

**THE ROLE OF POSITIVE EMOTIONS AND EGO-RESILIENCE IN PERSONAL
STRIVINGS**

by

Cherisse Lynn Seaton

B.Sc., University of Northern British Columbia, 2006

M.Sc., University of Northern British Columbia, 2009

DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY
IN
PSYCHOLOGY

UNIVERSITY OF NORTHERN BRITISH COLUMBIA

February 2013

© Cherisse Lynn Seaton, 2013



Library and Archives
Canada

Published Heritage
Branch

395 Wellington Street
Ottawa ON K1A 0N4
Canada

Bibliothèque et
Archives Canada

Direction du
Patrimoine de l'édition

395, rue Wellington
Ottawa ON K1A 0N4
Canada

Your file Votre référence

ISBN: 978-0-494-94163-8

Our file Notre référence

ISBN: 978-0-494-94163-8

NOTICE:

The author has granted a non-exclusive license allowing Library and Archives Canada to reproduce, publish, archive, preserve, conserve, communicate to the public by telecommunication or on the Internet, loan, distribute and sell theses worldwide, for commercial or non-commercial purposes, in microform, paper, electronic and/or any other formats.

The author retains copyright ownership and moral rights in this thesis. Neither the thesis nor substantial extracts from it may be printed or otherwise reproduced without the author's permission.

AVIS:

L'auteur a accordé une licence non exclusive permettant à la Bibliothèque et Archives Canada de reproduire, publier, archiver, sauvegarder, conserver, transmettre au public par télécommunication ou par l'Internet, prêter, distribuer et vendre des thèses partout dans le monde, à des fins commerciales ou autres, sur support microforme, papier, électronique et/ou autres formats.

L'auteur conserve la propriété du droit d'auteur et des droits moraux qui protège cette thèse. Ni la thèse ni des extraits substantiels de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation.

In compliance with the Canadian Privacy Act some supporting forms may have been removed from this thesis.

While these forms may be included in the document page count, their removal does not represent any loss of content from the thesis.

Conformément à la loi canadienne sur la protection de la vie privée, quelques formulaires secondaires ont été enlevés de cette thèse.

Bien que ces formulaires aient inclus dans la pagination, il n'y aura aucun contenu manquant.

Canada

ABSTRACT

Using the broaden-and-build theory of positive emotions (Fredrickson, 1998) as a foundation, this research examined the role of individual differences in positive emotions and ego-resilience in personal striving and eudaimonic well-being in two separate, but related studies. In Study 1, 182 undergraduate students (48 men; 134 women) completed measures of positive emotions, ego-control, ego-resilience, personal strivings, and eudaimonic well-being. Ego-resilience was related to the proportion of self-transcendent goals, and both positive emotions and ego-resilience were related to goal ratings of positivity, personal growth, and personal expressiveness, goal progress, and eudaimonic well-being; however, regression analyses revealed that ego-resilience mediated the relationship between positive emotions and these goal striving variables. In Study 2, 133 (37 men; 96 women) undergraduate students completed measures of ego-resilience and positive emotions, after which they were randomly assigned to view a short positive emotion inducing video (designed to elicit either amusement or awe), or a neutral (control) video and then asked complete a measure in which they were asked to outline several personal goals they would like to accomplish within four weeks. Four weeks later, participants returned to the lab to complete a follow-up assessment of their goal progress, measures of eudaimonic well-being, positive emotions, and perceived stress, as well as a re-assessment of their level of ego-resilience. The results of the emotion manipulation revealed that individuals in the awe condition reported significantly more personal growth goals. Self-reported positive emotions both at Time 1 and over the intervening four weeks predicted increase in ego-resilience supporting Fredrickson's (1998) hypothesis that positive emotions 'build' resources and character strengths. Ego-resilience did not interact with emotion condition to predict goal striving; however, ego-resilience again partially mediated the relationship between positive emotions and eudaimonic well-being.

Overall, the results of these two studies suggest that positive emotions and ego-resilience mutually support and reinforce one another in building long-term well-being.

TABLE OF CONTENTS

Abstract.....	ii
Table of Contents.....	iv
List of Tables.....	ix
List of Figures.....	x
Acknowledgements.....	xi
INTRODUCTION.....	1
LITERATURE REVIEW	6
A Functional Perspective of Positive Emotions: The Broaden-and-Build Theory.....	6
Personal Goal Strivings and Eudaimonic Well-Being.....	9
Positive Emotions and Personal Strivings.....	14
The Role of Different Positive Emotions in Goal Striving: Awe as an Elite Emotional State.....	16
The Role of Individual Differences: Are Certain People More Likely to Capitalize on Different Positive Emotions in the Pursuit of their Goals?	19
Ego-Resilience and Ego-Control.....	21
Ego-Resilience, Positive Emotions, and Personal Strivings.....	23
Summary of Objectives and Hypotheses.....	28
Research question 1: The role of positive emotions in goal striving.....	28
Research question 2: The role of individual differences in ego-resilience.	30
METHOD	32
Study 1.....	32
Participants	32

Procedure.....	33
Measures.....	34
Ego-Undercontrol Scale.....	34
Ego-Resilience Scale.....	34
Positive and Negative Affect Schedule.....	35
Questionnaire for Eudaimonic Well-Being	35
Personal strivings.....	36
RESULTS.....	39
Preliminary Data Screening.....	39
Preliminary Analyses of Gender Differences.....	40
Research Question 1: The Role of Positive Emotions in Goal Striving.....	44
Analyses addressing the link between positive emotion and goal striving.....	44
Subsequent analyses to consider higher-order goal types.....	44
Research Question 2: The Role of Individual Differences in Ego-Resilience.....	47
Analyses addressing the link between ego-resilience and goal striving.....	47
Analyses addressing the role of ego-resilience in the relationship between positive emotions and goal striving.....	47
Summary.....	51
METHOD	53
Study 2.....	53
Participants	53
Procedure.....	53

Apparatus and materials.....	54
Awe film clip.....	54
Amusement film clip.....	55
Neutral film clip.....	55
Pilot research on the film clips.....	55
Awe.....	56
Amusement.....	56
Written feedback.....	57
Measures.....	57
Ego-Resilience Scale.....	57
Positive and Negative Affect Schedule.....	57
Goal list and ratings.....	58
Emotion report.....	61
Goal progress, effort and achievement.....	61
Questionnaire for Eudaimonic Well-Being	61
Perceived Stress Scale.....	61
RESULTS.....	62
Preliminary Data Screening.....	62
Preliminary Analyses of Gender Differences.....	63
Manipulation Check: Mood Induction Procedure.....	67
Awe.....	67
Amusement.....	67
Research Question 1: The Role of Positive Emotions in Goal Striving.....	68

Research Question 2: The Role of Individual Differences in Ego-Resilience.....	70
Analyses addressing the relationship between positive emotions and ego-resilience.....	70
Analyses addressing the role of ego-resilience in the relationship between positive emotions and eudaimonic well-being	70
Analyses addressing the hypothesis that ego-resilient individuals might capitalize on positive emotions in order to continually strive towards more eudaimonic goals.....	71
Summary.....	71
DISCUSSION.....	74
Research Question 1: The Role of Positive Emotions in Goal Striving.....	74
Research Question 2: The Role of Individual Differences in Ego-Resilience.....	81
Limitations and Suggestions for Future Research.....	85
Conclusions.....	88
REFERENCES.....	89
Appendix A – Study 1 Participant Information and Informed Consent.....	95
Appendix B – Study 2 Participant Information Letter	97
Appendix C – Study 2 Participant Informed Consent Form.....	98
Appendix D – Demographic Questionnaire.....	99
Appendix E – Ego-Undercontrol Scale.....	100
Appendix F –Ego-Resiliency Scale.....	102
Appendix G – Positive and Negative Affect Schedule (PANAS).....	103
Appendix H – Questionnaire for Eudaimonistic well-being.....	105
Appendix I – Personal Strivings Assessment Packet.....	107

Appendix J – Goal List and Ratings.....	112
Appendix K – Emotion Report.....	115
Appendix L – Four Week Follow up Goal Assessment.....	116
Appendix M – Perceived Stress Scale.....	118
Appendix N – Key to Goal Rating Variables.....	119

LIST OF TABLES

1. Study 1 Goal Coding: Example Goals, Total Number Coded, Mean, Standard Deviation, Range, and Inter-Rater Agreement by Goal Category.....	38
2. Study 1 Means and Standard Deviations for Proportion of Goals in each Goal Category as a Function of Gender.....	42
3. Means and Standard Deviations for all Study 1 Self-Report Variables as a Function of Gender.....	43
4. Patterns of Correlations Between Positive and Negative Emotion, Eudaimonic Well-Being, Ego-Undercontrol, Ego-resilience, and All Variables.....	46
5. Results of Regression Analyses Examining the Mediating Role of Ego-Resilience in the Relationship Between Positive Emotions and Goal Striving.....	50
6. Study 2 Goal Coding: Example Goals, Total Number Coded, Mean, Standard Deviation, Range, and Inter-Rater Agreement by Goal Category.....	60
7. Study 2 Means and Standard Deviations for Proportion of Goals in each Goal Category as a Function of Gender.....	64
8. Means and Standard Deviations for all Study 2 Self-Report Variables as a Function of Gender.....	65
9. Means and Standard Deviations for all Study 2 Variables as a Function of Emotion Condition.....	69

LIST OF FIGURES

<i>Figure 1.</i> Mediation model examining the hypothesized mediating role of ego-resilience in the relationship between positive emotions and goal striving.....	48
---	----

ACKNOWLEDGEMENTS

I would like to acknowledge all the time and dedicated guidance Dr. Sherry Beaumont has given me throughout the completion of this dissertation. Without her careful supervision, this research would surely not have been completed. Dr. Beaumont has been a mentor to me throughout my undergraduate and my graduate education, and I would like to express my sincere appreciation for her efforts. I would also like to thank my committee members, who along with Dr. Beaumont took the time to guide this research and provided useful insights and suggestions that helped me to shape this research. I would also like to extend my appreciation to the many volunteer participants, both at UNBC and CNC who made this research possible. Finally, I would like to acknowledge that this research was supported by the University of Northern British Columbia, and the Social Sciences and Humanities Research Council of Canada.

The Role of Positive Emotions and Ego-Resilience in Personal Strivings

INTRODUCTION

Many North Americans seem to be in the pursuit of happiness, continually striving to attain what they perceive to be “the good life.” Originating in the philosophical writings of Aristotle, “the good life” is characterized by happiness and involves the expression of virtue in accordance with reason (e.g., Franklin, 2010). With its focus on the psychology of well-being and personal growth, the emergence of the field of positive psychology has brought a resurgence of scientific interest in the things that make up “the good life,” as well as the aspects of character that make lasting happiness more likely.

Researchers who study what “the good life” entails tend to take either a hedonic or a eudaimonic perspective. Hedonism involves pursuing the pleasurable things that life has to offer, coupled with avoiding pain and discomfort (Ryan & Deci, 2001). A hedonic view of well-being focuses on the psychological facets of feeling good, which includes not only bodily pleasures, but also emotional happiness (Deci & Ryan, 2008; Ryan & Deci, 2001). In fact, many researchers equate subjective happiness with hedonic well-being, assessed as the presence of positive affect and life satisfaction along with a relative lack of negative affect (e.g., Deci & Ryan, 2008; Ryan & Deci, 2001).

Eudaimonia involves cultivating and expressing inner virtues and fulfilling one’s potential (i.e., expressing one’s inner *daimon*; King, Eells, & Burton, 2004; Waterman, 1993). Thus, in accordance with Aristotle’s view, others have proposed that there is more to “the good life” than the pursuit of hedonic goals, such as the expression of one’s inner strengths and virtues, the search for meaning in life, or a sense of personal expressiveness and authenticity (e.g., Seligman, 2003; Waterman, 1993). Those who subscribe to a

eudaimonic perspective view lasting happiness as something that goes beyond just experiencing moments of positive emotions.

Although researchers who study well-being generally take either a hedonic or eudaimonic view, some are beginning to consider the links between hedonic and eudaimonic well-being. For example, Barbara Fredrickson's (1998) *broaden-and-build* theory of positive emotions suggests that the experience of positive affect (i.e., hedonic well-being) is important for building enduring aspects of character that afford lasting resilience (i.e., eudaimonic well-being). Fredrickson (1998) proposed that positive emotions function to broaden an individual's array of thoughts and actions, and thus, they expand attention, promote divergent thinking, and encourage growth by providing new experiences. It is believed that the experience of positive emotions can lead to greater or lasting happiness because it allows for the possibility of experiencing more frequent episodes of positive emotions, which in turn results in building one's enduring personal resources and character strengths over time (Cohn, Fredrickson, Brown, Mikels, & Conway, 2009; Fredrickson & Joiner, 2002). For example, the experience of joy creates the urge to play, which in turn promotes the development of social bonds, physical skills, and intellectual strategies, which may then build the personal and social resources necessary to deal with future hardships.

Based on the idea that positive emotions promote broadened thinking (Fredrickson, 1998), the general contention behind this thesis is that positive emotions will facilitate personal goals that support eudaimonic well-being. By examining people's personal goals, it is possible to determine how different strivings (or the types of goals individuals strive toward) relate to hedonic and eudaimonic well-being. From a hedonic perspective, happiness should result from the attainment of valued goals, regardless of goal content (Ryan & Deci, 2001). To satisfy a eudaimonic perspective, however, goals should be consistent with inner

values (congruent or integrated with the self; Ryan & Deci, 2001). For example, research has shown that hedonistic individuals were happiest when their goals were attained, whereas individuals with goals that were consistent with core aspects of their self (integrity) reported more meaning in life (McGregor & Little, 1998).

Despite the extensive research on personal goals and well-being, relatively little is known about the role of emotionality in goal striving. This thesis addressed this issue by examining whether individual differences in the experience of positive emotions differentially predict hedonic versus eudaimonic goals. Specifically, because positive emotions lead to a broadening of the thoughts and actions that come to mind (Fredrickson & Branigan, 2005), and certain positive emotions motivate self-improvement (Algoe & Haidt, 2009), I believe that some positive emotions may actually be influential in the process of striving for more growth-oriented and transcendent goals, resulting in greater eudaimonic well-being.

This research addressed two important aspects of positive emotions that Fredrickson's theory does not consider. First, although Fredrickson (1998) considers the function of positive emotions in general, something lacking from her broaden-and-build theory is a consideration of the uniqueness of transcendent emotions such as awe, and the differential effects such emotions might have on eudaimonic well-being. Powerful positive emotions, like the experience of awe, capture feelings that go beyond a hedonic sense of pleasure and are instead imbued with a sense of meaning and fulfillment (e.g., a connection with something larger than oneself; Algoe & Haidt, 2009). This thesis addressed this gap by examining the supposition that some positive emotions, such as awe, have implications for eudaimonic well-being, whereas others, such as amusement, predict hedonic well-being. In

short, I propose that the distinction between hedonic and eudaimonic well-being might be seen in the meaning and consequences of different types of positive emotions.

Another area neglected by Fredrickson's (1998) theory is a consideration of possible individual differences in the capacity to benefit from the experience of positive emotions. The functional perspective of the broaden-and-build theory suggests that the benefits of positive emotions are universal; however, this thesis examined whether individual differences exist within the beneficial effects of positive emotions. Some people may not experience emotions like awe, even when presented with opportunities to do so (e.g., when witnessing natural events, such as meteor showers). Furthermore, I suspect that some individuals even passively experience positive emotions such as amusement, and consequently experience few benefits in terms of overall well-being. Thus, I propose that some people are more likely to experience more lasting beneficial effects of positive emotions due to a capacity to capitalize on positive emotional experiences. I believe that certain underlying aspects of character (i.e., ego-resilience) may determine whether an individual is concerned with, or even capable of, experiencing emotions such as awe.

This thesis examined the role of individual differences in ego-resilience as a means of assessing this potential capacity. Ego-resilience is the characteristic ability to modify one's level of ego-control (ability to control impulses) to suit the demands of the environment (Block, 1993). Because ego-resilient individuals can dynamically and resourcefully regulate their level of self-control, they may be more effective at self-regulation with respect to the effective use of emotions. Likewise, due to having experienced challenges or struggled with adversity, ego-resilient people might have more complex, dynamic, and integrated self-structures affording them greater insight into themselves (Westenberg & Block, 1993), resulting in a superior ability to identify personal goals that are both growth-oriented and

self-transcendent. Thus, ego-resilient individuals should be more likely to identify goals that are aligned with a eudaimonic perspective than are less resilient individuals, and they may actually be more effective in the use of positive emotions in striving toward such goals. According to Fredrickson (1998), positive emotions build enduring aspects of character (such as ego-resilience) that afford lasting well-being. Thus, it may be the case that ego-resilience and positive emotion work hand in hand to support long-term well-being.

This thesis examined the hypothesis that ego-resilient individuals capitalize on experiences of positive emotion in order to continually strive toward more growth-oriented and transcendent goals resulting in greater eudaimonic well-being. Specifically, the purpose of this thesis was to systematically examine the role of individual differences in positive emotions in the process of goal striving by focusing on two related research questions:

- (1) Do some positive emotions (i.e., awe) play a role in striving toward goals that are aligned with a eudaimonic perspective?; and,
- (2) Do individual differences in ego-resilience play a role within the positive effects of positive emotional experiences?

To provide a context for these research questions, the following review covers literature on the broaden-and-build theory of positive emotion, personal goals, ego-control and ego-resilience, and the links between these constructs.

LITERATURE REVIEW

A Functional Perspective of Positive Emotions: The Broaden-and-Build Theory

Positive emotions have long been considered to be pleasant states sought after as ends in themselves. However, recently researchers have begun to consider the possibility that positive emotions might serve a purpose beyond simply being pleasant or hedonic experiences (Aspinwall, 1998; Fredrickson, 1998). In fact, Fredrickson (1998) has suggested that positive emotions are important for cultivating enduring character strengths that support long-term happiness and enable flourishing.

Although historically positive emotions have theoretically been side lined to their negative counterparts, Fredrickson (1998) has developed a theory specifically focused on the *function* of positive emotions which she calls the *broaden-and-build theory* of positive emotions. The broaden-and-build theory suggests that whereas negative emotions narrow an individual's attention to promote specific, life-preserving actions, positive emotions widen an individual's array of thoughts and actions. Positive emotions, thus, expand attention, promote divergent thinking, and encourage growth by providing new experiences (Fredrickson, 1998). Fredrickson (2003) also suggests that positive emotions can help regulate negative emotions, and positive emotions have the ability to 'undo' the lingering cardiovascular effects of negative emotions (Fredrickson, Mancuso, Branigan, & Tugade, 2000). Extensive research has provided empirical support for the key propositions of the broaden-and-build theory. Fredrickson (2004) reported that the broadening function of positive emotions is evident in previous studies conducted by Isen and colleagues. For example, in one study, individuals first induced to experience positive emotions were more likely to broaden categories to include more unusual stimulus material (e.g., an elevator as a vehicle; Isen & Daubman, 1984). Further, Fredrickson and Branigan (2005) used short video clips to elicit either joy,

contentment, anger, or fear in their participants before having them complete a measure of local versus global visual processing. They found that participants who were first induced to feel joy (or contentment to a lesser degree) displayed broadened attention as they were more likely to respond in terms of a global rather than local configuration during the task.

Evidence for the broadening of one's thought-action repertoire was also found in this study, as participants induced to feel positive affect listed more activities in response to the question "what would you like to do right now?" (Fredrickson & Branigan, 2005). Thus, Fredrickson and colleagues have found support for the notion that positive emotions expand the scope of attention and broaden the array of thoughts an individual calls to mind, and thus, positive emotions will not only help people overcome challenges in the present, but they will also encourage growth by providing new experiences (Fredrickson, 1998).

Along with the broadening effects, over the long-term, positive emotions moderate the effects of stress and build enduring levels of well-being (Fredrickson, 1998). Studies have revealed evidence in support of the notion that individuals who display more positive emotions are not only happier, but also have better social relationships, are more successful, and experience superior physical health and longevity (e.g., Danner, Snowdon, & Friesen, 2001; Lyubomirsky, King, & Lepper, 2005). The broaden-and-build theory suggests that these positive results occur not only because positive emotions 'undo' the lingering negative physiological effects of negative emotions, such as stress (Fredrickson et al., 2000), but also because over time the broadening effect of positive emotions serves to build enduring personal resources (e.g., develop problem solving skills, build social resources, and develop psychological resources). For example, the induction of positive emotion has been found to lead to better problem solving and more creative thinking (Isen, Daubman, & Nowicki, 1987). According to the broaden-and-build theory, this outcome is because positive emotions

broaden an individual's array of thoughts and actions, causing them to generate more unusual associations and making novel solutions to problems more evident. Thus, Fredrickson (2004) suggested that by broadening people's thinking and building psychological resources, the experience of positive emotions should promote enhanced well-being.

Fredrickson and Joiner (2002) proposed that positive emotions contribute to future experiences of positive emotions and to future levels of happiness (triggering 'upward spirals' of well-being) because re-current experiences of positive emotion 'build' enduring personal resources over time (Fredrickson, 1998). These researchers found that over the course of five weeks, positive affect predicted broad minded coping, which in turn predicted increases in positive affect, resulting in an upward spiral in which positive affect and broad minded coping mutually built on one another (Fredrickson & Joiner, 2002). Likewise, in another study, daily positive emotions experienced over the course of one month predicted increases in both ego-resilience and life satisfaction (Cohn et al., 2009). Increases in ego-resilience, in turn, mediated the relationship between positive emotions and increased life satisfaction, indicating that ego-resilience and positive emotions mutually build upon one another in an upward spiral of well-being (Cohn et al., 2009). Finally, individuals who participated in a seven week intervention involving loving-kindness meditation experienced not only increased daily experiences of positive emotions, but also increased life satisfaction (Fredrickson, Cohn, Coffey, Pek, & Finkel, 2008). Furthermore, an increase in resources (mindfulness, hope, savoring, environmental mastery, self-acceptance, purpose in life, and positive relations with others) accounted for the relationship between positive emotions and increases in life satisfaction, suggesting that "people judge their lives to be more satisfying and fulfilling, not because they feel more positive emotions per se, but because their greater positive emotions help them build resources for living successfully" (Fredrickson et al., 2008,

p. 1057). Overall, the broaden-and-build theory adds to the existing literature on the beneficial effects of positive emotions by going beyond mere descriptive associations to offer a possible mechanism through which positive emotions exert their influence (Cohn & Fredrickson, 2009).

In short, in-the-moment (hedonic) experiences of positive emotion build lasting levels of happiness and well-being. The goal of this thesis was to examine the role of positive emotions in personal goal strivings. The broaden-and-build theory suggests that positive emotions help build the enduring resources and character strengths necessary to support living according to one's values. What an individual is typically striving to do is a large part of who they are (i.e., their character), and I believe that positive emotions play an influential role in these personal strivings. I propose that experiences of positive emotions may allow individuals to continually strive toward the types of goals that are linked to eudaimonic well-being. Before outlining specific research in support of this contention, I will briefly describe personal strivings and the empirical research on personal strivings and well-being.

Personal Goal Strivings and Eudaimonic Well-Being

Personal strivings are what an individual is characteristically trying to accomplish (e.g., striving to "be physically attractive" or to "be a kinder and more tolerant person"; Emmons, 1986, 1999). A broader construct than goals, personal strivings unify individual goals around a central theme or abstracted quality. For example, an individual who is striving to be physically attractive might have goals related to exercising, dressing, or styling their hair (Emmons, 1986). Furthermore, research has revealed wide-ranging individual differences in the types of personal strivings individuals characteristically pursue (Emmons, 1999). Personal strivings, then, allow for an examination of an individual's characteristic motivations and offer a deeper understanding of the individual and the unique ways they

negotiate challenges within a social and developmental context (Emmons, 1999; McAdams & Pals, 2006). By examining personal strivings, researchers can determine how the different types of strivings people pursue relate to their level of happiness or eudaimonic well-being.

In order to assess the different types of strivings that individuals characteristically pursue, Emmons (1999) has developed a measure of personal strivings in which participants freely list the strivings that they are typically trying to accomplish, along with a coding manual to assist in categorizing the content of each striving. For example, the striving “be a kinder and more tolerant person” could be considered a personal growth-oriented striving given it reflects a concern for self improvement. In total, Emmons (1999) provides descriptions of 10 underlying thematic categories to identify and describe individual strivings, including: achievement; affiliation; intimacy; power; self-presentation; self-sufficiency; maladaptive or self-defeating; generativity; personal growth; and, self-transcendence. Of these 10 categories, both personal growth and self-transcendence appear particularly relevant to a eudaimonic perspective. Personal growth strivings are those that involve a concern for improving aspects of the self (cultivating one’s inner potential), and self-transcendent (or spiritual) strivings indicate a desire to integrate the self with something larger (providing greater meaning in life and a guiding framework for one’s existence or purpose; Emmons, 1999). Overall, examining the content of individual strivings permits for an empirical assessment of how the different types of activities individuals are characteristically striving for relate to their eudaimonic well-being.

In order to be consistent with a eudaimonic perspective, an individual’s goals should express their inner character or values and promote self-realization/fulfilment (Waterman, 1993). From this perspective, personal growth and self-transcendent goals might be considered to be aligned with a eudaimonic perspective given that personal growth goals

involve a focus on developing one's valued tendencies, whereas self-transcendence involves integrating one's potentials within a larger context – something that furthers the complexity of the self and creates a greater possibility for fulfillment (Csikszentmihalyi, 1993). In fact, long standing notions about the developmental process of self-realization suggest that strivings for personal growth and self-transcendence ought to be connected (e.g., Maslow, 1954). That is, self-actualization and the development of individual uniqueness (differentiation) precede and promote the ability to transcend the self, resulting in greater integration of the self within a larger context (Beaumont, 2009; Csikszentmihalyi, 1993; Maslow, 1954; see also Franklin, 2010). Ultimately, self-transcendence involves a higher level of integration that can be considered the greatest expression of the self (Csikszentmihalyi, 1993; Emmons, 1999).

Empirical evidence also supports the notion that self-transcendent goals fundamentally contrast more hedonistic goals. Grouzet et al. (2005) found that many of the different goals that individuals endorse can be placed on a continuum in terms of how self-transcendent versus hedonistic they are. Grouzet et al. (2005) asked participants from 15 cultures around the world to rate the importance of 57 different goals pertaining to 11 different goal domains (financial success, image, popularity, self-acceptance, affiliation, community feeling, physical health, and spirituality, conformity, hedonism, and safety). The results revealed that an underlying factor defining many of the different goals individuals endorsed involved the extent to which they were physical (e.g., hedonic) strivings that are primarily concerned with maintaining and enhancing one's own physical pleasure and survival (e.g., financial success, hedonism, physical health, and safety) or self-transcendent strivings concerned with benefiting society or transcending the self (e.g., community feeling, conformity, and spirituality). In addition, they found that individuals who endorse self-

transcendent goals appear not to rate hedonic goals as highly important (and vice versa), suggesting broadly that these two contrasting types of goals might be pursued by different individuals.

Not only are there individual differences in the types of goals individuals characteristically pursue, but also research examining different types of strivings, though scarce, has generally revealed that not all goals promote well-being – the content of goals does matter (Emmons, 1999). For example, affiliation, intimacy, generativity, and self-transcendent goal strivings are positively related to well-being (positive affect and life satisfaction), whereas striving for power and materialism is negatively related to well-being (Emmons, 1991, 1999; Kasser & Ryan, 1993, 1996). Kasser and Ryan (1993) reported that individuals who placed more emphasis on financial aspirations than on aspirations for affiliation, community, and self-acceptance had higher levels of anxiety and lower levels of self-actualization than those who placed less emphasis on financial aspirations.

Waterman (2007, 2008) has suggested that goals that are aligned with a eudaimonic perspective should create feelings of personal expressiveness (i.e., the feeling that one is expressing who they really are), and that goals involving the development of one's best potentials (i.e., personally expressive goals) may actually promote sustainable levels of happiness. Although some have described the pursuit of happiness to be akin to a hedonic treadmill, meaning people are happy when they attain valued goals, but soon adapt and return to their previous level of well-being, Waterman (2007) proposed that this treadmill of happiness does not necessarily apply to strivings related to the cultivation of personal potentials. Instead, if challenges are progressively increased to meet acquired skill, one can imagine a eudaimonic staircase whereby continually striving to fulfill one's potential should not result in adaptation in the same manner as the pursuit of hedonistic goals does

(Waterman, 2007). Indeed, research conducted by Steger, Kashdan, and Oishi (2008) confirmed that people who engaged in eudaimonic behaviours (i.e., activities judged by a group of experts to be representative of eudaimonic well-being), reported greater daily positive affect, life meaning and life satisfaction, whereas engaging in hedonic behaviours was unrelated to these measures of well-being. Furthermore, daily eudaimonic activity was related to improvements in well-being over time. Thus, whereas more hedonistic pursuits may result in happiness only when they are attained and this happiness quickly dissipates, more eudaimonic strivings might result in a sustainable upward spiral of well-being (Waterman, 2007).

Likewise, Deci and Ryan (2008) have suggested that the productive energy available to the self (a sense of enthusiasm, vigor, and aliveness), which they call vitality, is maintained or even enhanced when an individual engages in personally meaningful activities. Experimental research has confirmed that when people self-regulate their behaviour autonomously (i.e., in line with their own interests and values, as in strivings aligned with a eudaimonic perspective), their subjective vitality is maintained or even increased (see Deci & Ryan, 2008 for a review). Thus, it is likely that individuals who characteristically pursue such goals experience positive well-being (e.g., positive emotions) not only following the attainment, but also during the pursuit of these types of goals. In short, simply acting in accordance with one's inner values ought to be a positive emotional experience.

It is also possible that positive emotion plays a critical role in the continued striving toward more eudaimonic goals, given positive emotion appears to be influential in the process of maintaining self-regulation (Tice, Baumeister, Shmueli, & Muraven, 2007). Acting in order to fulfill one's potential requires effortful self-control. For instance, the pursuit of both personal growth and self-transcendent goals involves some degree of self-

regulation or self-discipline. Rather than living a life of carefree pleasure, these strivings require actively striving for excellence and virtue in harmony with the common good (Csikszentmihalyi, 1993). Research on affect and self-regulation suggests that negative affect often impairs impulse control (Gaillot & Tice, 2007). For example, individuals who are in negative emotional states are more likely to give up on their goals (e.g., break their diets; Gaillot & Tice, 2007). In contrast, the induction of positive emotions following a demanding task serves to restore an individual's self-regulatory capacity (Tice et al., 2007). Positive emotions, then, may play a role in the continued striving toward more eudaimonistic pursuits resulting in the upward spiral of well-being described by Waterman (2007).

Together, the research reviewed above suggests the importance of goal content for well-being. Yet, relatively little is known about the role of positive emotion in goal striving. Although positive emotions are often considered the outcome of goal attainment, the broaden-and-build theory suggests that positive emotion (i.e., hedonic well-being) may in fact be influential in the process of building enduring aspects of character that afford lasting happiness (i.e., eudaimonic well-being). In addition to contributing to the literature on personal strivings and well-being, one of the aims of this thesis was to examine the influence of positive emotions on personal strivings and eudaimonic well-being. I propose that positive emotions 'build' enduring happiness by aiding people in striving toward the types of goals that are more closely aligned with a eudaimonic perspective.

Positive Emotions and Personal Strivings

Although little research exists on the role of positive emotion in goal striving, the broaden-and-build theory suggests that momentary experiences of positive emotion build lasting levels of happiness and well-being by building the enduring resources necessary to support living well (Fredrickson, 1998). Given positive emotions lead to a broadening of the

thoughts and actions that come to mind (Fredrickson & Branigan, 2005), and certain positive emotions motivate self-improvement (Algoe & Haidt, 2009), it is possible that certain positive emotions might be influential in the process of striving for different types of goals. I believe that positive emotions might actually help people identify goals that are more closely aligned with a eudaimonic perspective (resulting in the upward spiral of well-being). Specifically, I propose that growth-oriented and self-transcendent goals are more likely to be identified by individuals following a positive emotional experience.

Several diverse lines of research support the notion that positive emotion ought to facilitate personal growth strivings. For one, positive emotion seems to play a role in the capacity to be open to negative or threatening self-relevant information (Aspinwall, 1998). Thus, positive emotion should facilitate the identification of aspects of the self that an individual would like to improve upon. In addition, reports of positive growth in the posttraumatic growth literature usually involve a mixture of both negative along with positive emotions (e.g., Joseph & Linley, 2006), and research indicates that participants who reported positive emotions along with negative emotions displayed growth in ego-resilience over the course of a month (e.g., Cohn et al., 2009). Finally, positive emotions lead to a higher likelihood of finding meaning in events, promoting greater coherence, differentiation and integration (Isen, 1987, 2003). Thus, positive emotions may aid an individual in identifying strivings related to personal growth and cultivating their inner potential.

Positive emotions should also facilitate self-transcendent strivings, given positive emotions increase mindfulness (Fredrickson et al., 2008). Mindfulness involves an awareness of the present moment in time and an ability to be receptive to inner and outer experience without being overly self-focused (Brown & Ryan, 2003). A key aspect of mindfulness is self-awareness (Brown & Ryan, 2003), and the capacity for self-awareness is a precursor for

advanced self-development (Beaumont, 2009). Indeed, mindfulness has been found to predict advanced self-development in the form of wisdom (Beaumont, 2011), and wise individuals are characterized by self-actualization and self-transcendence (Beaumont, 2009). Overall, the fact that positive emotions are linked to increased mindfulness (Fredrickson et al., 2008) provides further support that positive emotion might facilitate the broadened state of awareness necessary for self-transcendence.

Although to my knowledge no research has directly examined the role positive emotions might play when an individual outlines their goals, Fredrickson and Branigan (2005) asked participants who were induced to experience positive (vs. neutral or negative) affect to list all the activities they would like to be doing and conducted an exploratory analysis of the responses. Coding of the content of these responses revealed that participants induced to feel positive emotion (amusement) reported more frequent desires to engage in exercise/sport activities, nature/outdoors activities as well as urges to play, be social, and continue to have more positive feelings compared to participants in the neutral condition (Fredrickson & Branigan, 2005). Contrast these desired activities to participants induced to feel anger who reported fewer urges to drink/eat, reminisce, work, and read and increased desires to engage in anti-social activities (Fredrickson & Branigan, 2005). Thus, this exploratory examination of the types of activities the participants in different emotional states listed indicates that different emotions may motivate people to engage in different types of activities.

The Role of Different Positive Emotions in Goal Striving: Awe as an Elite Emotional State

Although in general positive emotions appear to be linked to the capacity for broadened attention and the acquisition of enduring personal resources, it is my contention

that the distinction between hedonic and eudaimonic well-being might be seen in the meaning and consequences of different types of positive emotions. Specifically, I believe different positive emotions will differentially influence personal strivings and resulting eudaimonic well-being.

Fredrickson (1998) does acknowledge that different positive emotional states may create distinct thought-action tendencies (e.g., joy prompts play and contentment the urge to savor); however, Fredrickson and colleagues usually only examine the common function of positive emotions in general (i.e., to broaden and build), and they usually only include the positive emotions amusement and contentment. Yet, despite their exclusion from the broaden-and-build theory, emotions that might be considered transcendent (such as awe) may play a different role in goal striving and well-being, as these seem more closely aligned with a eudaimonic perspective. Transcendent emotions like awe capture feelings that go beyond a hedonic sense of pleasure and instead promote the feeling of a connection with something larger than oneself (Keltner & Haidt, 2003).

Keltner and Haidt (2003) have recently proposed that experiences of awe involve two central features: vastness and accommodation. Vastness refers to anything that is perceived to be larger than the self, and accommodation refers to the process of adapting some aspect of one's schemas (mental structures) because the experience is novel and cannot be incorporated into existing knowledge or understanding of the world (Keltner & Haidt, 2003). Keltner and Haidt (2003) proposed that the experience of awe is pleasant, but it can also be mixed with fear. Individuals may experience awe in response to a large variety of experiences, but often awe occurs in response to natural phenomena such as mountains, storms, oceans, or stars (Keltner & Haidt, 2003). Furthermore, the presence of five additional appraisals (threat, beauty, exceptional ability, virtue, and the supernatural) determine the

affective tone of the awe experience. Overall, Algoe and Haidt (2009) suggested that transcendent emotions “change the way individuals view the world” (p.119), and “draw people out of themselves” (p.123). Thus, awe is a positive emotional state that might be highly linked to striving for growth and self-transcendence.

Indeed, Maslow (1954) wrote extensively about personal growth and self-transcendence in the form of self-actualization. Maslow considered experiences of awe to be a central feature of the peak experiences that self-actualizing people have (Keltner & Haidt, 2003), providing further support for the notion that experiences of awe might be involved in the process of self-actualization or growth and eventual self-transcendence. Furthermore, Huta and Ryan (2010) found that eudaimonic motives for activities (e.g., “seeking to develop a skill, learn or gain insight into something”; p. 741) were associated with elevating experiences, including both transcendence and feelings of awe.

Some experimental support has been found for the notion that different positive emotional states might have distinct influences on motivation. Algoe and Haidt (2009) examined the differential effects of eliciting amusement along with elevation, gratitude, and admiration on participant motivation. They found that elevation led to greater prosocial motivations and a desire to be a better person, admiration motivated self-improvement and gratitude motivated people to improve their relationships with others, whereas amusement created no clear pattern of motivation. Thus, Algoe and Haidt (2009) recommended that researchers differentiate the meaning and consequences of different positive emotions to determine the implications of certain positive emotions. One goal of this thesis was to examine the role of positive emotions in goal striving, specifically considering the potential distinction between amusement and awe.

Building upon the notion that different positive emotions might be differentially related to eudaimonic well-being, the second goal of this thesis was to investigate possible individual differences in the capacity to experience or benefit from the experience of such emotions. Underlying aspects of character may determine whether people are concerned with (or even capable of) engaging in the process of experiencing intense positive emotions like awe. Furthermore, it's possible that some people simply passively experience positive affect and experience no lasting change. Thus, there are likely to be individual differences in the capacity to capitalize on positive emotional experiences in goal striving.

The Role of Individual Differences: Are Certain People More Likely to Capitalize on Different Positive Emotions in the Pursuit of their Goals?

The final goal of this thesis broadly concerned whether there are individual differences in the ability to use or capitalize on positive emotional experiences that account for the beneficial effects of positive emotions. Because the broaden-and-build theory comes from a functional perspective, it implies that everyone will experience the same “positive effects” of positive emotions. Fredrickson and Losada (2005) have found that frequent experiences of positive emotions are linked to positive adjustment and flourishing, suggesting that the experience of positive affect (i.e., hedonic well-being) is important for building enduring happiness (i.e., eudaimonic well-being). In fact, in their research Fredrickson and Losada (2005) found that, mathematically, a ratio of positive to negative emotion at or above 2.9:1 must be present for human flourishing to occur. Furthermore, Fredrickson's (1998) theory proposes that these recurrent experiences of positive emotions ‘build’ enduring personal resources which in turn promote effective future problem solving (i.e., resilience) and more positive emotions (upward spiral), suggesting positive emotions

contribute to the development of enduring individual differences (Fredrickson & Joiner, 2002).

Alternatively, I think it could also be possible that certain people have a greater ability to experience the ‘lasting’ positive outcomes and growth due to their ability to capitalize on positive emotional experiences. There might exist consistent individual differences accounting for the ‘positive effects’ of positive emotions because some people are more effective at self-regulation (with respect to the effective use of emotions), whereas other people simply passively experience positive affect, and experience lower levels of lasting growth. Ego-resilient people can dynamically and resourcefully regulate their level of self-control to suit environmental demands, and thus may be more effective at self-regulation with respect to the effective use of emotions, making them likely candidates for such an ability (Block & Kremen, 1996; Klohnen, 1996).

Despite the extensive research and theory on personal strivings and well-being, little is known about the characteristic differences that might lead people to pursue different strivings. The question remains as to whether there are individual differences in the self-regulatory processes that relate in predictable ways to different goal types (resulting in different levels of well-being). This thesis examined the role of ego-resilience as a means of identifying individual differences in the types of personal strivings that people characteristically pursue. Block’s (1993, 2002) theoretical constructs of ego-control and ego-resilience are considered to be relatively enduring ‘meta-dimensions’ of personality (described in further detail in the next section), and theoretically, such self-regulatory processes ought to be involved in goal striving (Hooker & McAdams, 2003).

Furthermore, research supports the notion that ego-resilient individuals experience greater well-being and build resources partly by generating more positive emotions. For

example, ego-resilient people report more positive emotion in response to negative events, and positive emotions account for the link between resilience and increased resources (Fredrickson, Tugade, Waugh, & Larkin, 2003; Tugade & Fredrickson, 2004). Thus, the second goal of this thesis was to explore the hypothesis that ego-resilient individuals capitalize on their experiences of positive emotions in order to continually set and strive toward goals that are aligned with a eudaimonic perspective. Before elaborating on this goal, I will briefly review the theoretical background for these constructs.

Ego-Resilience and Ego-Control

Although many researchers use the term *resilience* within a developmental context to refer to individuals who display adaptive functioning even though they are at risk (Masten, 2001), Jack and Jeanne Block (1977) used the term *ego-resilience* to refer to an enduring aspect of personality that varies between individuals. Block (1993) defined ego-resilience as the characteristic ability to modify one's level of ego-control to adapt to the demands of the environment. *Ego-control* consists of the ability to control impulses (restraint or inhibition of activity, delay of gratification, etc.). Theoretically, the concepts of ego-control and ego-resilience were based in part on Lewin's (1935) description of a psychological boundary separating the need system (internal impulses, needs, and motives) from the sensorimotor system (behavioural responses). The concepts of ego-control and ego-resilience correspond to the permeability and flexibility of the boundary, respectively. Individuals who are overcontrolled never allow the expression of their impulses (impermeable boundary), whereas undercontrolled individuals cannot contain impulses even when expression is inappropriate (extremely permeable boundary allows impulses to 'leak out' uncontrolled). Ego-resilience adds another layer of complexity, as it involves the flexibility or elasticity of the boundary. The permeability of an ego-resilient individual's psychological boundary is

flexible in that it can be made more or less permeable to suit environmental demands (Block & Block, 1980).

An individual who is ego-resilient is able to modify their usual level of ego-control to meet the demands of the situation, whereas an individual characterized as being “ego-brittle”, or unresilient, has little adaptive flexibility, and consequently tends to fall apart under stress (Block & Block, 1977; Block, & Kremen, 1996). Ego-resilience, then, characterizes an enduring ability to adapt to new and changing environmental circumstances; however, rather than being unaffected by adversity, ego-resilient people are able to ‘bend but not break’ (Block & Block, 1980). For example, ego-resilient individuals experienced the same degree of anxiety and frustration as well as the same level of cardiovascular arousal following an anxiety provoking situation as did their less resilient counterparts, but the ego-resilient individuals recovered faster (Tugade & Fredrickson, 2004). Thus, it is not that resilient individuals are not affected by adversity, they are just better able to ‘bounce back’ or deal with adversity effectively, resulting in more adaptive functioning. Furthermore, ego-resilience is positively related to well-being and psychological adjustment (Letzring, Block & Funder, 2005; Utsey, Hook, Fischer & Belvet, 2008).

Although to my knowledge ego-resilience has not been examined in connection with personal goals, I propose that one of the reasons ego-resilient individuals experience greater well-being is related to their personal strivings. Given an inherent capacity to regulate their modal level of self-control, ego-resilient individuals ought to have a superior ability to modify their behaviour in the pursuit of important goals in accordance with the demands of the current situation. Furthermore, because ego-resilient individuals have more coherent and integrated self-structures they may have a superior ability to identify personal strivings that

are aligned with a eudaimonic perspective, and they may actually be more effective in the use of positive emotions in striving toward such goals.

Ego-Resilience, Positive Emotions, and Personal Strivings

I propose that ego-resilient individuals will be more likely to have growth-oriented and self-transcendent strivings that are highly personally expressive. Support for this particular contention, however, is mostly theoretical (rather than empirical). For one, the inherent flexibility associated with ego-resilience ought to result in the most adaptive or self-congruent (personally expressive or consistent with inner values) goal selection. Indeed, others have also predicted that “highly elastic persons are able to adapt to situational constraints and to overcome obstacles in the pursuit of important goals. Therefore, it seems reasonable that these persons would behave in accordance with their self-guides” (Gramzow, Sedikides, Panter, & Insko, 2000, p. 202). Likewise, research has confirmed that ego-resilience is associated with higher levels of ego development, indicating that highly resilient individuals display greater levels of personality integration (Westenberg & Block, 1993). Furthermore ego-development is associated with self-actualization and self-transcendence (Cook-Greuter, 1999). Therefore, it is likely that ego-resilient individuals have greater self-insight resulting in a superior ability to identify growth-oriented and self-transcendent personal goals.

Empirical support for the notion that ego-resilient individuals might be higher in eudaimonic well-being has also been found. Individuals high in ego-resilience are described by friends and clinicians “as having wide interests and a high aspiration level, assertive, socially poised and skilled, and cheerful; and not self-defeating, emotionally bland, nor lacking personal meaning in life” (Letzring et al., 2005, p.395). In addition, higher ego-resilience was found to predict psychological well-being, subjective happiness, optimism,

and life satisfaction (Letzring et al., 2005; Utsey et al. 2008). Overall, then, in addition to having a superior ability to cope with challenges during the pursuit of their goals (resulting in greater efficacy in the pursuit of goals), ego-resilient individuals might be more likely to set the types of goals that are consistent with a eudaimonic perspective than are less resilient individuals.

Furthermore, if ego-resilient individuals are adept at identifying goals that afford them greater experiences of positive emotions, they might be in a better position to use or capitalize on these positive emotions in order to maintain the motivation necessary to persevere in the face of setbacks or environmental demands (restoring self-control). Because ego-resilient individuals are predicted to be flexible enough to allow themselves to experience intense positive emotions (such as awe), they will be more likely to benefit from the positive effects of positive emotions in terms of broadening their perspective and allowing them to continually identify more growth-oriented and transcendent strivings (resulting in a reciprocal cycle of continually setting and pursuing more personally expressive goals).

In fact, it is possible that ego-resilient individuals are actually generating more positive emotion even in response to challenging circumstances, rather than simply a function of having ‘more’ positive experiences (i.e., an ‘easy’ month). Theoretically, ego-resilience involves positive adjustment in the face of challenges, not a blind optimism or a paucity of challenging experiences (Block, 2002). Thus, I propose that ego-resilient individuals are more likely to generate positive emotions and to use their positive emotional experiences to adaptive ends (e.g., to develop insights into problems or identify optimal goals to strive for) resulting in continually superior adjustment (i.e., causing them to become more resilient).

Indeed, research conducted by Fredrickson and colleagues has indicated that ego-resilient individuals might use positive emotions more often than non-resilient individuals to adapt to challenges. In general, these researchers have typically shown that trait differences (e.g., ego-resilience) are related to positive outcome (e.g., overcoming threat) via positive emotion (mediator). For example, Tugade and Fredrickson (2004) found that ego-resilient individuals reported the same level of negative affect (e.g., anxiety), but greater positive affect (e.g., excitement) than their less resilient counterparts in response to a stressful speech preparation task, and this greater positive affect statistically mediated the relationship between psychological resilience and faster cardiovascular recovery. Furthermore, in a study of ordinary life events, resilient individuals reported the same degree of negative affect (e.g., frustration) caused by their ‘most important personal problem’, but reported more positive affect and positive meaning finding in relation to the same problem as their less resilient counterparts (Tugade & Fredrickson, 2004, Study 3). Finally, Fredrickson et al. (2003) found that people identified as high in ego-resilience prior to the September 11 terrorist attacks on the United States displayed low levels of depression as well as an increase in life satisfaction and optimism in the wake of the attacks. Furthermore, experiences of positive emotions following the attacks mediated the relationships between ego-resilience, lower depression and increased resources, suggesting that resilient individuals might draw on positive emotions in order to find meaning in adversity (Fredrickson et al., 2003).

Tugade and Fredrickson (2007) summed up these previous findings by stating, “research indicates that individual differences in trait resilience predict the ability to capitalize on positive emotions when coping with negative emotional experiences” (p.319). However, it may be more accurate to conclude that resilient individuals seem to use positive emotions (e.g., humor) more frequently, given the research they refer to has primarily relied

on a method of 'counting' the number of positive emotions reported when establishing such individual difference assessments. The question of whether ego-resilient individuals actually have a greater ability to 'capitalize' on positive emotional experiences appears to be still unanswered. Yet, Tugade and Fredrickson (2007) do suggest the theoretical possibility that although all individuals have the capacity to draw on positive emotions to cope, resilient individuals do so relatively automatically and with little conscious effort because cultivating positive emotions for them has become an automatized behaviour. In contrast, they suggest that less resilient individuals may have to exert considerable effort to deliberately cultivate positive emotions when coping with stressful events and exerting effort in this way may actually exhaust their cognitive resources. Overall, then, ego-resilient individuals may be more effective emotion regulators in the sense of knowing how as well as when to use positive emotions effectively, and they may do so relatively automatically.

Because in previous research assessing ego-resilience and positive emotions, participants were simply asked to report their emotions, the question still remains as to whether ego-resilient individuals simply have more frequent positive experiences or whether they actually capitalize on opportunities for positive emotional experiences. An experimental induction of emotion offers an optimal test of this capitalizing effect. Holding constant the 'opportunity' for a positive emotional experience allows for the examination of whether ego-resilient individuals generate and capitalize on positive affect to facilitate their personal strivings.

In summary, evidence is accumulating in support of the notion that positive emotions (hedonic well-being) contribute to lasting happiness (eudaimonic well-being); however, few studies have examined individual differences in the ability to use or capitalize on positive emotions. A notable exception is work by Tugade and Fredrickson (2004, 2007) who have

begun to look at individual differences in the tendency to use positive emotions as a personal resource for psychological well-being. The results of this research suggest that ego-resilient individuals may in fact possess superior emotion regulation abilities, but to date an examination of how individual differences in ego-resilience and positive emotions might be related to personal goals has not been conducted. Together, the results of previous research suggests that there may be complex patterns of relationships between ego-resilience, positive emotions, and personal goals, providing a basis for the systematic examination of these constructs which is the focus of this thesis.

Summary of Objectives and Hypotheses

The purpose of this research is to add to the literature on personal strivings and well-being by exploring the potential role of individual differences in positive emotions and ego-resilience. Specifically, two research questions are posed:

- (1) Does positive emotion (i.e., awe) play a role in striving toward goals that are aligned with a eudaimonic perspective?; and,
- (2) Do individual differences in ego-resilience play a role within the positive effects of positive emotional experiences?

In order to provide a thorough assessment of these research questions, this research employed a multi-method approach in two separate, but related studies. Study 1 included a battery of self-report measures completed by a large sample of participants so that the predictive links between ego-resilience, positive emotions, personal strivings, and well-being could be investigated. Study 2 was an experimental study in which participants were asked to view a short positive emotion inducing video (designed to elicit either amusement or awe), or a neutral (control) video and then complete a measure in which they were asked to outline several personal goals they would like to accomplish within four weeks. A follow up assessment of the participants' goal progress four weeks later allowed for the determination of their level of satisfaction with their goal progress as well as their current state of well-being. An overview of the analyses and specific hypotheses are as follows.

Research question 1: The role of positive emotions in goal striving. This research objective was addressed in Study 1 by having participants report the frequency of the positive and negative emotions they experienced over the past four weeks as well as list their personal strivings and complete a measure of eudaimonic well-being. In addition, participants were asked to rate each of their strivings on a number of scales (i.e., importance, progress, and

extent to which each striving is growth-oriented, positivity or well-being-oriented, and self-transcendent), as well as indicate the degree of personal expressiveness associated with each striving.

Based upon the research on positive emotion and personal goals previously reviewed, I hypothesized that the self-reported frequency of positive emotions would be positively associated with goal progress, a greater proportion of transcendent and growth-oriented goals, personal expressiveness, and eudaimonic well-being. These hypotheses were examined via correlation analyses.

In order to disentangle the potential causal role of positive emotions in goal striving, in Study 2 participants were randomly assigned to one of three (awe, amusement, or neutral) emotion inducing conditions. Immediately following the emotion induction, participants were asked to list five goals they would like to accomplish over the next four weeks, and to rate each goal in terms of the extent to which it was well-being-oriented, growth-oriented, and self-transcendent. At the four week follow up assessment, participants were asked to report on their progress towards the five goals they set and to complete a measure of eudaimonic well-being.

Based upon the research on positive emotions, personal goals, and well-being, I hypothesized that although individuals in the amusement conditions might list more well-being strivings, only individuals in the awe inducing emotion condition would outline goals that are more personal-growth-oriented and self-transcendent compared to those in the neutral condition. At the four week follow up assessment, I expected that participants in both positive emotion (awe and amusement) conditions would be more likely to report having made progress towards the goals they outlined compared to those in the neutral condition. Finally, I expected that individuals in the awe condition would report the greatest eudaimonic

well-being compared to individuals in the amusement or neutral condition. These hypotheses were tested using multivariate analyses of variance (MANOVAs) to compare individuals in the three conditions (awe, neutral, and amusement) for differences in the outcome variables (proportion of well-being, personal growth and transcendent goals, goal progress, and level of eudaimonic well-being).

Research question 2: The role of individual differences in ego-resilience. The second research question addressed whether the positive effects of positive emotions (on goal striving) might be more pronounced among ego-resilient individuals. In Study 1, in addition to the measures mentioned above, participants were asked to complete measures of ego-control and ego-resilience. Based upon both the research on ego-resilience and personal goals previously reviewed, I hypothesized that individuals higher in ego-resilience (but not ego-control) would report more frequent experiences of positive emotions over the past four weeks, as well as greater personal expressiveness associated with their personal strivings compared to less resilient individuals. In addition, I expected that ego-resilient individuals would list a greater proportion of personal growth and self-transcendent strivings than would their less resilient counterparts. These strivings in turn were expected to predict eudaimonic well-being. These hypotheses were tested via correlation analyses. Furthermore, the hypothesized role that ego-resilience might play in the relationship between positive emotion and the outcome variables (proportion of well-being, personal growth and transcendent strivings, self-report ratings of goal positivity, personal growth, self-transcendence, and personal expressiveness, level of progress, and eudaimonic well-being) was examined using regression analyses. Specifically, in order to test the hypothesis that ego-resilience might mediate the relationship between positive emotion and eudaimonic goal striving, Baron and Kenny's (1986) four step mediation analyses were conducted.

I further hypothesized that ego-resilience might account for the positive effects of positive emotions, because ego-resilient individuals are able to capitalize on their experiences of positive emotions. In Study 2, before undergoing the emotion induction, participants were asked to complete a measure of ego-resilience. Thus, in addition to the main effects of emotion condition on goal type and goal progress described above, I hypothesized that there would be a significant interaction with ego-resilience, supporting the notion that ego-resilience might moderate the main effect of positive emotion on eudaimonic goal striving. I expected that the positive effects of the positive emotion inductions on the types of goals listed (transcendent and growth-oriented) and on goal progress would be greater among more ego-resilient individuals, supporting the notion that ego-resilient individuals do in fact capitalize on their experiences of positive emotions. These hypotheses were tested via univariate analyses of variance (ANOVAs) in order to test for interactions between emotion condition and ego-resilience in predicting the outcomes (proportion of growth and transcendent strivings, level of progress, and eudaimonic well-being).

Overall, the results of this research add to the literature on well-being and happiness by providing evidence about the role of positive emotions as well as the role of individual differences in underlying aspects of character (i.e. ego-resilience) for goal striving and resulting eudaimonic well-being.

METHOD

The procedure included two data collection phases (Study 1 and Study 2). Students in the participant pool at the University of Northern British Columbia (UNBC) were permitted to participate in either Study 1 or Study 2, but not both, so that the samples would be completely independent. Study 1 consisted of a series of questionnaires presented online (described below), whereas students who volunteered to participate in Study 2 were asked to meet the researcher at the study location (lab 10-3550) at the date/time they choose to sign up for on the online system.

Study 1

Participants. A total of 157 (44 men; 113 women) undergraduate students from UNBC completed the online questionnaire via the online UNBC Psychology Research Participation System. These participants ranged in age from 17 to 44 ($M = 20.48$, $SD = 3.90$), and the sample was predominately Caucasian (78.8%), followed by Asian (11.5%), other (5.1%), and Aboriginal (3.8%). The majority of the participants indicated that they were single (50.3%) or dating one person exclusively (38.2%). The remaining participants were married or common-law (8.9%) or engaged (2.5%).

Given UNBC implemented a dual admission process with the College of New Caledonia (CNC) in 2008, a decision was made to allow CNC students in introductory psychology classes to participate in this study. This served to both provide CNC students with the opportunity to participate in a research study as well as to make available a larger sample of participants to draw on for this study. In total 25 (4 men; 21 women) introductory psychology students from the College of New Caledonia (CNC) completed a paper-and-pencil version of the questionnaire. These participants ranged in age from 17 to 41 ($M = 20.92$, $SD = 5.52$), and the sample was predominately Caucasian (80%), followed by

Aboriginal (8%), other (8%), and Asian (4%). The majority of the participants indicated that they were dating one person exclusively (48%) or single (40%). The remaining participants were married or common-law (4%), engaged (4%), or divorced/separated (4%).

Procedure. The questionnaires took approximately 45 minutes to complete, and both UNBC and CNC students were compensated with 1% towards their course grade based on the UNBC Department of Psychology criteria of 1% per hour spent participating in research. UNBC students were recruited to participate in the study via the online UNBC Psychology Research Participation System, and completed the questionnaires entirely online. With permission from the Ethics Review Boards of both CNC and UNBC, as well as the class instructor, the CNC students were informed about the study via a brief in-class presentation. Interested CNC students were given the questionnaire package and were asked to complete the questionnaires at home and return the package in the following class (four days later), or to mail it to the lab in the self-addressed, stamped envelope provided.

Before completion of the questionnaires, participants were asked to read an introductory information and informed consent page (Appendix A). The online survey was layered in such a way that participants were not able to complete the questionnaires unless they read the information and informed consent pages, and then pressed a "continue" button, which implied their consent to participate in the study. The CNC participants were asked to sign a paper copy of the informed consent form. Then, following the completion of a demographic questionnaire (Appendix D), all participants were asked to complete the measures described below, which were presented in a randomized order to the online participants and in a counter-balanced order to those who completed the paper-and-pencil questionnaire packets. After completing all of the survey measures, online survey participants

were again presented with the information letter page (Appendix A) at which point they could choose to print it for their records.

Measures. Study 1 measures were self-report in nature and were chosen to measure aspects of the main constructs: ego-control, ego-resilience, positive and negative emotion, and goal strivings.

Ego-Undercontrol Scale (UC; Appendix E). The UC scale (Letzring, Block & Funder, 2005) is a 37-item measure of Block's theoretical concept of ego-control, a meta-dimension of personality assessing the broad capacity for impulse control/expression. Higher scores correspond to lower levels of control or inhibition, and therefore to ego-undercontrol (UC). Participants responded to scale items on a 4-point Likert scale ranging from *disagree very strongly* (1) to *agree very strongly* (4). Scoring required the summation of responses to all 37 items, after reversing reverse keyed items, and then computing a mean score. Letzring et al. (2005) reported theoretically consistent convergence between this self-report UC scale and Q-sort ratings of ego-undercontrol provided by acquaintances, clinicians, and the participants themselves, establishing the convergent validity of the scale, and these authors reported that the Cronbach's alpha was .63 for the UC scale (Letzring et al., 2005). In the present study, the Cronbach's alpha was .78 for the 37-item measure.

Ego-Resilience Scale (ER89; Appendix F). The ER89 scale (Block & Kremen, 1996) measures the extent to which individuals show flexibility in response to changing environmental demands. The ER89 consists of 14 items which are responded to by participants on a 4-point scale ranging from *does not apply at all* (1) to *applies very strongly* (4). Scoring required the summation of responses to all 14 items, and higher scores correspond to higher levels of ego-resilience. Block and Kremen (1996) reported the alpha

coefficient reliability of the ER89 to be .76, and Letzring et al., (2005) reported a reliability coefficient of .72. In the present study, the Cronbach's alpha was .72.

Positive and Negative Affect Schedule (PANAS; Appendix G). Participants were asked to complete the PANAS (Watson, Clark & Tellegen, 1988), with instructions to indicate how they have felt over the past four weeks. The PANAS consists of 10 positive (interested, proud, awe, amused, content, joy, grateful, hope, love, compassion) and 10 negative (scared, ashamed, guilty, angry, sad, contempt, disgust, embarrassed, fear) adjectives to which respondents indicate their negative or positive affect on a Likert scale ranging from *very slightly or not at all* (1) to *extremely* (5). Scoring of the positive emotion scale required the summation of responses to the 10 positive emotion items, and scoring of the negative emotion scale required the summation of responses to the 10 negative emotion items. In the present study, Cronbach's alphas for the PANAS were .82 for the positive emotion scale, and .85 for the negative emotion scale.

Questionnaire for Eudaimonic Well-Being (QEWB; Appendix H). The QEWB (Waterman et al, 2010) is a 21-item measure of one's quality of life deriving from the development of one's best potentials (Waterman et al., 2010). The QEWB items measure various aspects of eudaimonic well-being, including: self-discovery; the perception that one's best potentials are being developed; a feeling of purpose in life; invested effort in the pursuit of excellence; intense engagement in activities; and, feelings of personal expressiveness. However, the 21 items were found to be tapping into a single factor, comprising a unidimensional scale (Waterman et al., 2010). Participants responded to items on a scale ranging from *strongly disagree* (0) to *strongly agree* (4). Waterman et al. (2010) found that the QEWB was positively related to both measures of subjective well-being and psychological well-being. In addition, these authors found that the QEWB accounted for

significant variance in several measure of positive and negative psychological functioning, independent of both the subjective well-being and psychological well-being measures, indicating that the QEWB cannot simply be reduced to these other measures of well-being. The Cronbach's alpha for the QEWB was found to be .86 in one sample and .85 in another sample (Waterman et al., 2010). In the present study, the Cronbach's alpha was .82 for the 21-item QEWB.

Personal strivings (Appendix I). Emmons (1999) Personal Strivings Assessment Packet (PSAP) is a measure of participants' personal goal strivings, or what an individual is typically trying to accomplish (e.g., striving to "make more friends" or to "be a kinder and more tolerant person"). Participants were asked to generate a list of 10 strivings in response to the sentence stem "I typically try to...". In order to evaluate the types of strivings participants listed, two methods were used. First, participants were asked to rate the extent to which each of their strivings is oriented towards well-being, personal growth, or self-transcendence (described below) in order to yield quantitative ratings of all the strivings listed. Second, the strivings generated by participants were then coded for content following the procedure for determining what category the content of each striving might fall outlined by Emmons (1999).

The content coding was conducted using a modified version of Emmons' (1999) coding manual, which was developed in a previous study by Dr. Beaumont which focused on isolating transcendent, personal growth, and well-being strivings in a more systematic way. Specifically, previous reliability coding with Emmons' (1999) coding scheme revealed that his categories for spirituality/transcendent, personal growth, and well-being strivings were not refined enough to achieve adequate reliability. When these code descriptions or categories were expanded, reliability was achieved. In addition, the refinements to the coding

scheme allowed for better isolation of the content of strivings that would be of interest in this research. All of the goals were categorized by the author into 15 mutually exclusive categories: achievement, intimacy, affiliation, power, maladaptive, self-presentation, self-sufficiency, personal growth, well-being, generativity, self-transcendence, physical health, leisure activities, temperance, and mundane chores. Emmons' (1999) coding criteria was expanded by Dr Beaumont to include a more definitive categorization of personal growth, self-transcendent and well-being goals. Personal growth strivings were defined as those which involved learning, personal growth, development or self-improvement, as well as those involving self-acceptance, self-compassion and enhancing self-esteem, or avoiding ego inflation (Beaumont, 2012). The coding category for self-transcendent strivings was elaborated to include strivings involving divine awareness (e.g., connection to a higher power), spiritual living, universal or transcendent awareness (e.g., non-judgment and a respect for equity) or expressions of feelings of oneness or unity of the self within a larger context (e.g., humanity). Finally, strivings were categorized as well-being oriented if they involved emotional or mental well-being, enhancing happiness or positivity, or avoiding unhappiness and negativity.

In order to determine the accuracy of the modified coding scheme, a second trained coder (Dr. Beaumont) categorized the data from 33 participants (18% of the data), and the inter-coder agreement for each category was calculated (see Table 1 for percent agreement by goal category). Interobserver agreement across all categories was high (Bakeman & Gottman, 1997) with a Cohen's Kappa (a statistics that corrects for chance agreement) of .91. Any discrepancies were discussed until agreement was reached. Given the relatively low agreement on power, maladaptive, and leisure activity goals, these categories will not be discussed further.

Table 1

Study 1 Goal Coding: Example Goals, Total Number Coded, Mean, Standard Deviation, Range, and Inter-Rater Agreement by Goal Category

Goal type/category	Example(s)	Number Coded	<i>M</i>	<i>SD</i>	Range	Agreement
Achievement	"Achieve high grades in school"	269	1.51	1.05	0-5	90%
Intimacy	"Make my partner happy"	269	1.51	1.07	0-5	83%
Affiliation	"Meet new people"	138	.78	.79	0-4	75%
Power	"Beat others in performance at work"	10	.06	.23	0-1	50%
Maladaptive	"please everyone"	33	.19	.48	0-2	33%
Self-Presentation	"Impress others"	87	.49	.81	0-5	94%
Self-Sufficiency	"Avoid allowing others to make my decisions for me"	48	.27	.53	0-2	100%
Personal Growth	"Improve all the time"	267	1.50	1.28	0-6	86%
Well-Being	"Stay positive"	214	1.20	1.11	0-5	91%
Generativity	"Help others when they need it"	123	.69	.78	0-5	95%
Self-Transcendence	"Transcend the real"	63	.35	.68	0-4	90%
Physical Health	"Get more exercise"	108	.61	.83	0-3	93%
Leisure Activities	"Keep up with my interests outside of school"	19	.11	.33	0-2	67%
Temperance	"Stick to a budget"	52	.29	.57	0-3	100%
Mundane Chores	"Keep up with housework"	13	.07	.28	0-2	75%
No code assigned	"Be spontaneous"	84	.47	.72	0-5	76%
Total		1797	10.10	.55	5-12	92%

Within the PSAP, participants are also usually asked to rate each of their strivings along a number of dimensions, called striving assessment scales. Accordingly, in the present study participants were also asked to rate, on a scale ranging from *not at all* (0) to *extremely* (5), each along two of these dimensions: importance (how important is each striving?); and, progress (how satisfied are you with your progress towards your striving?). In addition, participants were asked to rate each of their strivings along three new dimensions: positivity (to what extent does the striving involve a concern with enhancing positivity and reducing negativity?); personal growth (to what extent does the striving involve a concern with self-improvement?); and, self-transcendence (to what extent is the striving oriented above and beyond the self?). Scores were calculated by averaging participants' ratings across all 10 strivings.

Finally, following Waterman (1993), participants were asked to rate each of their strivings for the degree of personal expressiveness (to what extent does each striving give you a feeling that this is who you really are?) on a scale ranging from *not at all* (1) to *extremely* (7). Scores were calculated by averaging the personal expressiveness ratings across all 10 strivings.

See Appendix N for a quick guide (i.e., key) to all the goal rating variables by name.

RESULTS

Preliminary Data Screening

Before analyses were conducted, the data set was examined for missing data, outliers, and normality. There were no missing scores for any of the scale items; however, one person did not report their ethnicity. Two female and two male participants were extreme outliers in terms of age (ages ranging from 36 to 44, *z*-scores from 3.73 to 5.66). Further inspection revealed some of these to be multivariate outliers on a number of variables as well, so a

decision was made to delete these four cases from the data set resulting in a final sample size of 178 (46 men; 132 women) ranging in age from 17 to 34 ($M = 20.11$, $SD = 2.94$).

Examination of the data for normality revealed a few outliers, but overall the self-report scale distributions were not skewed. In contrast, most of the goal type variables (i.e., proportion of personal growth, self-transcendence, and well-being goals, etc.) were positively skewed. Log transformations sufficiently normalized the goal type data; thus, the log transformed variables were used in all subsequent data analyses, though descriptive statistics are reported based on original goal variables for ease of interpretation.

Preliminary Analyses of Gender Differences

Descriptive statistics for all variables are presented in Tables 2 and 3. Two separate multivariate analyses of variance (MANOVAs) were conducted to examine possible gender differences: one with the log transformed goal variables and one with all self-report variables. For the goal coding variables, the multivariate effect of gender was significant, $F(1, 176) = 1.76$, $p = .045$, $\eta^2 = .14^1$. The univariate effect of gender was only significant for proportion of intimacy and affiliation goal codes; women had a higher proportion of intimacy goals than men, and men had a higher proportion of affiliation goals than women. For all other variables, the multivariate effect of gender was not significant, $F(1, 175) = 1.34$, $p = .21$.

To further examine possible gender differences, separate inter-correlations among variables were computed for men and for women, and then z-test comparisons between the strength of corresponding correlations for men and women were conducted. These analyses resulted in only a chance level of significant gender differences in the strength of

□

¹ A MANOVA using the untransformed variables produced the same results, $F(1, 176) = 1.76$, $p = .044$, $\eta^2 = .14$. The univariate effect of gender using the untransformed variables was again only significant for the proportion of intimacy ($F = 6.68$, $p = .011$) and affiliation ($F = 4.09$, $p = .045$) goals.

correlations, with 3 out of 65 z-tests being significant. Specifically, the correlations between positive emotion and the proportion of personal growth goals for men ($r = .35, p = .02$) and women ($r = -.09, p = .32$) were significantly different, $z = 2.57, p = .01$, the strength of the correlations between ego-resilience and participant ratings of goal positivity for men ($r = .54, p < .001$) and women ($r = .16, p = .07$) were significantly different, $z = 2.53, p = .011$, and the correlations between ego-undercontrol and positive emotion for men ($r = .41, p = .005$) and women ($r = -.02, p = .84$) were significantly different, $z = 2.57, p = .01$.

No a priori predictions were made concerning gender differences because there was no theoretical basis for expecting the pattern of results to differ across gender. Overall, the preliminary analyses of gender differences revealed no mean differences between men and women on any of the study variables that were to be analyzed further, and only a chance level of significant gender differences in the strength of the correlations, suggesting that including gender in subsequent analyses would result in higher Type 1 error. As there were so few gender differences in the F -test and z-test results, a decision was made to conduct subsequent analyses with the sample as a whole.

Table 2

Study 1 Means and Standard Deviations for Proportion of Goals in each Goal Category as a Function of Gender

	Total	Men	Women		
	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	F	<i>Range</i>
Achievement	.15 (.11)	.15 (.11)	.15 (.11)	.06	.00 - .50
Intimacy	.15 (.11)	.12 (.09)	.16 (.11)	6.63*	.00 - .50
Affiliation	.08 (.08)	.10 (.08)	.07 (.08)	4.63*	.00 - .40
Power	.01 (.02)	.00 (.02)	.01 (.02)	.21	.00 - .10
Maladaptive	.02 (.05)	.02 (.04)	.02 (.05)	.28	.00 - .20
Self-Presentation	.05 (.08)	.04 (.07)	.05 (.08)	1.01	.00 - .50
Self-Sufficiency	.03 (.05)	.02 (.05)	.03 (.05)	.22	.00 - .20
Personal Growth	.15 (.13)	.16 (.15)	.15 (.12)	.27	.00 - .60
Well-Being	.12 (.11)	.11 (.10)	.12 (.11)	.48	.00 - .45
Generativity	.07 (.08)	.07 (.07)	.07 (.08)	.02	.00 - .50
Self-Transcendence	.04 (.07)	.03 (.06)	.04 (.07)	.08	.00 - .40
Physical Health	.06 (.08)	.06 (.09)	.06 (.08)	.00	.00 - .30
Leisure Activities	.01 (.03)	.01 (.03)	.01 (.03)	.33	.00 - .20
Temperance	.03 (.06)	.02 (.05)	.03 (.06)	.61	.00 - .30
Mundane Chores	.01 (.03)	.01 (.04)	.01 (.02)	.98	.00 - .20

Note. MANOVA was conducted on log transformed variables, but *M* and *SD* are based on the actual proportion of goals in each category.

* $p < .05$.

Table 3

Means and Standard Deviations for all Study 1 Self-Report Variables as a Function of Gender

	Total	Men	Women		
	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>F</i>	Range
<u>Personal Ratings of Goals:</u>					
Avg Positivity	3.83 (.64)	3.76 (.63)	3.85 (.64)	.68	2.00 – 5.00
Avg Personal Growth	3.68 (.80)	3.74 (.85)	3.66 (.78)	.34	.60 – 5.00
Avg Self-Transcendence	2.61 (1.31)	2.64 (1.41)	2.60 (1.28)	.04	.00 – 5.00
Avg Personal Expressiveness	4.92 (1.10)	4.82 (1.20)	4.95 (1.06)	.58	2.00 – 7.00
Avg Importance	3.79 (.54)	3.62 (.67)	3.85 (.48)	6.39*	1.00 – 5.00
Avg Progress	3.51 (.72)	3.50 (.73)	3.51 (.72)	.02	1.40 – 6.10
<u>Self-Report Scales:</u>					
Positive Emotion	33.49 (5.97)	33.17 (5.90)	33.60 (6.02)	.17	15.00 – 48.00
Negative Emotion	24.74 (7.35)	23.15 (6.56)	25.30 (7.56)	2.93	12.00 – 46.00
Eudaimonic Well-Being	52.33 (9.67)	51.52 (8.58)	52.61 (10.04)	.38	31.00 – 76.00
Ego-Undercontrol	2.46 (.29)	2.47 (.29)	2.46 (.30)	.00	1.76 – 3.41
Ego-Resilience	41.23 (5.34)	40.35 (6.70)	41.53 (4.77)	1.69	25.00 – 52.00

Note. Avg = Average of self-report ratings across all goals.

* $p < .05$.

Research Question 1: The Role of Positive Emotions in Goal Striving

Analyses addressing the link between positive emotion and goal striving. The first set of hypotheses stated that positive emotions would be related to greater eudaimonic goal striving, goal progress, and eudaimonic well-being. Pearson's product-moment correlations were conducted for combinations of all variables to examine patterns of relationships between positive emotion and goal striving. A standard alpha of .05 was used for all analyses. Correlations between positive emotions and all variables are presented in Table 4. Positive emotions were related to higher ratings of positivity and personal growth. Likewise, positive emotions were also related to higher ratings of personal expressiveness, goal importance, and goal progress. Finally, positive emotions were related to eudaimonic well-being. Thus, support was found for the role of positive emotions in participants' personal ratings of their goals, yet positive emotions were unrelated to the proportion of well-being, personal growth, and self-transcendent goals, failing to confirm predictions.

Subsequent analyses to consider higher-order goal types. In order to better evaluate the role of type of goals in relation to positive emotion, two different scales were created. The proportion of intimacy, well-being, personal growth, generative, and self-transcendent goals were summed to create a new scale labeled "transcendent concerns". The proportion of achievement, self-presentation, and physical health goals were summed to create a new scale labeled "material concerns". The goals used to create each of these scales were chosen based on the work of Grouzet et al. (2005), who found that many of the different goals individuals endorsed varied in terms of whether they were material (e.g., financial success, hedonism, physical health, etc.) or concerned with benefiting society or transcending the self. The goals combined to create the transcendent concerns scale in the present study all appear to involve an intrinsic desire to *be* better, whereas those chosen for the material scale

were more extrinsically oriented and involved concerns about *doing* better. Although originally each of the goals listed were coded into mutually exclusive categories, theoretically these two larger categories appeared to be interesting to examine, and combining the goal categories in this way allowed for a comparison that involved a greater proportion of the goals listed. The transcendent scale comprised 52% and the material scale comprised 26% of all the goals participants listed. Additionally, these scales were normally distributed given these larger proportions, and therefore they did not need to be transformed. Similar to Grouzet et al. (2005), these scales were negatively related ($r = -.68, p < .001$), indicating that individuals with more transcendent concerns are unlikely to have materialistic concerns and vice versa. The correlations between the transcendent and the materialistic concerns with the other variables can be seen in Table 4. Whereas material concerns were unrelated to all variables, transcendent concerns were positively related to both ego-resilience and eudaimonic well-being.

Table 4

Patterns of Correlations Between Positive and Negative Emotion, Eudaimonic Well-Being, Ego-Undercontrol, Ego-resilience, and All Variables

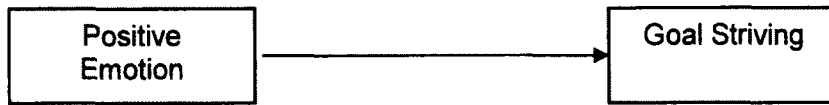
	Positive Emotion	Negative Emotion	Eudaimonic Well-being	Ego-Under- control	Ego- Resilience
<u>Goal Coding:</u>					
Proportion Well-Being	-.04	.03	-.16*	.02	.04
Proportion Growth	.04	-.05	.09	-.01	-.03
Proportion Self-Transcendent	.02	-.10	.14	.13	.18*
Transcendent Concerns	.06	.01	.16*	.08	.16*
Material Concerns	-.02	.01	-.02	-.04	-.14
<u>Personal Ratings of Goals:</u>					
Avg Positivity	.21**	.02	.27***	.11	.28***
Avg Personal Growth	.16*	-.05	.26***	.15*	.28***
Avg Self-Transcendence	.06	.06	.23**	.08	.19*
Avg Personal Expressiveness	.22**	-.11	.40***	.06	.36***
Avg Importance	.21**	.05	.25**	.11	.28***
Avg Progress	.33***	-.25**	.27***	.09	.29***
<u>Self-Report Scales:</u>					
Eudaimonic Well-Being	.41***	-.19*	---	.03	.39***
Ego-Undercontrol	.09	.10		---	.21**
Ego-Resilience	.49***	-.18*			---

Note. * $p < .05$; ** $p < .01$; *** $p < .001$.

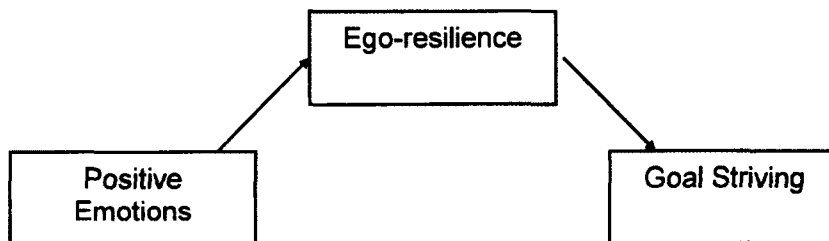
Research Question 2: The Role of Individual Differences in Ego-Resilience

Analyses addressing the link between ego-resilience and goal striving. The second set of hypotheses stated that ego-resilience would be related to both positive emotions and to greater eudaimonic goal striving. Correlations were conducted in order to examine patterns of relationships between ego-resilience, positive emotion, and goal striving. The correlations between ego-resilience and all variables can also be seen in Table 4. Ego-resilience and ego-undercontrol were positively inter-correlated; however, as predicted, ego-resilience (but not ego-undercontrol) was related to positive emotion. Ego-resilience was also positively related to the proportion of self-transcendent goals. Contrary to predictions, ego-resilience was unrelated to the proportion of well-being and personal growth goals. As expected, individuals who were higher in ego-resilience rated their goals as higher in positivity, personal growth, self-transcendence, and personal expressiveness. Ego-resilience was also positively associated with ratings of goal importance and goal progress. Finally, ego-resilience was related to eudaimonic well-being. Thus, support was found for the hypothesis that ego-resilience would be related to both positive emotions and to eudaimonic goal striving.

Analyses addressing the role of ego-resilience in the relationship between positive emotions and goal striving. It was theorized that positive emotions might be linked to goal striving and eudaimonic well-being via ego-resilience. Thus, the next set of analyses was conducted in order to investigate whether the relationship between positive emotions and goal striving might be mediated by individual differences in ego-resilience. Figure 1a depicts the relationship between positive emotion and goal striving. Figure 1b depicts the hypothesized relationship between positive emotions, ego-resilience, and the goal striving variables, with ego-resilience mediating the direct relationship between positive emotions and goal striving.



a) The direct relationship between positive emotions and goal striving.



b) Hypothesized mediating role ego-resilience

Figure 1. Mediation model examining the hypothesized mediating role of ego-resilience in the relationship between positive emotions and goal striving.

According to Baron and Kenny (1986), mediation is tested by examining the effect of the initial variable on the outcome when the variance associated with the putative mediator is removed. Full mediation occurs when the effect of the initial variable on the outcome variable is rendered non-significant, and partial mediation occurs when this effect is significantly reduced. In order to examine whether ego-resilience mediates the relationships between positive emotions and goal striving, separate regression analyses following Baron and Kenny's (1986) procedure were conducted for each outcome variable (i.e., proportion of well-being, personal growth and self-transcendent strivings, ratings of positivity, personal growth, self-transcendence, progress, and importance, as well as eudaimonic well-being) separately. Follow up Sobel tests (Sobel, 1982) were conducted to examine the significance of any mediation effects.

Satisfying Baron and Kenny's (1986) criteria, positive emotion significantly predicted ego-resilience, $\beta = .49$, $R^2 = .24$, $p < .001$. The results of the two-step regression analyses for each of the outcome variables can be seen in Table 5. In step 1 of the analyses, positive emotions did not significantly predict the proportion of well-being, personal growth, or self-transcendent goals, or ratings of self-transcendence, so mediation was not present with these variables. It may be worth noting, however, that ego-resilience continued to predict the proportion of self-transcendent strivings as well as ratings of self-transcendence in the presence of positive emotions indicating that positive emotion did not account for the relationship between ego-resilience and these variables.

Positive emotions significantly predicted ratings of positivity and personal growth in Step 1, and when ego-resilience was added to the regression equations, positive emotions

Table 5

Results of Regression Analyses Examining the Mediating Role of Ego-Resilience in the Relationship Between Positive Emotions and Goal Striving.

	Step 1 R^2	Step 1 Beta Positive Emotion	Step 2 Beta Positive Emotion	Step 2 Beta Ego- Resilience	Step 2 Increase R^2	Step 2 Total R^2
<u>Goal Coding:</u>						
Proportion Well-Being	.002	-.04	-.08	.08	.004	.006
Proportion Growth	.001	.04	.07	-.06	.003	.004
Proportion Self-Transcendent	.00	.02	-.09	.23**	.04**	.04*
<u>Personal Ratings of Goals:</u>						
Avg Positivity	.05**	.21**	.10	.23**	.04**	.09***
Avg Personal Growth	.03*	.16*	.03	.27**	.05**	.08**
Avg Self-Transcendence	.003	.06	-.04	.21*	.03*	.04*
Avg Personal Expressiveness	.05**	.22**	.06	.33***	.08***	.13***
Avg Importance	.04**	.21**	.10	.23**	.04**	.08***
Avg Progress	.11***	.33***	.25**	.16*	.02*	.13***
<u>Self-Report Scales:</u>						
Eudaimonic Well-Being	.16***	.41***	.28***	.24***	.05**	.21***

Note. [†] $p = .06$; * $p < .05$, ** $p < .01$, *** $p < .001$

no longer predicted either ratings of well-being or personal growth. These full meditation effects were significant (Sobel tests = 2.62, $p = .009$, and 2.84, $p = .004$, respectively). Likewise, in Step 1 positive emotions significantly predicted ratings of personal expressiveness and importance, but no longer predicted these variables when ego-resilience was added to the equations (Sobel tests = 3.48, $p < .001$, and 2.68, $p = .007$, respectively). Positive emotions continued to significantly predict ratings of progress when ego-resilience was added to the equation; however, a marginally significant Sobel test (test statistic = 1.85, $p = .06$) revealed that the partial reduction of the relationship between positive emotion and ratings of progress in the presence of ego-resilience could be considered partial mediation. Finally, positive emotions continued to significantly predict eudaimonic well-being when ego-resilience was added to the equation; however, a significant Sobel test (test statistic = 2.95, $p = .003$) indicated that ego-resilience partially mediated the relationship between the positive emotion and eudaimonic well-being. Thus, overall, positive emotions appeared to be linked to goal striving at least in part because of overlap with ego-resilience, supporting the notion that ego-resilience mediates the relationship between positive emotion and goal striving.

Summary

Overall, the hypotheses for the roles of both positive emotion and ego-resilience in goal striving and eudaimonic well-being were partially supported. Although neither positive emotions nor ego-resilience were found to be related to the proportion of well-being or personal growth goals, ego-resilience was positively related to the proportion of self-transcendent goals. Furthermore, both positive emotions and ego-resilience were related to ratings of positivity, personal growth, and personal expressiveness, goal progress, and these goal variables in turn, were related to eudaimonic well-being. Overall, however, given the

correlational design of Study 1, it was not possible to determine the direction of the link between positive emotions and goal striving. Study 2 was designed to include an experimental manipulation of positive emotions in order to address this question.

Altogether, the results of the regression analyses in Study 1 indicated that ego-resilience seems to be a stronger predictor of goal striving than positive emotion. In many cases, ego-resilience accounted for the relationship between positive emotions and goal striving. Yet, positive emotions were related to higher ego-resilience. It seems possible that, as Fredrickson (1998) suggested, positive emotion builds the resources and character strengths (i.e., ego-resilience) necessary for living well; however, because Study 1 was a cross-sectional study, it was not possible to determine whether experiences of positive emotion led to higher levels of ego-resilience over time, or whether ego-resilient individuals simply experience more positive emotions. Study 2 was also designed in part to try and address this question, as participants were asked to first complete the measure of ego-resilience and then four weeks later to report the number of positive and negative emotions they experienced over the four weeks, as well as complete the measure of ego-resilience a second time. Thus, Study 2 made it possible to investigate whether positive emotions over a period of four weeks predicted increases in ego-resilience.

METHOD

Study 2

Participants. A total of 133 (37 men; 96 women) UNBC undergraduate students participated in this study. These participants ranged in age from 17 to 52 ($M = 20.98$, $SD = 5.67$), and the sample was predominately Caucasian (75.9%), followed by Asian (9%), Aboriginal (6.8%), other (6.8%), and African-Canadian (1.5%). The majority of the participants indicated that they were single (57.9%) or dating one person exclusively (35.3%). The remaining participants were married or common-law (5.3%), engaged (0.8%), or divorced/separated (0.8%). A total of 123 (33 men; 90 women) participants completed the follow-up (Time 2) assessment four weeks later.

Procedure. Participants enrolled in courses that are part of the UNBC Psychology Research Participation Pool were asked to sign up for the study on the online UNBC Psychology Research Participation System for two separate lab sessions, scheduled to be four weeks apart. Students enrolled in one of the eligible classes who volunteered to participate in the research were compensated with 2% extra course credit towards their final grade for completing both lab components of the study (i.e., 1% for completing Time 1, 1% for returning four weeks later to complete Time 2). Students who volunteered to participate in the research were asked to meet the researcher at the study location (lab 10-3550) at the dates/times they signed up for online. Upon arriving at the lab, participants were asked to read an information letter (Appendix B) and to complete an informed consent form (Appendix C) and a demographic questionnaire (Appendix D). Participants were given the information letter as well as a copy of the informed consent form for their records.

After completing the informed consent form, at the Time 1 session participants were seated in front of a computer monitor, and provided a paper and pencil packet of

questionnaires with instructions (described below). After giving brief instructions, the researcher was seated at another table in the lab, informing the participant that she was there if they had any questions. Within the questionnaire packet, participants were asked to first complete the ego-resilience measure (Appendix F) and the PANAS (Appendix G). Instructions provided within the questionnaire packet instructed them to then play a video that was already set up on the computer monitor, and then to complete the remaining questions after the video has finished. Participants were randomly assigned to view one soundless two-minute video designed to elicit awe, amusement, or no emotion (neutral). After participants completed the remaining questions in the packet assessing their goals (Appendix J) and emotions following the clip (Appendix K), they were thanked and excused from the lab. At Time 2, four weeks later, participants were presented with the goals they listed at Time 1, and asked to complete a measure of their goal progress and satisfaction (Appendix L). Finally, participants were asked to complete the measure of ego-resilience again (Appendix F), as well as a measure of eudaimonic well-being (Appendix H), thanked, and excused from the lab.

Apparatus and materials. A standard desktop computer and 17-inch monitor was used in the experiment. Each participant was seated in front of the computer monitor as they viewed the soundless film clip on this monitor. Each participant was also provided with a paper questionnaire packet to fill out. Three, two-minute, soundless videotaped film clips (described below) were used in order to induce awe, amusement, or no (neutral) emotion.

Awe film clip. The awe inducing film clip consisted of a soundless, two-minute sky view of the Grand Canyon National Park from an IMAX DVD titled “Grand Canyon: The Hidden Secrets”, combined with shots of the Grand Canyon filmed by Aerial Filmworks using a gyro-stabilized camera system mounted on an aircraft (the full Aerial filmworks clip

can be viewed at <http://www.aerialfilmwork.com/cineflex-demo-reels/>). The clip depicts various shots of the Grand Canyon from an aerial view, with an individual in a personal aircraft frequently coming into view. Permission to use the Aerial Filmworks clip of the Grand Canyon for research purposes was attained in writing from Aerial Filmworks.

Amusement film clip. The amusement inducing film clip consisted of a series of chimpanzee outtakes filmed in sanctuaries founded by the Jane Goodall Institute. The outtakes depict various chimpanzees engaging in amusing behaviours, such as rolling in leaves and grabbing as many bananas as they can carry (the full clip can be viewed at http://wn.com/Chimpanzee_Outtakes). Permission to use the film clip for research purposes was attained in writing from the Jane Goodall Institute. Participants viewed a soundless, two-minute segment of the chimpanzee outtakes.

Neutral film clip. The neutral film clip consisted of an informational demonstration of the proper method of stacking firewood taken from monkeysee.com by Knowlera Media, LLC (the full film clip can be viewed at <http://www.monkeysee.com/play/11962-cutting-firewood-stacking>). The clip depicts a man stacking split pieces of firewood, and the two-minute soundless portion that was shown to participants includes only the hands of the man stacking the wood. Monkeysee.com grants permission to use video clips from the site for non-commercial use.

Pilot research on the film clips. The effectiveness of using short video clips to elicit desired mood states has been established elsewhere (Gerrards-Hesse, Spies, & Hesse, 1994; Westermann et al., 1996). However, to ensure the chosen clips effectively elicited the emotions desired, the three soundless video clips described above were administered to a sample of 72 UNBC undergraduate students in a pilot study. Given these 72 UNBC students were asked to watch one of the three clips that were to be used in Study 2, they were

prohibited from participating in Study 2. Via random assignment, 24 participants (17 women; 7 men) viewed the awe inducing film clip, 24 participants (15 women; 9 men) viewed the amusement inducing film clip, and 24 participants (16 women; 8 men) viewed the neutral film clip. Following viewing the clip, participants were asked to describe in their own words their reaction to clip and then to indicate the degree to which they felt several emotions while watching the film clip, including awe and amusement. Between-subjects univariate analyses of variance (ANOVAs) were conducted to analyze the main effects of film condition and gender, as well as the interaction between these two effects on participants' ratings of their emotional reactions to the films. The ANOVAs revealed no significant main effects of gender and no significant interaction between gender and film condition for any of the emotions elicited, so these will not be discussed further.

Awe. For participants' reports of feelings of awe, significant differences were found between the three film conditions, $F(2, 66) = 37.68$, $Mse = 139.88$, $p < .001$, $\eta^2 = .53$. Examination of the means using Tukeys' HSD procedure revealed that participants who viewed the awe inducing film clip reported significantly higher levels of awe ($M = 6.04$, $SD = 1.92$) than either those in the amusement condition ($M = 4.21$, $SD = 2.40$; mean difference = 1.833, $p = .004$) or those in the neutral condition ($M = .92$, $SD = 1.28$; mean difference = 5.13, $p < .001$).

Amusement. For participant reports of feelings of amusement, significant differences were found between the three film conditions, $F(2, 66) = 13.20$, $Mse = 70.46$, $p < .001$, $\eta^2 = .29$. Examination of the means using Tukeys' HSD procedure revealed that participants who viewed the amusement inducing film clip reported significantly higher levels of amusement ($M = 6.25$, $SD = 1.80$) than either those in the awe condition ($M = 3.71$, $SD = 2.56$; mean

difference = 2.54, $p = .001$) or those in the neutral condition ($M = 3.08$, $SD = 2.45$; mean difference = 3.17, $p < .001$).

Written feedback. Based on written feedback received from the participants describing in their own words their reactions to the films, the amusement clip was modified to remove scenes of the chimpanzees putting their fingers in their noses (found to elicit disgust in some participants). Frames were removed from the neutral clip that involved the man picking up an axe to split a piece of wood (found to invoke initial anxiety in participants who feared he might hurt himself).

Measures. In Study 2 participants were asked to complete paper and pencil questionnaires (described below) at both Time 1 and upon returning to the lab at Time 2. At Time 1, participants first completed the measures of ego-resilience and positive and negative affect (order counter-balanced). Next, participants were asked to view the film clip and then to list and rate their four-week goals. This was done in order to ensure that individual differences in ego-resilience, as well as the baseline measures of emotions were recorded prior to the emotion induction. Participants were asked to generate their goal list immediately after the emotion induction so that the influence of the emotion induction on the types of goals participants listed could be assessed.

Ego-Resilience Scale (ER89; Appendix F). The same measure of ego-resilience described in Study 1 was used in Study 2. Participants completed this measure once at Time 1 and again at Time 2. In this study the Cronbach's alphas were .66 for the 14-item measure at Time 1 and .73 at Time 2.

Positive and Negative Affect Schedule (PANAS; Appendix G). At Time 1, participants were asked to complete the same measure of positive and negative emotions (the PANAS) described in Study 1, with instructions to indicate how they were feeling 'right

now'. This measure was used to give a baseline measure of participants' ambient mood (labeled positive and negative affect). The Cronbach's alphas for the PANAS scale at Time 1 were .88 for the positive affect scale and .78 for the negative affect scale. At Time 2, participants were again asked to complete the PANAS with instructions to indicate how they felt over the past four weeks. Thus, at Time 2 the measure provided an assessment of each participant's level of positive and negative emotion over the previous four weeks (labeled positive and negative emotion). The Cronbach's alphas for the PANAS scale at Time 2 were .86 for the positive emotion scale and .84 for the negative emotion scale.

Goal list and ratings (Appendix J). At Time 1, participants were asked to generate a list of five goals they wanted to accomplish over the next four weeks in response to the sentence stem "In the next four weeks, I would like to...", as well as to give a brief explanatory reason for each goal. As with Study 1, in order to evaluate the types of goals participants listed, two methods were used. First, participants were asked to rate each goal for the degree of positivity, personal growth, and self-transcendence on a scale ranging from *not at all* (0) to *extremely* (5). Scores for these variables were calculated by averaging participants' ratings across all 5 goals. Second, the goals generated by participants were coded for content following the procedure for determining what category the content of each striving might fall outlined by Emmons (1999). Again, a modified version of Emmons' (1999) coding manual developed by Dr. Beaumont was used to identify the proportion of strivings that are oriented towards well-being, personal growth, and self-transcendence. The goals were categorized by the author into 13 mutually exclusive categories: achievement, intimacy, affiliation, self-presentation, self-sufficiency, personal growth, well-being, generativity, self-transcendence, physical health, leisure activities, temperance, and mundane chores (no power or maladaptive goals were generated by participants in this study). Given

the relatively large number of achievement oriented goals, the achievement goal category was subdivided into achievement-high (improve/success), and achievement-low (reduce/avoid stress) in order to further refine the goal coding scheme. Inter-rater agreement for the achievement category was 92% overall; inter-rater agreement as to whether each achievement goal was categorized as low or high was 90%.

The coding for this study differed from Study 1 in that if the reason participants provided for each of their goals provided supplemental information, then it too was coded. For example, one participant listed the achievement goal “be caught up in all classes” followed by the reason “reduce stress caused by exams”. This was coded as both achievement and well-being. In contrast, a similar achievement goal “be ahead in readings” was followed by an achievement reason “to get good grades”, so it was only assigned one code for achievement. Thus, the five goals were assigned one mutually exclusive code, and the reasons participants provided were assigned an additional code(s) only if they differed from the goals. Another example was the goal “run 10 km without rest” (coded as achievement), followed by the reason “improve my physical appearance and endurance (coded as self-presentation and physical health). The number of goals coded by category, along with examples, means, standard deviations, and ranges can be seen in Table 5.

In order to determine the accuracy of the modified coding scheme, a second trained coder (Dr. Beaumont) categorized the data from 30 participants (22% of the data), and the inter-coder agreement for each category was calculated (see Table 5 for percent agreement by category; Note: A relatively high percentage of the data were coded for this study, because this was the first time this method of generating personal goals had been used). Interobserver agreement across all categories was high (Bakeman & Gottman, 1997) with a Cohen’s Kappa of .89. Any discrepancies were discussed until agreement was reached.

Table 6

Study 2 Goal Coding: Example Goals, Total Number Coded, Mean, Standard Deviation, Range, and Inter-Rater Agreement by Goal Category

Goal type/category	Example(s)	Number Coded	<i>M</i>	<i>SD</i>	Range	Agreement
Achievement High	"Ace my first round of midterms"	148	1.15	.88	0-4	92%
Achievement Low	"Pass my midterms"	149	1.16	.99	0-4	92%
Intimacy	"Reach a higher level in my relationship with my girlfriend"	60	.47	.64	0-2	92%
Affiliation	"Make some new friends"	33	.26	.47	0-2	100%
Self-Presentation	"Work on my appearance (look presentable in public)"	11	.09	.33	0-2	67%
Self-Sufficiency	"Have moved out of my parent's house"	16	.12	.38	0-2	100%
Personal Growth	"Learn something new"	65	.50	.67	0-3	94%
Well-Being	"Keep my balance of work and play"	104	.81	.81	0-3	94%
Generativity	"Do something nice for someone every day"	21	.16	.37	0-1	80%
Self-Transcendence	"Grow more in my relationship with God"	7	.05	.23	0-1	100%
Physical Health	"Start eating healthier"	125	.97	.85	0-3	89%
Leisure Activities	"Get back into playing musical instruments"	40	.31	.54	0-3	88%
Temperance	"Watch less TV"	41	.32	.53	0-2	67%
Mundane Chores	"Keep my house/room clean"	13	.10	.35	0-2	60%
Total		833	6.46	1.33	4-11	91%

Emotion report (Appendix K). Following the procedure adapted from Ekman, Friesen, and Ancoli (1980), participants were asked to rate the greatest amount felt of 20 emotions on a scale ranging from *none* (0) to *a great deal* (8) while watching the film clip (at Time 1 only). The emotions were chosen based in part on the work of Fredrickson (e.g., Johnson & Fredrickson, 2005), as well as Keltner and Haidt's (2003) description of transcendent experiences (awe). This measure served as a manipulation check on the mood induction procedure.

Goal progress, effort and achievement (Appendix L). At Time 2, participants were presented with the five goals they listed four weeks prior, and asked to rate each of the five goals in terms of: how satisfied they were with their progress towards each goal over the past four weeks; how much effort they exerted for each striving; and, how successful they were in achieving the goal.

See Appendix N for a quick key to all the goal rating variables by name.

Questionnaire for Eudaimonic Well-Being (QEWB; Appendix H). The same measure of eudaimonic well-being described in Study 1 was used in Study 2. The Cronbach's alpha in this study was .81 for this 21-item measure.

Perceived Stress Scale (PSS-10; Appendix M). The PSS-10 is a 10-item measure of "the degree to which situations in one's life are appraised as stressful" (Cohen, & Williamson, 1988, p. 33), by focusing on how unpredictable, uncontrollable and overloaded respondents perceive their lives to be (Cohen & Williamson, 1988). This measure was included in order to provide an assessment of degree to which participants perceived the intervening four week period between the Time 1 and the Time 2 assessment as stressful. The 10-item version of the perceived stress scale was developed by Cohen and Williamson (1988), based on the original 14-item version (Cohen, Kamarck, & Mermelstein, 1983) with

better psychometric properties. Respondents are asked about their thoughts and feelings over the past four weeks, and respond to items on a scale ranging from *never* (0) to *very often* (4). An alpha coefficient of .78 was found for the 10-item PSS (Cohen & Williamson, 1988). In the present study the Cronbach's alpha was .89.

RESULTS

Preliminary Data Screening

Before analyses were conducted, the data set was examined for missing data, outliers, and normality. There were a few missing scores for some of the scale items; however, the missing data did not exceed five percent of the data (Tabachnick & Fidell, 2007), so missing item scores ($N = 7$) were replaced with the item mean so that scales consisting of sum scores would not be reduced due to missing items. Additionally, one participant failed to complete the emotion report indicating how the film clip made them feel, and one participant failed to complete the Time 2 goal ratings (achievement, effort, and satisfaction), so those cases were left as missing data. Ten individuals did not complete the Time 2 follow-up session, resulting in a final sample of 123 (33 men; 90 women) for analyses involving Time 2 variables.

In terms of outliers, one individual scored above average on the negative affect scale (PANAS) at Time 1 ($M = 30.0, z = 3.43$). Given the Time 1 negative affect measures asked participants to indicate "how you are feeling right now" and this individual scored within the normal range on the Time 2 emotion measures ("how have you felt over the past four weeks?"), it seemed unlikely that their score reflected true divergence from the population. Thus, although this participant's Time 1 negative affect score was above the critical z -score cutoff to be deemed as outliers (3.29; Tabachnick & Fidell, 2007), a decision was made to retain them in further data analyses because they did not appear to represent a different population (e.g., depressed individuals). Finally, another individual scored below average on

the QEWB at Time 2 ($M = 22.0$, $z = -3.48$), but their score was retained as well. Four female participants were extreme outliers in terms of age (ages ranging from 40 to 52, z -scores from 3.35 to 5.47). Further inspection revealed some of these to be multivariate outliers on a number of variables as well, so a decision was made to delete these four cases from the data set resulting in a final sample size of 129 (37 men; 92 women) for Time 1 variables and 120 (33 men; 87 women) for Time 2 variables. Participants in the final sample ranged in age from 17 to 39 ($M = 20.21$, $SD = 3.59$).

Finally, examination of the data for normality revealed that overall the scale distributions were not skewed; however, given the large number of coding categories for the goals, most of the goal type variables (i.e., proportion of personal growth, self-transcendence, and well-being goals, etc.) were positively skewed. Square-root and log transformations were attempted, but did not normalize the goal type data. Coxe, West, and Aiken (2009) suggested that when a variable has a mean of less than 10 and/or contains a large number of zeros, transformations will typically not sufficiently normalize the data; however, nonparametric analyses (e.g., Kruskal-Wallis) can be used in place of ANOVA and the Mann-Whitney test in place of follow-up t -tests when the outcome variable does not meet the assumption of normality (Siegel, 1957). Thus, these tests will be used for all analyses involving the coded goal variables.

Preliminary Analyses of Gender Differences

The proportions of goals coded in each goal category as a function of gender are displayed in Table 7. Mann Whitney U tests were conducted to examine possible gender differences in these goal proportion variables, given many were not normally distributed. Using a Bonferroni adjusted p value of .004 (.05/14), none of these tests were significant. Descriptive statistics for all self-report variables are presented in Table 8. Two separate

Table 7

Study 2 Means and Standard Deviations for Proportion of Goals in each Goal Category as a Function of Gender

	Total	Men	Women		
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>U</i>	<i>z</i>
Achievement High	.18 (.15)	.25 (.18)	.15 (.12)	1162.0	-2.84
Achievement Low	.18 (.17)	.18 (.20)	.18 (.15)	1589.0	-.60
Intimacy	.07 (.10)	.06 (.10)	.08 (.10)	1506.0	-1.17
Affiliation	.04 (.08)	.05 (.08)	.04 (.08)	1519.0	-1.27
Self-Presentation	.01 (.04)	.02 (.05)	.01 (.03)	1608.5	-1.10
Self-Sufficiency	.02 (.06)	.00 (.02)	.03 (.07)	1503.5	-1.92
Personal Growth	.07 (.10)	.05 (.09)	.08 (.10)	1351.5	-2.05
Well-Being	.12 (.11)	.09 (.10)	.13 (.12)	1394.5	-1.67
Generativity	.03 (.06)	.02 (.06)	.03 (.06)	1646.0	-.45
Self-Transcendence	.01 (.04)	.00 (.00)	.01 (.04)	1572.0	-1.72
Physical Health	.15 (.13)	.16 (.12)	.14 (.13)	1480.5	-1.18
Leisure Activities	.05 (.09)	.04 (.07)	.06 (.10)	1596.5	-.70
Temperance	.05 (.08)	.05 (.09)	.05 (.08)	1665.0	-.24
Mundane Chores	.02 (.06)	.01 (.05)	.02 (.06)	1630.5	-.77

Table 8

Means and Standard Deviations for all Study 2 Self-Report Variables as a Function of Gender

	Total	Men	Women		
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>F</i>	Range
<u>Time 1 Personal Ratings of</u>					
<u>Goals:</u>					
Avg Positivity	3.82 (.79)	3.88 (.75)	3.80 (.80)	.29	.60 – 5.00
Avg Personal Growth	3.74 (.82)	3.72 (.75)	3.75 (.85)	.03	.80 – 5.00
Avg Self-Transcendence	1.91 (1.39)	1.80 (1.30)	1.95 (1.42)	.32	.00 – 4.80
<u>Time 1 Self-Report Scales:</u>					
Ego-Resilience	3.06 (.36)	3.07 (.37)	3.05 (.35)	.06	2.07 – 3.93
Positive Affect	31.11 (7.36)	32.68 (5.71)	30.48 (7.86)	2.38	12.00 – 49.00
Negative Affect	14.34 (4.49)	14.49 (4.44)	14.28 (4.53)	.06	10.00 – 30.00
<u>Time 2 Personal Ratings of</u>					
<u>Goals:</u>					
Avg Progress	3.84 (1.18)	4.25 (1.08)	3.67 (1.18)	6.06*	.80 – 6.40
Avg Effort	3.19 (.66)	3.24 (.66)	3.17 (.66)	.24	1.60 – 4.80
Avg Achievement	4.27 (1.03)	4.62 (.98)	4.13 (1.03)	5.65*	.80 – 6.40
<u>Time 2 Self-Report Scales:</u>					
Ego-Resilience	3.00 (.39)	3.07 (.32)	2.97 (.41)	1.93	1.71 – 3.79
Positive Emotion	33.71 (6.61)	34.91 (5.46)	33.25 (6.97)	1.53	15.00 – 47.00
Negative Emotion	22.48 (6.80)	21.11 (7.15)	23.00 (6.63)	1.99	10.00 – 40.00
Eudaimonic Well-Being	54.78 (9.50)	56.58 (8.61)	54.09 (9.78)	1.78	22.00 – 74.00
Perceived Stress	18.69 (7.03)	15.15 (6.88)	20.03 (6.64)	12.67**	3.00 – 34.00

Note. Avg = Average of ratings across all five goals.

* $p < .05$; ** $p < .01$.

multivariate analyses of variance (MANOVAs) were conducted to examine possible gender differences for Time 1 and Time 2 self-report variables. For the Time 1 variables, the multivariate effect of gender was not significant, $F(1, 127) = .59, p = .74, \eta^2 = .03$. For the Time 2 variables, the multivariate effect of gender was significant, $F(1, 117) = 2.78, p = .008, \eta^2 = .17$. The univariate effect of gender was significant for ratings of achievement, ratings of progress, and perceived stress; men reported higher achievement of their goals and higher satisfaction with their goal progress, whereas women reported higher perceived stress.

To further examine possible gender differences, separate inter-correlations among variables were computed for men and for women, and then z-test comparisons between the strength of corresponding correlations for men and women were conducted. These analyses resulted in only a chance level of significant gender differences in the strength of correlations, with only 4 out of 110 z-tests being significant. Specifically, the strength of the correlations between Time 1 ego-resilience and Time 1 positive affect were significantly different for men and women ($r = .04, p = .81$, for men; $r = .50, p < .001$, for women; $z = -2.5, p = .012$), and the strength of the correlations between the proportion of well-being strivings and eudaimonic well-being were significantly different for men and women ($r = -.20, p = .27$, for men; $r = .26, p = .015$, for women; $z = -2.2, p = .03$). Furthermore, the strength of the correlations between Time 1 ego-resilience and eudaimonic well-being were significantly different for men and women ($r = .01, p = .97$, for men; $r = .58, p < .001$, for women; $z = -3.08, p = .002$), and the strength of the correlations between Time 2 ego-resilience and eudaimonic well-being were significantly different for men and women ($r = .16, p = .38$, for men; $r = .70, p < .001$, for women; $z = -3.32, p < .001$).

Overall, the preliminary analyses of gender differences revealed mean differences between men and women on only three variables: ratings of achievement, ratings of progress,

and perceived stress, and only a chance level of significant gender differences in the strength of the correlations. Thus, because there was no theoretical basis for expecting the pattern of results to differ across gender, and there were so few gender differences in the F -test and z -test results, a decision was made to conduct subsequent analyses with the sample as a whole.

Manipulation Check: Mood Induction Procedure

In order to ensure the two-minute film clips effectively elicited the emotions desired, participants were asked to indicate the degree to which they felt several emotions while watching the film clip, including awe and amusement. Between-subjects univariate analyses of variance (ANOVAs) were conducted to analyze the main effects of film condition on participants' ratings of their emotional reactions to the films.

Awe. For participants' reports of feelings of awe, significant differences were found between the three film conditions, $F(2, 125) = 37.44$, $Mse = 196.24$, $p < .001$, $\eta^2 = .38$. Examination of the means using Tukeys' HSD procedure revealed that participants who viewed the awe inducing film clip reported significantly higher levels of awe ($M = 5.47$, $SD = 2.62$) than either those in the amusement condition ($M = 3.24$, $SD = 2.36$; mean difference = 2.23, $p < .001$) or those in the neutral condition ($M = 1.20$, $SD = 1.78$; mean difference = 4.27, $p < .001$).

Amusement. For participant reports of feelings of amusement, significant differences were found between the three film conditions, $F(2, 125) = 45.55$, $Mse = 173.42$, $p < .001$, $\eta^2 = .42$. Examination of the means using Tukeys' HSD procedure revealed that participants who viewed the amusement inducing film clip reported significantly higher levels of amusement ($M = 5.93$, $SD = 1.87$) than either those in the awe condition ($M = 3.24$, $SD = 1.90$; mean difference = 2.68, $p < .001$) or those in the neutral condition ($M = 1.93$, $SD = 2.09$; mean difference = 4.00, $p < .001$).

Research Question 1: The Role of Positive Emotions in Goal Striving

In order to examine the potential causal role of positive emotion in goal striving, a between-subjects multivariate analyses of variance (MANOVA) was conducted to investigate the effect of emotion condition (awe, amusement, neutral) on eight, self-report dependent variables (ratings of positivity, personal growth, self-transcendence, achievement, effort, and satisfaction, level of eudaimonic well-being, and perceived stress). See Table 9 for the means and standard deviations of all dependent variables by emotion condition. The MANOVA results revealed no significant multivariate effect of emotion condition, $F(2, 116) = .87, p = .61$.

Because the goal type variables were not normally distributed, Kruskal-Wallis analyses were conducted to compare individuals in the three conditions (awe, neutral, amusement) for differences in the proportion of well-being, personal growth and transcendent goals. Mean ranks are reported in Table 9. The results of these analyses revealed that emotion condition only predicted the proportion of personal growth goals, $\chi^2(2, N = 129) = 11.63, p = .003, \eta^2 = .09$. Follow-up Mann-Whitney tests to evaluate pairwise differences among the three groups revealed that individuals in the awe condition had a significantly greater proportion of personal growth goals than either those in the neutral, $U = 585, p = .001$, or amusement, $U = 720, p = .026$ conditions. The neutral and amusement conditions did not differ significantly from one another in the proportion of personal growth goals, $U = 773.5, p = .24$. This finding supports the hypothesis that awe plays a causal role in eudaimonic goal striving by promoting more personal growth goals.

Table 9

Means and Standard Deviations for all Study 2 Variables as a Function of Emotion Condition

	Awe (<i>N</i> =42) <i>M</i> (<i>SD</i>)	Amusement (<i>N</i> =39) <i>M</i> (<i>SD</i>)	Neutral (<i>N</i> =38) <i>M</i> (<i>SD</i>)	<i>F</i>
<u>Personal Ratings of Goals:</u>				
Avg Positivity	3.66(.81)	3.95(.56)	3.72(.93)	1.51
Avg Personal Growth	3.78(.69)	3.58(.91)	3.77(.84)	.72
Avg Self-Transcendence	1.90(1.36)	1.91(1.50)	1.92(1.35)	.00
Avg Progress	3.69(.95)	3.94(1.24)	3.89(1.34)	.51
Avg Effort	3.10(.56)	3.21(.72)	3.27(.69)	.76
Avg Achievement	4.24(.82)	4.17(1.03)	4.39(1.24)	.44
<u>Self-Report Scales:</u>				
Eudaimonic Well-Being	54.69(10.60)	54.36(9.14)	55.08(8.83)	.05
Perceived Stress	17.57(6.85)	19.15(6.88)	19.47(7.49)	.84
	Awe (<i>N</i> =45) <i>M</i> rank	Amusement (<i>N</i> =43) <i>M</i> rank	Neutral (<i>N</i> =41) <i>M</i> rank	χ^2
<u>Goal Coding</u>				
Proportion Well-Being	67.40	69.17	57.99	2.36
Proportion Growth	77.99	61.77	54.13	11.63**
Proportion Transcendent	64.38	66.03	64.60	.33

Note. Avg = Average of ratings across all five goals.

***p* < .01

Research Question 2: The Role of Individual Differences in Ego-Resilience

Analyses addressing the relationship between positive emotions and ego-resilience. In order to examine the potential role positive emotion might play in building resilience over time, a difference score variable was calculated by subtracting ego-resilience scores at Time 1 from those at Time 2. This difference score variable, thus, represented the extent to which participants had shown a change in ego-resilience over the intervening four weeks. Separate regression analyses revealed that both positive affect at Time 1 ($\beta = .25$, $R^2 = .06$, $p = .006$), as well as positive emotions over the four weeks (assessed at Time 2; $\beta = .28$, $R^2 = .08$, $p = .002$) predicted increases in ego-resilience. The difference in ego-resilience variable also predicted higher eudaimonic well-being ($\beta = .31$, $R^2 = .10$, $p < .001$). These findings lend support to the prediction that positive emotions contribute to eudaimonic well-being by building greater ego-resilience.

Analyses addressing the role of ego-resilience in the relationship between positive emotions and eudaimonic well-being. In order to examine whether ego-resilience (at Time 2) mediated the relationship between positive emotion (at Time 2) and eudaimonic well-being, Baron and Kenny's (1986) four steps in establishing mediation were conducted. In Steps 1-3 when entered in a separate regressions, positive emotions significantly predicted eudaimonic well-being ($\beta = .50$, $R^2 = .25$, $p < .001$), positive emotions significantly predicted ego-resilience ($\beta = .52$, $R^2 = .27$, $p < .001$), and ego-resilience significantly predicted eudaimonic well-being when the influence of positive emotions was controlled via hierarchical regression ($\beta = .46$, $R^2 = .40$, $p < .001$). In Step 4, positive emotions continued to predict eudaimonic well-being in the presence of ego-resilience ($\beta = .26$, $R^2 = .40$, $p < .001$); however, a significant Sobel test (test statistic = 4.04, $p < .001$) indicated that again, ego-resilience partially mediated the relationship between the positive emotion and eudaimonic

well-being. Thus, these findings indicate that positive emotions contribute to eudaimonic well-being both directly, as well as through their association with ego-resilience.

Analyses addressing the hypothesis that ego-resilient individuals might capitalize on positive emotions in order to continually strive towards more eudaimonic goals.

Finally, in order to investigate whether the positive effects of the positive emotion inductions on eudaimonic goal striving would be more pronounced among more ego-resilient individuals, ego resilience scores (Time 1) were categorized into low (bottom 25%), medium (middle 50%) and high (top 25%). Next, a series of ANOVAs were performed to test for interactions between the emotion condition and ego-resilience variables in predicting the outcomes (proportion of personal growth and self-transcendent strivings, ratings of personal growth and self-transcendence, level of achievement, and eudaimonic well-being). None of these analyses were significant. These results suggest that, contrary to predictions, ego-resilient individuals did not capitalize on either the amusement or awe emotion induction in order to continually strive toward more eudaimonic goals.

Summary

In Study 2 the hypotheses for the roles of both positive emotions and ego-resilience in goal striving and eudaimonic well-being were partially supported. The results of the emotion manipulation in Study 2 revealed that, as hypothesized, individuals in the awe condition reported significantly more personal growth goals. Contrary to predictions, no differences were found in the proportion of self-transcendent goals listed by participants in any of the emotion conditions; however, the overall number of self-transcendent goals listed was exceptionally small (only 7 goals out of the total 833 were coded as self-transcendent). It is possible that because the instructions in the current study asked participants to indicate “what they would like to accomplish over the next 4 weeks”, they did not bring to mind many self-

transcendent goals. It is also possible that the one time, 2 minute, emotion manipulation was not sufficiently strong enough to have a large effect on participants' overall goal striving.

Although the awe manipulation seemed to effectively encourage participants to list more personal growth goals, overall, the emotion manipulation had no effects on ratings of goal achievement, effort, or reports of eudaimonic well-being at the follow-up, contrary to predictions. Yet, given that the self-reported frequency of positive emotions was positively related to goal achievement and eudaimonic well-being in Study 1, it does not seem likely that the overall hypothesis about the importance of positive emotion for goal striving has been refuted. Post-hoc analyses revealed that emotion condition did not have an effect on the frequency of positive emotions experienced over the four weeks, suggesting that the emotion inductions did not have lasting effects on participants' emotions after they left the lab. Thus, it may be that either the emotion manipulation was not sufficiently strong enough to modify participants' long-term goal striving, or that individual differences in the frequency positive emotions experienced over time are more important (and were not significantly altered by the emotion manipulation). Whatever the case may be, a manipulation that involves increasing the frequency of positive emotions experienced on a daily basis may better address the hypothesis that positive emotions alter goal striving and lead to increased eudaimonic well-being. Given the preliminary support found here that awe predicted a greater proportion of personal growth goals listed, it seems likely that some sort of continued emotion manipulation could alter goal striving overall.

Positive emotion both at Time 1 and over the intervening four weeks also predicted positive changes in ego-resilience, supporting Fredrickson's (1998) hypothesis that positive emotions 'build' resources and character strengths. The results of the regression analyses further revealed that ego-resilience partially mediated the relationship between positive

emotions and eudaimonic well-being; therefore, positive emotions and ego-resilience appear to contribute to this form of well-being both independently and in conjunction. Thus, overall, it appears that positive emotion and ego-resilience mutually support and reinforce one another in building long-term well-being.

Finally, in Study 2, support was not found for the hypothesis that ego-resilient individuals would capitalize on their experiences of positive emotion. Although individuals in the awe condition listed significantly more personal growth goals, this finding did not interact with ego-resilience, contrary to predictions. Furthermore, no interactions were found between emotion condition and ego-resilience in predicting any of the other outcomes (proportion of self-transcendent strivings, ratings of personal growth and self-transcendence, goal achievement, and eudaimonic well-being). It is possible that there were too few participants in each condition at each level of ego-resilience to adequately test this hypothesis; however, it seems likely that because the emotion manipulation did not effect the goal striving and well-being outcomes at the four week follow-up, this manipulation simply may not have been strong enough to have a lasting effect, regardless of participants' level of ego-resilience.

DISCUSSION

The purpose of this thesis was to systematically examine the role of individual differences in positive emotions and ego-resilience in personal strivings by focusing on two related research questions: (1) Does positive emotion (i.e., awe) play a role in striving toward goals that are aligned with a eudaimonic perspective?; and, (2) Do individual differences in ego-resilience play a role within the positive effects of positive emotional experiences? It was hypothesized that more frequent experiences of positive emotions would predict greater eudaimonic strivings (personal growth and self-transcendent goals), as well as ratings of personal growth, self-transcendence, goal progress, and eudaimonic well-being. Furthermore, it was hypothesized that ego-resilience would play a role in the relationship between positive emotions and goal striving. These hypotheses were partially supported. A detailed discussion of the findings is presented below.

Research Question 1: The Role of Positive Emotions in Goal Striving

Hypotheses for the first research question were partially supported. In Study 1, positive emotions were related to ratings of goal progress and goal importance, as predicted. This finding is consistent with Fredrickson's (1998) suggestion that positive emotions function to broaden an individual's array of thoughts and actions, and thus, they expand attention and promote divergent thinking. Broadened thinking should aid in goal attainment to the extent that it helps individuals overcome barriers and resolve conflicts that may otherwise impair goal progress. Aspinwall (1998) further proposed that because positive emotions prompt more careful processing of self-relevant information (including negative information), they ought to play an essential role in the self-regulation of behaviour toward the attainment of valued goals. The present findings also provide support for this notion, and

to my knowledge, this research is among the first to examine the role of positive emotions in goal striving.

Although this initial finding supports the broaden-and-build theory regarding the function of positive emotions in general, and Aspinwall's theoretical supposition regarding the role of positive emotions in goal striving more specifically, I proposed that positive emotions would be linked not only to goal attainment, but also to more eudaimonic goal striving. This hypothesis was partially supported, as although positive emotions in Study 1 were not related to the proportion of well-being, personal growth, or self-transcendent strivings, they were related to higher ratings of positivity and personal growth. Likewise, positive emotions were also related to higher ratings of personal expressiveness. This pattern of results indicates that positive emotions seem to be more important for individuals' self-perceptions rather than their stated goals.

At first glance, it appears perplexing that positive emotions were related to ratings of positivity and personal growth, but not the proportion of well-being, personal growth or self-transcendent strivings, but it is important to consider what these two different measures were assessing. Coding of each striving was mutually exclusive and involved strict criteria to determine whether each was solely focused on well-being, personal growth, self-transcendence, or some other category. In contrast, the personal ratings measure allowed each participant to rate all of their strivings for the *degree* to which each was focused on positivity, personal growth, and self-transcendence. Thus, the personal ratings involved each participant's *perception* of the underlying focus of each goal.

It is possible that participant self-perceptions are more important for well-being than are the actual content of goals they generate. Research conducted by Waterman, Schwartz, and Conti (2008) supports the notion that participants' perceptions, or ratings of their goals,

are linked to well-being. These authors found that participants who perceived their activities as providing opportunities for developing their potential, and who reported feeling challenged by their activities, reported greater eudaimonic well-being regardless of the actual content of the activities themselves. This finding fits with Waterman's (2007) theoretical notion that engaging in activities that enhance personal growth could result in a 'eudaimonic staircase,' only as long as the individual is continually striving towards more challenging goals. This notion implies that differences will exist in the types of activities that individuals will find challenging. The present finding that positive emotions were related to the personal expressiveness of goals further supports the notion that positive emotions are linked to eudaimonic goal striving. Personal expressiveness is described by Waterman (1993) as a feeling that results from engaging in activities that fulfill one's personal potential or advance one's purpose in living. According to Waterman (1993), to feel personal expressiveness *is* to experience eudaimonic well-being.

Furthermore, Maslow (1954) described the need for self-actualization as doing what is uniquely fitting according to one's nature and becoming everything one is capable of being. According to Maslow (1954), "the specific form that these needs will take will of course vary from person to person. In one individual it may take the form of the desire to be an ideal mother, in another it may be expressed athletically, and still another it may be expressed in painting pictures or in invention" (p.46). Thus, when asking individuals what they are typically striving to accomplish, it may be important to consider their perceptions and the reasons why they value each goal.

Yet, the present results do not support Emmons (1986, 1999) supposition that it is the objective content of goals that matters. Research does indicate that more materialistic goals appear to be detrimental to well-being (e.g., Kasser & Ryan, 1993); however, the relative

influence of goals categorized as well-being, personal growth, and self-transcendent on well-being might depend more on each individual's perceptions of their goals. The finding that more results were found for the ratings of goals than the actual content of goals listed is not surprising given each goal or striving likely had multiple reasons behind it. Emmons' (1999) goal striving measure assesses the things an individual is typically trying to accomplish, but it does not offer insight into the underlying motivation for each 'goal'. For example, the striving to "get out and meet new people" would be coded as affiliation using Emmons' scheme, but the individual may be focusing on this striving in order to overcome anxiety or to learn from others (both personal growth strivings).

The measure of goals used in Study 2 allowed, in part, for greater complexity in the meaning of individuals' stated goals by allowing each participant to provide their reasons for each goal, and these reasons were coded and included in analyses if they provided additional information. In Study 2, inducing awe did prompt participants to list more personal growth strivings, as predicted. This result may have been found because the method used in Study 2 provided the opportunity for participants to list personal growth reasons underlying each stated goal. The fact that the awe condition resulted in more personal growth goals is also noteworthy given that the strict, mutually exclusive coding criteria used in Study 1 was again employed. The experimental nature of the study ensured that participants were randomly assigned to view only one emotion inducing video. Thus, these results provide evidence that feeling awe led participants to generate more personal growth strivings.

Several other researchers have found evidence that experiences of positive emotions influences cognitive processing during laboratory tasks (e.g., Fredrickson & Branigan, 2005; Isen & Daubman, 1984; see also review by Aspinwall, 1998). In addition, Fredrickson and Branigan (2005) found differences in the types of activities participants who were induced to

experience positive (vs. neutral or negative) affect said that they would like to be doing; however, very little research has examined the influence of momentary positive affect on future aspirations (see Algoré & Haidt, 2009 for an exception). Aspinwall (1998) outlined a mood-as-resource model suggesting that whereas a hedonic deficit (or negative affect) may prompt mood-repairing and self-defensive motives, positive affect creates a state of hedonic surplus in which an individual may feel they have the psychological resources necessary to adopt self-improvement goals. The present finding that an experience of awe prompted participants to list more personal growth goals provides preliminary support for this hedonic surplus theory.

Overall, support was garnered in Study 1 for the broaden-and-build theory of positive emotion, in general; yet, support was also found in Study 2 for Algoré and Haidt's (2009) call for more research assessing the unique consequences of different positive emotions. These researchers found that experiences of admiration also motivated participants to want to better themselves. Although no previous research to my knowledge had examined the motivational effects of awe or the effects of positive emotions on goal striving, the results of this thesis provides preliminary evidence that positive emotion, specifically awe, can in fact alter people's goal striving towards more personal growth goals. The finding that participants induced to feel awe set more personal growth goals than those induced to feel amusement provides further evidence that transcendent emotions, such as awe, have unique implications for eudaimonic striving.

Maslow (1954) suggested that feelings of awe are descriptive of the 'peak experiences' commonly reported by self-actualizing people. Given self-actualization involves a process of growth followed by self-transcendence (Beaumont, 2009; Maslow, 1954), I proposed that awe might promote personal growth and self-transcendent strivings. Algoré and

Haidt (2009) suggested that transcendent emotions, such as awe, broaden people's perspectives and pull them out of themselves, fueling my prediction that awe might make eudaimonic strivings more accessible. Huta and Ryan (2010) found that eudaimonic striving was positively related to feelings of awe and transcendence. The results of the present research provide evidence that awe plays a causal role in prompting more personal growth goals. Thus, feelings of awe may not only be a consequence of eudaimonic goal striving, but also a cause of it.

In contrast to the effect on personal growth goals, neither the amusement nor the awe emotion induction had an effect on the number of self-transcendent emotions participants generated relative to the neutral video condition. This null effect may have been due to differences in the goal variable instructions in Study 2. In Study 1, participants were asked to list ten things they are typically striving to do, whereas in Study 2, participants were asked to list five goals they would like to accomplish within the next four weeks. Perhaps as a result, very few self-transcendent strivings were listed in Study 2, compared to Study 1; however, even in Study 1, self-transcendent strivings were not exceptionally common, and perhaps as a result, positive emotions were unrelated to the proportion of self-transcendent strivings or to personal ratings of self-transcendence. It is possible, as some theorists have suggested (e.g., Maslow, 1954), that the participants' age range in the present research was not broad enough to adequately examine self-transcendent strivings well, given these are thought to be endorsed more frequently by older adults. Many developmental researchers (e.g., Erikson, 1959) have proposed that psychosocial development occurs across the lifespan. As people age, they may be more likely to consider larger questions such as meaning in life and the meaning of their existence – considerations that ought to be linked to more self-transcendent strivings. In contrast, younger individuals are thought to be more focused on concerns around

identity, intimacy, and career (Erikson, 1959), and in the present sample, academic achievement.

Perplexingly, in Study 2 the positive emotion manipulation did not have an effect on any of the self-perception measures, nor did it result in effects on eudaimonic well-being at the four-week follow-up. It may be that the experimental manipulation of emotions ‘primed’ participants to list more personal growth goals at a level below their awareness. In other words, although the emotion manipulation had an effect on the number of personal growth goals participants listed, participants’ self-perceptions of their goals were not modified following the momentary emotion induction. Given the results of Study 1, it may be individual differences in everyday positive emotions that play a larger role in eudaimonic goal striving. In order to modify goal striving via positive emotions over a longer term, it may be necessary to include some kind of continued or longer lasting emotion induction procedure.

Overall, the finding that positive emotions play a role in personal strivings, suggests that they may have the capacity to alter an individual’s focus in terms of what they are typically trying to accomplish. Given Waterman’s (2007) notion of a eudaimonic staircase, if positive emotions have the capacity to modify an individual’s characteristic focus towards more eudaimonic strivings, such changes may result in greater or lasting happiness. It should also not be overlooked that positive emotions were related directly to eudaimonic well-being. Eudaimonic well-being itself has been described as a “highly positive affective condition” (Waterman, 2008, p. 236); however, the present research found that more frequent experiences of positive emotion over the course of four weeks predicted higher eudaimonic well-being, supporting the notion that hedonic experiences (i.e., positive emotions) may ‘build’ eudaimonic well-being. Fredrickson’s (1998) broaden-and-build theory suggests that

positive emotions lead to greater well-being because they build resources that promote such well-being.

Research Question 2: The Role of Individual Differences in Ego-Resilience

The second research question investigated in this thesis involved examining whether the self-regulatory capacity ego-resilience played a role in the link between positive emotion and personal strivings. Fredrickson's broaden-and-build theory suggests that hedonic experiences of positive emotions have lasting effects on well-being not because of the momentary positive emotions, but because positive emotions build resources for living well (Fredrickson et al., 2008). The goal of the second research question was to examine whether ego-resilience was one such resource through which positive emotions exerted their effect, or whether ego-resilient individuals 'capitalized' on opportunities for positive emotions.

It was hypothesized that ego-resilience would be related to strivings that are linked with a eudaimonic perspective (personal growth and self-transcendent strivings). Indeed, the results in Study 1 supported this prediction, as ego-resilience was related to the proportion of self-transcendent strivings, as well as to ratings of self-transcendence, positivity, personal growth, and personal expressiveness. These results are consistent with Block's (2002) *theoretical notion regarding the inherent flexibility associated with ego-resilience*. Ego-resilient individuals are thought to have more dynamic and integrated self-structures affording them greater insight into themselves (Westenberg & Block, 1993) and making them more likely to identify self-transcendent and personal growth goals.

The finding that ego-resilience was not related to the proportion of personal growth strivings, contrary to predictions, was perplexing given that ego-resilience has been related to growth following adversity (e.g., an increase in life satisfaction and optimism in the wake of the September 11 terrorist attacks on the United States; Fredrickson et al., 2003). As

previously mentioned, it could be that the categorical goal coding used in Study 1 did not allow for an examination of the underlying reasons for each goal, thereby missing participants' perceptions of personal growth. The fact that ego-resilience was related to participants' ratings of personal growth provides some support for this notion. It may also be that because ego-resilience characterizes an inherent flexibility in response to changing environmental conditions (Block, 2002), this character trait results in growth (e.g., following adversity) without necessitating that ego-resilient individuals actually set more personal growth goals.

The finding that ego-resilience (but not ego-control) was related to ratings of goal importance and goal progress also supports Block's (2002) theoretical assumption that ego-resilient individuals have a superior ability to modify their behaviour in accordance with the demands of the current situation. Overall, it appears likely that the inherent flexibility ego-resilient individuals are presumed to possess aids them in the pursuit of important goals. Higher ego-resilience also involves a superior ability to bounce back from setbacks making persistence in the face of challenges more likely (e.g., Tugade & Fredrickson, 2004).

Successful goal attainment often involves the flexible exertion of self-control (Gailliot & Tice, 2007; Peterson & Seligman, 2004). Although one might assume that individuals with higher modal levels of self-control (e.g., ability to delay gratification) might be more successful in attaining their goals, the continued exertion of self-control over time appears to be a complicated process. In fact, acts of self-regulation appear to be depleting, suggesting that effortful self-control is governed by limited personal resources (Vohs & Heatherton, 2000). It is possible, then, that high ego-control in the absence of ego-resilience might result in rigid (inflexible) use of self-control. Such a tendency might manifest as a superior ability to 'buckle-down' and work toward some goal (indicating high self-control),

followed by a self-regulatory failure (indicating depletion) in another area (e.g., an individual driven to succeed in order to earn more money with the goal of creating a better life for his family spends long hours working extremely hard, only to come home and respond with irritability toward his children). Thus, individuals with high levels of self-control, but little adaptive flexibility (i.e., low ego-resilience) might be the most likely to suffer ‘resource-depletion.’ Peterson and Seligman (2004) suggested that “to live a balanced, well-regulated life, it may be necessary to recognize that the capacity for controlling oneself depends on a limited resource that needs to be managed effectively and conserved for the most pressing or important demands” (p. 510). Overall, the present findings support the notion that it is important to consider ego-resilience in conjunction with ego-control when examining goal striving.

Research further suggests that positive emotion may actually be influential in the process of maintaining self-regulation. For example, the induction of positive emotions following a self-regulatory task attenuates the resource depletion effect (Tice et al., 2007). Thus, it was hypothesized that if ego-resilient individuals are adept at identifying goals that afford them greater experiences of positive emotions, they might be in a better position to use or capitalize on these positive emotions in order to continually strive towards their goals. In Study 1, ego-resilience was related to positive emotion, as predicted. Yet, when considering the relative contributions of ego-resilience and positive emotions to the goal striving outcomes, ego-resilience appeared to be the more important variable, mediating the effect of positive emotions on most of the goal striving outcomes.

The finding that ego-resilience mediated the relationship between positive emotions and goal striving indicates that participants rated their goals as higher in positivity, personal growth, and personal expressiveness not because of more frequent experiences of positive

emotions per se, but because positive emotions were linked to greater ego-resilience. This result could be interpreted in a couple of ways, so it will be considered in the context of other research on positive emotion.

First, the mediation results could provide evidence that positive emotion ‘builds’ greater ego-resilience, and it is ego-resilience in turn that supports eudaimonic striving. This idea was supported in Study 2 where positive emotions at Time 1, as well as over the intervening four weeks, predicted increases in ego-resilience from Time 1 to Time 2. Given the evidence that positive emotions increase people’s capacity for self-regulation (Tice et al., 2007), it seems intuitive that greater positive emotions should predict increases in ego-resilience, given ego-resilience involves flexibility in self-regulation. The broaden-and-build theory also predicts that, by broadening thinking, positive emotions will lead to increases in resources such as ego-resilience over time. Indeed, the present findings replicate Cohn et al.’s (2009) finding that daily diary reports of positive emotions over the course of a month led to increases in ego-resilience. Fredrickson et al. (2008) also conducted a seven-week intervention involving loving-kindness meditation and found that participants experienced increases in positive emotions which predicted increases in resources (i.e., mindfulness, savoring, environmental mastery, self-acceptance, purpose in life, positive relations with others, and fewer symptoms of illness). Furthermore, this change in resources predicted increases in life satisfaction at the end of the study. Thus, evidence is mounting that positive emotions contribute to well-being both directly as well as indirectly via building resources.

The present finding that ego-resilience mediated the effect of positive emotions could also be the result of individual differences in ego-resilience accounting for the positive effects of positive emotions. Tugade and Fredrickson (2007) suggested that although all individuals have the capacity to draw on positive emotions to cope, resilient individuals

actually capitalize on opportunities for positive emotional experiences. The present research included an experimental manipulation of emotion in order to directly test this capitalizing effect. Contrary to predictions, the finding that the positive effects of the positive emotion induction were not more pronounced among ego-resilient individuals indicates a lack of support for the hypothesis that ego-resilient individuals capitalize on their experiences of positive emotions. Yet, in a recent study, Catalino and Fredrickson (2011) found individual differences in emotional reactions to pleasant events, supporting the notion that some people capitalize on their everyday experiences by generating more positive emotions than others do. Thus, the capitalizing hypothesis should not be ruled out completely. Future research may need to employ a longer lasting emotion manipulation than the two minute video used in the present research to better test this notion. Again, it is possible that the emotion manipulation was not long-lasting enough to provide an effective test of the interaction hypothesis.

Overall, the results of this thesis provide evidence for both the role of positive emotions in building ego-resilience over time and for the notion that individual differences in ego-resilience account for the positive effects of positive emotions. Thus, positive emotions and ego-resilience likely mutually reinforce each other in contributing to eudaimonic well-being. Given Waterman's (2007) notion that eudaimonic strivings provide opportunities for sustainable upward spirals of well-being, the present results contribute to the understanding of how to promote well-being by providing evidence for the roles of both positive emotions and ego-resilience in eudaimonic goal striving.

Limitations and Suggestions for Future Research

Although this research represented an initial attempt to assess the role of positive emotions in goal striving, as well as the ability of ego-resilient individuals to 'capitalize' on their experiences of positive emotions, some limitations to this research deserve mention.

First, the single measurement design in Study 1 did not allow for the assessment of whether positive emotions led to ego-resilience. The short-term longitudinal design employed in Study 2 allowed for a better assessment of this relationship; however, the correlational design of Study 2 still limits the conclusions that can be drawn. It is possible, for example, that positive emotions were linked to increases in ego-resilience because changes in ego-resilience caused participants to experience more positive emotions. It may also be that some third variable (such as increased mindfulness), accounted for the increases in both positive emotions and ego-resilience. Experimental research is required in order to evaluate the complex relationship between positive emotions and ego-resilience over time.

The experimental emotion manipulation employed in Study 2 allowed for an assessment of the direction of the relationship between positive emotions and goal striving; however, this manipulation may not have been strong enough to have long-lasting effects on participants' overall goal striving. Nevertheless, the finding that inducing awe prompted participants to list more personal growth goals provides further evidence that researchers should continue to investigate the causal role transcendent emotions might play in altering people's goal striving.

The goal measures employed in this thesis offered an open-ended method for eliciting the strivings participants were typically trying to accomplish; however the assessment technique used to categorize participants' strivings has its drawbacks. For one, Emmons' original measure (used in Study 1) does not consider the reasons motivating each striving. In Study 2, this limitation was attenuated to some degree by asking participants to describe the reason for each of their goals, and coding these reasons if they provided additional information. A second limitation of coding participants' strivings into pre-conceived categories is that the personal meaning to the participant might be lost. Future research using

a narrative approach might allow for participants to generate descriptions of how each of their strivings is personally meaningful to them, as well as the extent to which each striving expresses their inner character or daimon. The ratings of personal expressiveness included in Study 1 aided in capturing participants' perceptions of their strivings to some degree; however, this measure was not as comprehensive as a more qualitative technique would be.

The fact that achievement goals were among the most common strivings found in the present research also deserves mention. In Study 2 achievement goals were even more prevalent than in Study 1 suggesting that the experimental setup or instruction set may have played a role in pulling for these strivings. Asking participants to outline five things they wanted to accomplish over a four-week period may have encouraged more achievement-oriented strivings. Given the study was conducted during the fall and winter semesters using a student sample, participants' four week goals often involved exams, papers, passing and doing well in university. Further, the experimental manipulation itself may have primed participants to list something active, as in all three conditions, participants watched something 'happening'. Although achievement goals seemed to be overrepresented in Study 2, they were still very common in Study 1 using Emmons' more self-focused "I typically try to..." assessment. Therefore, it seems likely that use of a student sample in both studies also contributed to the high representation of achievement goals.

A final limitation that ought to be mentioned is that any generalization of the results should give consideration to the fact that the samples in the present research are largely representative of Caucasian women attending university. Further research is needed in order to determine whether the results found here generalize across gender and culture. For example, although few gender differences were found in the present research, consistent with other research on positive emotions and well-being (e.g., Fredrickson et al., 2008), future

research is needed to more closely examine this issue. It may be that subtle gender differences exist but a larger sample is required to detect them. Likewise, cultural variation likely exists in the types of goals individuals find valuable. Preliminary research indicates considerable cross-cultural similarities in the underlying structure of goal content (e.g., Grouzet et al., 2005); nevertheless, potential differences in the meaning and consequences of different types of goals for well-being across culture warrant further investigation.

Conclusions

In summary, evidence is accumulating in support of the notion that positive emotions (hedonic well-being) contribute to lasting happiness (eudaimonic well-being). The results of this thesis provide an important addition to the literature on this issue, as aside from the recent research conducted by Catalino and Fredrickson (2011), few studies have examined individual differences in the ability to use or capitalize on positive emotions. Future research is needed to continue to tease apart the complex relationship between ego-resilience, positive emotions, and well-being; however, the preliminary evidence presented in this thesis indicates such research will be a promising avenue for promoting well-being by unlocking the key to lasting happiness.

REFERENCES

- Algoe, S. B., & Haidt, J. (2009). Witnessing excellence in action: The 'other-praising' emotions of elevation, gratitude, and admiration. *The Journal of Positive Psychology*, 4, 105-127.
- Aspinwall, L. G. (1998). Rethinking the role of positive affect in self-regulation. *Motivation and Emotion*, 22, 1-32.
- Beaumont, S. L. (2009). Identity processing and personal wisdom: An information-oriented identity style predicts self-actualization and self-transcendence. *Identity: An International Journal of Theory and Research*, 9, 95-115.
- Beaumont, S. L. (2011). Identity styles and wisdom during emerging adulthood: Relationships with mindfulness and savoring. . *Identity: An International Journal of Theory and Research*, 11, 155-180.
- Beaumont, S. L. (2012). *Revised personal strivings coding manual*. Unpublished manuscript, Department of Psychology, University of Northern British Columbia, Prince George, Canada.
- Block, J. (1993, March). *Ego-resilience through time*. Paper presented at the Biennial Meeting of the Society for Research in Child Development in New Orleans, LA.
- Block, J. (2002). *Personality as an affect-processing system*. Mahwah, NJ: Erlbaum.
- Block, J., & Block, J. H. (1977, March). *The developmental continuity of ego control and ego resiliency: Some accomplishments*. Paper presented at the Biennial Meeting of the Society for Research in Child Development in New Orleans, Louisiana.
- Block, J. H., & Block, J. (1980). The role of ego-control and ego-resiliency in the organization of behavior. In W. A. Collins (Ed.), *The Minnesota Symposia on Child Psychology* (Vol. 13, pp. 39-101). Hillsdale, NJ: Erlbaum.
- Block, J., & Kremen, A.M. (1996). IQ and ego-resiliency: Conceptual and empirical connections and separateness. *Journal of Personality and Social Psychology*, 70, 349-361.
- Brown, K. W. & Ryan, R. M. (2003). The benefits of being present: Mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology*, 84, 822-848.
- Catalino, L. I. & Fredrickson, B. L. (2011). A Tuesday in the life of a flourisher: The role of positive emotional reactivity in optimal mental health. *Emotion*, 11, 938-950.

- Csikszentmihalyi, M. (1993). The transcendent self. In Csikszentmihalyi, M. (Ed.), *The evolving self: A psychology for the third millennium* (pp.207-249). New York, NY: Harper Collins.
- Cohn, M. A., & Fredrickson, B. L. (2009). Broaden-and-build theory of positive emotions. In S. J. Lopez (Ed.), *Encyclopedia of positive psychology* (Vol 1, pp. 105-110). Malden, MA: Wiley-Blackwell.
- Cohn, M. A., Fredrickson, B. L., Brown, S. L., Mikels, J. A., & Conway, A. M. (2009). Happiness unpacked: Positive emotions increase life satisfaction by building resilience. *Emotion*, 9, 361-368.
- Cook-Greuter, S. R. (1999). *Postautonomous ego development: A study of its nature and measurement*. Doctoral dissertation. Cambridge, MA: Harvard Graduate School of Education. UMI Dissertation Services #933122.
- Danner, D. D., Snodon, D. A., & Friesen, W. V. (2001). Positive emotions in early life and longevity: Findings from the nun study. *Journal of Personality and Social Psychology*, 80, 804-813.
- Deci, E. L., & Ryan, R. M. (2008). Hedonia, eudaimonia, and well-being: An introduction. *Journal of Happiness Studies*, 9, 1-11.
- Ekman, P., Friesen, W. V., & Ancoli, S. (1980). Facial signs of emotional experience. *Journal of Personality and Social Psychology*, 39, 1125-1134.
- Emmons, R. A. (1986). Personal strivings: An approach to personality and subjective well-being. *Journal of Personality and Social Psychology*, 51, 1058-1068.
- Emmons, R. A. (1991). Personal strivings, daily life events, and psychological and physical well-being. *Journal of Personality*, 59, 453-472.
- Emmons, R. A. (1999). *The psychology of ultimate concerns: Motivation and spirituality in personality*. New York, NY: Guilford Press.
- Erikson (1959). Identity and the life cycle: Selected papers by Erik H. Erikson. *Psychological Issues*, 1.
- Franklin, S. S. (2010). *The psychology of happiness: A good human life*. New York, NY: Cambridge University Press.
- Fredrickson, B. L. (1998). What good are positive emotions? *Review of General Psychology*, 2, 300-319.
- Fredrickson, B. L. (2003). The value of positive emotions. *American Scientist*, 91, 330-335

- Fredrickson, B. L. (2004). The broaden-and-build theory of positive emotions. *Philosophical Transactions of the Royal Society*, 359, 1367-1377.
- Fredrickson, B. L., & Branigan, C. (2005). Positive emotions broaden the scope of attention and thought-action repertoires. *Cognition and Emotion*, 19, 313-332.
- Fredrickson, B. L., Cohn, M. A., Coffey, K. A., Pek, J., & Finkel, S. M. (2008). Open hearts build lives: Positive emotions, induced through loving-kindness meditation, build consequential personal resources. *Journal of Personality and Social Psychology*, 95, 1045-1062.
- Fredrickson, B. L., & Joiner, T. (2002). Positive emotions trigger upward spirals toward emotional well-being. *Psychological Science*, 13, 172–175.
- Fredrickson, B. L., & Losada, M. F. (2005) Positive affect and the complex dynamics of human flourishing. *American Psychologist*, 60, 678-686.
- Fredrickson, B. L., Mancuso, R. A., Branigan, C., & Tugade, M. M. (2000). The undoing effect of positive emotions. *Motivation and Emotion*, 24, 237-258.
- Fredrickson, B. L., Tugade, M. M., Waugh, C. E., & Larkin, G. R. (2003). What good are positive emotions in crisis? A prospective study of resilience and emotions following the Terrorist Attacks on the United States on September 11th, 2001. *Journal of Personality and Social Psychology*, 84, 365–376.
- Gailliot, M. T., & Tice, D. M. (2007). Emotion regulation and impulse control: People succumb to their impulses in order to feel better. In Vohs, K. D., Baumeister, R. F., & Loewenstein, G. (Eds.), *Do emotions help or hurt decision making? A hedgefoxian perspective* (pp. 203-216). New York, NY: Russell Sage Foundation.
- Gerrards-Hesse, A., Spies, K., & Hesse, F. W. (1994). Experimental inductions of emotional states and their effectiveness: A review. *British Journal of Psychology*, 85, 55-78.
- Gramzow, R. H., Sedikides, C., Panter, A. T., & Insko, C. A. (2000). Aspects of self-regulation and self-structure as predictors of perceived emotional distress. *Personality and Social Psychology Bulletin*, 26, 188-205.
- Grouzet, F. M. E., Kasser, T., Ahuvia, A., Dols, J. M. F., Kim, Y., Lau, S. et al. (2005). The structure of goal contents across 15 cultures. *Journal of Personality and Social Psychology*, 89, 800-816.
- Hooker, K. & McAdams, D. P. (2003). Personality reconsidered: A new agenda for aging research. *Journal of Gerontology*, 58, 296-304.

- Huta, V., & Ryan, R. M. (2010). Pursuing pleasure of virtue: The differential and overlapping well-being benefits of hedonic and eudaimonic motives. *Journal of Happiness Studies*, 11, 735-762.
- Isen, A. M. & Daubman, K. A. (1984). The influence of affect on categorization. *Journal of Personality Social Psychology*, 47, 1206– 1217.
- Isen, A. M., Daubman, K. A., & Nowicki, G. P. (1987). Positive affect facilitates creative problem solving. *Journal of Personality and Social Psychology*, 52(6), 1122-1131.
- Isen, A. M. (2003). Positive affect as a source of human strength. In L. G. Aspinwall, & U. M. Staudinger (Eds.), *A psychology of human strengths: Fundamental questions and future directions for a positive psychology*. (pp. 179–195). Washington, DC: American Psychological Association.
- Johnson, K. J., & Fredrickson, B. L. (2005). We all look the same to me: Positive emotions eliminate the own race bias in face recognition. *Psychological Science*, 16, 875- 881.
- Joseph, S., & Linley, P. A. (2008). *Trauma, recovery, and growth: Positive psychological perspectives on posttraumatic stress*. New Jersey: Wiley.
- Kasser T. & Ryan, R. M. (1993). A dark side of the American dream : Correlates of financial success as a central life aspiration. *Journal of Personality and Social Psychology*, 65, 410-422.
- Kasser, T., & Ryan, R.M. (1996). Further examining the American dream: Differential correlates of intrinsic and extrinsic goals. *Personality and Social Psychology Bulletin*, 22, 280–287.
- Keltner, D., & Haidt, J. (2003). Approaching awe, a moral, spiritual, and aesthetic emotion. *Cognition and Emotion*, 17, 297-314.
- King, L. A., Eells, J. E., & Burton, C. M. (2004). The good life, broadly and narrowly considered. In P. A. Linley and S. Joseph (Eds.), *Positive psychology in practice* (pp. 35-52). Hoboken, New Jersey: Wiley.
- Klohn, E. C. (1996). Conceptual analysis and measurement of the construct of ego-resiliency. *Journal of Personality and Social Psychology*, 70, 1067–1079.
- Letzring, T. D., Block, J., & Funder, D. C. (2005). Ego-control and ego-resiliency: Generalization of self-report scales based on personality descriptions from acquaintances, clinicians, and the self. *Journal of Research in Personality*, 39, 395–422.
- Lewin, K. (1935). *A dynamic theory of personality*. New York, NY: McGraw-Hill.

- Lyubomirsky, S., King, L., & Lepper, E. (2005). The benefits of frequent positive affect: Does happiness lead to success? *Psychological Bulletin*, 131, 803-855.
- Maslow, A. H. (1954). *Motivation and personality*. New York, NY: Harper & Row.
- Masten, A. S. (2001). Ordinary magic: Resilience processes in development. *American Psychologist*, 56, 227-238.
- McAdams, D. P., & Pals, J. L. (2006). A new big five: Fundamental principles for an integrative science of personality. *American Psychologist*, 61, 204-217.
- McGregor, I., & Little, B. R. (1998). Personal projects, happiness, and meaning: On doing well and being yourself. *Journal of Personality and Social Psychology*, 74, 494-512.
- Peterson, C., & Seligman, M.E.P. (2004). *Character strengths and virtues: A handbook and classification*. New York, NY: Oxford University Press.
- Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology*, 52, 141-166.
- Seligman, M. E. P. (2003). Positive psychology: Fundamental assumptions. *Psychologist*, 16, 126-127.
- Sobel, M. E. (1982). Asymptotic confidence intervals for indirect effects in structural equation models. In S. Leinhardt (Ed.), *Sociological methodology* (pp. 290-312). San Francisco: Jossey-Bass.
- Steger, M. F., Kashdan, T. B., and Oishi, S. (2008). Being good by doing good: Daily eudaimonic activity and well-being. *Journal of Research in Personality*, 42, 22-42.
- Tice, D. M., Baumeister, R. F., Shmueli, D., & Muraven, M. (2007). Restoring the self: Positive affect helps improve self-regulation following ego depletion. *Journal of Experimental Social Psychology*, 43, 379-384.
- Tugade, M. M., & Fredrickson, B. L. (2004). Resilient individuals use positive emotions to bounce back from negative emotional experiences. *Journal of Personality and Social Psychology*, 86, 320-333.
- Tugade, M. M., & Fredrickson, B. L. (2007). Regulation of positive emotions: Emotion regulation strategies that promote resilience. *Journal of Happiness Studies*, 8, 311-333.
- Utsey, S. O., Hook, J. N., Fischer, N., & Belvet, B. (2008). Cultural orientation, ego resilience, and optimism as predictors of subjective well-being in African Americans. *The Journal of Positive Psychology*, 3, 202-210.

- Vohs, K. D. & Heatherton, T. F. (2000). Self-regulatory failure: A resource-depletion approach. *Psychological Science*, 11, 249-254.
- Waterman, A. S. (1993). Two conceptions of happiness: Contrasts of personal expressiveness (eudaimonia) and hedonic enjoyment. *Journal of Personality and Social Psychology*, 64, 678-691.
- Waterman, A. S. (2007). On the importance of distinguishing hedonia and eudaimonia when contemplating the hedonic treadmill. *American Psychologist*, 62, 612-613.
- Waterman, A. S. (2008). Reconsidering happiness: A eudaimonist's perspective. *The Journal of Positive Psychology*, 3, 234-252.
- Waterman, A. S., Schwartz, S. J., & Conti, R. (2008). The implications of two conceptions of happiness (hedonic enjoyment and eudaimonia) for the understanding of intrinsic motivation. *Journal of Happiness Studies*, 9, 41-79.
- Waterman, A. S., Schwartz, S. J., Zamboanga, B. L., Ravert, R. D., Williams, M. K., Agocha, V. B. et al. (2010). The questionnaire for eudaimonic well-being: Psychometric properties, demographic comparisons, and evidence of validity. *The Journal of Positive Psychology*, 5, 41-61.
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of personality and Social Psychology*, 54, 1063-1070.
- Westenberg, P. M., & Block, J. (1993). Ego development and individual differences in personality. *Journal of Personality and Social Psychology*, 65, 792-800.
- Westerman, R., Spies, K., Stahl, G., & Hesse, F. W. (1996). Relative effectiveness and validity of mood induction procedures: A meta-analysis. *European Journal of Social Psychology*, 26, 557-580.

Appendix A

Study 1 Participant Information Letter

Survey Introduction

This study consists of an online survey which you may now participate. You will receive credit immediately upon completion of the survey. The survey consists of a number of Likert scale questions, and may be divided into a number of sections. You must complete all sections in one sitting, as you are not allowed to resume at another time from where you left off. While you are participating, your responses will be stored in a temporary holding area as you move through the sections, but they will not be permanently saved until you complete all sections and you are given a chance to review your responses.

ABOUT THE STUDY:

This research is being conducted by Cherisse Seaton (PhD candidate, Psychology) and Dr. Sherry Beaumont. The purpose of this study is to determine whether people's emotions and personal strivings are related to their personal development and well-being. You are being asked to complete online surveys regarding your daily life, personal goals, and feelings. The questionnaires will take approximately 45 minutes to complete. If you are a student in Psyc 101, 102, 200, 215, 315, 316, 301 or HHSC 101 you will be compensated for completion of these questionnaires with 1% extra bonus mark to be added to your final grades as computed by the online participant system.

Your responses to the questions are considered confidential. Only the researchers and Ms Orlando, the system administrator, will have access to the completed data, which will be kept in a locked and secure place for seven years, after which they will be destroyed. Only the online system records that you have participated in this study, so that you will receive course credit; information regarding your specific answers will be kept separately from your identity, preserving anonymity. There are no risks associated with this research and you may experience benefits of participating such as an increased understanding of the research process. You are free to withdraw from this research project at any time without consequence.

If you have any questions or concerns, or you wish to obtain a copy of the study results, please contact either Dr. Sherry Beaumont (250-960-6501 or beaumont@unbc.ca) or Cherisse Seaton (cseaton@unbc.ca). Any complaints regarding this study should be directed to the Office of Research, UNBC, 250-960-5820.

Additionally, some of the scales in the survey address psychological well-being. You may find that thinking about these issues raises thoughts or feelings that you want to discuss further. If you would like to discuss the study or any of the feelings it provoked confidential counseling services are available at UNBC through student services (250-960-6369; <http://www.unbc.ca/counsel/>).

PLEASE READ
Informed Consent Form

By clicking "Continue" following this form indicates that I have read the letter about the research project on adult development being conducted by Dr. Sherry Beaumont and Cherisse Seaton and I consent to participate in this study. Specifically, I confirm that:

- (1) I am being asked to complete questionnaires that will take approximately 45 minutes of my time;
- (2) I understand that all the information gathered for this project is to be used for research purposes only and will be considered confidential;
- (3) I will receive ONE research credit (1% bonus mark) for completion of these questionnaires if in Psyc 101, 102, 200, 215, 315, 316, 301, 307, 345 or HHSC 101;
- (4) There are no risks associated with this research, however, my participation in this research study is voluntary and I am free to withdraw at any time without penalty;
- (5) The purposes, procedures, and benefits of this project have been explained to me;
- (6) I can request a summary of the study results in May 2012 from either Dr. Sherry Beaumont (250-960-6501 or beaumont@unbc.ca) or Cherisse Seaton (cseaton@unbc.ca);
- (7) I have read and understand this informed consent and the attached information letter;
- (8) I consent to participating in this study.

Researcher Supervisor:

Dr Sherry Beaumont
Associate Professor, Psychology Department
Rm 10-3534, T&L Building
Phone: 250-960-6501
email: beaumont@unbc.ca

Student Researcher:

Cherisse Seaton
Graduate student
Psychology Program
email: cseaton@unbc.ca

THANK YOU for your participation.

NOTE: You will be automatically logged out after 30 minutes of inactivity, so please keep this in mind when completing lengthy sections.

Would you like to participate in the survey?

Appendix B

Study 2 Participant Information Letter

Personal Goals Study: Participant Information Letter

You may retain this sheet for your information

This research is being conducted by Cherisse Seaton (Ph.D. Candidate, Psychology) and Dr. Sherry Beaumont. The purpose of this study is to assess people's emotional responses in order to determine the relationship between emotions and personal goals. You are being asked to watch one 2 minute, soundless video clip, and fill out a questionnaire packet regarding your personal goals and emotional reactions. In total the study should not take more than 45 minutes to complete. If you are a student in Psyc 101, 102, 200, 215, 315, 316, 301, 307, 345, or HHSC 101 you will be compensated for your time with 1% extra bonus mark to be added to your final grade. In 4 weeks time, we would like you to return and report back to us on your personal goals. You will be compensated with an additional 1% bonus mark for returning to the lab in 4 weeks.

Your responses to the questions are considered confidential. Only the online system records that you have participated in this study, so that you will receive course credit; information regarding your specific answers will be kept separately from your identity, preserving anonymity. Only the researchers will have access to the completed data, which may be used for future research in an anonymous fashion, with your consent. All completed data will be kept in a locked and secure place (Dr. Beaumont's research laboratory) for seven years, after which they will be destroyed. There are no known risks associated with this research, and you may experience benefits of participating, such as an increased understanding of the research process. You are free to withdraw from this research project at any time without consequence.

If you have any questions or concerns, or you wish to obtain a copy of the study results, please contact either Dr. Sherry Beaumont (250-960-6501 or beaumont@unbc.ca) or Cherisse Seaton (cseaton@unbc.ca). Any complaints regarding this study should be directed to the Office of Research, UNBC, 250-960-6735 (or reb@unbc.ca). Additionally, some of the scales in the survey address psychological well-being. You may find that thinking about these issues raises thoughts or feelings that you want to discuss further. If you would like to discuss the study or any of the feelings it provoked confidential counseling services are available at UNBC through student services (250-960-6369; <http://www.unbc.ca/counsel/>).

Researcher Supervisor:

Dr Sherry Beaumont
Associate Professor, Department of Psychology
Rm 10-3534, T&L Building
Phone: 250-960-6501
email: beaumont@unbc.ca

Student Researcher:

Cherisse Seaton
Ph.D. Candidate
Department of Psychology
email: cseaton@unbc.ca

Thank you for your participation.

Appendix C

Personal Goals Study: Informed Consent Form

My signature on this form indicates that I have read the letter about the personal goals research project being conducted by Cherisse Seaton and Dr. Sherry Beaumont and I consent to participate in this study. Specifically, I confirm that:

1. I am being asked to watch a soundless video clip, complete and return a questionnaire that will take approximately 45 minutes of my time.
2. I understand that all the information gathered for this project is to be used for research purposes only and will be considered confidential.
3. I will receive ONE research credit (1% bonus mark) for completion of this study if in Psyc 101, 102, 200, 215, 315, 316, 301, 307, 345, or HHSC 101.
4. There are no risks associated with this research, however, my participation in this research study is voluntary and I am free to withdraw at any time without penalty.
5. The purposes, procedures, and benefits of this project have been explained to me.
6. I can request a summary of the study results in May 2012 from either Dr. Sherry Beaumont (250-960-6501 or beaumont@unbc.ca) or Cherisse Seaton (cseaton@unbc.ca).
7. I have read and understand this informed consent and the attached information letter
8. I acknowledge receipt of a copy of this consent form.
9. I consent to participating in this study.

Participant name (please print)

Participant signature

Date

Please sign the attached copy as well, which you may keep for your records.

If you have any additional questions, about this study, please contact either Dr. Sherry Beaumont (250-960-6501 or beaumont@unbc.ca) or Cherisse Seaton (cseaton@unbc.ca).

Any complaints regarding this study should be directed to the Office of Research, UNBC, 250-960-6735 (or reb@unbc.ca).

Appendix D

Demographics Information

The following demographic information is collected to allow us to accurately describe the sample of participants.

1. Age today (Numerical value in years please): _____
2. Gender: male _____ female _____
3. Sexuality: Heterosexual _____ Homosexual _____ Bisexual _____
Unsure _____
4. Ethnicity:
_____ Aboriginal
_____ African-Canadian
_____ Asian
_____ Caucasian
_____ Other
5. Occupation:
Employed full-time _____ Employed part-time _____ Student _____ Unemployed _____
Other _____
6. Check your **highest** education level completed:
_____ Elementary school
_____ Some high school
_____ High school diploma
_____ Trade or technical school
_____ Some college
_____ College diploma
_____ Some university
_____ University degree
_____ Other
7. Current relationship status:
Single _____ Dating one person exclusively _____ Engaged _____
Married/common law _____ Divorced/separated _____ widowed _____

Appendix E

Ego-Undercontrol Scale

Instructions: Below you will find a number of statements about beliefs and attitudes. Using the scale shown, please choose the number that indicates the degree to which you agree or disagree with each statement.

	1	2	3	4
	Disagree very strongly			Agree very strongly
<hr/>				
1. I tend to buy things on impulse.				1 2 3 4
2. I am against giving money to beggars (R).				1 2 3 4
3. I become impatient when I have to wait for something.				1 2 3 4
4. It is unusual for me to express strong approval or disapproval of the actions of others (R).				1 2 3 4
5. I often say and do things on the spur of the moment, without stopping to think.				1 2 3 4
6. I like to stop and think things over before I do them (R).				1 2 3 4
7. I can remember "playing sick" to get out of something.				1 2 3 4
8. I don't like to start a project until I know exactly how to proceed (R).				1 2 3 4
9. I have often had to take orders from someone who did not know as much as I did				1 2 3 4
10. I finish one activity or project before starting another (R).				1 2 3 4
11. When I get bored, I like to stir up some excitement.				1 2 3 4
12. I am steady and planful rather than unpredictable and impulsive (R).				1 2 3 4
13. Some of my family have quick tempers.				1 2 3 4
14. On the whole, I am a cautious person (R).				1 2 3 4
15. People consider me a spontaneous, devil-may-care person.				1 2 3 4
16. I do not let too many things get in the way of my work (R).				1 2 3 4
17. I often get involved in things I later wish I could get out of.				1 2 3 4
18. I keep out of trouble at all costs (R).				1 2 3 4
19. I have been known to do unusual things on a dare.				1 2 3 4
20. I consider a matter from every viewpoint before I make a decision (R).				1 2 3 4
21. I have sometimes stayed away from another person because I thought I might do or say something that I might regret afterwards.				1 2 3 4
22. I am easily downed in an argument (R).				1 2 3 4
23. I do not always tell the truth.				1 2 3 4

	1	2	3	4
	Disagree very strongly			Agree very strongly
24. I have never done anything dangerous for the fun of it (R).	1	2	3	4
25. My way of doing things can be misunderstood or bother others.	1	2	3	4
26. My conduct is largely controlled by the customs of those about me (R).	1	2	3	4
27. Sometimes I rather enjoy going against the rules and doing things I am not supposed to.	1	2	3	4
28. It makes me uncomfortable to put on a stunt at a party even when others are doing the same sort of thing (R).	1	2	3	4
29. At times, I am tempted to do or say something that others would think inappropriate.	1	2	3	4
30. I find it hard to make small talk when I meet new people (R).	1	2	3	4
31. At times I have very much wanted to leave home.	1	2	3	4
32. I would like to be a journalist.	1	2	3	4
33. I like to flirt.	1	2	3	4
34. Some of my family have habits that bother and annoy me very much.	1	2	3	4
35. At times I have worn myself out by undertaking too much.	1	2	3	4
36. In a group of people I would not be embarrassed to be called on to start a discussion or give an opinion about something I know well.	1	2	3	4
37. I would like to wear expensive clothes.	1	2	3	4

(R) Item is reverse scored.

* This order presented to our participants (reversed scored items interspersed)

Appendix F
Ego-Resiliency Scale

Instructions: Below you will find a number of statements about beliefs and attitudes. Using the scale shown, please choose the number that indicates the degree to which you agree or disagree with each statement as an accurate reflection of *how you see yourself today as compared to five years ago*. There are no right or wrong answers, we are just trying to get an impression of how you would describe yourself today.

	1	2	3	4
	Does not apply at all	Applies slightly	Applies somewhat	Applies very strongly
1. I am generous with my friends	1	2	3	4
2. I quickly get over and recover from being startled	1	2	3	4
3. I enjoy dealing with new and unusual situations	1	2	3	4
4. I usually succeed in making a favorable impression on people	1	2	3	4
5. I enjoy trying new foods I have never tasted before	1	2	3	4
6. I am regarded as a very energetic person	1	2	3	4
7. I like to take different paths to familiar places	1	2	3	4
8. I am more curious than most people	1	2	3	4
9. Most of the people I meet are likeable	1	2	3	4
10. I usually think carefully about something before acting	1	2	3	4
11. I like to do new and different things	1	2	3	4
12. My daily life is full of things that keep me interested	1	2	3	4
13. I would be willing to describe myself as a pretty "strong" personality	1	2	3	4
14. I get over my anger at someone reasonably quickly	1	2	3	4

Appendix G
Positive and Negative Affect Schedule (PANAS)

INSTRUCTIONS

This scale consists of a number of words that describe different feelings and emotions. Read each item and then indicate to what extent you have felt this way **OVER THE PAST 4 WEEKS**. * Use the following scale to record your answers.

	1 very slightly or not at all	2 a little	3 moderately	4 quite a bit	5 extremely
Interested	1	2	3	4	5
Distressed	1	2	3	4	5
Excited	1	2	3	4	5
Upset	1	2	3	4	5
Strong	1	2	3	4	5
Guilty	1	2	3	4	5
Scared	1	2	3	4	5
Hostile	1	2	3	4	5
Enthusiastic	1	2	3	4	5
Proud	1	2	3	4	5
Irritable	1	2	3	4	5
Alert	1	2	3	4	5
Ashamed	1	2	3	4	5
Inspired	1	2	3	4	5
Nervous	1	2	3	4	5
Determined	1	2	3	4	5
Attentive	1	2	3	4	5
Jittery	1	2	3	4	5
Active	1	2	3	4	5

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

Afraid	1	2	3	4	5
Awe	1	2	3	4	5
Amused	1	2	3	4	5
Content	1	2	3	4	5
Joy	1	2	3	4	5
Grateful	1	2	3	4	5
Hope	1	2	3	4	5
Love	1	2	3	4	5
Compassion	1	2	3	4	5
Angry	1	2	3	4	5
Sad	1	2	3	4	5
Contempt	1	2	3	4	5
Disgust	1	2	3	4	5
Embarrassed	1	2	3	4	5
Fear	1	2	3	4	5

*Note: For study 2, Time 1 these instructions were modified to say “Indicate to what extent you feel this way right now, that is, at the present moment.” (Watson, Clark, & Tellegen, 1988).

Appendix H

Questionnaire for Eudaimonistic well-being

INSTRUCTIONS

This questionnaire contains a series of statements that refer to how you may feel things have been going in your life. Read each statement and decide the extent to which you agree or disagree with it. Try to respond to each statement according to your own feelings about how things are actually going, rather than how you might wish them to be. Please use the following scale when responding to each statement.

	0	1	2	3	4
	Strongly disagree				Strongly agree
<hr/>					
1. I find I get intensely involved in many of the things I do each day.	0	1	2	3	4
2. I believe I have discovered who I really am.	0	1	2	3	4
3. I think it would be ideal if things came easily to me in my life. (R)	0	1	2	3	4
4. My life is centered around a set of core beliefs that give meaning to my life.	0	1	2	3	4
5. It is more important that I really enjoy what I do than that other people are impressed by it.	0	1	2	3	4
6. I believe I know what my best potentials are and I try to develop them whenever possible.	0	1	2	3	4
7. Other people usually know better what would be good for me to do than I know myself. (R)	0	1	2	3	4
8. I feel best when I'm doing something worth investing a great deal of effort in.	0	1	2	3	4
9. I can say that I have found my purpose in life.	0	1	2	3	4
10. If I did not find what I was doing rewarding for me, I do not think I could continue doing it.	0	1	2	3	4
11. As yet, I've not figured out what to do with my life. (R)	0	1	2	3	4
12. I can't understand why some people want to work so hard on the things that they do. (R)	0	1	2	3	4
13. I believe it is important to know how what I'm doing fits with purposes worth pursuing.	0	1	2	3	4
14. I usually know what I should do because some actions just feel right to me.	0	1	2	3	4
15. When I engage in activities that involve my best potentials, I have this sense of really being alive.	0	1	2	3	4
16. I am confused about what my talents really are. (R)	0	1	2	3	4

	0	1	2	3	4
	Strongly disagree				Strongly agree
17. I find a lot of the things I do are personally expressive for me.					0 1 2 3 4
18. It is important to me that I feel fulfilled by the activities that I engage in.					0 1 2 3 4
19. If something is really difficult, it probably isn't worth doing. (R)					0 1 2 3 4
20. I find it hard to get really invested in the things that I do. (R)					0 1 2 3 4
21. I believe I know what I was meant to do in life.					0 1 2 3 4

(R) Item is reverse scored.

Appendix I

Personal Strivings Assessment Packet

PART 1. STRIVING LISTS

One way to describe someone's personality is to consider the purposes or goals that the person seems to be seeking in his or her everyday behavior. We are interested in the things that you typically or characteristically are trying to do. We might call these objectives "strivings". Here are some examples of strivings:

Trying to be physically attractive to others
Trying to persuade others that one is right
Trying to help others in need of help
Trying to seek new and exciting experiences
Trying to avoid being noticed by others
Trying to avoid feeling inferior to others

Note that these strivings are phrased in terms of what a person is "trying" to do, regardless of whether the person is actually successful. For example, a person might be "Trying to get others to like me" without necessarily being successful.

These strivings may be fairly broad, such as "Trying to make others happy" or more specific, as "Trying to make my partner happy." Also note that the strivings can be either positive or negative. That is, they may be about something you typically try to obtain or keep, or things that you typically try to avoid or prevent. For example, you might typically try to obtain attention from others, or you might typically try to avoid calling attention to yourself.

You can see that this way of describing yourself is different from using trait adjectives (friendly, intelligent, honest). We do not want you to use trait adjectives. Since you may have never thought of yourself in this way before, think carefully about what we are asking you to do before you write anything down.

We want you to provide us with a list of your strivings. Please write down 10 strivings in the spaces provided below. Please keep your attention focused on yourself. Do not mentally compare the things you typically do with what other people do. Think of yourself and your purposes alone. Be as honest and as objective as possible. Do not simply give socially desirable strivings or strivings which you think you "ought" to have.

You might find it useful to think about your goals in different domains of your life: *work and school, home and family, social relationships, leisure/ recreation*. Think about all of your desires, goals, wants, and hopes in these different areas.

Take your time with this task; spend some time thinking about your goals before you begin. When you have finished, move on to Part 2 (Striving Assessment Scales).

1. I typically try to _____
2. I typically try to _____
3. I typically try to _____
4. I typically try to _____
5. I typically try to _____
6. I typically try to _____
7. I typically try to _____
8. I typically try to _____
9. I typically try to _____
10. I typically try to _____

PART 2. STRIVING ASSESSMENT SCALES

In Part 1, you listed a number of your personal strivings (things that you are “typically trying to accomplish”). In this task, we want you to make some ratings about each goal on your list. Begin by writing in your strivings in the left-hand column of the answer sheet (on the following page). There is room for you to write in 10 strivings.

Step 1. Importance

Now we would like to know how important each of your strivings is to you in your life, or how committed you are to working toward each of your strivings. For example, if your striving is “Trying to get along with family,” you would choose a number from the scale below indicating how important it is to you that you get along with your family. If your striving is “Trying to avoid gossiping about others,” how important is it to you that you don’t gossip about others? Perhaps it is not very important, at least relative to your other strivings. Write that number in the column labeled “Importance” on the answer sheet.

0	1	2	3	4	5
not at all important	slightly important	somewhat important	moderately important	very important	extremely important

Step 2. Progress

Consider how much progress you have been making towards your strivings. How satisfied are you with the amount of progress you have been making toward each of your strivings? Using the scale below, choose a number which best represents your satisfaction with how well you perceive yourself to be doing in each striving, then write that number in the column marked “Progress” on the answer sheet.

0	1	2	3	4	5	6	7
not at all satisfied no progress or setback		neutral			extremely satisfied exceptional progress		

Step 3. Positivity

Thinking about the type of striving, to what extent would you say the striving is focused on well-being? In other words, to what extent does the striving involve a concern with enhancing positivity and having fun or laughing, or avoiding or minimizing stress or negativity?

0	1	2	3	4	5
not at all	moderate			extremely	

Step 4. Personal growth

Thinking about the type of striving, to what extent could the striving be considered to be personal growth oriented? In other words, to what extent does the striving involve a concern for improving aspects of your self or cultivating your inner potential (i.e., self-improvement, learning)?



Step 5. Self-transcendence

Thinking about the type of striving, to what extent could the striving be considered to be self-transcendent? In other words, to what extent would you say the striving is oriented above and beyond the self (e.g., “take myself less seriously”, or “be present in the moment”) or involves a desire to integrate the self with something larger (e.g., “enhancing one’s connection with or relationship with God”)?



Step 6. Personal expressiveness

Consider now the extent each striving gives you a feeling that this is who you really are. Personal expressiveness involves the extent to which an activity gives you strong feeling that this is what you were meant to do, resulting in a feeling of having a special fit or meshing when engaging in an activity. In other words, when you engage in a given striving to what extent do you feel more complete or fulfilled?

To what extent does each striving give you a feeling of personal expressiveness?



Answer Sheet

	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6
	Importance	Progress	Positivity	Personal growth	Self-transcendence	Personal expressiveness
Strivings						
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						

Appendix J

Goal List and Ratings

INSTRUCTIONS

Please begin by answering the following questions about your goals. Please complete the pages of this questionnaire packet in order, and as you progress through the questionnaires, please do not return to previous pages.

1. Please list the five things you would most like to accomplish within the next 4 weeks. In other words, we'd like you to outline 5 goals for yourself that you'd like to see yourself achieve within 4 weeks from now (In 4 weeks when you return, we'll ask you to report back to us about your progress)

In the next 4 weeks,

1. I would like to _____
2. I would like to _____
3. I would like to _____
4. I would like to _____
5. I would like to _____

Please tell us why you chose each of the five things you did to focus on for the next 4 weeks. In other words, why is each of these things important to you (or for you to focus on)?

1. _____
2. _____
3. _____
4. _____
5. _____

In Part 1, you listed five personal goals you'd like to strive for over the next 4 weeks. In this task, we want you to make some ratings about each goal on your list. **Begin by re-writing in your goals in the left-hand column of the answer sheet (next page).** There is room for you to write in 5 goals. Next, consider the following questions (labeled step 1-3) for each of your goals separately, and enter your ratings in the columns corresponding to each step for each of your goals.

Thinking about the type of goal, to what extent would you say the goal is focused on well-being? In other words, to what extent does the goal involve a concern with enhancing positivity and having fun or laughing, or avoiding or minimizing stress or negativity? Using the scale below, write the number corresponding to your response in the column labeled step 1 on the attached answer sheet for each of 5 your goals separately.

Step 2. Personal growth

Thinking about the type of goal, to what extent could the goal be considered to be personal growth oriented? In other words, to what extent does the goal involve a concern for improving aspects of your self or cultivating your inner potential (i.e., self-improvement, learning)? Using the scale below, write the number corresponding to your response in the column labeled step 1 **on the attached answer sheet** for each of 5 your goals separately.

Step 3. Self-transcendence

Thinking about the type of goal, to what extent could the goal be considered to be self-transcendent? In other words, to what extent would you say the goal is oriented above and beyond the self (e.g., “take myself less seriously”, or “be present in the moment”) or involves a desire to integrate the self with something larger (e.g., “enhancing one’s connection with or relationship with God”)? Using the scale below, write the number corresponding to your response in the column labeled step 1 **on the attached answer sheet** for each of 5 your goals separately.

113

Answer Sheet

	Step 1	Step 2	Step 3
Strivings	Positivity	Personal growth	Self-transcendence
1			
2			
3			
4			
5			

Appendix K

Emotion Report

Please indicate the degree to which you felt each of the following emotions **while watching the video clip** using the scale below. The strength of the feeling should be viewed as a combination of a) the number of times you felt the emotion – its frequency; b) the length of time you felt the emotion – its duration; and c) how intense or extreme the emotion was – its intensity. Read each item and then circle the appropriate number next to that word.

0	1	2	3	4	5	6	7	8
none		a little		Moderately		quite a bit		A great deal

Calm	0	1	2	3	4	5	6	7	8
Happy	0	1	2	3	4	5	6	7	8
Frustrated	0	1	2	3	4	5	6	7	8
Awe	0	1	2	3	4	5	6	7	8
Curious	0	1	2	3	4	5	6	7	8
Afraid	0	1	2	3	4	5	6	7	8
Amused	0	1	2	3	4	5	6	7	8
Expansive	0	1	2	3	4	5	6	7	8
Content	0	1	2	3	4	5	6	7	8
Wonder	0	1	2	3	4	5	6	7	8
Appreciative	0	1	2	3	4	5	6	7	8
Anxious	0	1	2	3	4	5	6	7	8
Hopeful	0	1	2	3	4	5	6	7	8
Joyful	0	1	2	3	4	5	6	7	8
Bored	0	1	2	3	4	5	6	7	8
Absorbed	0	1	2	3	4	5	6	7	8
Playful	0	1	2	3	4	5	6	7	8
Uplifted	0	1	2	3	4	5	6	7	8
Elevated	0	1	2	3	4	5	6	7	8
Irritated	0	1	2	3	4	5	6	7	8

Appendix L

Four Week Follow up Goal Assessment

Four weeks ago you listed five personal goals you would most like to accomplish within 4 weeks time. In this task, we want you to make some ratings about each goal on your list. Begin by reviewing the five goals you set for yourself four weeks ago (participants will be presented with their goal list from 4 weeks ago), and **re-writing in your goals in the left-hand column of the answer sheet (next page)**. Next, consider the following questions (labeled step 1-3) for each of your goals separately, and enter your ratings in the columns corresponding to each step for each of your goals on the answer sheet.

Step 1. Achievement

Consider how successful you have been in attaining each of the five goals you listed 4 weeks ago. To what extent would you say each of your goals has been achieved? Using the scale below, choose a number which best represents your progress with each goal over the past 4 weeks then write that number in the column marked "Achievement" on the answer sheet.

0 — 1 — 2 — 3 — 4 — 5 — 6 — 7

No progress towards goal	Some progress, but goal has not been attained	Exceptional progress - goal has been achieved
-----------------------------	--	--

Step 2. Effort

How much effort and energy did you expend in trying to be successful in each goal? Each of your goals involves a different set of contributions from you – some take a lot of time, others may cost money, some inconvenience you, others drain you emotionally, etc. What we are interested in here is how much effort or energy you exerted in order to try and be successful in each of your goals. Indicate this by using a number from the scale below then write that number in the column marked "Effort" on the answer sheet.

0 — 1 — 2 — 3 — 4 — 5

no effort at all	very little effort	some effort	moderate effort	much effort	very much effort
---------------------	-----------------------	-------------	-----------------	-------------	---------------------

Step 3. Progress

How satisfied are you with the amount of progress you have been making toward each of your strivings? Using the scale below, choose a number which best represents your satisfaction with how well you perceive yourself to be doing in each goal, then write that number in the column marked "Progress" on the answer sheet.

0 — 1 — 2 — 3 — 4 — 5 — 6 — 7

not at all satisfied	neutral	extremely satisfied
----------------------	---------	---------------------

Answer sheet

	Step 1	Step 2	Step 3
	Achievement	Effort	Satisfaction
Strivings			
1			
2			
3			
4			
5			

Appendix M
Perceived Stress Scale

INSTRUCTIONS

The questions in this scale ask you about your feelings and thoughts **during the last month**. In each case, you will be asked to indicate *how often* you felt or thought a certain way. Although some of the questions are similar, there are differences between them and you should treat each one as a separate question. The best approach is to answer fairly quickly. That is, don't try to count up the number of times you felt a particular way; rather indicate the alternative that seems like a reasonable estimate.

	0 never	1 almost never	2 sometimes	3 fairly often	4 Very often
1. In the last month, how often have you been upset because of something that happened unexpectedly?	0	1	2	3	4
2. In the last month, how often have you felt that you were unable to control the important things in your life?	0	1	2	3	4
3. In the last month, how often have you felt nervous and "stressed"?	0	1	2	3	4
4. In the last month, how often have you felt confident about your ability to handle your personal problems?	0	1	2	3	4
5. In the last month, how often have you felt that things were going your way?	0	1	2	3	4
6. In the last month, how often have you found that you could not cope with all the things that you had to do?	0	1	2	3	4
7. In the last month, how often have you been able to control irritations in your life?	0	1	2	3	4
8. In the last month, how often have you felt that you were on top of things?	0	1	2	3	4
9. In the last month, how often have you been angered because of things that were outside of your control?	0	1	2	3	4
10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?	0	1	2	3	4

Appendix N

Key to Goal Rating Variables

Avg Positivity: Participants' self-report ratings on a scale ranging from *not at all* (0) to *extremely* (5) of the extent to which each of their goals was focused on well-being ("to what extent does the striving involve a concern with enhancing positivity and reducing negativity?") averaged across all goals.

Avg Personal Growth: Participants' self-report ratings on a scale ranging from *not at all* (0) to *extremely* (5) of the extent to which each of their goals was focused on personal growth ("to what extent does the striving involve a concern with self-improvement?") averaged across all goals.

Avg Self-Transcendence: Participants' self-report ratings on a scale ranging from *not at all* (0) to *extremely* (5) of the extent to which each of their goals was focused on self-transcendence ("to what extent is the striving oriented above and beyond the self?") averaged across all goals.

Avg Personal Expressiveness: Participants' self-report ratings on a scale ranging from *not at all* (1) to *extremely* (7) of the degree of personal expressiveness (to what extent does each striving gives you a feeling that this is who you really are?) associated with each of their strivings averaged across all goals.

Avg Importance: Participants' self-report ratings on a scale ranging from *not at all* (0) to *extremely* (5) of how important is each striving is to them averaged across all goals.

Avg Progress: Participants' self-report ratings on a scale ranging from *not at all* (0) to *extremely/exceptional progress* (7) of how satisfied they were with their progress towards each of their strivings averaged across all goals.

Avg Effort: Participants' self-report ratings on a scale ranging from *no effort at all* (0) to *very much effort* (5) of how much effort they exerted for each striving averaged across all goals.

Avg Achievement: Participants' self-report ratings on a scale ranging from *no progress at all* (0) to *goal has been achieved* (7) of how successful they were in achieving each striving averaged across all goals.