) = 8.46, p = 0.001$ ), higher positive affect ( $F(4, 283) = 10.23, p = 0.001$ ), lower negative affect ( $F(4, 283) = 14.49, p = 0.001$ ), and higher self-actualization ( $F(4, 283) = 10.26, p = 0.001$ ) than the non-BTP group.



Table 4

*Cluster means and one-way ANOVA results*

Scale	Cluster mean					F (4, 283)	Cohen's d
	1	2	3	4	5		
Past Negative	2.29	3.45	3.16	2.64	2.12	60.33***	-
Present Hedonistic Future	3.51	3.45	3.79	2.79	2.93	65.42***	-
Past Positive	3.42	3.50	3.47	3.78	4.14	21.93***	-
Present Fatalistic	4.11	3.01	4.15	3.34	4.24	84.10***	-
Life Satisfaction (LS) Total	2.12	2.45	2.89	1.86	1.87	45.88***	-
LS Past	79.06	59.58	68.06	65.18	79.90	21.88***	-0.57
LS Present	24.63	15.53	21.06	19.04	25.56	28.70***	-0.65
LS Future	27.84	21.47	23.04	24.00	27.51	11.77***	-0.37
Positive Affect	26.59	22.58	23.96	22.14	26.83	8.46***	-0.37
Negative Affect	38.19	33.53	35.90	34.38	39.29	10.23***	-0.46
Self-Actualization	17.28	23.27	22.62	18.24	17.90	14.49***	0.30
Hope (H) Total	103.49	94.34	98.54	96.10	103.44	10.26***	-0.37
H: Trust & Confidence	117.41	99.63	106.80	109.32	119.07	21.09***	-0.56
H: Lack of Perspective	45.30	39.08	42.22	41.76	45.66	12.86***	-0.42
H: Positive Future Orientation	29.83	22.39	24.34	27.66	30.00	28.01***	-0.56
H: Social Relations & Personal Values	1.73	2.11	1.93	2.04	1.61	6.60***	0.41
H: Social Relations & Personal Values	2.00	2.52	2.25	2.26	1.82	8.33***	0.44

Note: \*\*\*p &lt; 0.001

Well-being patterns demonstrated across the five clusters by each measure had two main trends (see Figure 2). In terms of levels of well-being, clusters one (hedonistic) and five (balanced) demonstrated uniformly higher scores on all positive measures, and lower scores on negative affect. Clusters two (negative) and three (risk-taking) demonstrated lower scores on well-being measures and scored higher on negative affect. Cluster four (future) had moderate scores across all measures.

Tukey HSD post hoc contrasts were conducted to explore the significant differences between the clusters. As there were numerous significant differences, only those for the clusters with the highest levels of well-being (cluster one and five) will be discussed. Cluster one (hedonistic) scored significantly higher on life satisfaction (total) than all clusters ( $p = .001$ ) except for cluster five (balanced;  $p = .998$ ); significantly higher on positive affect than cluster two (negative;  $p = .001$ ) and cluster four (future;  $p = .002$ ); significantly higher on self-actualization than cluster two (negative;  $p = .001$ ) and cluster four (future;  $p = .001$ ); and significantly lower on negative affect than cluster two (negative;  $p = .000$ ) and cluster three (risk-taking;  $p = .001$ ).

Cluster five (balanced) scored significantly higher on life satisfaction (total) than all clusters ( $p = .001$ ) except for cluster one (hedonistic;  $p = .998$ ); significantly higher on positive affect than all clusters ( $p = .001$  to  $p = .042$ ) except cluster one (hedonistic;  $p = .853$ ); significantly higher on self-actualization than cluster two (negative;  $p = .001$ ) and cluster four (future;  $p = .007$ ); and significantly lower on negative affect than cluster two (negative;  $p = .001$ ) and cluster three (risk-taking;  $p = .001$ ).

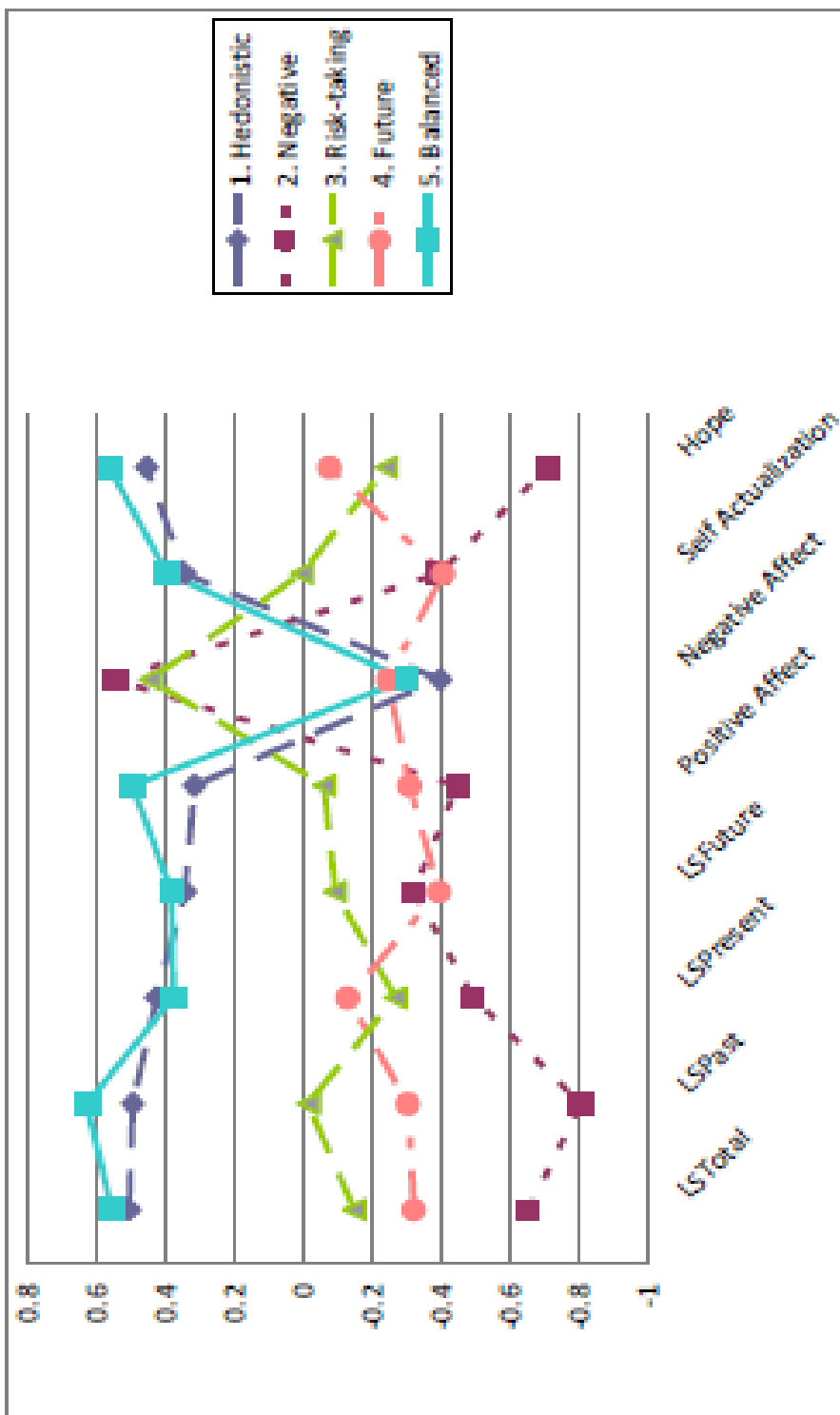


Figure 1. Standardized mean well-being scores of the five TP clusters

In summary, the first hypothesis stated that individuals with a BTP would significantly higher than non-BTP individuals on measures of life satisfaction (total, past, present, and future), positive affect, and self-actualization, and will have significantly lower levels of negative affect. Significant results from one-way ANOVAs comparing the BTP cluster (cluster 5) to the remaining clusters (clusters 1-4) support this hypothesis. Surprisingly, post hoc analysis revealed that cluster five (balanced) was not significantly different than cluster one (hedonistic) on all measures of well-being and hope. However, cluster five (balanced) revealed scores significantly higher than the other three clusters (negative, risk-taking, and future) on many measures of well-being and hope.

### **Exploration of Hope and the Five ZTPI Time Perspective**

Results from the bivariate correlation analysis between the five different time perspectives of ZTPI and the IHS are presented in Table 5 below. There were significant relationships between IHS total hope score and four out of the five ZTPI time perspectives. The strength of these relationships ranged from negligible (Future;  $r = .16$ ,  $p < .01$ ) to strong (past negative;  $r = -.60$ ,  $p < .01$ ).

Hypothesis two stated that a future TP would have strong, positive correlation with hope and its comprising dimensions. Although the relationships between future TP and IHS were significant, they were all negligible in strength, ranging from  $r = .12$ ,  $p < .05$  to  $r = -.17$ ,  $p < .01$ . Out of the five TP, the future TP had the second lowest correlations with hope and its comprising dimensions; thus, not supporting hypothesis two. Hypothesis three stated that the present fatalistic TP would have the strongest negative correlation with hope and its dimensions. The present fatalistic TP had weak

Table 5

*Pearson correlations between the ZTPI and IHS (N = 288)*

Scale	Cronbach's alpha	Past Negative	Present Hedonistic	Future	Past Positive	Present Fatalistic
Hope (H) Total	0.92	-0.60**	0.11	0.16**	0.46**	-0.39**
H: Trust & Confidence	0.84	-0.47**	0.16**	0.12*	0.41**	-0.30**
H: Lack of Perspective	0.82	-0.62**	-0.05	0.13*	0.39**	-0.41**
H: Positive Future Orientation	0.76	-0.37**	0.23**	0.17**	0.31**	-0.30**
H: Social Relations & Personal Values	0.81	0.42**	0.07	0.12*	0.37**	-0.25**

Note: \*\*p < 0.01; \*p < 0.05

( $r = -.25, p < .01$ ) to moderate ( $r = -.41, p < .01$ ) significant associations with hope total and the comprising dimensions. However, the past negative TP had a stronger relationship with hope and its dimensions. Past negative TP had moderate ( $r = -.37, p < .01$ ) to strong ( $r = -.62, p < .01$ ) relationships with the IHS and its comprising sub-scales. Results support hypothesis five which stated that the past negative TP would have moderate, negative correlations with hope and its comprising dimensions. Hypothesis four, stated that the past positive TP would have moderate positive correlations with hope, associations between the IHS and past positive TP range from  $r = .31, p < .01$  to  $r = .46, p < .01$ . Hypothesis six stated that the present hedonistic TP would have weak correlations with hope. The present hedonistic TP was the only TP that did not correlate significantly with the total hope score. Furthermore, only two subscales correlated significantly with the present hedonistic TP; one association was negligible ( $r = .16, p < .01$ ) and the other was weak ( $r = .23, p < .01$ ). Results support hypothesis six in that the present hedonistic TP does not have a significant relationship with hope.

## **CHAPTER V**

### **DISCUSSION**

The purpose of this study was to explore the relationship between time perspective, well-being, and hope within a sample of Canadian adults, and was guided by two broad research questions. First, this thesis was designed to explore whether a balanced time perspective (BTP) was related to higher levels of hedonic and eudaimonic well-being. More specifically, it sought to determine if a balanced time perspective is associated with higher levels of positive affect, satisfaction with life, self-actualization, and lower levels of negative affect when compared to individuals with different time profiles. Second, this project aimed to address the dearth of research exploring time perspective and hope. The following section will discuss the findings of this research.

#### **Balanced Time Perspective and Well-Being**

Boniwell and Zimbardo (2003, 2004) argue that the ability to blend the past, present, and future flexibly as the situation demands is key to living a life filled with meaning, passion, and success. Individuals with a balanced time perspective are able to use the most beneficial temporal mode as situations require. When with friends and family, these individuals are able to slow down and enjoy the moment. They can take holidays and not feel plagued with feelings of guilt about being away. They can reflect on the lessons they have learned in the past and feel rooted in history and traditions. Yet they are also able to prepare for the future and work diligently to achieve their goals. These individuals have been able to develop a balanced time perspective and as articulated by Boniwell and Zimbardo should theoretically be living the good life.

It was hypothesized that the balanced time perspective (BTP) cluster of individuals would score significantly higher than the non-BTP clusters on measures of hedonic and eudaimonic well-being, and the results support this hypothesis. Individuals with a BTP scored significantly higher on measures of life satisfaction (total, past, present, and future), positive affect, and self-actualization, and significantly lower on measures of negative affect when compared to the non-BTP group.

Post hoc analysis revealed that the BTP cluster was not significantly higher than the hedonistic cluster on any measure of well-being. That is, when compared to the four other time profiles as an entire group, the BTP has significantly higher scores of well-being, but when broken down into individual clusters, the BTP did not score significantly higher than the hedonistic cluster. Both clusters exhibited a positive pattern across all measures of well-being (i.e., high life satisfaction, positive affect, and self-actualization, and low negative affect). However, when the BTP cluster was compared to the other three clusters (i.e., negative, risk-taking, and future clusters), the BTP individuals scored significantly higher on measures of life satisfaction, self-actualization and positive affect, and lower on negative affect than the other groups. The two exceptions: 1) individuals with a BTP did not report higher levels of self-actualization than individuals in the risk-taking group and 2) individuals with a BTP did not report lower scores of negative affect than the future group. Overall, results indicate that individuals with a BTP are living a 'good life.' These individuals have a high degree of satisfaction with, experience a great deal of positive emotions (and a lack of negative emotions), and are living in accordance with their 'true' selves.



However, the BTP cluster is not the only time profile that had higher levels of hedonic and eudaimonic well-being. The hedonistic group also scored significantly higher on measures of well-being when compared to the negative, risk-taking, and future clusters. Hedonistic individuals reported higher levels of life satisfaction than individuals in the three remaining clusters, higher levels of positive affect and self-actualization than the negative and future clusters, and lower levels of negative affect than the negative and risk-taking individuals. Although the Hedonistic group did not score significantly higher than the other groups on as many measures of well-being as the BTP group did, these individuals do tend to experience higher levels of high satisfaction, positive affect, and self-actualization, and lower levels of negative affect than individuals in the negative, risk-taking, and future groups.

Overall, the pattern of well-being scores observed across all five clusters in this study paralleled the results of the British sample in Boniwell et al. (2010). That is, individuals with a BTP had the highest scores of well-being following by the hedonistic, risk-taking, future, and negative groups, respectively. However, when the cluster scores from this study differed were compared to the Russian sample (Boniwell, et al., 2010) the patterns differed. Within the Russian sample, the highest levels of well-being were reported by the BTP group, followed by the future, hedonistic, risk-taking, and negative groups, respectively. It appears that across cultures the BTP time profile is consistently associated with the highest levels of both hedonic and eudaimonic well-being. However, the benefits of a hedonistic time profile may be more culturally specific. Canada was founded as a British colony, it is a member of the Commonwealth of Nations, and as such as shares many cultural and social values and norms with the United Kingdom. The

higher levels of well-being in the future cluster in the Russian sample may be the result of cultural differences that exist between these samples.

Further indicative of potential cultural differences between the Russian and Canadian samples were the variation in the scores in the two risk-taking groups. Within the Russian sample, the risk-taking group had above average scores in present-fatalism and past negative, and slightly above-average scores in the past-positive, present-hedonistic and future TPs. In the Canadian sample, the risk-taking group had above-average scores in present-fatalism, present-hedonism, and past negative, and slightly below-average scores in past-positive and future, which more closely aligns with the risk-taking criteria proposed Boyd and Zimbardo (2005). Within the Canadian sample, the slightly elevated well-being scores demonstrated by the risk-taking cluster (i.e., third highest level of well-being) are likely a result of the above-average scores in present-hedonism which were not found within the Russian sample. Aykan and colleagues (2000) found that a high degree of fatalism is characteristic of Russian culture. Where the Canadian risk-takers are enjoying the present, it appears that Russian risk-takers have a decidedly more fatalistic outlook.

Interestingly, the distribution of participants among the five clusters from this study was different than those reported by Boniwell and colleagues (2010). In this study, the negative cluster consisted of 22.2% of the participants compared to 12.3% in the British sample and 14.6% in the Russian sample. The future cluster had the lowest proportion of participants at 14.2% compared to 32.4% in the British sample and 22.6% in the Russian sample. It appears that Canadians have a higher proportion of individuals with a negative time profile and a lower proportion of future oriented individuals.

Furthermore, there was also an increase in the number of individuals who had a BTP and a decrease in the number of risk-taking individuals when compared to the Russian sample (i.e., BTP - 14.2% of Canadian versus 10.1% of Russians and risk-taking - 17.4% of Canadians versus 25.3% of Russians). These differences may be in part reflective of underlying cultural differences as was discussed previously. However, the shift in group distributions may also be reflective of the difference in age between the samples. The median age in the current study was 34 years compared to 24 years in the British sample and 22 years in the Russian. Unfortunately, the age distribution in the current study did not allow for the creation of a sub-sample of younger participants to explore if the shift in cluster distributions could be explained in part by the age of respondent.

This study is one of the first to explore time perspective and well-being on a general adult sample (i.e., not on undergraduate students), and results indicate that there are differences among the cluster distributions. The variations in cluster membership may be reflective of differences in time perspective at various developmental stages. Arnett (2000) argues that the emerging adulthood stage is very different than later adult stages. As discussed previously, emerging adulthood is marked by instability, identity exploration, and feeling in-between (i.e., not yet an adult but no longer an adolescent). Young adulthood (age 25-40) is characterized by strong sense of identity and a desire to create intimate relationships (Erikson, 1963, as cited in Diessner, 2008). There is often an increase in stability at this stage due to being in long-term relationships, having secured stable employment, and by purchasing a home. The results from this study indicate that there is an increase of individuals who fall in either end of the wellness spectrum. More individuals are in the negative cluster, yet there are also more

individuals in the balanced time perspective cluster. These individuals may have shifted from the future and risk-taking clusters as they aged as decreases in both of these clusters were observed. It is prudent to note that the shift in cluster distribution was observed across different sample and studies. As such, speculations about how or why there is a shift in time perspective distribution must be made with caution. However, it could be argued that the young futurist may be shifting to a balanced time perspective as they age. They have found increased stability through long-term relationships and employment, and now have the freedom to slow down and enjoy life. Whereas, the young risk-takers may have been negatively impacted by their years of careless behaviour and lack of future focus and now hold a cynical view of the world and how it has done them wrong.

### **Time Perspective and Hope**

It was proposed that experiences of hopefulness would vary amongst the five different time perspectives of the ZTPI. Specifically it was believed that the future TP would be the most hopeful, that the present-fatalistic would be the least hopeful, and that the other three time perspectives (i.e., past positive, past negative, and present-hedonistic) would have varying degrees of hopefulness. Unexpectedly, the results indicate that the two past orientations (i.e., past positive and past negative) have the strongest relationships with hope and its constitutive dimensions. In fact, the future TP has the second weakest relationship with hope out of all five time perspectives. Results indicate the most hopeful time perspective is past positive and the least hopeful time perspective is past negative. As was predicted, the present-fatalistic time perspective was also found to be low in hope. The present-hedonistic time perspective fell somewhere in the middle.

Upon first review, these results are surprising and unexpected. The majority of hope literature indicates that a future orientation is of utmost importance in the hoping process (Snyder, 2000; Scioli, et al., 2011), yet the future TP's relationship with hope and its dimensions was negligible. As discussed previously, Snyder and colleagues (2006) suggest that individuals develop dispositional styles when it comes to hope based upon past experiences with goal-pursuits. In fact, Snyder (2000) suggests that the establishment of an individual's dispositional hope style begins in the infant and toddler years as the young child learns to deal with goal blockages and the negative emotions that arise from these blockages. Early success with overcoming obstacles teaches the young child problem solving skills and resilience, whereas insurmountable difficulties can lead to experiences of discouragement or defeat. Therefore, overcoming goal blockages at early ages is fundamental to hopeful thinking in later adult life. Each goal pursuit and the emotions inherent within its success or failure collectively add up leading to an individual's dispositional hope style, and although the dispositional styles are mutable, they are more often somewhat stable in nature (Snyder, et. al., 2006).

Similarly, Zimbardo and Boyd (1999) suggest that an individual's time perspective is shaped through an accumulation of past experiences. It is believed that an individual's time perspective is developed and influenced by culture, education, religion, social class and family. It is through individual experiences with each dynamic factor (i.e., culture, education, family, etc.) that a person begins to comprehend and interact with time. An individual's time perspective can be situationally determined (i.e., influenced by specific events such as being on vacation or under stress) but like hope, generally maintains a relatively stable influence for each individual across a variety of situations

(Zimbardo & Boyd, 1999). It can be argued then that past experiences dually shape how an individual interacts with time, as well as how hopeful a person tends to be.

Results from this study support the idea that how an individual views the past (whether it be positive or negative) is related to the degree of hopefulness experienced by an individual. People who remember the past with nostalgia and pleasure tend to be the most hopeful, while individuals who focus on past hurts and failures tend to be the least hopeful. Working from a Snyderian perspective, it could be argued then that individuals who are high in the past positive TP may have had more success in overcoming previous goal blockages, which has led to a higher degree of dispositional hope. The opposite could potentially be true for those high in a past negative time perspective. Historically, they have not been able to overcome goal blockages which has led to them being low in hope. It is important to note that the Integrative Hope Scale (Schrank, et. al., 2010) used in this project was designed to explore hope from a multidimensional perspective. That is, it is inclusive of the goal striving understanding of hope argued by Snyder but also containing other factors including past experiences, individual characteristics, spirituality, social relations and personal values. Within this broader understanding of hope, the past is understood as a way to prepare for the future with positive past experiences being associated with more preparation and negative past experiences being associated with a lack of preparation. In this way, hope can be understood as a state-trait variable with the past acting as a trait like quality.

### **General Discussion**

Upon first glance, the research questions in the current study seem somewhat disparate. One might wonder what a balanced time perspective's level of well-being has

to do with how hope relates to time. This wondering would be justified in light of the primary findings that: 1) the BTP and hedonistic time profiles are associated with higher levels of hedonic and eudaimonic well-being, and 2) counter to hope theory and literature, the future time perspective did not have the strongest relationship with hope. What then, unifies these seemingly unrelated research findings? The answer can be found in an exploration of the two past time perspectives (i.e., negative and positive) and the role they play in an individual's experience of well-being and hope.

As was discussed previously, the BTP and hedonistic groups were found to have significantly higher levels of well-being when compared to the negative, risk-taking and future groups. Results demonstrate that these individuals have higher levels of life satisfaction, experience more positive (and less negative) emotions, and are living in higher accordance with their 'true selves.' Clearly, these time profiles offer benefits that are not found within the other groups.

To understand how the BTP and the hedonistic groups differ from the other time profiles we must examine the individual time perspectives that make up these time profiles. Generally speaking, each time profile was defined by two or three time perspective scores that were notably above or below the average when compared to the other groups. Both the BTP and hedonistic groups had above-average scores on the past positive time perspective and below-average scores on the past negative time perspective. The differentiating factor between the BTP group and the hedonistic group was their scores on a third, defining time perspective. The BTP had above-average future scores (hedonistic group scored below average on future), while the hedonistic group had above-average present-hedonism scores (BTP group had below average present-hedonism

scores). Overall, the two time profiles associated with the highest levels of well-being were more similar than different. Their scores on both past time perspectives mirrored each other and their present-fatalistic scores were similar. The primary difference between the groups was their inverse scores on the future and present-hedonism time perspectives. Moreover, when compared to the remaining three clusters, the BTP and hedonistic groups had distinct past profiles (i.e., high past positive and low past negative) that were not observed in any other group. As both of these groups were associated with higher levels of well-being and marked by unique past scores, it then follows that the past plays an integral role in shaping an individual's experience of well-being.

These results parallel the relationship that exists between hope and the two past time perspectives. Results demonstrate that individuals high in a past positive time perspective tend to have the highest levels of hope, while individuals high in a past negative time perspective tend to be the least hopeful. Despite the exploratory nature of this study, the analogous role that the past plays in shaping an individual's experience of both well-being and hope is hardly surprising. Well-being and hope are intrinsically related constructs and are often found within the same research projects (Danoff-Burg, et al., 2009; O'Sullivan, 2011; Seligman, 2002). Although the relationship between well-being and hope was not explored directly within this project, it is clear that these concepts are fundamentally related to each other, and that the past plays a role in shaping an individual's experience of well-being and hope.

The field of counselling psychology is based upon the idea that individuals can grow, change, and develop in order to overcome the difficulties they experienced in the past. Clients seek out counselling services in order to deal with the hurt, loss, and



rejection experienced in their lives. As a burgeoning counsellor the role the past plays in the lives of my clients is of the utmost importance to me.

Working from a narrative framework, the past is understood as a collection of stories that an individual tells in order to make sense of and describe their lived experience. Put far more eloquently by White and Epston (1990): “In order to make sense of our lives and to express ourselves, experience must be ‘storied’ and it is this storying that determines the meaning ascribed to this experience.” (p. 9-10). That is, storying is the process of ascribing meaning to the past, and it is through this process that an individual understands not only himself but also the world around him as well.

How then, do the past time perspectives fit within a narrative therapy framework? Zimbardo and Boyd (1999) claim that the past time perspectives may not be reflective of what the person actually experienced, instead, they are reflective of how the person remembers those experiences. In other words, the two past time perspectives (i.e., positive and negative) may be reflective of differing dominant storylines that an individual chooses to tell. That is, a past positive individual may tell dominant narratives that are warm and sentimental, focusing on the good, while a past negative individual may tell a dominant narrative that focuses on how he was hurt or taken advantage of. These narratives may not be reflective of what actually happened and may represent the individual’s focus on a maladaptive or oppressive storyline. Thus, the goal of a narrative therapist is to work with a client to thicken the story of their past by finding subjugated and alternate storylines that may be more helpful or tell the story in a different light. It is through finding the alternate storylines that a client will hopefully be able to find new and

more positive ways of seeing the experiences they had in the past, which may ultimately lead in an increase in well-being and hope.

### **Limitations**

The present study did have some limitations. The use of a chain-referral (snowball), convenience sampling was utilized and while it is a common sampling technique within social science research, it often leads to selection and sample bias. Snowball sampling is a chain-referral technique that accumulates data through existing social structures (Birckman-Bhutta, 2012). Researchers ask a small sample to take part in the study and to recommend others for the study. In this way sample bias is created as individuals that enjoyed the survey experience are more likely to recommend it to others. This can lead to oversampling of certain demographics, as was the case in the present study. This sample had significantly more female participants (79.2%) than male participants (20.8%), was primarily made up of Caucasian respondents (90.3%), and represented a highly educated group of individuals (over 90% had some degree of post-secondary training). Furthermore, the location of the respondents within Canada is unknown which makes it indeterminable if one geographical area is over or under represented. Due to these factors, the results of the study may not be reflective of the Canadian population, nor can they be specified to a sub-sample within the Canadian population.

Online survey research also provides difficulties in that the research cannot ensure that each respondent is completing the survey in similar conditions. Online research allows the participant to complete the survey in whatever way suits his or her needs. The survey could be completed during one's lunch break, after work, in the evening before

bed. Each situation could present different environmental conditions which may impact a participant's response. It is assumed that because participants were given the option to complete the survey at their leisure that they would do so at a time and in a situation that allowed appropriate levels of concentration and reflection.

A second limitation was the length the survey. At 149 questions and an approximate completion time of 50 minutes, a more varied respondent pool may have been dissuaded from completing the survey simply due to its length. A review of the completion rates of the three versions of the survey indicated that there were differences in the number of respondents who fully completed each version of the survey. Generally speaking, there were higher completion rates on the two versions where the shorter inventories were presented first. As incomplete surveys were not used in analysis, results may be skewed due to the fact that only certain dispositional styles persisted through the lengthy questionnaire.

The current study made use of multiple inventories designed to measure various aspects of well-being and hope. Inherent within survey research are the difficulties intrinsic in operationalizing human experiences. The definition of well-being has evolved from solely being a measure of life satisfaction (Seligman, 2002) to then also include measures of affect. Seligman (2011) has since broadened the definition of well-being to include positive emotion, engagement, meaning, positive relationships, and accomplishment. Furthermore, the well-being research has increasingly begun to use measures of objective well-being (i.e., education, occupational attainment, etc.) in tandem with current measures of subjective and psychological well-being. As discussed previously, the literature on hope is as similarly divided on the exact definition and the

process of operationalization as well. The inventories used within this project were chosen based upon the breadth of dimensionality for each construct and psychometric properties.

### **Directions for Future Research**

The results from this study provide insight into the role that time perspectives play in individual experiences of well-being and hope. However, considering the primarily exploratory nature of the current study there are many other areas where this research could expand.

As discussed previously, the concept of well-being has historically been researched within two broad traditions (i.e., hedonic and eudaimonic understandings of well-being). The hedonic tradition explores subjective well-being as measured by life satisfaction and positive/negative affect, while the eudaimonic tradition explores psychological well-being as it relates to self-actualization. In recent years, there has been a move towards broadening the understanding of well-being beyond the scope of the current hedonic and eudaimonic traditions. Seligman (2011) argues that well-being is a result of five things: 1) positive emotion, 2) engagement, 3) meaningful relationships, 4) meaning, and 5) accomplishment. By expanding the definition of well-being in this way, it is clear that the majority of well-being research only measures one or two facets of this broad construct. Moreover, well-being research has shifted towards using objective measure of well-being (i.e., education level, employment, etc.) in conjunction with traditional hedonic and eudaimonic measures (Schueller & Seligman, 2010). Future well-being research needs to expand its definition of well-being to include all five facets

proposed by Seligman (2011), while also beginning to explore how objective measures of well-being can be used in combination with current subjective measures.

Results from this study indicate that cultural differences may play a role in influencing which time perspectives and subsequent time profiles are being used. Although the Canadian and British samples were very similar in cluster profiles (i.e., BTP was associated with the highest levels of well-being, followed by hedonistic group), the Russian sample varied somewhat (i.e., the future time profile had the second highest levels of well-being, not the hedonistic time profile as was found in the British and Canadian samples). As the majority of time perspective research focused on well-being has been conducted on individuals of European descent, it is important to explore if and how a balanced time perspective influences well-being in other cultures. Preliminary cross-cultural studies indicate that a BTP is associated with higher levels of well-being (Gao, 2011). However, further research is necessary to validate these findings and explore if and how time profiles differ across different cultures.

Extensive cross-cultural research (Gao, 2011, Boniwell, et. al., 2010) has verified the five different time perspectives measured by the ZTPI. However, there has been far less cross-cultural research designed to explore the five different time profiles (i.e., balanced, negative, risk-taking, future, and hedonistic) as proposed by Boyd and Zimbardo (2005). Similar to Zimbardo and Boyd's (1999) use of case studies, future research could use qualitative research methods to explore the lives of individuals with different time profiles. Individuals with a BTP report higher levels of well-being, but do their lives differ qualitatively than individuals from the other groups? Future research should seek these answers.

Another direction that time perspective research could potentially explore is time perspective across the lifespan. The majority of time perspective research has been conducted on undergraduate students (Zimbardo & Boyd, Boniwell, et al., 2010, Gao, 2011), and this study sought to address this issues by using a broad-based adult sample. Results indicate that there may be differences in the number of individuals favouring certain time profiles at different developmental stages (i.e., more risk-takers in the younger Russian sample than the older Canadian sample). Future research should be designed to explore if and how an individual's time perspective changes throughout adulthood and if these changes are reflective of developmental stages.

Finally, future research needs to continue to explore the relationship between time perspective and hope. Results from this study indicate that although hope is directed towards some future state, that a past temporal orientation is more strongly associated with high (or low) levels of hope than a future temporal orientation. Given the correlational research design of this project, causal connections or attributions cannot be made. However, results do indicate the strong role that the past plays in an individual's experience of hope. Future research needs to further explore the relationship between time perspective and hope to more clearly determine what this relationship looks like and how it relates to experiences of well-being.

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## Appendix A: Consent Form

### University of Alberta Informed Consent

#### **Time Perspectives, Well-being and Hope**

Graduate Project

Principal Investigator: Jesse McElheran [mcelhera@ualberta.ca](mailto:mcelhera@ualberta.ca)

Supervisor: Dr. William Whelton [wwhelton@ualberta.ca](mailto:wwhelton@ualberta.ca)

My name is Jesse McElheran and I am a graduate student at the University of Alberta completing my Masters of Education in Counselling Psychology. Working with the support of Dr. William Whelton, I need 300 volunteers to participate in this online research survey with results from this survey being used for my Master's thesis project.

#### **Purpose**

This study looks at a people's time perspectives, well-being and hope. Time perspectives are a person's tendency to focus more on the past, present or future. They can play a role in a person's feelings of well-being, such as their happiness and life satisfaction. This project aims to add to the current research in this area and to explore what role hope plays in a person's well-being.

#### **Participation**

The only requirement of this survey is to be an English-speaking, Canadian resident who has reached the age of majority (18 years of age or older). To take part in this study you must fully read this consent form before answering the survey questions. The survey contains 148 questions that ask about your demographics, time perspective, well-being, and hope. It will take about 50 minutes to complete. Researchers (Jesse McElheran and Dr. William Whelton) will have access to the survey responses. Participation in this study is voluntary and you can stop at anytime without penalty. Only fully completed surveys will be used in the final results of this study. You will be unable to withdraw your survey once it has been submitted.

#### **Potential Risks**

There is very little risk involved in taking part in this study. However, some questions may stir-up negative feelings like sadness, anger, and/or frustration. If you find questions too upsetting you may leave the survey at anytime. If you require support you can consult with your family doctor or local crisis line regarding help available in your community.

#### **Potential Benefits**

There are no rewards being offered for participation in this study but answering these questions may help you understand yourself better. The results of this project will help us to understand how time perspectives and hope can influence a person's well-being.

#### **Confidentiality & Anonymity**

We will not be collecting any identifying information. Data collected will be downloaded into an excel file and will not be destroyed. By completing the survey you are consenting

to take part in this study. Results of this study may be presented at a conference and/or submitted for publication in a peer reviewed journal however your identity will remain anonymous. If you would like a summary of the results of the study please email Jesse McElheran at [mcelhera@ualberta.ca](mailto:mcelhera@ualberta.ca) and a copy will be sent to you when the study is complete. If you have any questions, please contact me at [mcelhera@ualberta.ca](mailto:mcelhera@ualberta.ca) before completing the survey.

### **Consent**

I fully understand: (1) there are no direct benefits for participating in this study; (2) I can withdraw at anytime; (3) I will not be providing any identifying information to participate; (4) results of this study will be presented at conferences and submitted for publication in peer reviewed journals, and (5) by completing this survey I am consenting to take part in this study.

*For questions regarding participant rights and ethical conduct of research, contact the University of Alberta Research Ethics Office at 780-492-2615. This office has no affiliation with the study investigators.*

## Appendix B: Debriefing Statement

### University of Alberta Debriefing Form

#### Time Perspective, Well-being and Hope

Graduate Project

Principal Investigator: Jesse McElheran [mcelhera@ualberta.ca](mailto:mcelhera@ualberta.ca)

Supervisor: Dr. William Whelton [wwhelton@ualberta.ca](mailto:wwhelton@ualberta.ca)

Thank you for participating in this study! I truly appreciate your time in supporting my research efforts!

The purpose of this study was to (1) examine how a balanced time perspective correlates with measures of subjective well-being in a Canadian sample, and (2) explore hope in relation to differing time perspectives and subjective well-being. Time influences all aspects of human life and because of this we develop ways of understanding and interacting with time. Time perspective refers to a person's tendency focus more on the past, present or future. Consistently focusing on one time perspective while ignoring the others has the potential to lead to unhelpful behaviour. An example of this would a present-oriented person who lives completely in the moment and often forgets about doing homework, paying bills or planning for other life responsibilities. On the other hand, a balanced time perspective (one in which a person can flow between past, present and future) has been linked with higher levels of happiness, life satisfaction and self-esteem (Webster, 2011). This study aims to provide insight into if and how hope relates to one's time perspective and well-being.

If you would like the results of this study please send an email with your request to Jesse McElheran at [mcelhera@ualberta.ca](mailto:mcelhera@ualberta.ca)

If you feel you need additional support we suggest you contact your doctor or local crisis line for resources in your area. The Edmonton Distress Line Phone number is 780-482-4357.

Complaints regarding this study can be addressed to the Chair of the Research Ethics Board, 780.492.3751, or email [reoffice@ualberta.ca](mailto:reoffice@ualberta.ca).

Again, thank you for participating in this study.

Sincerely,

Jesse McElheran

## Appendix C: Demographics

## 1. Country of Residence

- Canada
- Outside of Canada

## 2. Year of birth \_\_\_\_\_

## 3. Gender: Male \_\_\_\_ Female \_\_\_\_

## 4. Ethnicity

- Caucasian
- First Nations
- African-Canadian
- East Indian
- Asian
- Hispanic
- Other

## 5. Martial Status:

- Single
- Married
- Divorced/Separated
- Common-law
- Widowed

## 6. Location of residence

- Urban
- Rural

## 7. Highest Education Level Achieved

- Less than Grade 12
- Grade 12 Diploma
- Some Post-Secondary/Trade
- Bachelors Degree
- Masters Degree
- Doctorate Degree (Ph.D, M.D., etc)

## Appendix D : Zimbardo Time Perspective Inventory (ZTPI)

**Read each item and, as honestly as you can, answer the question: “How characteristic or true is this of you?” Check the appropriate box using the scale. Please answer ALL of the following questions.**

**1 = Very Untrue**

**3 = Neutral**

**5 = Very True**

	1	2	3	4	5
1. I believe that getting together with one’s friends to party is one of life’s important pleasures.					
2. Familiar childhood sights, sounds, smells often bring back a flood of wonderful memories.					
3. Fate determines much in my life.					
4. I often think of what I should have done differently in my life.					
5. My decisions are mostly influenced by people and things around me.					
6. I believe that a person’s day should be planned ahead each morning.					
7. It gives me pleasure to think about my past.					
8. I do things impulsively.					
9. If things don’t get done on time, I don’t worry about it.					
10. When I want to achieve something, I set goals and consider specific means for reaching those goals.					
11. On balance, there is much more good to recall than bad in my past.					
12. When listening to my favorite music, I often lose all track of time.					
13. Meeting tomorrow’s deadlines and doing other necessary work comes before tonight’s play.					
14. Since whatever will be will be, it doesn’t really matter what I do.					
15. I enjoy stories about how things used to be in the “good old times.”					
16. Painful past experiences keep being replayed in my mind.					
17. I try to live my life as fully as possible, one day at a time.					
18. It upsets me to be late for appointments.					
19. Ideally, I would live each day as if it were my last.					



20. Happy memories of good times spring readily to mind.					
21. I meet my obligations to friends and authorities on time.					
22. I've taken my share of abuse and rejection in the past.					
23. I make decisions on the spur of the moment.					
24. I take each day as it is rather than try to plan it out.					
25. The past has too many unpleasant memories that I prefer not to think about.					
26. It is important to put excitement in my life.					
27. I've made mistakes in the past that I wish I could undo.					
28. I feel that it's more important to enjoy what you're doing than to get work done on time.					
29. I get nostalgic about my childhood.					
30. Before making a decision, I weigh the costs against the benefits.					

## Appendix E: Temporal Satisfaction with Life Scale (TSWLS)

Below are 15 statements with which you may agree or disagree. These statements concern either your past, present, or future. Using the 1-7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and open in your responding. The 7-point scale is:

- 1 = strongly disagree
- 2 = disagree
- 3 = slightly disagree
- 4 = neither agree nor disagree
- 5 = slightly agree
- 6 = agree
- 7 = strongly agree

- \_\_\_\_\_ 1. If I had my past to live over, I would change nothing.
- \_\_\_\_\_ 2. I am satisfied with my life in the past.
- \_\_\_\_\_ 3. My life in the past was ideal for me.
- \_\_\_\_\_ 4. The conditions of my life in the past were excellent.
- \_\_\_\_\_ 5. I had the important things I wanted in my past.
- \_\_\_\_\_ 6. I would change nothing about my current life.
- \_\_\_\_\_ 7. I am satisfied with my current life.
- \_\_\_\_\_ 8. My current life is ideal for me.
- \_\_\_\_\_ 9. The current conditions of my life are excellent.
- \_\_\_\_\_ 10. I have the important things I want right now.
- \_\_\_\_\_ 11. There will be nothing that I will want to change about my future.
- \_\_\_\_\_ 12. I will be satisfied with my life in the future.
- \_\_\_\_\_ 13. I expect my future will be ideal for me.
- \_\_\_\_\_ 14. The conditions of my future life will be excellent.
- \_\_\_\_\_ 15. I will have the important things I want in the future.

### Appendix F: Positive and Negative Affect Schedule (PANAS)

This scale consists of a number of words that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent you generally feel this way, that is, how you feel on average. Use the following scale to record your answers.

1	2	3	4	5
very slightly or not at all	a little	moderately	quite a bit	extremely

_____ interested	_____ irritable
_____ distressed	_____ alert
_____ excited	_____ ashamed
_____ upset	_____ inspired
_____ strong	_____ nervous
_____ guilty	_____ determined
_____ scared	_____ attentive
_____ hostile	_____ jittery
_____ enthusiastic	_____ active
_____ proud	_____ afraid

## Appendix G: Measure of Self-Actualization Potential (MAP)

1. I am a person who values him/herself \_\_\_\_\_.

Very little                  a little                  somewhat                  very much                  enormously

2. I can express my emotions in any circumstances \_\_\_\_\_.

With great difficulty          with difficulty          somewhat easily          easily          very easily

3. I can predict my reactions \_\_\_\_\_.

Very rarely                  rarely                  sometimes                  often                  very often

4. I believe \_\_\_\_\_ that life is good for me.

Very little                  a little                  somewhat                  strongly                  very strongly

5. I adapt to change \_\_\_\_\_.

With great difficulty          with difficulty          somewhat easily          easily          very easily

6. To know my worth, I base myself \_\_\_\_\_ on what other people think.

Very little                  a little                  somewhat                  very much                  enormously

7. Whatever happens to me, I trust my feelings \_\_\_\_\_.

Very little                  a little                  somewhat                  very much                  enormously

8. I feel I am \_\_\_\_\_ responsible for my life.

Hardly at all                  not very                  somewhat                  very much                  extremely

9. For me, the present moment counts \_\_\_\_\_.

Very little            a little            somewhat            very much            enormously

10. I know my strengths and limitations \_\_\_\_\_.

Very little            a little            somewhat            very well            extremely well

11. I am inclined to follow other people's example \_\_\_\_\_.

Very rarely            rarely            sometimes            often            very often

12. I listen to my emotions \_\_\_\_\_.

Very little            a little            somewhat            very much            enormously

13. I \_\_\_\_\_ try to put myself in other people's shoes in order to understand them.

Very rarely            rarely            sometimes            often            very often

14. I believe \_\_\_\_\_ that people are basically good.

Very little            a little            somewhat            strongly            very strongly

15. I can act spontaneously without losing control \_\_\_\_\_.

With great difficulty    with difficulty            somewhat easily            easily    very easily

16. I insist on making my own decisions \_\_\_\_\_.

Very little            a little            somewhat            very much            enormously

17. I \_\_\_\_\_ share my joys and sorrows with a confidant.

Very rarely            rarely            sometimes            often            very often

18. When thinking about my past life, I \_\_\_\_\_ suddenly understand why certain things happened.

Very rarely      rarely      sometimes      often      very often

19. I \_\_\_\_\_ give my life meaning by the way I look at things.

Very rarely      rarely      sometimes      often      very often

20. I usually get over major setbacks \_\_\_\_\_.

With great difficulty      with difficulty      somewhat easily      easily      very easily

21. Criticism \_\_\_\_\_ prevents me from doing what I feel like doing.

Very rarely      rarely      sometimes      often      very often

22. When I am with other people, I \_\_\_\_\_ show the real me.

Very rarely      rarely      sometimes      often      very often

23. I am \_\_\_\_\_ inclined to get involved in important causes.

Hardly at all      not very      somewhat      very much      extremely

24. I succeed \_\_\_\_\_ at giving meaning to life.

With great difficulty      with difficulty      somewhat easily      easily      very easily

25. In difficult situations, I \_\_\_\_\_ remain true to myself.

Very rarely      rarely      sometimes      often      very often

26. I express my opinions \_\_\_\_\_.

With great difficulty      with difficulty      somewhat easily      easily      very easily

27. I can be interested in other people's problems without thinking about my own\_\_\_\_\_.

With great difficulty   with difficulty   somewhat easily   easily   very easily

## Appendix H: Integrative Hope Scale (IHS)

Listed below are a number of statements. Read each statement and decide whether it applies to you personally. There are no right or wrong answers. Please mark the appropriate box indicating how strongly the statement has applied to you in the past week or two.

	Strongly disagree	disagree	Rather disagree	Rather agree	agree	Strongly agree
1. I have deep inner strength.	---	--	-	+	++	+++
2. It is hard for me to keep up my interest in activities I used to enjoy.	---	--	-	+	++	+++
3. There are things I want to do in life.	---	--	-	+	++	+++
4. I feel loved.	---	--	-	+	++	+++
5. Even when others get discouraged, I know I can find a way to solve the problem.	---	--	-	+	++	+++
6. It seems as though all my support has been withdrawn.	---	--	-	+	++	+++
7. I have a sense of direction.	---	--	-	+	++	+++
8. I look forward to doing things I enjoy.	---	--	-	+	++	+++
9. I believe that each day has potential.	---	--	-	+	++	+++
10. I am bothered by troubles that prevent my planning for the future.	---	--	-	+	++	+++
11. I have someone who shares my concerns.	---	--	-	+	++	+++



12. I can see possibilities in the midst of difficulties.

---	--	-	+	++	+++
-----	----	---	---	----	-----

Strongly disagree	disagree	Rather disagree	Rather agree	agree	Strongly agree
-------------------	----------	-----------------	--------------	-------	----------------

13. I am hopeless about some parts of my life.

---	--	-	+	++	+++
-----	----	---	---	----	-----

14. I am needed by others.

---	--	-	+	++	+++
-----	----	---	---	----	-----

15. I feel my life has value and worth.

---	--	-	+	++	+++
-----	----	---	---	----	-----

16. I feel trapped, pinned down.

---	--	-	+	++	+++
-----	----	---	---	----	-----

17. I make plans for my own future.

---	--	-	+	++	+++
-----	----	---	---	----	-----

18. I've been pretty successful in life.

---	--	-	+	++	+++
-----	----	---	---	----	-----

19. I find myself becoming uninvolved with most things in life.

---	--	-	+	++	+++
-----	----	---	---	----	-----

20. I am valued for what I am.

---	--	-	+	++	+++
-----	----	---	---	----	-----

21. My past experiences have prepared me well for my future.

---	--	-	+	++	+++
-----	----	---	---	----	-----

22. I intend to make the most of life.

---	--	-	+	++	+++
-----	----	---	---	----	-----

23. I have a faith that gives me comfort.

---	--	-	+	++	+++
-----	----	---	---	----	-----