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Domains of Self-Esteem as Predictors of Life Satisfaction and Loneliness in Emerging Adults

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Domains of Self-Esteem as Predictors of Life Satisfaction and Loneliness in Emerging

Adults

By

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Emerging Adults

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Abstract

Two studies were conducted examining domain specific self-esteem, as conceptualized

by Harter (e.g., Neemann & Harter, 1983/2012), in conjunction with loneliness and life

satisfaction among emerging adult college students. Participants in Study 1 selected the

self-esteem domain they valued most and wrote narratives about a time they felt good and

bad about that area. Themes were identified within the narrative domains and narrative

characteristics were described. In Study 2, global self-esteem and relational self-esteem

domains were examined in conjunction with social, family, and romantic loneliness and

life satisfaction. Both relational and Higher global self-esteem was predictive of higher

life satisfaction and lower social loneliness. Only greater romantic relationship self-

esteem was predictive of lower romantic loneliness. Both greater global and parental

relationship self-esteem were predictive of lower family loneliness. Overall, these results

reiterate the importance of considering narrative formulation of self-esteem and the

importance of domain specific self-esteem.

Dedication

To the memory of my brother Zachary.

For always believing in me. I hope that I would have made you proud. LLF.

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List of Abbreviations/Symbols

SELSA-S	The Social and Emotional Loneliness Scale for Adults-Short Form
SWLS	The Satisfaction with Life Scale

SELF-ESTEEM, LONELINESS, AND LIFE SATISFACTION

CHAPTER I

Introduction

This study is intended to further clarify how specific domains of self-esteem predict life satisfaction and social, family, and romantic loneliness among emerging adults. Thus far, researchers have not examined these constructs using a domain specific developmentally appropriate measure of self-esteem. This is an important contribution to the existing literature because certain domains of self-esteem, such as those researched by Susan Harter and her colleagues (e.g., Neemann & Harter, 1986/2012) may be particularly important for understanding the outcomes of life satisfaction and loneliness. Additionally, this study is intended to address whether relationship focused aspects of self-esteem predict life satisfaction and loneliness after accounting for global self-esteem as described by Harter (Neemann & Harter, 1986/2012). This study is also intended to examine narratives that may be important to the formulation of domain specific self-esteem. Therefore, there are five main objectives for this study. The first objective is to gain a better understanding of the characteristics of stories people tell related to the formulation of their self-esteem. The second objective is to examine which specific domains of self-esteem best predict life satisfaction in emerging adults. The third objective is to address whether relationship-based domains of the self-esteem predict life satisfaction even after accounting for self-focused domains of self-esteem. The fourth objective is to identify which specific domains of self-esteem best predict social, family, and romantic loneliness. Finally, the fifth objective is to address whether relationship-based domains of self-esteem predict social, family, and romantic loneliness even after accounting for global domains of self-esteem

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Literature Review

In this section, the theoretical perspective of emerging adulthood is introduced. In addition, relevant literature regarding self-esteem, life satisfaction, and loneliness is reviewed. Finally, this section concludes with the rationale for conducting this study, the main research questions, and the study hypotheses.

Developmental Theory and Emerging Adulthood

Several psychological theories have been considered foundational for explaining aspects of human development. One instrumental developmental theory is Erikson's psychosocial stages of development which outlines several "crises" people must resolve throughout development (Erikson, 1950; Erikson 1968). According to Erikson's theory, adolescents generally must resolve the crisis of identity versus identity diffusion. James Marcia has used this theoretical perspective to categorize identity statuses; according to Marcia and his colleagues, adolescents may develop an independent sense of who they are (identity achievement), continue exploring identities (moratorium), not explore or accept any particular identity (identity diffusion), or simply accept whatever identity is given to them by those in authority (foreclosure) (Kroger, Martinussen, & Marcia, 2010). If the identity crisis is resolved successfully, young adults next must resolve the crisis of intimacy versus isolation in which they often attempt to develop intimate romantic and friendship relationships. Erikson's theoretical perspective has been extensively studied and has been used as the basis for research support (e.g., identity crisis and commitment; Marcia, Waterman, Matteson, Archer, & Orlofsky, 2012).

Although Erikson's theory of psychosocial development has received empirical support, more recent researchers have noted that in modern, industrialized societies there

tends to be a unique developmental stage between adolescence and young adulthood. In the year 2000, Arnett proposed a unique developmental stage that generally occurs between the ages of 18 and 25 years. People in this age range are generally characterized by exploration in their work and relationships. He called this unique life stage "emerging adulthood" (Arnett, 2000). In a similar way to Erikson's psychosocial theory of development, identity issues and the development of intimate relationships are both important during emerging adulthood.

Arnett's evidence for emerging adulthood being a unique life stage comes from three general areas; demographic characteristics, subjective reports, and the identity exploration phase (Arnett, 2000). First, Arnett noted that emerging adulthood, unlike any other life stage, is a period that is not characterized by any specific descriptive demographics. Unlike adolescence and young adulthood, there is variability between emerging adults on various demographics. Emerging adults are in various education, training, and employment situations. Living arrangements are not consistent across the 18 to 25-year-old age range with no single living situation being normative (i.e., some live alone, live with parents, live with roommates). Second, emerging adults tend to report that, based on their own subjective appraisal, they are either not adults yet or that they are adults only in some ways but not in others (Arnett, 1994; Arnett, 2001). This is contrasted with subjective reports from adolescents, who normatively report not being adults yet, and young adults, who tend to report having reached adulthood. Finally, identity exploration is common among those ages 18-25 in modern industrialized societies in the West. Emerging adults tend to be free to explore different identities. This exploration tends to be evident in areas such as romantic relationships, education, employment, and

recreational activities. These three general areas provide the main evidence that emerging adulthood is a unique developmental stage.

In the past, college students, who are usually emerging adults, have served as proxies for the general adult population in psychological research (Arnett, 2000). This research may have failed to account for the unique experiences and challenges of emerging adulthood. Additionally, the unique developmental stage of emerging adulthood may not be sufficiently recognized by those who work with emerging adults (Arnett, Žukauskienė, & Sugimura, 2014). As mentioned before, emerging adulthood is often a period of identity exploration and a search for intimacy. Although this developmental stage may be a particularly exciting time for emerging adults, it also includes a great deal of instability. Although many emerging adults report currently enjoying their lives and being optimistic about the future, emerging adults also commonly report experiencing anxiety and depression (Arnett &Schwab, 2012). Emerging adulthood can potentially be a turbulent life stage. Some areas that may be of importance when studying the functioning of emerging adults include self-esteem, life satisfaction, and loneliness. It may be particularly important to approach the study of these areas with consideration of the developmental stage of emerging adults. The present study focuses on these constructs using measures that are developmentally relevant to emerging adults.

Susan Harter's Approach to Self-Esteem

Both Erikson's theory of psychosocial development (1968) and Arnett's description of emerging adulthood (2000) emphasize the importance of resolving identity issues. One component of identity that has been given significant research attention is

self-esteem (Mruk, 2006). Susan Harter has defined self-esteem as "the level of global regard that one has for the self as a person" (Harter, 1993, p. 88). Many measures of self-esteem reflect the conceptualization of self-esteem as a single overall judgement or have a single global self-esteem dimension (e.g., Rosenberg Self-Esteem Scale: Rosenberg, 1965). Although some global self-esteem measures have good psychometric properties, other researchers have argued that specific domains of self-esteem may also exist (Harter, 1983). People may have the capacity to distinguish between self-esteem for various domains that are important to them. Therefore, people might have distinct levels of self-esteem across different domains. These domains may also relate differently to various outcomes, including life satisfaction and loneliness. Self-esteem domains of importance likely differ significantly across the lifespan. For example, gaining approval from parents and within school contexts from peers and teachers is more relevant during childhood and adolescence, while feeling competent and gaining approval from co-workers and colleagues at work is likely more important during adulthood (Harter, 1983; Messer & Harter,1986).

Based on these assumptions, Harter has developed several measures that assess relevant self-esteem domains from a developmental perspective. These measures include self-esteem profiles for use with children (Harter, 1983), adolescents (Harter, 1988), college students (Neemann & Harter, 1986/2012), emerging adults (Harter, 2016), adults (Messer & Harter, 1986), and older adults (Harter & Kreinik, 2014). Harter's self-esteem measures have a strong theoretical basis and all measures, except for the recently developed measure for emerging adults, have been statistically validated. Domains likely to be relevant for each life period are emphasized in the various measures.

Although Harter recently developed a self-esteem measure intended for use with emerging adults (Harter, 2016), the measure intended for use with college students (Neemann & Harter, 1986/2012) will instead be used in this study with college students for three main reasons. First, the emerging adult self-esteem measure has not yet been statistically validated (Harter, 2016). Second, the sample in this study will consist of a specific subset of emerging adults who are enrolled in university rather than a general sample of emerging adults (i.e., the university sample of the present study will not necessarily represent all emerging adults). Third, Neemann and Harter (1986/2012) indicated that, although the college profile probably applies to college students of all ages, the domains are most likely to apply to emerging adulthood. Finally, many of the domains are the same for the college student and emerging adult versions of the measure. The following 12 specific self-esteem domains are measured for the college student version of self-esteem; creativity, intellectual ability, scholastic competence, job competence, athletic competence, appearance, romantic relationships, social acceptance, close friendships, parent relationships, finding humor in one's life, and morality. The measure specifically created for emerging adults has many of the same or similar domains (i.e., intelligence, job or occupational competence, athletic or physical competence, physical appearance, peer friendship and social acceptance, intimate relationships, relationships with parents, morality). Harter's (2016) self-esteem domains could potentially be related to important aspects of well-being or life satisfaction among emerging adults who are college students, as discussed further below.

Life Satisfaction

Domain specific self-esteem may potentially be related to indicators of well-being. The emphasis on psychological research in the past has been on measuring negative or maladaptive outcomes (Seligman & Csikszentmihalyi, 2014). However, over the past few decades, there has been a growing movement towards studying "positive psychology" which focuses on predicting more positive or adaptive outcomes (Seligman & Csikszentmihalyi, 2014). Subjective well-being is one area of positive psychology that has garnered significant research attention (Pivot & Diener, 2008). Based on theoretical and statistical grounding, subjective well-being has been further categorized into three partially distinct components; positive affect, negative affect, and life satisfaction (Lucas, Diener, & Suh, 1996). Life satisfaction is a subjective assessment of a person's own global satisfaction with his or her own life. Life satisfaction ratings are based on whatever domains the participant considers personally relevant. This section provides a review of some of the past research on the construct of life satisfaction.

Life satisfaction has been researched using numerous diverse groups which include samples from different countries (e.g., England, Holland, Japan, Korea), different specific ethnocultural groups (e.g., Maasai of Kenya, Amish from Illinois), different educational or workplace situations (e.g., college students, people who are unemployed), and different health groups (e.g., people who have diabetes) (Pavot & Diener 2008). In the existing literature, a wide breadth of important constructs has been associated with life satisfaction at the national and individual level. For example, in a study comparing 55 countries on national variables and life satisfaction the researchers found that countries that are wealthier, more individualist, had more human rights, and had greater

equality also had higher life satisfaction (Diener, Diener, & Diener, 1995).On the individual level, life satisfaction appears to have a genetic component as evidenced by a large study of Dutch twin and non-twin siblings in which life satisfaction was found to have a heritability of 38% (Stubbe, Posthuma, Boomsma, & De Geus, 2005). Situational factors are also associated with life satisfaction. For example, being unemployed is a strong predictor of lower life satisfaction (Frey & Stutzer, 2000). Life satisfaction is correlated with personality traits, such as lower levels of neuroticism, suggesting that people may assess their lives through the "lens" of their personality (DeNeve & Cooper, 1998). Short term transient mood at the time of completing life satisfaction scales has been related to small, inconsistent effects that have not been consistently replicated (Eid & Diener, 2004). On the other hand, as expected, average mood over a longer time period (i.e., mood as a trait rather than a state) was much more strongly correlated with life satisfaction. These are just a few of the factors found to be associated with life satisfaction.

In addition to national and personal characteristics, life satisfaction has also been associated with physiological and psychological health. In general, greater life satisfaction has been positively associated with indicators of more positive functioning and negatively associated with indicators of negative functioning (Pavot & Diener, 2008). Diener and Chan (2011) conducted a literature review in which they found that greater life satisfaction was related to lower disease prevalence and mortality. In the literature review, research was outlined which indicated that people who have higher subjective well-being, including life satisfaction, live significantly longer than those with lower subjective well-being. Life satisfaction is also related to more positive psychological

functioning. During adolescence, current life satisfaction seems to act as a buffer against later externalizing behaviours after stressful experiences (Suldo & Huebner, 2004). The positive effect of life satisfaction was found even after the researchers controlled for current level of externalizing behaviours. Adolescents with very high life satisfaction were found to have better psychosocial functioning across multiple measures compared to those who had low average or even average life satisfaction (Suldo & Huebner, 2006). Additionally, those who had very high life satisfaction had fewer behavioural and emotional problems. Clinically, as therapy progresses, people generally report higher life satisfaction (e.g., Friedman & Toussain, 2006). Friedman and Toussain even suggest that life satisfaction could be used as an additional measure of improvement throughout therapy. In a similar finding, measures of life satisfaction were found to discriminate between psychiatric patients and non-psychiatric adults (Arrindell, van Nieuwenhuizen, & Luteijn, 2001). A Finnish Twin longitudinal study found that life satisfaction at the initial assessment was predictive of suicide risk 20 years later (Koivumaa-Honkanen et al., 2001). This research demonstrates that life satisfaction has important implications for physiological and psychological health.

Based on the previous research, life satisfaction is evidently an important construct that is related to physical and psychological well-being. Of particular interest for this study, a positive relationship between self-esteem and life satisfaction has been identified in previous literature. Diener and Diener (2009) even addressed the possibility that global self-esteem may be a specific subtype of life satisfaction. Diener and Diener's (2009) identified a positive relationship between self-esteem and life satisfaction with groups of participants from thirty-one nations. In each of these nations, self-esteem and

life satisfaction were positively correlated, yet distinct constructs from one another. Other studies found similar relationships between self-esteem and life satisfaction. Adolescents categorized as having either high, medium, or low life satisfaction had corresponding levels of self-esteem (i.e., those with high life satisfaction had higher self-esteem than those with medium and low life satisfaction) (Gilman & Huebner, 2006). Additionally, self-esteem has been identified as a partial mediator of the relationship between social support and life satisfaction among Turkish early adolescents (Kapıkıran, 2013) and middle adolescents (Çivitci & Çivitci, 2009) and Chinese late adolescents (Kong & You, 2013). Based on this previous research, self-esteem and life satisfaction are evidently related. However, life satisfaction has not yet been investigated in conjunction with domain specific self-esteem during emerging adulthood. Therefore, life satisfaction is an important construct to continue to study in relation to domain specific self-esteem during emerging adulthood.

Self-Esteem vs. Self-Efficacy

Although Harter's measures primarily are presented as measuring domain specific self-esteem, the characteristics of this measure mean that it is also important to describe self-efficacy and explain the similarities and differences between these concepts. As mentioned previously, self-esteem is usually examined as overall regard for one's self as a person. Harter more specifically examines regard for one's self not only globally, but also across specific domains. Similarly, self-efficacy is the perception of being able to accomplish specific goals (Zulkosky, 2009). In fact, some research indicates that self-efficacy, when conceptualized as a global judgment of ability, shares an underlying construct with self-esteem (Judge, Erez, Bono, & Thoresen, 2002). When interpreting

this study and other studies it is important to consider that self-efficacy and self-esteem are overlapping concepts and may even share a common underlying construct. This may be particularly relevant for Harter's domain-specific conceptualization of self-esteem as these domains are area-specific and, therefore, may more closely resemble self-efficacy. For example, the following item measuring job competence self-esteem could be interpreted as instead measuring self-efficacy: "some students feel confident about their ability to do a new job BUT other students worry about whether they can do a new job they haven't tried before" (Neemann & Harter, 1986/2012). In this item, participants are asked about their ability to accomplish a somewhat, although not entirely, specific goal (i.e., doing a new job). These and other items seem to overlap with the concept of self-efficacy.

Loneliness Across the Life Span

In addition to life satisfaction, loneliness is an important indicator of quality of life with physiological and psychological implications. Loneliness is the usually unpleasant perception of a deficit between the needed quality or quantity and the actual quality or quantity of a social network (e.g., Perlman & Peplau, 1984). Loneliness, like self-esteem, may be associated with current developmental stages. A Portuguese cohort study with people 15 to 92 years old found that the prevalence, characteristics, and implications of loneliness change across the lifespan (Neto, 2014). Qualter and colleagues (2015) identified the following differences in common elicitors of loneliness across the lifespan. During early childhood, loneliness is associated with an unmet desire for peer approval. During later childhood and early adolescence, loneliness is associated with an unmet desire for close friendships in addition to peer approval. During emerging

adulthood, loneliness is associated with an unmet desire for close intimate relationships, including friendships and romantic relationships. During early and middle adulthood, loneliness is associated with an unmet desire for a quality of intimacy in romantic relationships while loneliness in older adults is associated with an unmet desire for companionship in the romantic relationship.

Throughout the lifespan, feelings of loneliness have been repeatedly associated with negative physiological health outcomes. A 20-year longitudinal study that originally assessed participants during childhood, found that those who had held more socially isolated positions as children (measured by parental responses to a social isolation questionnaire) had significantly more risk factors for heart disease as adults (Caspi, Harrington, Moffitt, Milne, & Poulton, 2006). A 20-year follow up study of women (45-64 years old) found that loneliness during the day was a statistically significant predictor of cardiovascular disease related problems and mortality (Eacker, Pinsky & Castelli, 1992). Among older adults, feelings of loneliness are associated with greater mortality even after statistically controlling for other relevant variables (e.g., smoking, chronic disease) (Penninx et al., 1997). Loneliness was also predictive of mortality, particularly related to heart disease, in a 14-year longitudinal study of older adults (Olsen, Olsen, Gunner-Svensson, & Waldstrøm,1991). Subjectively, greater loneliness was associated with lower perceived health in older adults (Hawkley, Thisted, & Cacioppo, 2009). Evidently, loneliness may have long term health consequences.

In addition to physiological health, chronic feelings of loneliness have been repeatedly associated with poorer psychological health across the lifespan. Cacioppo and colleagues (2000) found that greater loneliness is associated with a less positive outlook

on life, fewer secure attachments, less autonomic activity and restorative behaviour when responding to psychological challenges among college students, most of whom would likely be emerging adults. In another study, depressed and self-harm patients generally did not feel satisfied with the social support they were receiving (Neeleman & Power,1994). Among older adults, greater loneliness has been associated with less physical activity, more depressive symptoms, and greater perceived stress (Hawkley, Thisted, & Cacioppo, 2009). In a longitudinal study, loneliness and depression was examined among older adults (i.e., 50-68 years old) over five years; the researchers found that initial ratings of loneliness were associated with later episodes of depression (Cacioppo, Hawkley, & Thisted, 2010). Greater loneliness is associated with more extensive decline of cognitive abilities over time across the lifespan even after controlling for other factors (e.g., initial IQ, SES) (Gow, Pattie, Whiteman, Whalley, & Deary, 2007). A longitudinal study of healthy older adults found that greater loneliness was associated with lower cognitive ability at baseline and greater cognitive decline during follow up assessments over the next five years (Wilson et al., 2007).

The research reviewed above shows that loneliness has important long-term implications for physiological and psychological health. In much of the research that has been conducted thus far, loneliness is conceptualized as a single unitary construct (e.g., UCLA Loneliness Scale; Russell, Peplau, & Ferguson, 1978). However, the argument has been made that loneliness may consist of multiple areas such that a person could feel lonely in one area but not in another. Weiss (1987) proposed that loneliness could be subdivided into two partially independent types of loneliness; social and emotional loneliness. Social loneliness is based on feelings of isolation from community while

emotional loneliness is based on feelings of isolation from attachment figures. Vincenzi and Grabosky (1987) found support for this theoretical categorization by conducting a factor analysis on multiple scales measuring loneliness. Items on one factor resembled theoretical descriptions of social loneliness while items on the other factor resembled theoretical descriptions of emotional loneliness. Green, Richardson, Lago, and Schatten-Jones (2001) examined correlates of social and emotional loneliness among young and older adults. Although social and emotional loneliness were moderately correlated with one another, there were, as expected, different social network correlates (e.g., emotional loneliness was correlated with not having a romantic partner). This provided further support for the division of loneliness into social and emotional loneliness.

DiTommaso and Spinner (1993) proposed that loneliness could be further categorized into three types of loneliness; social, family, and romantic. This categorization was based on theoretical grounding and supported by statistical analysis. Social loneliness in this study is the equivalent of previous conceptualizations of social loneliness (e.g., Weiss, 1987; Vincenzi & Grabosky, 1987; Green, Richardson, Lago, & Schatten-Jones, 2001). Emotional loneliness, however, was further subdivided into family and romantic loneliness. Distinguishing between these three types of loneliness may be particularly relevant for research on emerging adults. Emerging adulthood is characterized as being a time in which social and romantic relationships are particularly important (Arnett, 2000). Although emerging adults tend to be more independent from their families, family relationships continue to remain an important source of support. Bernardon, Babb, Hakim-Larson, and Gragg (2011) examined social, family, and romantic loneliness in conjunction with social support and attachment in college students,

most of whom were emerging adults. Participants were found to distinguish between social, family, and romantic loneliness. More secure attachments and greater perceived social support were generally associated with less social, family, and romantic loneliness.

There has been some previous literature that has addressed the relationship between self-esteem and loneliness. Greater loneliness in a community sample of older adults in England was associated with lower self-esteem (Dahlberg & McKee, 2014). Higher global self-esteem was found to be one of the best predictors of less loneliness among homeless youth which indicates that self-esteem may be a protective factor (Kidd & Shahar, 2008). Additionally, self-esteem and loneliness have been identified as partial mediators of the relationship between social support and life satisfaction among Turkish early adolescents (Kapıkıran, 2013) and middle adolescents (Çivitci & Çivitci, 2009) and Chinese late adolescents (Kong & You, 2013). Although the relationship between self-esteem and loneliness has been studied previously, this is the first known study regarding the relationship between domain specific self-esteem and domain specific loneliness. This study is intended to fill the gap in the literature and further clarify the finer nuances of the relationship between these variables.

Narrative Research

Over the past few decades, there has been somewhat of a shift away from entirely quantitative methods to also making use of qualitative methods. One specific area that has emerged as an important research methodology is narrative psychology (McAdams, 2008). Sarbin (1986) indicated that narratives are simply stories which he defined as "a symbolized account of actions of human beings that has a temporal dimension" (p. 1). Narrative research is an examination of the elements of stories people tell. Sarbin (1986)

went so far as to say that narratives are the "root metaphor for psychology" meaning that narratives are the method used by people to make sense of their lives. Some people have placed such importance on narratives that the therapeutic modality of "narrative therapy" has been developed (e.g., Payne, 2006; Brown & Augusta-Scott, 2006). This modality focuses upon the narratives people tell and how these narratives can be re-told to become more adaptive. In fact, simply the act of writing a narrative about a traumatic event has been linked to improvements in physical and mental health (e.g., Pennebaker, 1993; Pennebaker, & Seagal, 1999).

In fact, previous research has found that specific aspects of the narratives people tell are related to adaptive outcomes (Bauer, McAdams, & Pals, 2008). For example, in one study parents of children who had Down syndrome wrote narratives about their experience of receiving the diagnosis (King, Scollon, Ramsey, & Williams, 2000). The researchers rated stories for foreshadowing of the diagnosis of Down syndrome, happy endings, a sense of closure, and accommodation to the situation. Accommodation was related to higher levels of ego development. Foreshadowing, happy endings, and a sense of closure were each related to subjective well-being, which included a measure of life satisfaction. In another study, Bauer, McAdams, and Sakaeda (2005) coded narratives of important memories for, among other variables, intrinsic memories which included pursuing humanistic concerns (concern with personal growth, meaningful relationships, and contributing to society). Intrinsic memories were found to be associated with well-being which included life satisfaction.

King and Raspin (2004) had divorced women write about their best possible selves before and after divorce. Narratives that focused on their lost possible self were

associated with lower subjective well-being whereas narratives with a focus on found possible self were associated with higher subjective well-being. Patten and Bowman (2001) had midlife adults and college student write narratives about personally meaningful life episodes. Among other aspects, narratives were coded for overall affective quality, redemption sequences (i.e., beginning with an affectively bad sequence and moving to an affectively good sequence), and contamination sequences (i.e., beginning with an affectively good sequence and moving to an affectively bad sequence). They found that inclusion of redemption sequences was associated with greater well-being, while inclusion of contamination sequences was associated with poorer well-being. Although overall valance of narratives was a predictor of well-being, redemption sequences were a better predictor.

Given the emphasis placed on narrative identity, narratives would likely be important for self-esteem, particularly domain specific self-esteem. Both positive and negative valanced episodes likely have an important impact on a person's self esteem. In fact, previous research has examined the impact of specific experiences, such as bullying or being bullied, have on self-esteem (e.g., O'Moore & Kirkham, 2001). However, researchers have not examined whether narratives of events may be particularly meaningful for self-esteem.

Present Research

Research Question 1: Do social, romantic. and family loneliness predict life satisfaction? In past research (e.g., Salimi, 2011), lower levels of family loneliness, social loneliness, and romantic loneliness were all associated with greater life satisfaction. Additionally, male emerging adult college students have been found to

display higher levels of romantic loneliness than female college students (Bernardon et al., 2011).

*Hypothesis 1: Domains of loneliness predicting life satisfaction***.** After controlling for covariates (e.g., gender and age), lower levels of family loneliness, social loneliness, and romantic loneliness will predict greater life satisfaction.

Research Question 2: What are the characteristics of the narratives that are told about the domain of self-esteem most important to emerging adults? Although past research has examined characteristics of narratives, no known study has elicited narratives about feeling good and feeling bad about specific self-esteem areas and coded for topics and narrative elements. The narrative component of this study aims to better determine what types of events will be included in the narratives about the self-esteem domain that college students perceive as being most important.

*Hypothesis 2a: For narratives about each specific self-esteem domain, it is expected that topical themes will emerge for both feeling good and feeling bad stories***.** Conceptually similar narrative themes for feeling good and feeling bad will be identified across the domains of creativity, intellectual ability, scholastic competence, job competence, athletic competence, appearance, romantic relationships, social acceptance, close friendship, parent relationships, finding humour, and morality.

Hypothesis 2b: Characteristics of narratives in which participants were asked to describe a story where they felt good about a selected domain will differ from characteristics of narratives where participants were asked to describe a story about when they felt bad about a selected area. Although previous research does not address differences between the manner that people tell negative and positive stories, it is

expected that such differences will exist between narratives where the participants felt good and narratives where the participant felt bad in terms of story length, story specificity, completeness of story, valence of story, lesson learning, and reframing.

Research Question 3: Do specific domains of self-esteem predict life satisfaction? Past research has identified a positive relationship between having higher self-esteem and being more satisfied with life. However, this research has not examined the relationship between domain specific self-esteem and life satisfaction. Specifically, this study is intended to address the potential link between domain specific self-esteem and life satisfaction.

Hypothesis 3: Predictors of life satisfaction. Higher global and domain-specific relational self-esteem will be related to higher satisfaction with life. Additionally, self-esteem within the domain of relationships (i.e., romantic relationships, social acceptance, close friendships, and parent relationships) is expected to predict higher levels of satisfaction with life over and above global self-esteem. Additionally, other specific domains of self-esteem will be positively correlated with life satisfaction.

Research Question 4: Do specific domains of self-esteem predict domains of loneliness? Some previous literature suggests a relationship between self-esteem and loneliness. However, this relationship has not yet been explored using domain specific, developmentally appropriate measures of self-esteem. Therefore, the following hypotheses examine the relationship between global and domain specific relational self-esteem and three types of loneliness.

Hypothesis 4a: Family loneliness. Higher global and domain-specific relational self-esteem will be related to lower family loneliness. Self-esteem within the domain of

relationships (i.e., romantic relationships, social acceptance, close friendships, and parent relationships) is expected to predict the outcome variable of family loneliness over and above global self-esteem. Additionally, other specific domains of self-esteem will be negatively correlated with family loneliness.

Hypothesis 4b: Social loneliness. Higher global and domain-specific relational self-esteem will be related to lower social loneliness. Additionally, self-esteem within the domain of relationships (i.e., romantic relationships, social acceptance, close friendships, and parent relationships) is expected to predict the outcome variable of social loneliness over and above global self-esteem. Additionally, other specific domains of self-esteem will be negatively correlated with social loneliness.

Hypothesis 4c: Romantic loneliness. Higher global and domain-specific relational self-esteem will be related to lower romantic loneliness. Additionally, self-esteem within the domain of relationships (i.e., romantic relationships, social acceptance, close friendships, and parent relationships) is expected to predict the outcome of romantic loneliness over and above global self-esteem. Additionally, other specific domains of self-esteem will be negatively correlated with romantic loneliness.

CHAPTER II

Method

Two studies were conducted to answer the four research questions and address the hypotheses. During Study 1, an unexpected error occurred when data were being transferred from the online program used to collect responses. This error rendered The Self-Perception Profile for College Students (Neemann & Harter, 1986/2012) collected during Study 1 unusable. However, data from other measures used in Study1 were not impacted by the error and were therefore used to address Research Questions 1 and 2. Additional data were collected in Study 2 to address Research Questions 3 and 4. The Method and Results sections include data from both studies. See Table 1 on page 23 for the demographics from both studies.

Participants for Study 1

According to the power analysis conducted using G*Power (Faul, Erdfelder, Buchner, & Lang, 2009), assuming a medium effect size and a power level greater than .80, 132 participants in total needed to be recruited for a study including five predictor variables. Additional participants had been recruited because the study was originally intended to have additional predictors before the data transfer error. Participants were recruited from the University of Windsor's student online participant pool over the Winter semester of 2017. Participants were awarded credit for their participation which contributed to bonus course credit in accordance with participant pool policy.

A total of 172 undergraduate students participated in Study 1. Thirty-nine of the participants were men, 128 were women, and five participants did not specify a gender. All participants were ages 18-25 years old (M=19.8 years old). The age-based exclusion

criteria were intended to only include participants in the age range generally associated with emerging adulthood (Arnett, 2000). One hundred and six of the participants were employed part time, 15 were employed full-time, and 51 were not employed. Most participants identified as White (71.5%) followed by Arab (8.7%), South Asian (7%), Black (5.8%), Other (2.9%), Chinese (1.2%), Filipino (1.2%), and Native/Aboriginal (0.6%).

Participants for Study 2

Additional participants were recruited from the University of Windsor's student online participant pool over the Summer semester of 2017 (n=6) and from outside the participant pool using online recruitment and flyers that were put up around campus (n=50).

A total of 56 undergraduate students participated in Study 2. Ten of the participants were men and 46 were women. All participants were ages 18-25 years old (M=22.4 years old). The age-based exclusion criteria were intended to only include participants in the age range generally associated with emerging adulthood (Arnett, 2000). Nineteen of the participants were employed part time, 16 were employed full-time, and 21 were not employed. Most participants identified as White (66.1%) followed by Chinese (17.9%) South Asian (7.1%), other (5.4%), Black (1.8%), and Southeast Asian (1.8%).

Measures for Study 1 and Study 2

Participants for both studies completed the same measures as described further below.

Table 1

Demographic Characteristics for Study 1(N=172) and Study 2 (N=55)

	Study 1		Study 2	
Gender	Number	Percentage	Number	Percentage
Men	39	22.7%	9	16.4%
Women	127	73.8%	46	83.6%
Unspecified	6	3.5%		
Romantic Partner				
Has a Partner	77	45%	30	55.6%
No Partner	94	55%	24	44.4%
Marital Status				
Legally married	3	1.8%	3	5.6%
Never legally married	168	98.2%	51	94.4%
Employment Status				
Part-Time	106	61.6%	19	34.5%
Full-Time	14	8.2%	16	29.1%
Unemployed	51	29.8%	20	36.4%
Ethnic Identification				
White	122	71.3%	36	65.5%
Arab	15	8.7%	-	-
Black	19	5.8%	1	1.8%
Chinese	2	1.2%	11	20.0%
Filipino	2	1.2%	-	-
Latin American	2	1.2%	-	-
Native/Aboriginal	1	.6%	-	-
South Asian	-	-	3	5.5%
Southeast Asian	-	-	1	1.8%
Other	5	2.9%	3	5.5%

Basic demographic information. Participants completed a measure of basic demographic information (Appendix B). This measure includes questions about the participant's gender, age, marital status, ethnicity, education, program and year of enrolment, employment status, and annual income.

The Self-Perception Profile for College Students (Neemann & Harter, 1986/2012)**.** To assess self-esteem, participants completed the Self-Perception Profile for College Students (Neemann & Harter, 1986/2012), a self-report measure that includes a global measure of self-esteem and 12 specific self-esteem domains. These scales include Creativity (e.g., some students feel they have a lot of original ideas BUT other students question whether their ideas are very original), Intellectual Ability (e.g., some students question whether they are very intelligent BUT other students feel they are intelligent), Scholastic Competence (e.g., some students do very well at their studies BUT other students don't do very well at their studies), Job Competence (e.g., some students are not very proud of the work they do on their job BUT other students are very proud of the work they do on their job), Athletic Competence (e.g., some students don't feel that they are very athletic BUT other students do feel they are athletic), Appearance (e.g., some students are not happy with the way they look BUT other students are happy with the way they look), Romantic Relationships (e.g., some students find it hard to establish romantic relationships BUT other students don't have difficulty establishing romantic relationships), Social Acceptance (some students are not satisfied with their social skills BUT other students think their social skills are just fine), Close Friendships (e.g., some students are able to make close friends they can really trust BUT other students find it hard to make close friends they can really trust), Parent Relationships (e.g., some students

like the way they act when they are around their parents BUT other students wish they acted differently around their parents), Finding Humor in One's Life (e.g., some students can really laugh at certain things they do BUT other students have a hard time laughing at themselves), Morality (e.g., some students often question the morality of their behavior BUT other students feel their behavior is usually moral), and Global Self-Worth (e.g., some students usually like themselves as a person BUT other students often don't like themselves as a person). In the profile, participants are presented with two opposing profiles of students (e.g., "some students don't do well at activities requiring physical skill BUT other students are good at activities requiring physical skill"). This format is intended to limit social desirability (Neemann & Harter, 1986/2012). The participants then choose the description that they believe is more consistent with their self-perception. Additionally, the participant indicates whether the description is "really true for me" or "sort of true for me". These four options correspond to a score of either one, two, three, or four for each item. As expected, factor analysis of the profile (excluding global self-worth) indicated that a twelve-factor solution best fit the data. Higher scores on the Self-Perception Profile indicates higher self-esteem. Approximately half the items were reverse scored (i.e., the lower self-esteem item was presented first). In past research, the Self-Perception scales have high internal reliability with coefficient alpha's ranging from .76 to .92, with all but one of the scales having coefficient alphas above .80. For the current study, expected and actual alphas ranged from .76 to .92 and .58 to .82 and are reported in the far right column of Table 2. Reliability was found to be good for most of the scales with the exceptions of Social Acceptance self-esteem, which was considered poor, and Scholastic Competence, and Close Friendships.

Table 2
Summary of Descriptive Statistics for Study 2 (N=56)

Scale	Range	Expected Means	Expected Alpha	Actual Means	Actual Alpha
The Self-Perception Profile for College Students (Neemann & Harter, 1986)					
Creativity	4-16	11.40	.89	10.17	.81
Intellectual Ability	4-16	12.32	.86	10.86	.71
Scholastic Competence	4-16	11.28	.84	11.26	.69
Job Competence	4-16	13.28	.76	11.50	.77
Athletic Competence	4-16	11.00	.92	8.22	.86
Appearance	4-16	10.56	.85	9.95	.77
Romantic Relationships	4-16	10.36	.88	9.67	.86
Social Acceptance	4-16	12.68	.80	11.40	.58
Close Friendships	4-16	13.40	.82	13.24	.62
Parent Relationships	4-16	14.00	.88	13.23	.82
Humor	4-16	13.96	.80	12.33	.78
Morality	4-16	12.92	.86	12.72	.73
Global	6-24	19.14	-	17.12	.82
Social and Emotional Loneliness Scale for Adults-Short Form (Ditommaso, Brannen, & Best, 2004)					
Social	5-35	15.4	.90	15.28	.83
Family	5-35	13.4	.89	10.70	.93
Romantic	5-35	16.4	.87	17.63	.92
The Satisfaction With Life Scale (Pavot, Diener, Colvin, & Sandvik, 1991)	5-35	24.4	.83	24.59	.79

The Social and Emotional Loneliness Scale for Adults Short Form (SELSA-S; Ditommaso, Brannen, & Best, 2004)**.** Participants completed the Social and Emotional Loneliness Scale for Adults -Short Version (SELSA-S; Ditommaso, Brannen, & Best, 2004). The SELSA-S is a fifteen-item self-report measure used to assess feelings of social, family, and romantic loneliness. Participants responded to items on a 7-point Likert scale from 1 (*strongly agree*) to7 (*strongly disagree*). Higher scores indicate greater loneliness. The SELSA-S, unlike other unidimensional measures of loneliness, has three scales of loneliness consisting of five items each. The subscales consist of Social Loneliness (e.g., I feel part of a group of friends), Family Loneliness (e.g., I feel part of my family), and Romantic Loneliness (e.g., I have a romantic or marital partner who gives me the support and encouragement I need).

The SELSA was developed to provide an alternative to unidimensional measures of loneliness based on the argument that distinguished social and emotional (i.e., romantic and family) loneliness are distinct domains of the construct of loneliness (Weiss, 1973). The original SELSA and the SELSA-S were found to have excellent psychometric properties. Confirmatory factor analysis with the three factor solution (i.e., romantic, family, and social) has shown that it is the best fit for the data (Ditommaso, Brannen, & Best, 2004). The SELSA-S has also demonstrated good concurrent validity as it was correlated with other measures of loneliness, including the widely used UCLA Loneliness Scale. Additionally, the subscales demonstrated convergent and discriminant validity as they were found to be correlated with measures that were anticipated to be related (e.g., romantic loneliness to number of dates) and uncorrelated with measures that were anticipated to be unrelated (e.g., being involved in a romantic relationship and

family loneliness). In past research, the subscales on the SELSA-S have excellent internal consistency (Cronbach's α=.87-.90). Internal consistency on the SELSA-S for Study 1 was found to be good ranging from .86-.88. Expected and actual internal consistency alphas for Study 1 are reported in Table 3 on page 29. Internal consistency on the SELSA-S for Study 2 was found to be good and excellent ranging from .83-.93. Expected and actual internal consistency alphas for Study 2 are reported in Table 2 on page 26.

Satisfaction With Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985; Pavot & Diener, 1993). Participants completed the Satisfaction With Life Scale (SWLS; Pavot & Diener, 1993). The SWLS is a five-item self-report measure used to assess participants' overall current satisfaction with their lives. This scale does not assess satisfaction with specific life domains. Rather, it allows participants to report their overall satisfaction with life based on whatever area is most important to them (e.g., In most ways my life is close to my ideal; The conditions of my life are excellent). Participants respond to items on a 7-point Likert scale from 1 (*strongly disagree*) to 7 (*strongly agree*). Scores are calculated by summing the five responses. Higher scores indicate greater overall satisfaction with life.

The SWLS has been widely used in research and demonstrates good psychometric properties with college students and other samples (e.g., Shevlin, Brunsden, & Miles, 1998). The SWLS demonstrates concurrent validity with moderately strong correlations to other subjective well-being measures (Diener, Inglehart, & Tay, 2013). The SWLS also has convergent validity with moderate correlations to variables that would be expected to be related to life satisfaction such as self-esteem and neuroticism (Diener,

Table 3
Summary of Descriptive Statistics for Study 1 (N=172)

Scale	Range	Expected Means	Expected Alpha	Actual Means	Actual Alpha
Social and Emotional Loneliness Scale for Adults-Short Form (Ditommaso, Brannen, & Best, 2004)					
Social	5-35	15.4	.90	12.32	.86
Family	5-35	13.4	.89	10.52	.86
Romantic	5-35	16.4	.87	20.22	.88
The Satisfaction with Life Scale (Pavot, Diener, Colvin, & Sandvik, 1991)	5-35	24.4	.83	25.94	.87

Inglehart, & Tay, 2013). The alpha coefficient for SWLS was .87 for Study 1 and .79 for Study 2.

Qualitative questions. In addition to responding to the quantitative questionnaires, participants were also presented with, and asked to respond to, the following description (Appendix I):

Here are some self-esteem abilities or traits that people feel are admirable, or value in life: creativity (feeling you are creative), intellectual ability (feeling that you are an intelligent person), scholastic competence (feeling you are able to do succeed at school), job competence (feeling you can be successful in your job), athletic competence (feeling you are athletic and physically fit), appearance (feeling you are a good looking person and being satisfied with your physical appearance), romantic relationships (feeling you are capable of finding and maintaining romantic relationships), social acceptance (feeling you are generally socially accepted by people), close friendships (feeling you are capable of developing or maintaining close friendships), relationship with your parents (feeling you can maintain a close relationship with your parents or primary guardian), finding humour in one's life (feeling you can find humour in different situation), and morality (feeling you are a moral person).

After reading this paragraph, participants choose a domain from the following options; creativity, intellectual ability, scholastic competence, job competence, athletic competence, appearance, romantic relationships, social acceptance, close friendships, parent relationships, finding humour in one's life, and morality. They were instructed to "tell us a true story about yourself when you felt good about the area you selected as

being most important" and then "tell us a true story about yourself when you felt bad about the area you selected as being most important". Participants were presented with a text box in which they could enter their responses to these prompts.

Responses to questions about the "felt good" and "felt bad" stories were analyzed using narrative analysis. A rubric for coding responses was created by the primary investigator based on the results of previous research (Appendix J). Coding was carried out by the primary investigator in conjunction with an undergraduate student. The two raters completed data coding independently. The coders met periodically to discuss and resolve difference in selected codes. This means that a consensus between coders was reached. In addition to the "self-esteem area" the participants had already specified, narrative responses were coded for Story Theme, Connections Between Stories, Story Specificity, Story Resolution, Valence of Ending, and Lesson Learning. Story Theme and Connections Between Stories were identified using the Braun and Clarke methodology (2006). Story Specificity was coded on a three-point scale from zero to two based on the scale use by Fitzgerald (2010). A rating of 0 indicated a *Non-Story*, 1 indicated a *General or Repetitive Story*, and 2 indicated a *Specific Story*. Ending Resolution was scored on a four-point scale ranging from zero to three. A rating of 0 indicated an Unresolved Story, 1 indicated a Partially Resolved Story, 2 indicated a Moderately Resolved Story, and 3 indicated a Completely Resolved Story (Fitzgerald, 2010). Valence of ending was coded on a five point scale based on a coding scale used by McAdams, Reynolds, Lewis, Patten, and Bowman (2001). A rating of -2 indicated an *extremely negative ending, very unhappy story*, -1 indicated a *slightly negative ending, generally unhappy story*, 0 indicated a *mixed or neutral or indeterminate ending, neither happy nor unhappy story, or both*, +1

indicated a *positive ending, generally happy story*, and +2 indicated an *extremely positive ending, very happy story*. Responses were also coded for Lesson Learning on a three-point scale based on the coding scale used by Thorne, McLean, and Lawrence (2004). A score of 0 indicated *No Lesson Learning*, a score of 1 indicated *Basic Lesson Learning* (the event impacted their behaviour in similar situations), and a score of 2 indicated *Gaining Self-Insight* (gaining a greater understanding of themselves or the world around them). Finally, responses were coded for the presence or absence of reframing which was operationally defined as "reinterpreting or focusing on the positive side of a negative event". In addition to the narrative data coding, a word count was taken for each narrative response using the word count feature in Microsoft Office. In addition to this narrative question, participants responded to two additional qualitative questions (Appendix I). However, the results for these qualitative questions will not be reported in this paper.

Procedure

Below are the procedures used for Study 1 and Study 2.

Procedure for Study 1. After receiving ethics clearance, participants were recruited from the participant pool. Once an interested student signed up for the study through the participant pool website, the participant was emailed with basic study information including the link to the FluidSurveys study and a unique participant ID. Participants were then presented with a consent form (Appendix C) that included a brief description of the purpose of the study, the participant's role, risks, benefits, and contact information to address questions or concerns. People who agreed to participate were presented with the demographic questionnaire first. Next, the Self-Perception Profile for College Students, the SELSA-S, the SWLS, and qualitative questions were presented in

randomized blocks. Following completion of these measures, participants were presented with a letter of information (Appendix D). Provided they displayed evidence of effortful responding, participants were given course credit for their participation as per participant pool policy.

Procedure for Study 2. The same procedures were used in Study 2 as in Study 1 for those recruited from the participant pool. However, additional participants were recruited from outside the participant pool. These participants were recruited through a social media flyer (Appendix E), through a flyer that was posted around campus (Appendix F), and through word of mouth. Participants recruited from outside the participant pool were presented with a modified consent form (Appendix G) and a modified letter of information (Appendix H) to reflect the different method of reimbursement. Instead of being reimbursed with course credit, participants from outside the pool were given an opportunity to enter their names into a draw to win one of two Amazon.ca gift cards for $50. The procedure for administering of the online measures was the same as for Study 1.

CHAPTER III

Results

As mentioned previously, the data from Study 1 were used to address Research Questions 1 and 2, while the data from Study 2 were used to address Research Questions 3 and 4.

Results for Study 1

Quantitative data analysis. Data were analyzed using IBM SPSS Statistics version 24, a computer program designed for statistical data analysis.

Data cleaning procedures. Data from participants who displayed insufficient effort were deleted. That is, data were eliminated for participants who completed the study in an extremely short amount of time (under ten minutes; $n=5$) and those who failed two validity check items ($n=1$). After eliminating the data from these participants, data from 167 participants remained for Study 1.

Patterns of missing data were analyzed. The most common pattern of missing data were having only one response missing. Data were examined to determine whether data were missing completely at random, missing at random, or missing not at random. Little's MCAR test was statistically significant (p>.001) indicating that data were not missing completely at random. Data were not imputed because there were only a small percentage missing and because there were no apparent patterns to where data were missing.

Preliminary analyses. Before conducting multiple regression analysis, the assumptions of this statistical procedure were examined. Data were analyzed for outliers and influential observations. Data were visually inspected using histograms, scatterplots,

and box and whisker graphs. Although some observations appeared to be outliers, statistical procedures were used to identify whether these were true outliers. No univariate outliers were identified using Cook's D with a cut-off of two. Additionally, multivariate outliers were assessed using Mahalonobis distance with a cut-off of $p < .001$ (df 3). No multivariate outliers were identified using Mahalonobis distance.

Reliability for the SWLS and the SELSA-S subscales was estimated using alpha statistics. All alphas are reported in the far right column of Table 3. Reliability was found to be good for each of these scales ranging from .86 to .88. This indicates that the measures used in this study reliably assessed the variables.

Multicollinearity and singularity were assessed by examining the correlations. Correlations between predictors are reported in Table 36. As expected, SELSA-S subscales are correlated with one another. However, the correlations are not strong enough to be suggestive of multicollinearity or singularity. In addition, tolerance scores were found to range from .73 to .95 which indicates there is a low amount of multicollinearity between predictors.

To establish whether the relationship between the predictor variables and outcome variables was correctly specified, scatterplot graphs which contained a line of best fit were visually examined. The relationship between life satisfaction and social loneliness and the relationship between life satisfaction and social loneliness appeared approximately linear, however, the relationship between romantic loneliness and life satisfaction did not appear linear.

Table 4
Correlation Matrix for Study 1 Quantitative Variables (N=171)

	1.	2.	3.	4.	5.	6.
1. Gender	-	-	-	-	-	-
2. Age	.05	-	-	-	-	-
3. Social Loneliness	-.01	.01	-	-	-	-
4. Family Loneliness	-.02	.13	.47**	-	-	-
5. Romantic Loneliness	-.24**	-.17*	.09	.10	-	-
6. Life Satisfaction	.01	-.02	-.40**	-.53**	-.30**	-

* Statistically significant correlation at $p \leq .05$
** Statistically significant correlation at $p<.01$

Residual values were also calculated and examined. Examination of q-q plots and histograms indicate that residuals are normally distributed. Additionally, visual examination of scatterplots of predicted and actual values did not reveal any specific patterns. Overall, this indicates that the model does not overpredict or under-predict values meaning heteroscedasticity of residuals does not appear to be a problem.

The assumption that data were normally distributed was also examined. Visual examination of histograms indicated that social loneliness, family loneliness, and romantic loneliness were skewed. A square root transformation was carried out on social loneliness data which led to improvement in normality. However, the romantic and family loneliness scales were not improved by transformations. Romantic loneliness appeared to have somewhat of a bimodal distribution. Separate histograms were examined for participants who indicated they were in a romantic relationship and those who indicated they were not. Upon examining the two distributions, the histogram for those in a romantic relationship appeared to be positively skewed while the graph for people who were not in a romantic relationship appeared to be negatively skewed. This seemed to indicate that there is a bimodal distribution for romantic loneliness. Therefore, the violation of this assumption should be considered when interpreting results.

Hypothesis 1: Prediction of Satisfaction with Life. Following the examination of statistical assumptions, the main data analysis was conducted. Based on previous research (Bernardon et al., 2011), it was expected that there would be gender differences in loneliness. There was a significant difference in romantic loneliness between males (M=24.65, SD=8.90) and females (M=19.03, SD=10.13); t(165) =3.06, p = .003. Thus, men reported higher levels of romantic loneliness. Independent sample t-tests were also

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conducted to examine gender differences for social loneliness, family loneliness, and life satisfaction. There was no difference for social loneliness between men (M=12.41, SD=6.38) and women (M=12.31, SD=5.76); t(155)=.83, p = .93. Additionally, there was no difference for family loneliness between men (M=10.83, SD=6.24) and women (M=10.61, SD=5.77); t(152)=.56, p = .842. Finally, there was no difference for life satisfaction between men (M=12.41, SD=6.38) and women (M=12.31, SD=5.76); t(155)=.83, p >. 05.

In order to replicate previous research on the relationship between domains of loneliness and life satisfaction, multiple regression analysis was conducted. Hierarchical multiple regression was used to test Hypothesis 1. Age, gender, social loneliness, romantic loneliness, and family loneliness were entered as predictors. The overall model was statistically significant (R^2 = .43, F[5, 143] = 21.72, p < .001). As indicated in Table 5, the demographic variables of age and gender did not make a statistically significant contribution to the overall model. All three domains of loneliness were statistically significant contributors to the model predicting life satisfaction. Family loneliness was the best predictor of life satisfaction followed by romantic loneliness and social loneliness.

Qualitative Analyses: Positive and Negative Self-Esteem Narratives. The following section provides a description of the narratives participants provided regarding the self-esteem domain they had selected as being most important to them. Participants provided narratives of a time they felt good and a time they felt bad about the selected domain. In addition to an overall description of the narratives, elements of the narratives will be compared between the stories where the participant felt good and where the

Table 5

Hierarchical Multiple Regression: Loneliness Predicting Life Satisfaction (N=142)

Variable	R^2	ΔR^2	Unstandardized Coefficients		Standardized Coefficients	Squared Semi Partial Correlations
			B	SEB	β	
Step 1	.00	.00				
Gender			.83	1.14	.06	.00
Age			-.11	.13	-.02	.00
Step 2	.39	.39				
Gender			-.16	.92	-.01	.00
Age			.04	.27	-.01	.00
Social Loneliness			-1.39	.57	-.19*	.03
Family Loneliness			-.43	.08	-.44**	.14
Romantic Loneliness			-.14	.04	-.25**	.06

* $p \leq .05$
$^{**}p \leq .01$

participant felt bad. Finally, correlations of coded characteristics of narrative with loneliness and life satisfaction will be examined.

Hypothesis 2a: Narrative themes. Of the twelve self-esteem domains that were selected as being most important, morality was chosen most often (20.9%), followed by intellectual ability (13.7%), parent relationships (13.1%), close friendships (12.4%), scholastic competence (9.1%), finding humour (6.3%), creativity (6.5%), social acceptance (5.9%), finding humour (6.3%), romantic relationships (4.6%), job competence (3.5%), athletics (1.7%) appearance (1.3%). Nineteen of the 172 total participants that provided responses to the quantitative portion did not respond with a "felt good" or "felt bad" to the narrative prompt. This means that a total of 153 participant's responses were coded, although some participants responded with only responded with a narrative where they felt good or felt bad about the domain rather than reporting both types of narratives.

The topics of all codable narratives are presented in Table 6 for stories where the participant felt good and in Table 7 for stories where the participant felt bad. Participants most often told stories about morality. Morality stories were often about helping other people. Participants told stories about standing up to bullies, saving someone from suicide, giving money to homeless people, volunteering, and supporting friends and family. Nine participants told stories about honesty. These stories included returning money, telling the truth, and refusing to cheat on tests. Two participants told stories which emphasized treatment of animals (i.e., advocating for animal rights, vegetarianism). Other participants wrote about following religious, moral, or rule-based

Table 6
Summary of Codable Narrative Topics Where the Participant "Felt Good"
(N=127)

Theme/Topic	Number of Participants	
Morality	28	
Helping Animals		2
Helping or Being Kind to People		11
Making Good Decisions		1
Recovering From Addiction		1
Being Honest		9
Following Rules or Values		4
Parent Relationship	19	
Parental Support		9
Parental Closeness		7
Time/Activities Together		2
Parental Approval		1
Intellectual Ability	18	
Grade Based Performance		8
University Acceptance		4
Positive Feedback Over Performance		3
Non-Academic Intellectual Ability		3
Recognition of Achievement		3
Scholastic Competence	13	
Grade Based Achievement		8
Recognition for Achievement		4
Acceptance to University		1
Close Friendships	17	
Long-lasting/close Relationships		4
Enjoying Time with Friends		3
Having/Being a Supportive Friends		9
Social Approval		1
Social Acceptance	8	
Supportive Friends/Peers		5
Being Included by Peer		2
Following Social Norms		1
Winning an Election		1
Humour	8	
Humour as a coping strategy		8

Table 6 (continued)
Summary of Codable Narrative Topics Where the Participant "Felt Good"
(N =127)

Theme/Topic	Number of Participants	
Creativity	8	
Receiving Positive Feedback		3
Using Creative Thinking		2
Enjoying Creative Expression		2
Creativity as a Coping Strategy		1
Romantic Relationships	7	
Closeness/Commitment to Romantic Partner		5
Having a Supportive Romantic Partner		2
Job Competence	3	
Recognition for Workplace Performance		2
Getting Hired at a New Job		1
Athletics	4	
Recognition for achievement		2
Impact of Participating in a Sport		1
Being Skilled at a Sport		1
Appearance	2	
Putting Effort Into Appearance		2

Table 7

Summary of Codable Narrative Topics Where the Participant "Felt Bad" (N=140)

Theme/Topic	Number of Participants	
Morality	29	
Failing to help people		5
Being Unkind		4
Dishonesty		7
Failing to follow rules or morals		5
Consequences of Doing the Right Thing		4
Romantic or sexual morals		3
Getting Angry		1
Parent Relationships	19	
Parents Being Controlling		3
Parental Conflict		6
Overdependence on Parents		2
Lack of Closeness to a Parent		2
Parental Disappointment		5
Breaking Parent's Rules		1
Intellectual Ability	20	
Grade Based Performance		11
Negative Feedback/Appearing Unintelligent		3
University Rejection		2
Academic Adjustment Difficulty		2
Making Mistakes		1
Lacking Practical Experience		1
Scholastic Competence	12	
Grade Base Performance		10
Appearing Unintelligent		1
Academic Adjustment Difficulty		1
Close Friendships	18	
Loss of Friendships		5
Loneliness or Social Exclusion		2
Being/Having Unsupportive Friends		9
Conflict in friend group		2
Social Acceptance	9	
Bullying		3
Social Isolation and Loneliness		2
Pressure to Follow Social Norms		1
Being Disliked		1
Boredom Without Friends		1
Humour	9	
Humour as an unsuccessful coping strategy		3
Humour Being Inappropriate		5
Not Dating a Funny Person		1

Table 7 (continued)
Summary of Codable Narrative Topics Where the Participant "Felt Bad"
(N=140)

Theme/Topic	Number of Participants	
Creativity	8	
Criticism of Creative Expression		2
Failing to be Creative		6
Romantic Relationships	7	
Conflict in a Romantic Relationship		2
Failing to Begin a Romantic Relationship		1
Neglectful, unsupportive, or abusive romantic partner		4
Athletic Competence	4	
Poor Athletic Performance		2
Athletic Injury		1
Playing Below Skill Level		1
Job Competence	3	
Criticism by Customers or Supervisors		3
Appearance	2	
Lack of Attention to Appearance		1
Poor Body Image		1

values and attempting to make good decisions. In terms of stories where participants felt bad about their morals, many participants mentioned similar values. Participants talked about having failed to help people (e.g., refusing to help homeless people) and having been unkind to friends and family. Honesty was once again mentioned by participants who told stories about feeling badly over having lied to friends and family and failing to return money they had found. Three participants expressed guilt over violating their sexual or romantic morals by emotionally cheating on a romantic partner, "hooking up" with someone who was in a relationship, and continuing to "hook up" casually with someone. Participants also told stories about failing to follow religious, moral, or rule-based values. Interestingly, some participants discussed the negative repercussions of following their morals. These repercussions included losing a friend due to honesty, being perceived as judgmental, and being disadvantaged academically by choosing not to cheat.

Intellectual ability was chosen second most often as the most important domain. Themes were somewhat similar for intellectual ability and for scholastic competence. The most common theme for participants who chose intellectual ability and scholastic competence was grade-based performance. Participants reported receiving good marks on assignments, tests, and classes.

Narratives about university acceptance were also reported under scholastic competence and intellectual ability. Additionally, participants who had selected either domain as important reported stories in which they were recognized by other people for the performance. These stories included receiving awards and scholarships and being praised by teachers or professors. Additional themes reported under intellectual abilities

included non-academic use of intelligence such as problem-solving skills, learning for pleasure, and developing creative solutions to solve problems. Narratives about poor grade based performance were reported by participants who had chosen intellectual ability or scholastic competence. These "felt bad" narratives included reports of having failed tests or exams and receiving lower marks than expected in classes. Participants also told intellectual ability and scholastic competence stories about appearing unintelligent in front of other people. These stories included events such as being made fun of for being nervous during a presentation, feeling unprepared during a discussion with a professor, and being unable to defend one's viewpoint during a conversation. Participants who had chosen both domains also told stories about having difficulty adjusting to a new academic setting. These settings included adjusting to high school, university, and attending school in Canada for the first time.

Participants who chose parent relationships most often talked about how their parents were a source of support through difficult circumstances and how they provided support and advice when they had to make important decisions. Other participants talked about receiving parental approval or how close they were to their parents and how they enjoy spending time and doing fun activities with their parents. In terms of stories where participants felt bad about parent relationships, participants told stories about conflicts with their parents that led to a break in their relationship. Other participants told stories about instances where they had disappointed their parents. Some participants described that, although they were supportive, sometimes their parents were too controlling of their behaviour or that they felt distant from parents (i.e., spending limited time with them).

Throughout these narratives, participants tended to also mention relationships with other members of their family, such as siblings.

Participants who chose close friendships as being most important shared some general story topics with participants who chose social acceptance. Participants from both of these groups told narratives about having support from friends and peers. Some participants who selected close friendships as their most important domain told stories about having long-lasting friendships. Others told stories about having social approval from friends or engaging in fun activities with friends such as planning a vacation together. "Felt bad" close friendship stories were related to being unsupported by friend, losing friends, having a conflict in the friend group, or feeling lonely and excluded. In regards to participants who selected social acceptance, some participants wrote "felt good" stories about being included by peers in student activities and being socially accepted due to behaving in line with social norms. Participants reported narratives of feeling bad about social acceptance when they were bullied or disliked, felt socially isolated or lonely, felt pressured to follow social norms, or felt bored.

All participants who chose humour as the most important domain discussed using it as a way to cope with circumstances when describing a time they felt good about the domain. The circumstances they described were either embarrassing (e.g., tripping in class), upsetting (e.g., dog dying), or stressful (e.g., being overwhelmed with school). In terms of the stories where participants described feeling bad about humour, some participants discussed using humour at inappropriate times (e.g., at a funeral). Other participants described situations that were too negative for using humour to make them feel better (e.g., failing a class).

Participants who selected creativity as their most important domain told stories about receiving positive feedback for their creative expressions (e.g., artwork that was part of a curriculum). Other participants talked about coming up with creative solutions to problems. Some participants talked about expressing themselves creatively through writing songs and drawing, or using art as a coping strategy. In terms of feeling bad about creativity, most participants told stories about failing to be creative. These narratives included instances where the participants experienced writer's block, failed to come up with creative solutions, and found the product of their creativity to be disappointing. Other participants told stories about receiving negative feedback either directly regarding their artwork or for choosing to pursue education in art.

In terms of romantic relationships, some participants reported feeling good regarding their closeness or commitment with a romantic partner (e.g., when partners indicated publicly that they too wanted to be in the relationship for a long time). Other participants emphasized having partners who were very supportive to them. In contrast, the stories participants told about feeling bad about this area included incidents in which they had conflict with a romantic partner, or were rejected by a potential romantic partner. Some participants told stories about feeling that their partners were being neglectful, unsupportive, or even emotionally abusive.

Of the few participants who selected athletic ability, some told stories about being recognized for athletic achievements by receiving awards and a scholarship. Others talked about enjoying having a high skill level, or the great impact sports participation had on their development as an athlete and human being. In terms of negative stories,

some participants told stories about poor athletic performance, being unable to play due to an injury, or having to play below their ability level.

Two participants selected appearance as being most important. Both told stories about feeling good about this domain when they had given special attention to their appearance. In terms of stories where they felt bad about this area, the themes included disliking body and appearance, and having limited time to attend to appearance.

Hypothesis 2b: Narrative characteristics and comparison between narratives. The average length of participants' "felt good" responses was forty-five words. However, there was considerable variability between responses with the longest response being 349 words long and the shortest codable response being only six words long (SD=38.63 words). The average length of participants' "felt bad" responses was forty words. However, there was considerable variability between responses with the longest response being 348 words long and the shortest codable response being only three words long (SD=28.98 words). A paired t-test was used to compare the length of the "felt good" and "felt bad" stories. There was a statistically significant differences between these two types of narratives in terms of length $t(148)=2.61$, $p >.01$.This means that people told statistically significantly longer stories when they were asked to describe a scenario when they felt good as compared to when they felt bad.

Numbers and percentages of coding of story specificity, ending resolution, valence of ending, lesson learning, and reframing are summarized in Table 8. Additionally, tests of proportion, which indicate whether there are statistically significant differences in proportions at each level, are reported in the far right column of Table 8

Table 8

Summary of "Felt Good" and "Felt Bad" Narrative Characteristics

Theme	Participant Felt Good (*n*=152)		Participant Felt Bad (*n*=151)		Test of Proportion z value
	Number	Percentage	Number	Percentage	
Story Specificity					
Uncodable Responses	4	2.6%	5	3.3%	
Non-Stories	11	7.2%[a]	8	5.3%[a]	.42
General or Repetitive Stories	64	42.2%	72	47.7%	.98
Specific Stories	73	48.0%	66	43.7%	.96
Ending Resolution		137	137		
Unresolved	6	4.4%	25	18.2%	2.97**
Partially Resolved	34	24.8%	30	21.9%	.62
Moderately Resolved	57	41.6%	42	30.7%	2.31*
Completely Resolved	40	29.2%	40	29.2%	.00
Valence of Ending					
Negative Ending, unhappy story	3	2.2%	125	90.6%	18.55**
Mixed or neutral or indeterminate ending, neither happy nor unhappy story, or both	26	19.0%	12	8.8%	2.12*
Positive ending, happy story	108	78.8%	1	0.7%	16.57**
Lesson Learning					
Lesson Learning Absent	113	81.9%	114	84.4%	.53
Practical Lesson Learning	4	2.9%	10	7.4%	.95
Gaining Self-Insight	21	15.2%	11	8.2%	1.48
Reframing					
Reframing Absent	113	83.1%	126	92.0%	2.02*
Reframing Present	23	16.9%	12	8.8%	1.70

Positive ending, generally happy story and *Extremely positive ending, very happy story* were merged after coding to create the *Positive ending, happy story*

Extremely negative ending, very unhappy story and *Slightly negative ending, generally unhappy story* were merged to create *Positive ending, happy story*

[a] Responses categorized as being "non- stories" were considered "uncodable responses" and were not coded for subsequent analysis. This means 14 "felt good" responses and 13 "felt bad responses were not coded for ending resolution valence of ending, lesson learning, or reframing.

while correlations between coded story elements are reported in Table 9. In terms of story specificity for "felt good" narratives (48%) and "felt bad" narratives (43.7%), most participants told stories about specific events. These narratives referenced a specific event or a specific series of events, such as behaving in a morally responsible way at work when interacting with customers. Other participants told general or repetitive stories about a time they felt good (48.0%) and a time they felt bad (47.7%).   Participants' responses coded as general or repetitive did not include a description of a distinct event. Instead, these narratives were vague or included descriptions of recurring events such as mistreating or bullying other children during childhood or adolescence.Some participants told non-stories regarding feeling good about the selected domain (7.2%) and feeling bad about the selected domain (3.7%). Non-stories were responses that lacked the basic elements of plot (e.g., characters, action) and instead described a personal desire, tendency, or characteristic (e.g., feeling good about morality when trying to do the right thing). Such responses did not seem to reference any event. A few participants had uncodable responses when prompted to tell a story about when they felt good (2.6%) and when they felt bad (5.3%). These responses included indicating that they could not think of a story or a response that strongly indicated they had not understood the instruction (e.g., talking about a domain they had not selected). Tests of proportion indicated there were no statistically significant differences for story specificity between stories where the participant felt good and narratives where the participant felt bad.

Story ending represented the degree to which the story was resolved. Narratives describing instances when the participant felt good and when the participant felt bad ranged from being completely unresolved to being completely resolved. Only 3.9% of

Table 9

Correlations Between Coded Narrative Elements (N=150)

	2.	3.	4.	5.	6.	7.	8.	9.	10.
"Felt Good" Narratives									
1. Story Specificity	.21*	-.10	.06	.11	.31**	.17	-.20*	-.06	-.05
2. Ending Resolution	-	.27**	.35**	.09	.18*	.49**	-.29	.09	.17
3. Ending Valence	-	-	.14	-.38**	-.09	.16	-.13	-.23	.05
4. Lesson Learning	-	-	-	.18*	.04	.32**	-.04	.37**	.08
5. Reframing	-	-	-	-	.04	.10	.10	.01	.27**
"Felt Bad" Narratives									
6. Story Specificity	-	-	-	-	-	.26**	-.11	.01	.27**
7. Ending Resolution	-	-	-	-	-	-	-.22**	.32**	.23**
8. Valence of Ending	-	-	-	-	-	-	-	.05	.13
9. Lesson Learning	-	-	-	-	-	-	-	-	.23**
10. Story Reframing	-	-	-	-	-	-	-	-	-

"felt good" narratives were unresolved whereas 16.7% of "felt bad" responses were unresolved. Partially resolved narratives accounted for 23.4% of "felt good" narratives and 20.0% of "felt bad" narratives. Most "felt good" and "felt bad" narratives were moderately resolved (37.5% and 28.0%, respectively). Finally, 26.3% of "felt good" and 26.7% of "felt bad" stories were completely resolved. The positive or negative valence of the stories were rated. There were no "felt good" stories rated as having an *extremely negative ending, very unhappy story* whereas 25.2% of "felt bad" stories were rated as such. Most "felt bad" stories had a *slightly negative ending, generally unhappy story* along with 2.0% of the "felt good" stories. *Mixed or neutral or indeterminate ending, neither happy nor unhappy story, or both* made up 17.1% of the "felt good" narratives and 7.9% of the narratives. Some of the narratives in this category did not have a clear positive or negative valance. Other narratives, included both happy and unhappy events.

Most "felt good' narratives (37.4%) and a few "felt bad" (0.7%) narratives were categorized as having a *positive ending, generally happy story*. Finally, 28.9% of "felt good" narratives and no "felt bad" narratives were categorized as having an *extremely positive ending, very happy story*. Overall, as expected, when the valence of the stories was compared using a test of proportion reported in Table 8, "felt good" narratives were more positively valanced while "felt bad" stories were more negatively valanced. Interestingly, "felt good" narratives were more likely than "felt bad" narratives to be neutrally valanced or have a mixture of both positive and negative.

Narratives were also examined for the presence or absence of lesson learning. The majority of "felt good" (74.3%) and "felt bad" (77%) narratives did not include lesson learning. The proportion of "felt good" and "felt bad" narratives that did not include

lesson learning were statistically equivalent. Lesson learning was further subdivided into *basic lesson learning* and *gaining self-insight*. Basic lesson learning involved reporting that the experience described in the narrative impacted future behaviour. This type of learning was identified in 2.6% of "felt good" narratives and 6.8% of "felt bad" narratives. For example, narratives that included *basic lesson learning*, involved participants failing to study early enough for a test, receiving a relatively low mark, and learning to study earlier. *Gaining self insight* was the more common type of lesson learning as it was present in 13.8% of "felt good" narratives and 7.4% of "felt bad" narratives. The types of narratives included evidence that the individuals gained a new understanding of themselves or the world around them.

Finally, stories were coded for the presence or absence of reframing. Reframing was coded when participants identified positive aspects of a generally negative event or identified some good that came from an otherwise negative event. Most responses, did not include reframing (i.e., 75.3% of "felt good" narratives and 83.4% of "felt bad" narratives"). Reframing was present in 15.3% of "felt good" narratives and 7.9% of "felt bad" narratives. For example, some participants reported feeling good about using humour to cope when they looked at upsetting or embarrassing events with humour. Although a greater percentage of "felt good" narratives included reframing, this difference in proportion was not statistically significant as reported in Table 8 (page 50) .

In addition to examining the characteristics of narratives and differences between "felt good" and "felt bad" narratives, story elements were examined in conjunction with life satisfaction, social loneliness, romantic loneliness, and family loneliness. Correlations between coded variables are reported in Table 9 on page 52. Correlations

between narrative elements and life satisfaction, family loneliness, social loneliness, and romantic loneliness are presented in Table 10. None of the correlations between these variables were statistically significant. This indicates that the coded narrative elements are unrelated to both life satisfaction and domain specific loneliness.

Results for Study 2

Data cleaning procedures. Data were examined for participants who displayed insufficient effort. No participants failed more than one validity check item or completed the study in an extremely short amount of time. This means that data from all 56 participants were included in subsequent analyses.

Patterns of missing data were analyzed. The most common pattern of missing data were having only one response missing. Data were examined to determine whether data were missing completely at random, missing at random, or missing not at random. Little's MCAR test was statistically significant (p>.001) indicating that data were not missing completely at random. Data were not imputed because there were only a small percentage missing and because there were no apparent patterns to where data were missing.

Preliminary analyses. Reliability for the Self Perception Profile, SWLS and the SELSA-S subscales was estimated using alpha statistics. All alphas are reported in the far right column of Table 2 page 26. Reliability was found to be good for or most of the scales with the exceptions of Social Acceptance self-esteem, which was considered poor, and Scholastic Competence and Close Friendships which were considered questionable. This indicates most, although not all, of the measures used in this study were measured reliably.

Table 10

Coded Elements of Stories in Relation to Life Satisfaction and Loneliness (N=150)

	Life Satisfaction	Family Loneliness	Social Loneliness	Romantic Loneliness
"Felt Good" Narratives				
Story Specificity	-.01	.01	.07	.02
Ending Resolution	.05	-.09	.07	.05
Ending Valence	.12	-.12	.03	-.06
Lesson Learning	.01	.01	.12	-.01
Story Reframing	.00	.01	.06	-.03
Word Count	-.04	-.02	.09	.04
"Felt Bad" Narratives				
Story Specificity	.00	-.03	-.12	.03
Ending Resolution	.13	-.06	.00	.11
Valence of Ending	.14	-.07	-.07	-.02
Lesson Learning	.11	-.08	-.04	-.03
Story Reframing	.12	-.09	-.05	-.01
Word Count	-.03	.01	.09	.07

Multicollinearity and singularity were assessed by examining the correlations. Correlations between main study predictors and outcomes are reported in Table 11. As expected, SELSA-S subscales and the Self-Perception Profile for College Students are correlated both within and between measures. However, the correlations are not strong enough to be suggestive of multicollinearity or singularity. In addition, tolerance scores were found to range from .38 to .95 which indicates there is an acceptable amount of multicollinearity between predictors.

The assumption that data were normally distributed was also examined. Variables that appeared to be positively skewed included intellectual competence, romantic competence, athletic competence, social loneliness, romantic loneliness, family loneliness, and life satisfaction. Variables that appeared to be negatively skewed included social acceptance, parent relationship, and morality. Upon examination of skewness statistics, parent relationship, close friendship, and life satisfaction were all problematically negatively skewed while social loneliness and family loneliness were positively skewed. Kurtosis was also examined. Both romantic relationship self-esteem and romantic loneliness had problematic levels of kurtosis. Once again, these variables appeared to have a bimodal distribution based upon whether the participant was in a relationship. Logarithmic and square root transformations were examined but only appeared to improve the skew problems in the variable of social loneliness. Therefore, the transformed data for social loneliness will be used as the outcome variable for the multiple regression equation. Untransformed data will be used for the other measures for these analyses.

Table 11

Correlations Between Main Study 2 Variables (N=50)

	1.	2.	3.	4.	5.	6.	7.	8.
1. Life Satisfaction	-							
2. Family Loneliness	-.36*	-						
3. Social Loneliness	-.43**	.53**	-					
4. Romantic Loneliness	-.07	.09	.13	-				
5. Global Self-Esteem	.65**	-.41**	-.58**	-.13	-			
6. Social Acceptance	.44**	-.39*	-.55**	-.17	.58**	-		
7. Parental Relationship	.32*	-.67**	-.51**	-.20	.52**	.62**	-	
8. Close Friendships	.31**	-.21	-.49*	.08	.38*	.55**	.51**	-
9. Romantic Relationships	.45**	-.29	-.22	-.70**	.44**	.66**	.40	.24

*Significant at *p*=.05
** Significant at *p*=.01

SELF-ESTEEM, LONELINESS, AND LIFE SATISFACTION

Hypothesis 3: Predictors of life satisfaction. As presented in the second column of Table 12, Global, Social Acceptance, Appearance, Parental Relationship, Close Friendship, and Romantic Relationship self-esteem domains were all positively correlated with Life Satisfaction. Hierarchical multiple regression was used to test Hypothesis 3. Life satisfaction was entered into the regression equation as the outcome variable (Pavot & Diener, 1993). Global self-esteem was entered as a predictor in the first block of the regression (Neemann & Harter, 1986/2012). Relationship oriented self-esteem domains were entered in the regression equation in the second block. These domains included the following: Romantic Relationships, Social Acceptance, Close Friendships, and Parent Relationships.

The overall model was statistically significant ($R^2 = .45$ F[5, 37] = 6.10, p < .001). However, as indicated in Table 13, only global self-esteem made a statistically significant contribution to the overall model. The relational self-esteem variables of Romantic Relationships, Social Acceptance, Close Friendships, and Parent Relationships were not statistically significant predictors of life satisfaction when Global self-esteem was entered into the equation first.

Hypothesis 4a: Family loneliness. As presented in the fourth column from the left of Table 12 on page 60, Global, Scholastic Competence, Social Acceptance, Appearance, Parental Relationship, Morality, and Finding Humor self-esteem domains were all negatively correlated with Family Loneliness. Hierarchical multiple regression was used to test Hypothesis 4a. Family Loneliness was entered into the regression

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equation as the outcome variable (Ditommaso, Brannen, & Best, 2004). Global self-

esteem was entered as a predictor in the first block of the regression (Neemann & Harter,

Table 12

Correlations Between Self-Esteem, Loneliness, and Life Satisfaction (N=50)

	Life Satisfaction	Family Loneliness	Social Loneliness	Romantic Loneliness
Global	.65**	-.41**	-.58**	-.15
Job	.28	-.03	-.27*	-.46**
Scholastic	.09	-.32*	-.19	-.17
Social Acceptance	.44**	-.39**	-.54**	-.25
Appearance	.31*	-.30*	-.45**	-.16
Parental Relationship	.32*	-.67**	-.51**	-.20
Close Friendship	.31*	-.22	-.49**	-.12
Intellectual	.30	-.29	-.45**	-.26
Morality	.23	-.42**	-.38**	-.02
Romantic	.45**	-.30	-.21	-.71**
Humor	.30	-.39**	-.58**	-.21
Creativity	.08	-.02	-.24	-.12
Athletic Competence	.08	-.28	-.07	-.01

*Significant at $p \leq .05$
** Significant at $p \leq .01$

SELF-ESTEEM, LONELINESS, AND LIFE SATISFACTION

Table 13

Hierarchical Multiple Regression Analysis: Self-Esteem Predicting Life Satisfaction (N=42)

Variable	R^2	ΔR^2	Unstandardized Coefficients		Standardized Coefficients	Squared Semi partial corr.
			B	SEB	β	
Step 1	.40					
Global Self-Esteem			.88	.17	.63**	.40
Step 2	.45	.06				
Global Self-Esteem			.80	.24	.57**	.17
Social Self-Esteem			.24	.39	.12	.01
Parent Self-Esteem			-.32	.30	-.19	.02
Friendship Self-Esteem			-.01	.33	-.01	.00
Romantic Self-Esteem			.29	.20	.21	.03

*Significant at $p \leq .05$
** Significant at $p \leq .01$

1986/2012). Relationship oriented self-esteem domains were entered in the regression equation in the second block. These domains included the following: Romantic Relationships, Social Acceptance, Close Friendships, and Parent Relationships

The overall model was statistically significant (R^2 = .50, F[34, 5] = 6.77, p < .001). However, as indicated in Table 14, only Parental Relationship self-esteem made a statistically significant contribution to the overall model. Global self-esteem was no longer a statistically significant predictor of Family Loneliness after the addition of Parent Relationship Self-Esteem to the model. The relational self-esteem variables of Romantic Relationships, Social Acceptance, and Close Friendships did not make a statistically significant contribution to the model when Parental Relationship self-esteem was included in the model.

Hypothesis 4b: Social loneliness. As presented in the column second to the right of Table 12 on page 60, Global, Job Competence, Social Acceptance, Appearance, Parental Relationship, Close Friendship, Intellectual, Morality, and Finding Humor self-esteem domains were negatively associated with Social Loneliness. Hierarchical multiple regression was used to test Hypothesis 4b. Social Loneliness was entered into the regression equation as the outcome variable (Ditommaso, Brannen, & Best, 2004). Global self-esteem was entered as a predictor in the first block of the regression (Neemann & Harter, 1986/2012). Relationship oriented self-esteem domains were entered in the regression equation in the second block. These domains included the

following: Romantic Relationships, Social Acceptance, Close Friendships, and Parent

Table 14

Hierarchical Multiple Regression Analysis: Self-Esteem Predicting Family Loneliness (N=39)

Variable	R^2	ΔR^2	Unstandardized Coefficients		Standardized Coefficients	Squared Semi Partial Correlations
			B	SE*B*	β	
Step 1	.19**					
Global Self-Esteem			-.70	.24	-.42**	.19
Step 2	.50**	.31				
Global Self-Esteem			-.24	.28	-.14	.01
Social Self-Esteem			.17	.48	.07	.00
Parent Self-Esteem			-1.52	.35	-.76**	.27
Friendship Self-Esteem			.39	.38	.16	.02
Romantic Self-Esteem			.06	.25	.04	.00

*Significant at $p \le .05$
** Significant at $p \le .01$

Relationships.

The overall model was statistically significant (R^2 = .54, F[35, 5] = 8.18, p < .001). However, as indicated in Table 15, only Global self-esteem made a statistically significant contribution to the overall model. The relational self-esteem variables of Romantic Relationships, Social Acceptance, Close Friendships, and Parent Relationships did not make a statistically significant contribution to the model after Global self-esteem was added into the model.

Hypothesis 4c: Romantic Loneliness. As presented in the far right colomn of Table 12 on page 60, only Job Competence and Romantic Relationship self-esteem domains were negatively correlated with Romantic Loneliness. Hierarchical multiple regression was used to test Hypothesis 4c. Romantic Loneliness was entered into the regression equation as the outcome variable (Ditommaso, Brannen, & Best, 2004). Global self-esteem was entered as a predictor in the first block of the regression (Neemann & Harter, 1986/2012). Relationship oriented self-esteem domains were entered in the regression equation in the second block. These domains included the following: Romantic Relationships, Social Acceptance, Close Friendships, and Parent Relationships.

The overall model was statistically significant (R^2 = .52, F[36, 4] = 9.93, p < .001). However, as indicated in Table 16 only Romantic Relationship self-esteem made a statistically significant contribution to the overall model. The relational self-esteem variables of Social Acceptance, Close Friendships, and Parent Relationships did not make a statistically significant contribution to the model.

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Table 15

Hierarchical Multiple Regression Analysis: Self-Esteem Predicting Social Loneliness (N=40)

Variable	R^2	ΔR^2	Unstandardized Coefficients		Standardized Coefficients	Squared Semi Partial Correlations
			B	SEB	β	
Step 1	.43**	.43				
Global Self-Esteem			-.89	.20	-.58**	.43
Step 2	.54**	.11				
Global Self-Esteem			-.40	.25	-.26**	.08
Social Self-Esteem			-.32	.42	-.14	.01
Parent Self-Esteem			-.44	.31	-.23	.03
Friendship Self-Esteem			-.66	.35	-.29	.02
Romantic Self-Esteem			.14	.22	.09	.00

*Significant at $p \leq .05$
** Significant at $p \leq .01$

Table 16

Hierarchical Multiple Regression Analysis: Self-Esteem Predicting Romantic Loneliness (N=40)

Variable	R^2	ΔR^2	Unstandardized Coefficients		Standardized Coefficients	Squared Semi Partial Correlations
			B	SE*B*	β	
Step 1	.02	.02				
Global Self-Esteem			-.44	.47	-.15	.02
Step 2	.54**	.52				
Global Self-Esteem			.48	.50	.16	.01
Social Self-Esteem			.86	.81	.20	.01
Parent Self-Esteem			-.61	.64	-.17	.01
Friendship Self-Esteem			-.08	.66	-.02	.00
Romantic Self-Esteem			-2.36	.42	-.80**	.43

*Significant at $p \leq .05$
** Significant at $p \leq .01$

CHAPTER IV

Discussion

Study 1

As expected, previous results regarding the relationship between specific domains of loneliness and life satisfaction were replicated in this study (e.g., Salimi, 2011). This study reiterates the importance of social, romantic, and family loneliness in relation to life satisfaction. Additionally, this study further replicated previous research in that male emerging adults displayed higher levels of romantic loneliness (e.g., Bernardon et al., 2011). However, the SELSA-S Romantic Loneliness subscale which was used to measure romantic loneliness did not appear to be normally distributed, instead having a bimodal distribution. This was suggestive of the SELSA-S measuring two populations. Although additional analyses are needed to explore this finding further, it is possible that these groups may be composed of people who are in a romantic relationships and people who are not in romantic relationships, or of people who vary on some demographic characteristics. This possibility should be considered when the SELSA-S is used for research in the future.

Narrative analysis revealed a rich description of episodes that may have an important realtion with self-esteem. Overall, participants most often selected morality as being most important to them. Participants told stories about feeling good when they treated others well. Participants often told stories about feeling bad about morality when they failed to help people or were unkind, Some participants also indicated that they felt

bad when they felt disadvantaged or judged for following their morals. Many of these morality stories related to relational values. These stories suggest that the way people treat others has an impact on how the person feels about their moral selves. In relation to Erikson's developmental theory, the seventh stage of Erikson's (1959) developmental theory, generativity versus stagnation, involves a focus on doing moral good for society and for future generations. Although generativity is generally associated with middle and later adulthood, Erikson (1959) and other researchers indicated that moral concerns are actually present throughout other developmental stages (Lawford, Pratt, Hunsberger, & Pancer, 2005). Lawford and colleagues (2005) identified generativity through developing moral concern among older adolescents and emerging adults. The value placed on morality by emerging adults in this study is suggestive of such development of moral concern. This moral concern seems to be important to the emerging adults' identity and may be linked with their self-esteem.

Another notable finding was that emerging adults told narratives about similar types of events whether they selected "intellectual competence" or "academic ability" as being the most important. These included stories about receiving good or bad grades and stories about university acceptance or rejection. Some intellectual competence stories did center around non-academic abilities (e.g., being unable to defend a viewpoint in a discussion). However, many of the stories were about similar topics (i.e., receiving grades, university admittance). Therefore, it seems as though similar types of events may be related to both intellectual competence and academic ability self-esteem.

Although emerging adulthood is often conceptualized as a time of increasing independence from parents (Arnett, 2000), this study indicates that some emerging adults

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place significant value on their parental relationship. Emerging adults seemed to value parents either as a source of support or as a close companion. Worth noting, some emerging adults who participated in this study mentioned relationships with family members in their stories about parental relationships (e.g., siblings, entire family). Other family relationships, other than just parental relationships, may be part of how emerging adults feel about themselves. Some overlap existed in the types of events emerging adults told about close friendships and social acceptance. Both social acceptance and close friendship stories included themes of closeness, support, and acceptance from peers. Whereas themes of loneliness and exclusion were evident in stories where emerging adults reported feeling bad about social acceptance and close friendships. However, as expected, stories generally differed in that emerging adults generally talked about people who were already their friends when telling close friendship stories while they were more likely to talk about their general peer group when telling social acceptance stories. Romantic relationship stories also had prominent themes of feeling supported or unsupported. Social support seems to be an important factor in stories about relational domains of self-esteem.

Emerging adults who valued humour tended to tell stories about using it as a coping strategy. Although this strategy seemed to usually make them feel good about themselves, negative stories involved this strategy either failing or being perceived as inappropriate. When emerging adults told stories about creativity, the stories seemed to relate to feeling personal satisfaction with their creativity, external feedback from others, or a contrast between personal satisfaction and feedback from others. Even though creativity is not a relational variable, like other domains (e.g., intellectual ability),

important stories emerging adults tell about creativity underscore the importance of relational input, such as feedback from others.

One interesting finding was that appearance was chosen only twice as being the most important domain. This finding was interesting because past research has repeatedly indicated that appearance esteem is the best predictor of overall self-esteem (e.g., Harter, 2000). It may be that participants felt the need to pick a domain that *should* be more important to them (i.e., morality, relational domains, or intellectual ability). Alternatively, the participants may not be consciously aware of the important impact of appearance, instead choosing the domain they most value. The prompt asking for times a person felt "good" and felt "bad" may have elicited thoughts of moral good and moral bad.

In regards to coded narrative characteristics, stories were variable in length but were generally short. Most participants told narratives about specific events, although many participants also told narratives about general or repetitive events. Most narratives had ending that moderately resolved the story. Most narratives did not include evidence of lesson learning or reframing. The two types of narratives (i.e., a time the participant felt good and a time the participant felt bad) were compared. Emerging adults told longer narratives when describing an event where they felt good compared to an event where they felt bad. This may indicate that participants preferred to spend time recounting the more pleasant memory rather than dwelling on a negative event. Emerging adults told equally specific "felt bad" and "felt good" stories. This may indicate it was about the same difficulty to recall a specific or general incident whether they were recalling an incident where they felt good or felt bad. Expected "felt good" narratives were overall more positive while "felt bad" narratives were overall more negative. Interestingly,

participants who told "felt good" stories were more likely to tell stories that were neutral in valence or contained a mixture of positive and negative events. "Felt good" and "felt bad" stories were approximately equally likely to include both practical and self-insight learning. This finding seems to indicate that emerging adults learn both practical and abstract lessons equally well from events where they feel good and events where they feel bad. Finally, participants were slightly less likely to include reframing for stories where they "felt bad" than stories where they "felt good". Perhaps this difference indicates that the presence of reframing "redeemed" a negative event for them, meaning, it would not make sense for them to consider it a negative event.

Unlike previous narrative research (e.g., King et al., 2000; Bauer et al., 2005; Bauer et al. 2008), this study did not identify any statistically significant relations between characteristics of the narratives and outcomes of well-being. One potential reason for this could be that the memories participants chose to tell may not have been particularly important. Participants were simply instructed to tell a true story about a time they felt good or bad about the domain they had selected. The instruction did not emphasize that they should choose a particularly impactful or important memory. In fact, many of the memories the participants told may have not been particularly important as many participants told stories about general, repetitive, or somewhat mundane events (e.g., not opening the door for someone). Although such memories could potentially have a significant impact (considering these were the memories the participants chose to report) it was not possible to establish whether these memories were particularly important to participants. Participants could have been instructed to take time to identify a particularly important memory. Additionally, participants could have been asked to

describe the qualities (e.g., importance, frequency recollected, emotions experienced) of the memory using a scale such as the Memory Quality Questionnaire (Alea & Bluck, 2007). In person interviews may have been more conducive to receiving a fully fleshed out description of the event.

Study 2

In general, results underscored the importance of global self-esteem. Although many of the specific self-esteem domains were associated with the life satisfaction and domains of loneliness, global self-esteem was generally the best predictor of adaptive outcomes. Global self-esteem was associated with higher life satisfaction, lower social loneliness, and lower family loneliness. Contrary to what was hypothesized, none of the interpersonal self-esteem domains predicted life satisfaction over and above global self-esteem. Similarly, none of the interpersonal self-esteem domains predicted social loneliness over and above global self-esteem.

In contrast, global self-esteem did not predict romantic loneliness. Rather, romantic relationship self-esteem was the best predictor of romantic loneliness. Similarly, although global self-esteem was initially predictive of family loneliness, once parental relationship self-esteem was added global loneliness was no longer a significant predictor. Parental relationship self-esteem was instead the best predictor of family loneliness. Overall, this study indicated that specific interpersonal domains are important to relevant adaptive outcomes. Subsequent analysis with a greater sample size will enable the exploration of other, more self-focused domains of self-esteem.

General Discussion

Overall, this study provides a more in-depth understanding of domain specific self-esteem in relation to loneliness and life satisfaction. Based on the literature search conducted for the present research, this is the first study to examine narratives people tell about self-esteem episodes according to specific domains and the first to examine domains of self-esteem in conjunction with loneliness and life satisfaction. This multimethod study employed both qualitative and quantitative methods. The narrative aspect of the study provides a more in-depth understanding of the types of stories people tell regarding experiences that may have been key in the development of both their domain-specific and general self-esteem. The quantitative portion of the study provides a more comprehensive understanding of how global and specific domains of self-esteem relate to adaptive outcomes. This study also provides the basis for further investigation of the formulation of self-esteem and importance of various domains.

Limitations

A specific subset of emerging adults were recruited as participants were university students. Therefore, the results may not reflect emerging adults who do not attend university. Further research is necessary to determine the generalizability of these results to other emerging adults.

Additionally, in regards to the narrative portion of the research, many of the participants told short narratives that sometimes appeared to be about trivial events. The study did not establish the importance of these memories to the participants. Participants may have told narratives about events that were not particularly significant but were called to mind easily for various reasons (e.g., the event happened recently, the event

occurred often). Further clarification of the event and its importance could have been

sought if the narratives had been elicited in person, rather than online.

Study 2 should be interpreted with some caution. Additionally, although

parametric statistics were used, some of the measures do not appear to be normally

distributed. A larger sample to be obtained during additional data collection in the future

may allow statistical assumptions to be reassessed. Another major limitation of Study 2

is that of directionality. Given that the study design was correlational, there is not

sufficient evidence to conclude that having higher self-esteem results in feeling less

lonely and more satisfied with life. In fact, being less lonely and having higher life

satisfaction could instead lead to having higher self-esteem. Alternatively, a third factor

(e.g., having more friends) could similarly affect both variables. Therefore, consideration

should be given to alternative hypotheses explaining the relationship between self-esteem

and life satisfaction in addition to the relationship between self-esteem and loneliness.

Clinical Implications

The narrative and quantitative results of this study could be applicable for those

who work with emerging adults in college student counselling centers and other settings.

Given the relationship between self-esteem, loneliness, and life satisfaction in the current

study consideration of self-esteem is important for those who work with emerging adult

college students. Consideration of self-esteem is especially important to consider given

the relationship to other adaptive variables, such as academic success, identified in

previous research (e.g., Grant-Vallone, Reid, Umali, & Pohlert, 2003),Practically,

counselors could consider both global and domain specific self-esteem when developing

treatment plans and when identifying treatment goals with their client. Instead of merely

considering global self-esteem, counselors could take into account self-esteem on individual domains. Additionally, therapists could consider the potential impact self-esteem may be having on the student's life satisfaction and well-being. In regards to the narrative component of the study, even counselors who are not using a narrative based therapeutic modality (Payne, 2006) ay consider inquiring about episodes that were particularly important to their client's self-esteem. Self-esteem narratives could be examined to identify the potential relationship between these occurrences and the client's self-esteem. Techniques from the therapist's modality could then be used to understand these self-esteem episodes in a more adaptive way.

Future Directions

In the future, researchers could further examine how narratives that people report could potentially be related to their self-esteem. One way this could be further examined is by eliciting more detailed stories about important events where the participant felt good and bad about specific self-esteem domains. The importance of these memories could be further established. Characteristics of narratives could be examined in conjunction with quantitative measures of self-esteem, such as the Self-Perception Profile (Neemann & Harter, 1986/2012). Further narrative research on self-esteem could better establish whether self-esteem is developed and understood through sharing narratives of important events with others. This may be particularly interesting to determine across the lifespan, such as during childhood and adolescence, as even smaller events may have a particularly large impact on self-esteem.

Further research is necessary to more fully establish how specific domains of self-esteem relate to well-being. Future research could examine domains of self-esteem and

self-esteem narrative in relation to both eudemonic (i.e., living a fulfilling life) and

hedonic measures of well-being (i.e., having positive emotion and avoiding negative

emotions) (Deci & Ryan, 2008). Eudemonic and hedonic well-being may be differently

associated with specific self-esteem domains and self-esteem narratives. Additionally,

future research could further examine the importance of these domains across the lifespan

using developmentally appropriate measures of loneliness, self-esteem, and life

satisfaction.

References

Alea, N., & Bluck, S. (2007). I'll keep you in mind: The intimacy function of autobiographical memory. *Applied Cognitive Psychology*, *21*(8), 1091-1111.

Arrindell, W. A., van Nieuwenhuizen, C., & Luteijn, F. (2001). Chronic psychiatric status and satisfaction with life. *Personality and individual differences*, *31*(2), 145-155.

Arnett, J. J. (1994). Are college students adults? Their conceptions of the transition to adulthood. *Journal of Adult Development*, 1(4), 213-224.

Arnett, J. J. (1998). Learning to stand alone: The contemporary American transition to adulthood in cultural and historical context. *Human Development*, *41*(5-6), 295-315.

Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist*, *55*(5), 469.

Arnett, J. J. (2001). Conceptions of the transition to adulthood: Perspectives from adolescence through midlife. *Journal of Adult Development*, *8*(2), 133-143.

Arnett, J. J., Žukauskienė, R., & Sugimura, K. (2014). The new life stage of emerging adulthood at ages 18–29 years: implications for mental health. *The Lancet Psychiatry*, 1(7), 569- 576.

Arnett, J. J., Schwab J. (2012). The Clark University poll of emerging adults: thriving, struggling, and hopeful. 2002. <www2.clarku.edu/clark-poll-emerging-adults> (accessed Nov 11, 2016).

Bauer, J. J., McAdams, D. P., & Pals, J. L. (2008). Narrative identity and eudaimonic well-being. *Journal of happiness studies*, *9*(1), 81-104.

Bauer, J. J., McAdams, D. P., & Sakaeda, A. R. (2005). Interpreting the good life: growth memories in the lives of mature, happy people. *Journal of personality and social psychology*, *88*(1), 203.

Bernardon, S., Babb, K. A., Hakim-Larson, J., & Gragg, M. (2011). Loneliness, attachment, and the perception and use of social support in university students. *Canadian Journal of Behavioural Science/Revue Canadienne des Sciences du Comportement*, *43*(1), 40.

Brown, C., & Augusta-Scott, T. (2006). *Narrative therapy: Making meaning, making lives*. Thousand Oaks, CA: Sage.

Cacioppo, J. T., Ernst, J. M., Burleson, M. H., McClintock, M. K., Malarkey, W. B., Hawkley, L. C., ... & Spiegel, D. (2000). Lonely traits and concomitant physiological processes: the MacArthur social neuroscience studies. *International Journal of Psychophysiology*, *35*(2), 143-154.

Cacioppo, J. T., Hawkley, L. C., & Thisted, R. A. (2010). Perceived social isolation makes me sad: 5-year cross-lagged analyses of loneliness and depressive symptomatology in the Chicago Health, Aging, and Social Relations Study. *Psychology and Aging*, 25(2), 453.

Caspi, A., Harrington, H., Moffitt, T. E., Milne, B. J., & Poulton, R. (2006). Socially isolated children 20 years later: risk of cardiovascular disease. *Archives of Pediatrics & Adolescent Medicine*, 160(8), 805-811.

Çivitci, N., & Çivitci, A. (2009). Self-esteem as mediator and moderator of the relationship between loneliness and life satisfaction in adolescents. *Personality and Individual Differences*, *47*(8), 954-958.

Dahlberg, L., & McKee, K. J. (2014). Correlates of social and emotional loneliness in

    older people: Evidence from an English community study. *Aging & Mental*

    Health, *18*(4), 504-514.

Deci, E. L., & Ryan, R. M. (2008). Hedonia, eudaimonia, and well-being: An

    introduction. *Journal of happiness studies*, *9*(1), 1-11.

DeNeve, K. M., & Cooper, H. (1998). The happy personality: A meta-analysis of 137

    personality traits and subjective well-being. *Psychological Bulletin, 124,* 197-229.

Diener, E., & Chan, M. Y. (2011). Happy people live longer: Subjective well-being

    contributes to health and longevity. *Applied Psychology: Health and Well-*

    Being, *3*(1), 1-43.

Diener, E., Diener, M., & Diener, C. (1995). Factors predicting the subjective well-being

    of nations. *Journal of Personality and Social Psychology*, *69*(5), 851.

Diener, E., & Diener, M. (2009). Cross-cultural correlates of life satisfaction and self-

    esteem. In *Culture and Well-Being* (pp. 71-91). Springer Netherlands.

Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life

    scale. *Journal of Personality Assessment*, *49*(1), 71-75.

Diener, E., Inglehart, R., & Tay, L. (2013). Theory and validity of life satisfaction scales.

    Social Indicators Research, 112(3), 497-527.

Ditommaso, E., Brannen, C., & Best, L. A. (2004). Measurement and validity

    characteristics of the short version of the social and emotional loneliness scale for

    adults. *Educational and Psychological Measurement*, *64*(1), 99-119.

DiTommaso, E., & Spinner, B. (1993). The development and initial validation of the

social and emotional loneliness scale for adults (SELSA). *Personality and

Individual Differences*, 14, 127-134.

Eaker, E. D., Pinsky, J., & Castelli, W. P. (1992). Myocardial infarction and coronary

death among women: psychosocial predictors from a 20-year follow-up of women

in the Framingham Study. *American Journal of Epidemiology*, *135*(8), 854-864.

Erikson, E. H. (1950). *Childhood and society*. New York: Norton.

Erikson, E. H. (1959). Identity and the life cycle. New York: Norton.

Erikson, E. H. (1968). *Identity: Youth and crisis*. New York: Norton.

Eid, M., & Diener, E. (2004). Global judgments of subjective well-being: Situational

variability and long-term stability. *Social Indicators Research*, *65*(3), 245-277.

Faul, F., Erdfelder, E., Buchner, A., & Lang, A.G. (2009). Statistical power analyses

using G*Power 3.1: Tests for correlation and regression analyses. *Behavior

Research Methods*, *41*, 1149-1160.

Fitzgerald, J. M. (2010). Culture, gender, and the first memories of black and white

American students. *Memory & cognition*, *38*(6), 785-796.

Frey, B. S., & Stutzer, A. (2000). Happiness, economy and institutions. *The Economic

Journal*, 110(466), 918-938.

Friedman, P. H., & Toussaint, L. L. (2006). Changes in forgiveness, gratitude, stress, and

well-being during psychotherapy: An integrative, evidence-based approach. *The

International Journal of Healing and Caring*, *6*, 1-18.

Gilman, R., & Huebner, E. S. (2006). Characteristics of adolescents who report very high

life satisfaction. *Journal of Youth and Adolescence*, *35*(3), 293-301.

Gow, A. J., Pattie, A., Whiteman, M. C., Whalley, L. J., & Deary, I. J. (2007). Social
    support and successful aging: Investigating the relationships between lifetime
    cognitive change and life satisfaction. *Journal of Individual Differences*, *28*(3),
    103-115.

Grant-Vallone, E., Reid, K., Umali, C., & Pohlert, E. (2003). An analysis of the effects of
    self-esteem, social support, and participation in student support services on
    students' adjustment and commitment to college. *Journal of College Student
    Retention: Research, Theory & Practice*, *5*(3), 255-274.

Green, L. R., Richardson, D. S., Lago, T., & Schatten-Jones, E. C. (2001). Network
    correlates of social and emotional loneliness in young and older
    adults. *Personality and Social Psychology Bulletin*, *27*(3), 281-288.

Harter, S. (1983). *Self-perception profile for children*. University of Denver.

Harter, S. (1988). *Manual for the self-perception profile for adolescents*. University of
    Denver.

Harter, S. (1993). Causes and consequences of low self-esteem in children and
    adolescents. In *Self-esteem* (pp. 87-116). Springer US.

Harter, S. (2000). Is self-esteem only skin-deep? The inextricable link between physical
    appearance and self-esteem. *Reclaiming Children and Youth*, *9*(3), 133.

Harter, S. (2016). *Manual for the self-perception profile for emerging adults*. University
    of Denver.

Harter, S. & Kreinik, P., (2014). *Manual for the self-perception profile for older adults*.
    University of Denver.

Hawkley, L. C., Thisted, R. A., & Cacioppo, J. T. (2009). Loneliness predicts reduced

   physical activity: cross-sectional & longitudinal analyses. *Health*

   Psychology, *28*(3), 354.

Judge, T. A., Erez, A., Bono, J. E., & Thoresen, C. J. (2002). Are measures of self-

   esteem, neuroticism, locus of control, and generalized self-efficacy indicators of a

   common core construct?

Kapıkıran, Ş. (2013). Loneliness and life satisfaction in Turkish early adolescents: The

   mediating role of self esteem and social support. *Social Indicators*

   Research, *111*(2), 617-632.

Kidd, S., & Shahar, G. (2008). Resilience in homeless youth: the key role of self-

   esteem. *American Journal of Orthopsychiatry*, *78*(2), 163.

King, L. A., & Raspin, C. (2004). Lost and found possible selves, subjective well-being,

   and ego development in divorced women. *Journal of personality*, *72*(3), 603-632.

King, L. A., Scollon, C. K., Ramsey, C., & Williams, T. (2000). Stories of life transition:

   Subjective well-being and ego development in parents of children with Down

   Syndrome. *Journal of Research in Personality*, *34*(4), 509-536.

Kurtz, J. E., & Parrish, C. L. (2001). Semantic response consistency and protocol validity

   in structured personality assessment: The case of the NEO-PI-R. *Journal of*

   Personality Assessment, *76*(2), 315-332.

Kong, F., & You, X. (2013). Loneliness and self-esteem as mediators between social

   support and life satisfaction in late adolescence. *Social Indicators*

   Research, *110*(1), 271-279.

Koivumaa-Honkanen, H., Honkanen, R., Viinamaeki, H., Heikkilae, K., Kaprio, J., &

    Koskenvuo, M. (2001). Life satisfaction and suicide: a 20-year follow-up

    study. *American Journal of Psychiatry*, *158*(3), 433-439.

Kroger, J., Martinussen, M., & Marcia, J. E. (2010). Identity status change during

    adolescence and young adulthood: A meta-analysis. *Journal of*

    Adolescence, *33*(5), 683-698.

Lawford, H., Pratt, M. W., Hunsberger, B., & Mark Pancer, S. (2005). Adolescent

    generativity: A longitudinal study of two possible contexts for learning concern

    for future generations. *Journal of Research on Adolescence*, *15*(3), 261-273.

Lucas, R. E., Diener, E., & Suh, E. (1996). Discriminant validity of well-being

    measures. *Journal of Personality and Social Psychology*, *71*(3), 616.

Marcia, J. E., Waterman, A. S., Matteson, D. R., Archer, S. L., & Orlofsky, J. L.

    (2012). *Ego identity: A handbook for psychosocial research*. Springer Science &

    Business Media.

Mcadams, D. P. (2008). Personal narratives and the life story. In Pervin, L. A., & John,

    O. P. (Eds.) *Handbook of Personality: Theory and research* (3rd ed., pp. 242-

    262). New York, NY: Wilford Press.

McAdams, D. P., Reynolds, J., Lewis, M., Patten, A. H., & Bowman, P. J. (2001). When

    bad things turn good and good things turn bad: Sequences of redemption and

    contamination in life narrative and their relation to psychosocial adaptation in

    midlife adults and in students. *Personality and Social Psychology Bulletin*, *27*(4),

    474-485.

Meade, A. W., & Craig, S. B. (2012). Identifying careless responses in survey data. *Psychological Methods*, 17(3), 437.

Messer, B. J., & Harter, S. (1986). *Manual for the adult self-perception profile*. University of Denver.

Mruk, C. J. (2006). *Self-esteem research, theory, and practice: Toward a positive psychology of self-esteem*. New York, NY: Springer Publishing Company.

Neeleman, J., & Power, M. J. (1994). Social support and depression in three groups of psychiatric patients and a group of medical controls. *Social Psychiatry and Psychiatric Epidemiology*, 29(1), 46-51.

Neemann, J., & Harter, S. (1986/2012). *Manual for the self-perception profile for college students*. University of Denver.

Neto, F. (2014). Socio-Demographic Predictors of Loneliness Across the Adult Life Span in Portugal. *Interpersona*, *8*(2), 222.

Olsen, R. B., Olsen, J., Gunner-Svensson, F., & Waldstrøm, B. (1991). Social networks and longevity. A 14 year follow-up study among elderly in Denmark. *Social Science & Medicine*, *33*(10), 1189-1195.

Pavot, W., & Diener, E. (1993). Review of the satisfaction with life scale. *Psychological Assessment*, *5*(2), 164.

Pavot, W., & Diener, E. (2008). The satisfaction with life scale and the emerging construct of life satisfaction. *The Journal of Positive Psychology*, *3*(2), 137-152.

Pavot, W., Diener, E. D., Colvin, C. R., & Sandvik, E. (1991). Further validation of the satisfaction with life scale: Evidence for the cross-method convergence of well-being measures. *Journal of Personality Assessment*, *57*(1), 149-161.

Payne, M. (2006). *Narrative Therapy: An Introduction for Counsellors* (2nd ed.). London, Great Britain: Sage.

Pennebaker, J. W. (1993). Putting stress into words: Health, linguistic, and therapeutic implications. *Behaviour research and therapy*, *31*(6), 539-548.

Pennebaker, J. W., & Seagal, J. D. (1999). Forming a story: The health benefits of narrative. *Journal of clinical psychology*, *55*(10), 1243-1254.

Penninx, B. W., Van Tilburg, T., Kriegsman, D. M., Deeg, D. J., Boeke, A. J. P., & van Eijk, J. T. M. (1997). Effects of social support and personal coping resources on mortality in older age: the longitudinal aging study Amsterdam. *American Journal of Epidemiology*, 146(6), 510-519.

Perlman, D., & Peplau, L. A. (1984). Loneliness research: A survey of empirical findings. *Preventing the harmful consequences of severe and persistent loneliness*, 13-46.

Qualter, P., Vanhalst, J., Harris, R., Van Roekel, E., Lodder, G., Bangee, M., ... & Verhagen, M. (2015). Loneliness across the life span. *Perspectives on Psychological Science*, *10*(2), 250-264.

Rosenberg, M. (1965). *Society and adolescent self –image*, Princeton, NJ: Princeton University Press.

Russell, D., Peplau, L. A., & Ferguson, M. L. (1978). Developing a measure of loneliness. *Journal of Personality Assessment*, *42*(3), 290-294.

Sarbin, T. (1986). The narrative as a root metaphor for psychology. In T. Sarbin (Ed.), *Narrative psychology: The storied nature of human conduct* (pp. 3–21). New York: Praeger.

Seligman, M. E., & Csikszentmihalyi, M. (2014). *Positive psychology: An introduction* (pp. 279-298). Springer Netherlands.

Shevlin, M., Brunsden, V., & Miles, J. N. V. (1998). Satisfaction with life scale: Analysis of factorial invariance, mean structures and reliability. *Personality and Individual Differences*, *25*(5), 911-916.

Suldo, S. M., & Huebner, E. S. (2006). Is extremely high life satisfaction during adolescence advantageous?. *Social Indicators Research*, *78*(2), 179-203.

Stubbe, J. H., Posthuma, D., Boomsma, D. I., & De Geus, E. J. (2005). Heritability of life satisfaction in adults: A twin-family study. *Psychological Medicine*, *35*(11), 1581-1588.

Suldo, S. M., & Huebner, E. S. (2004). Does life satisfaction moderate the effects of stressful life events on psychopathological behavior during adolescence?. *School Psychology Quarterly*, *19*(2), 93.

Thorne, A., McLean, K. C., & Lawrence, A. M. (2004). When Remembering Is Not Enough: Reflecting on Self-Defining Memories in Late Adolescence. *Journal of personality*, *72*(3), 513-542.

Vincenzi, H., & Grabosky, F. (1987). Measuring the emotional/social aspects of loneliness and isolation. *Journal of Social Behavior and Personality*, *2*(2), 257.

Wilson, R. S., Krueger, K. R., Arnold, S. E., Schneider, J. A., Kelly, J. F., Barnes, L. L.,... & Bennett, D. A. (2007). Loneliness and risk of Alzheimer disease. *Archives of General Pychiatry*, *64*(2), 234-240.

Weiss, R. S. (1973). *Loneliness: The experience of emotional and social isolation*. Cambridge, MA: MIT Press.

Zulkosky, K. (2009, April). Self-efficacy: a concept analysis. In *Nursing Forum*(Vol. 44,

No. 2,   pp. 93-102). Blackwell Publishing Inc.

Appendix A-Permissions Page

Each of the measures used are available to be used for non-commercial purposes without the written permission of the measure's authors or the journals of publication.

- The Self-Perception Profile for College Students (Neemann & Harter, 1986/2012) is available for controlled distribution for non-commercial purposes from Harter's website through the University of Denver at <portfolio.du.edu/SusanHarter/page/44210>.

- The Social and Emotional Loneliness Scale for Adults Short Form (Ditommaso, Brannen, & Best, 2004) is available for controlled distribution for non-commercial purposes from psycnet.apa.org.

- The Satisfaction With Life Scale (Pavot & Diener, 1993) is available for controlled distribution for non-commercial purposes from psycnet.apa.org.

Appendix B- Demographic Survey

1. What is your gender? _____

2. What is your date of birth and age?
    a. Month and Year of Birth: _____
    b. Age: _____

3. What is your marital status?
    a. Never legally married
    b. Legally married (and not separated)
    c. Separated, but still legally married
    d. Divorced
    e. Widowed

4. Do you currently have a romantic partner?
    a. Yes
    b. No

5. Can you speak English well enough to conduct a conversation?
    a. Yes
    b. No

6. What language do you speak most often?
    a. English
    b. French
    c. Other language: _____

7. What of these do you identify with most:
    a. White
    b. South Asian (e.g., East Indian, Pakistani, Sri Lankan, etc.)
    c. Chinese
    d. Black
    e. Filipino
    f. Latin American
    g. Arab
    h. Southeast Asian (e.g., Vietnamese, Cambodian, Laotian, Thai, etc.)
    i. West Asian (e.g., Iranian, Afghan, etc.)
    j. Korean
    k. Japanese
    l. Native/Aboriginal
    m. Other, please specify… _____

8. What is your country of birth? _____

9. What is the highest level of education you have <u>completed</u>? _____

10. What is your current program and year of enrolment?
    a. Program: _____

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      b.   Year: _____

11. What is your employment status?
    a. Part-time
    b. Full-time
    c. Unemployed

    If employed, what is your occupation?
    a. Clerical
    b. Professional
    c. Owner/manager
    d. Labourer
    e. Self-employed
    f. Customer Service
    g. Food service
    h. Other:

12. What is your family's annual income?
    a. $0-10,000
    b. $10,000-25,000
    c. $25,000-50,000
    d. $50,000-75,000
    e. $75,000-100,000
    f. $100,000 and above
    g. I do not know or I do not wish to answer

13. Was Parent/Primary Guardian 1 (father / mother/ other [please indicate]) employed

for the majority of time when you were growing up?

    a. Part-time

    b. Full-time
    c. Unemployed
    d. Seasonal employment

    If employed, what was Parent/Primary Guardian 1's primary occupation?
    a. Clerical
    b. Professional
    c. Owner/manager
    d. Labourer
    e. Self-employed
    f. Customer Service
    g. Food service
    h. Other:

14. Parent/Primary Guardian 1's highest level of education:

a) No schooling or did not complete elementary school
b) Elementary school or middle school
c) Some high school
d) High school diploma
e) Some college or university education
f) College diploma
g) University degree
h) Graduate or professional degree

15. Was Parent/Primary Guardian 2 (father / mother/ other [please indicate]) employed

for the majority of time when you were growing up?

a. Part-time

b. Full-time
c. Unemployed
d. Seasonal employment

If employed, what was Parent/Primary Guardian 2's primary occupation?
a. Clerical
b. Professional
c. Owner/manager
d. Labourer
e. Self-employed
f. Customer Service
g. Food service
h. Other:

16. Parent/Primary Guardian 2's highest level of education:

a) No schooling or did not complete elementary school
b) Elementary school or middle school
c) Some high school
d) High school diploma
e) Some college or university education
f) College diploma
g) University degree
h) Graduate or professional degree

17. Are you currently employed?

a) Yes
b) No

18. If yes, how many hours do you work per week? _____

19. Have you ever been employed (including summer employment)?

    a) Yes
    b) No

20. What is your current living situation (e.g., living alone in residence, living with family,

living with roommates off campus)? _____

Appendix C- Consent to Participate in Research Form for Participant Pool

CONSENT TO PARTICIPATE IN RESEARCH
Self-Perception and Relationships in Young Adults

You are asked to participate in a research study conducted by Jenna Thompson supervised by Dr. Julie Hakim-Larson from the department of psychology at the University of Windsor. The results of the study will be used to fulfil the requirements of a Master's thesis in clinical psychology. If you have any questions or concerns about the research, please feel to contact the primary investigator, Jenna Thompson, at thomp124@uwindsor.ca, or the faculty supervisor, Dr. Julie Hakim-Larson at hakim@uwindsor.ca or at519-253-3000 ext. 2241.
You can print this page for your records.

PURPOSE OF THE STUDY
The purpose of this study is to examine self-perception, life satisfaction, and relationships in 18-25 year old university students.

PROCEDURES
If you volunteer to participate in this study, you will be asked to complete the following. By agreeing to this consent form, you are indicating that you wish to participant in the present study. To agree to participate, enter your name, the provided Study Participant ID, and click "I agree to participate. After agreeing to this consent form, you will be directed to an online survey that includes several questionnaires. The questionnaires include your background information, how you perceive yourself in comparison to other students, questions about how you feel about your life in general, and questions about feelings of loneliness. Additionally, you will be asked to respond to a couple open ended questions. The survey should take up to 30 minutes to complete. Effortful responding to items is required. Participants who do not meet this requirement will be contacted and asked to complete the survey again. It is recommended you complete the survey in a quiet, private place free from significant distractions. After completing or exiting this study, you will be directed to brief summary of the study and directions on how to clear your internet browser history.

POTENTIAL RISKS AND DISCOMFORTS

During your participation you will be asked personal questions. Questions ask you to compare yourself to other people, to consider how satisfied you are with your life, and to think about your relationships. You may potentially experience some discomfort in response to these questions. A risk associated with this study is the possibility of emotional discomfort in response to the questions. Should at any point you feel too overwhelmed or wish to terminate the study, you may do so by clicking on the "Discard responses and exit" icon. If you continue to feel upset, you can also contact the University of Windsor Student Counselling Centre at 519-253-3000 ext. 4616.

POTENTIAL BENEFITS TO PARTICIPANTS AND/OR TO SOCIETY

This study will provide the benefit of experiencing how psychological research is conducted. Additionally, you will be contributing to psychological research. Finally, although you will not receive any feedback from your responses, you may gain a better understanding of yourself through answering these questions.

COMPENSATION FOR PARTICIPATION

Participants will receive .5 bonus point for 30 minutes of participation towards the psychology participant pool, if registered in the pool and enrolled in one or more eligible courses. Completion of 85% the study will result in .5 of a bonus point. If you do not display appropriate effort (e.g., random responding) you will not receive credit for participation and will be emailed asking you to redo the study.

CONFIDENTIALITY

Your data will be kept confidential in secure files. Your name and student number will be collected to provide the bonus course credit. Your personal identifying information (i.e., name, student number,& email) will be kept in a separate secured file and will be linked to your other responses only through the Participant Study ID. Two weeks following completion of collection of all data, all personal identifying information will be deleted. Up until this point, you can request to have your data removed from the study. Your data will be kept in a depersonalized format. Depersonalized data will be secured and stored for a minimum of ten years. Instructions will be provided on how to clear your browser history so that other people who use your computer will not see that you visited the website to complete the study. By law, there is a limit to confidentiality, and researchers are required to report to authorities any suspicion of child maltreatment or intention to harm self or others.

PARTICIPATION AND WITHDRAWAL

Your participation in this study is completely voluntary. If you decide to participate, you may withdraw at any time during the study by clicking on the "Discard responses and exit" button without any negative consequences. However, if you choose to withdraw before completing at least 85% of the survey, you will not receive the bonus credit. If you choose to withdraw after completing at least 85% but before fully completing the survey, you will receive a .5 of the bonus point. Once all data has been collected, any participant contact information will be permanently and securely deleted. After this point, you will be unable to withdraw your data from the study. The investigator may withdraw you from this study if circumstances arise which warrant doing so (e.g., indication of careless or insufficient effort, very incomplete questionnaires). You may be emailed asking you to redo the survey if there is an evident lack of effortful responding.

FEEDBACK OF THE RESULTS OF THIS STUDY TO THE PARTICIPANTS

Research findings for this study will be available to participants, and will be posted on the University of Windsor REB website at www.uwindsor.ca/reb in October of 2017.
In addition, a copy of the principal investigator's Master's thesis will be available to the public in both the Psychology graduate secretary's office and Leddy library. A copy of this thesis will also be available online at http://scholar.uwindsor.ca/etdhub/ in October of 2017.

SUBSEQUENT USE OF DATA

These data may be used in subsequent studies, in publications, and in presentations.

RIGHTS OF RESEARCH PARTICIPANTS

If you have questions regarding your rights as a research participant, contact: Research Ethics Coordinator, University of Windsor, Windsor, Ontario, N9B 3P4; Telephone: 519-253-3000, ext. 3948; e-mail: ethics@uwindsor.ca
You may withdraw your consent to participate at any time. Simply, click the "Discard responses and exit" icon on each page.

SIGNATURE OF RESEARCH PARTICIPANT

I understand the information provided for the study"Self-Perception and Relationships in Young Adults"as described herein. My questions have been answered to my satisfaction, and I agree to participate in this study. I will print or save a copy of this form for my own reference.

To acknowledge that you have read this information, and you wish to provide consent to participate in this study, please click "I agree to participate" below.

I agree to participate   I do not wish to participate

First name:

Last name:

Participant code:

SIGNATURE OF INVESTIGATOR

These are the terms under which I will conduct research.

_____   _____

Electronic Signature of Investigator   Date

Appendix D- Final Letter of Information

Letter of Information
Self-Perception and Relationships in Young Adults

Thank you for participating in this study. Your contribution to our scientific understanding is greatly appreciated!

The main objective of this study was to examine how specific areas of self-esteem relate to loneliness and life satisfaction. Previously established and validated questionnaires were used to address this research objective. Additionally, more exploratory, open-ended questions on related topics were included. The open ended questions will be analyzed for prominent themes and potentially be used as the basis for future research.

Research findings for this study will be available to participants, and will be posted on the University of Windsor REB website at www.uwindsor.ca/reb in October of 2017. In addition, a copy of the principal investigator's Master's thesis will be available to the public in both the Psychology graduate secretary's office and Leddy library. A copy of this thesis will also be available online at http://scholar.uwindsor.ca/etdhub/ in October of 2017. Additionally, these data may be used in subsequent studies, in publications, and in presentations. The data from this study will be kept for a minimum of ten years. Two weeks after data collection is completed, data will be made anonymous. Up until this point, you can contact the researcher and ask that your data not be considered.

Within 48 hours of completion, you should receive .5 bonus point towards a psychological course for your effort and 30 minutes of participation, provided you are registered in a psychology participant pool and enrolled in one or more eligible courses. If you do not display appropriate effort (e.g., random responding) you will not receive credit for participation. You will be emailed asking you to redo the study. After redoing the study, provided you display appropriate effort, you will receive .5 participant pool bonus point.

If you have any questions or concerns about the research, please feel to contact the primary investigator, Jenna Thompson, at thomp124@uwindsor.ca, or the faculty supervisor, Dr. Julie Hakim-Larson at hakim@uwindsor.ca or at519-253-3000 ext. 2241.

If you feel upset by the study, you can contact the University of Windsor Student Counselling Centre at 519-253-3000 ext. 4616. If you have questions regarding your rights as a research participant, contact:
 Research Ethics Coordinator, University of Windsor, Windsor, Ontario, N9B 3P4
Telephone: 519-253-3000, ext. 3948
 E-mail: ethics@uwindsor.ca.

You can print this page for your records.
Instructions for clearing your browser history are featured below.

Best wishes,

Jenna Thompson

Instructions taken from and modified based on: https://kb.iu.edu/d/ahic

CHROME
1. In the browser bar, enter: chrome://settings/clearBrowserData
2. Select the following: Browsing history, Download history, Cookies and other site and plug-in data, Cached images and files

3. From the "Obliterate the following items from:" drop-down menu, you can choose the period of time for which you want to clear cached information. To clear your entire cache, select "from the beginning of time."
4. Click Clear browsing data.
5. Exit/quit all browser windows and re-open the browser.

FIREFOX
1. From the History menu, select Clear Recent History. If the menu bar is hidden, press Alt to make it visible.
2. From the "Time range to clear:" drop-down menu, select the desired range; to clear your entire cache, select "Everything."
3. Next to Details, click the down arrow to choose which elements of the history to clear; to clear your entire cache, select all items.
4. Click Clear Now.
5. Exit/quit all browser windows and re-open the browser.

MICROSOFT EDGE
1. In the top right, click the Hub icon (looks like three horizontal lines).
2. Click the History icon, and then select Clear all history.
3. Select Browsing history, then Cookies and saved website data, and then Cached data and files.
4. Click Clear.
5. After the "All Clear!" message appears, exit/quit all browser windows and re-open the browser.

INTERNET EXPLORER 9 AND HIGHER
1. Select Tools (via the Gear Icon) > Safety > Delete browsing history… If the menu bar is hidden, press Alt to make it visible.
2. Deselect Preserve Favorites website data, and select: Temporary Internet files or Temporary Internet files and website files; Cookies or Cookies and website data; History
3. Click Delete. You will see a confirmation at the bottom of the window when the process is complete.
4. Exit/quit all browser windows and re-open the browser.

OPERA
1. From the Opera menu, select Settings, and then Delete Private Data....
2. In the dialog box that opens, select the items you want to clear, and then click Delete.
3. Exit/quit all browser windows and re-open the browser.

SAFARI 8
1. From the Safari menu, select Clear History and Website Data....
2. Select the desired time range, and then click Clear History.
3. Go to Safari > Quit Safari or press Command-Q to exit the browser completely.

SAFARI 7 AND BELOW
1. From the Safari menu, select Reset Safari....
2. Select the items you want to reset, and then click Reset. As of Safari 5.1, Remove all website data includes both cookies and cache.
3. Go to Safari > Quit Safari or press Command-Q to exit the browser completely.

Appendix E- Recruitment Flyer for Facebook

Survey Participants Needed

Self-Perception and Relationships in Young Adults

My name is Jenna Thompson. I am a student at the University of Windsor. I am looking for looking for participants to fill out my 30-minute online research study.

If you are through the ages of 18 and 25 you are eligible to participate!

You can enter a draw to win one of two **$50 amazon.ca gift cards**.

If you would like to participate in my study contact me at thomp124@uwindsor.ca. Thank you so much for your interest!

This study has been reviewed and received ethics clearance by the University of Windsor Research Ethics Board.

Appendix F- Flyer for Around Campus

Survey Participants Needed

Self-Perception and Relationships in Young Adults

My name is Jenna Thompson. I am a student at the University of Windsor. I am looking for looking for participants to fill out my 30 minute online research study.

If you are through the ages of 18 and 25 you are eligible to participate!

You can enter a draw to win one of two **$50 amazon.ca giftcards**.

If you would like to participate in my study contact me at thomp124@uwindsor.ca. Thank you so much for your interest!

This study has been reviewed and received ethics clearance by the University of Windsor Research Ethics Board.

Self-Perception and Relationships Study Contact Jenna at thomp124@uwindsor.ca

Self-Perception and Relationships Study Contact Jenna at thomp124@uwindsor.ca

Self-Perception and Relationships Study Contact Jenna at thomp124@uwindsor.ca

Self-Perception and Relationships Study Contact Jenna at thomp124@uwindsor.ca

NameSelf-Perception and Relationships Study Contact Jenna at thomp124@uwindsor.ca

Self-Perception and Relationships Study Contact Jenna at thomp124@uwindsor.ca

Sel-Perception and Relationships Study Contact Jenna at thomp124@uwindsor.ca

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Self-Perception and Relationships Study Contact Jenna at thomp124@uwindsor.ca

Self-Perception and Relationships Study Contact Jenna at thomp124@uwindsor.ca

Appendix G- Consent Form for Participants Outside of the Participant Pool

CONSENT TO PARTICIPATE IN RESEARCH
Self-Perception and Relationships in Young Adults

You are asked to participate in a research study conducted by Jenna Thompson supervised by Dr. Julie Hakim-Larson from the department of psychology at the University of Windsor. The results of the study will be used to fulfil the requirements of a Master's thesis in clinical psychology. If you have any questions or concerns about the research, please feel to contact the primary investigator, Jenna Thompson, at thomp124@uwindsor.ca, or the faculty supervisor, Dr. Julie Hakim-Larson at hakim@uwindsor.ca or at 519-253-3000 ext. 2241.
You can print this page for your records.

PURPOSE OF THE STUDY

The purpose of this study is to examine self-perception, life satisfaction, and relationships in 18-25 year old university students.

PROCEDURES

If you volunteer to participate in this study, you will be asked to complete the following. By agreeing to this consent form, you are indicating that you wish to participant in the present study. To agree to participate, enter your name, the provided Study Participant ID, and click "I agree to participate. After agreeing to this consent form, you will be directed to an online survey that includes several questionnaires. The questionnaires include your background information, how you perceive yourself in comparison to other students, questions about how you feel about your life in general, and questions about feelings of loneliness. Additionally, you will be asked to respond to a couple open ended questions. The survey should take up to 30 minutes to complete. It is recommended you complete the survey in a quiet, private place free from significant distractions. After completing or exiting this study, you will be directed to brief summary of the study and directions on how to clear your internet browser history.

POTENTIAL RISKS AND DISCOMFORTS

During your participation you will be asked personal questions. Questions ask you to compare yourself to other people, to consider how satisfied you are with your life, and to think about your relationships. You may potentially experience some discomfort in response to these questions. A risk associated with this study is the possibility of emotional discomfort in response to the questions. Should at any point you feel too overwhelmed or wish to terminate the study, you may do so by clicking on the "Discard responses and exit" icon. If you continue to feel upset, you could contact the free Mental Health Hotline at 1-866-531-2600 for information about mental health services in Canada.

POTENTIAL BENEFITS TO PARTICIPANTS AND/OR TO SOCIETY

This study will provide the benefit of experiencing how psychological research is conducted. Additionally, you will be contributing to psychological research. Finally, although you will not receive any feedback from your responses, you may gain a better understanding of yourself through answering these questions.

COMPENSATION FOR PARTICIPATION

You can opt to have your name entered in a draw to win one of two $50 giftcards. This draw will take place after the final participant takes part in the survey. Your name will only be entered should you opt to do so.

CONFIDENTIALITY

Your data will be kept confidential in secure files. Your name and participant number will be collected to provide the bonus course credit. Your personal identifying information (i.e., name, number,& email) will be kept in a separate secured file and will be linked to your other responses only through the Participant Study ID. Two weeks following completion of collection of all data, all personal identifying information will be deleted. Up until this point, you can request to have your data removed from the study. Your data will be kept in a depersonalized format. Depersonalized data will be secured and stored for a minimum of ten years. Instructions will be provided on how to clear your browser history so that other people who use your computer will not see that you visited the website to complete the study.

PARTICIPATION AND WITHDRAWAL

Your participation in this study is completely voluntary. If you decide to participate, you may withdraw at any time during the study by clicking on the "Discard responses and exit" button without any negative consequences.

FEEDBACK OF THE RESULTS OF THIS STUDY TO THE PARTICIPANTS

Research findings for this study will be available to participants, and will be posted on the University of Windsor REB website at www.uwindsor.ca/reb in October of 2017.
In addition, a copy of the principal investigator's Master's thesis will be available to the public in both the Psychology graduate secretary's office and Leddy library. A copy of this thesis will also be available online at http://scholar.uwindsor.ca/etdhub/ in October of 2017.

SUBSEQUENT USE OF DATA

These data may be used in subsequent studies, in publications, and in presentations.

RIGHTS OF RESEARCH PARTICIPANTS

If you have questions regarding your rights as a research participant, contact: Research Ethics Coordinator, University of Windsor, Windsor, Ontario, N9B 3P4; Telephone: 519-253-3000, ext. 3948; e-mail: ethics@uwindsor.ca
You may withdraw your consent to participate at any time. Simply, click the "Discard responses and exit" icon on each page.

SIGNATURE OF RESEARCH PARTICIPANT

I understand the information provided for the study"Self-Perception and Relationships in Young Adults"as described herein. My questions have been answered to my satisfaction, and I agree to participate in this study. I will print or save a copy of this form for my own reference.

To acknowledge that you have read this information, and you wish to provide consent to participate in this study, please click "I agree to participate" below.

      I agree to participate   I do not wish to participate

SIGNATURE OF INVESTIGATOR
These are the terms under which I will conduct research.

_____   _____

Electronic Signature of Investigator   Date

Appendix H- Final Letter of Information for Participants from Outside of the

Participant Pool

Letter of Information

Self-Perception and Relationships in Young Adults

Thank you for participating in this study. Your contribution to our scientific understanding is greatly appreciated!

The main objective of this study was to examine how specific areas of self-esteem relate to loneliness and life satisfaction. Previously established and validated questionnaires were used to address this research objective. Additionally, more exploratory, open-ended questions on related topics were included. The open ended questions will be analyzed for prominent themes and potentially be used as the basis for future research.

Research findings for this study will be available to participants, and will be posted on the University of Windsor REB website at www.uwindsor.ca/reb in October of 2017. In addition, a copy of the principal investigator's Master's thesis will be available to the public in both the Psychology graduate secretary's office and Leddy library. A copy of this thesis will also be available online at http://scholar.uwindsor.ca/etdhub/ in October of 2017. Additionally, these data may be used in subsequent studies, in publications, and in presentations. The data from this study will be kept for a minimum of ten years. Two weeks after data collection is completed, data will be made anonymous. Up until this point, you can contact the researcher and ask that your data not be considered.

After all data is collected your name will be entered in a draw to win one of two $50 Amazon.ca online giftcredit. You will only be contacted if you win the draw. Your name will only be considered if you originally opted into

If you have any questions or concerns about the research, please feel to contact the primary investigator, Jenna Thompson, at thomp124@uwindsor.ca, or the faculty supervisor, Dr. Julie Hakim-Larson at hakim@uwindsor.ca or at 519-253-3000 ext. 2241.

If you feel upset by the study, you can contact the University of Windsor Student Counselling Centre at 519-253-3000 ext. 4616. If you have questions regarding your rights as a research participant, contact:
 Research Ethics Coordinator, University of Windsor, Windsor, Ontario, N9B 3P4
Telephone: 519-253-3000, ext. 3948
 E-mail: ethics@uwindsor.ca.

You can print this page for your records.
Instructions for clearing your browser history are featured below.

Best wishes,

Jenna Thompson

Instructions taken from and modified based on: https://kb.iu.edu/d/ahic

CHROME
6. In the browser bar, enter: chrome://settings/clearBrowserData
7. Select the following: Browsing history, Download history, Cookies and other site and plug-in data, Cached images and files

8. From the "Obliterate the following items from:" drop-down menu, you can choose the period of time for which you want to clear cached information. To clear your entire cache, select "from the beginning of time."
9. Click Clear browsing data.
10. Exit/quit all browser windows and re-open the browser.

FIREFOX

6. From the History menu, select Clear Recent History. If the menu bar is hidden, press Alt to make it visible.
7. From the "Time range to clear:" drop-down menu, select the desired range; to clear your entire cache, select "Everything."
8. Next to Details, click the down arrow to choose which elements of the history to clear; to clear your entire cache, select all items.
9. Click Clear Now.
10. Exit/quit all browser windows and re-open the browser.

MICROSOFT EDGE

6. In the top right, click the Hub icon (looks like three horizontal lines).
7. Click the History icon, and then select Clear all history.
8. Select Browsing history, then Cookies and saved website data, and then Cached data and files.
9. Click Clear.
10. After the "All Clear!" message appears, exit/quit all browser windows and re-open the browser.

INTERNET EXPLORER 9 AND HIGHER

5. Select Tools (via the Gear Icon) > Safety > Delete browsing history… If the menu bar is hidden, press Alt to make it visible.
6. Deselect Preserve Favorites website data, and select: Temporary Internet files or Temporary Internet files and website files; Cookies or Cookies and website data; History
7. Click Delete. You will see a confirmation at the bottom of the window when the process is complete.
8. Exit/quit all browser windows and re-open the browser.

OPERA

4. From the Opera menu, select Settings, and then Delete Private Data....
5. In the dialog box that opens, select the items you want to clear, and then click Delete.
6. Exit/quit all browser windows and re-open the browser.

SAFARI 8

4. From the Safari menu, select Clear History and Website Data....
5. Select the desired time range, and then click Clear History.
6. Go to Safari > Quit Safari or press Command-Q to exit the browser completely.

SAFARI 7 AND BELOW

4. From the Safari menu, select Reset Safari....
5. Select the items you want to reset, and then click Reset. As of Safari 5.1, Remove all website data includes both cookies and cache.
6. Go to Safari > Quit Safari or press Command-Q to exit the browser completely.

Appendix I- Qualitative Questions

Please respond to each of the following three questions in one or two brief paragraphs.

What is your ethnic background? _____

 How does your ethnic background relate to how you feel about yourself?

_____

_____

_____

In your opinion, what does it mean to be an adult? Does your opinion relate to your family's ethnic or cultural background? Please describe.

_____

_____

_____

Here are some self-esteem abilities or traits that people feel are admirable, or value in life:creativity (feeling you are creative), intellectual ability (feeling that you are an intelligent person), scholastic competence (feeling you are able to do succeed at school), job competence (feeling you can be successful in your job), athletic competence (feeling you are athletic and physically fit), appearance (feeling you are a good looking person and being satisfied with your physical appearance), romantic relationships (feeling you are capable of finding and maintaining romantic relationships), social acceptance (feeling you are generally socially accepted by people), close friendships (feeling you are capable of developing or maintaining close friendships), relationship with your parents (feeling you can maintain a close relationship with your parents or primary guardian), finding humuor in one's life (feeling you can find humour in different situation), and morality (feeling you are a moral person). Which of the elements is the **most** important to you? Please select one.

       Creativity
       Intellectual ability
       Scholastic competence
       Job competence
       Athletic competence
       Appearance
       Romantic relationships
       Social acceptance
       Close friendships
       Parent relationships
       Finding humuor in one's life
       Morality

Tell us a true story about yourself when you felt **good** about the area you selected as being most

important.

_____

_____

_____

Tell us a true story about yourself when you felt **bad** about the area you selected as being most

important.

_____

_____

_____

Appendix J-Narrative Coding Rubric

"Tell us a true story about yourself when you felt good about the area you selected as being most important" and "Tell us a true story about yourself when you felt bad about the area you selected as being most important"			
Score	Name	Description	Examples of Themes
Column 1: General Domain (already specified by participant- general domain their story is about; 1-12)			
Column 2: Theme of story- the dominant theme of the story apart from the general domain the participant has already specified			
Column 3: Connection between stories: Besides the general domain specified by the participants, what connects the two stories . More than one can be selected unless "no connection besides overall domain specified" is selected.			
Column 4: Story Specificity (if their account includes more than one of these categories, score the most specific)			
9	Uncodable response	Indicates they cannot think of a story	-"I cannot think of a time I felt bad about it"
0	Non-story	-Tells a description of a personal characteristic, tendency, or other non story	- "I tend to get angry when people annoy me." -"I depend on my friends a lot"
1	General or repetitive story	Does not represent a discrete event	-Would often help grandma with her garden. - Throughout high school, I would study hard for every test and usually did well
2	Specific story	A story about a discrete event (or series of events)	-When I won a race at my final track meet - I joined a study group and we worked really well together over that semester. We ended up doing things together outside of school too.
9	No ending	Response does not contain any ending because it is a "non-story", a 0 in Column 4 means that this section cannot be scored.	
0	Unresolved Story	The story does not have an ending; leaves the story seemingly unfinished or incomplete (leaves reader "hanging" at the scenario without any type of resolution).	-I cheated on a test.
1	Partially Resolved Story	The story has a partial ending. The scenario being described reaches a conclusion.	I cheated on a test once but I did not get caught doing it.

2	Moderately Resolved Story	The story feels as though it has reached a partial conclusion. Some further information needed before the story feels complete.	- I cheated on a test once. The teacher did not catch me doing it but I still felt guilty.
3	Completely Resolved Story	The story feels completely resolved a commentary or follow-up is given on the situation.	-I cheated on a test once. The teacher did not catch me doing it but I still felt guilty. I actually still feel guilty about it now. I've never cheated since mostly because I felt so badly after
9	Unrateable Response		
-2	Extremely negative ending, very unhappy story	References negative emotions (e.g., sadness) or emphasizes that unpleasantness of the event (extremely bad, very disappointing).	One of my former friends told rumors about me. They were really hurtful and for a while I did not even want to go to high school. I ended up losing that friendship and stopped being friends with a couple other people who were in it. It still makes me upset to talk about it.
-1	-Slightly negative ending, generally unhappy story		I failed a test in high school. I was really freaked out about it. I ended up passing the class but did not get the mark that I would have wanted.
0	Mixed or neutral or indeterminate ending, neither happy nor unhappy story, or both		My mother and I got in a big fight when I was sixteen. I was so mad at her I moved out for a week. We made up after a week and our relationship has been good since that time. Through the experience I actually developed a closer relationship with my dad which was great. Now my relationship is pretty good with both parents.
+1	Positive ending, generally happy story		I was elected school class president. It was kind of stressful but a great learning experience and I felt good that my classmates liked me enough to vote for me.
+2	Extremely positive ending, very happy story	References positive emotions (e.g., happiness) or emphasizes that pleasantness of the event (extremely good, very exciting).	My first date with my boyfriend was probably one of the best evenings of my life. We basically just went for a walk in a park but we had so much in common. We have been together since and he is really supportive of me this makes me so happy.
9	Uncodable Response		
0	No lesson learning	No implicit or explicit mention of growth or learning	

1	Basic Lesson Learning	Basic lesson learning. Learning a specific lesson from the event that had implications for subsequent behavior in similar situations .	-After this happened, I don't go to parties on week nights - Now I study earlier
2	Gaining Self-Insight	Learned insight about self. Inferring meaning from the event that extends beyond specific behavior or a situation to larger areas in life. A greater understanding of oneself or the world around them	-I decided to depend on myself after that happened. -I realized how important my relationship with my parents was to me,
9	Uncodable Response		
0	Reframing absent		
1	Reframing present	Participant mentions the positive in an otherwise negative	

Appendix K- Validity Check Items

Really True for me	Sort of True for me				Sort of True for me	Really True for me
		Some students have lived in every single country in the world	BUT	Other students have only lived in some of the countries of the world		

I was born on February 30th.
Disagree Strongly   1   2   3   4   5   6   7   Agree Strongly

Please select "strongly disagree" for this item
      7- Strongly agree
       6 - Agree
      5 - Slightly agree
      4 - Neither agree nor disagree
      3 - Slightly disagree
      2 - Disagree
      1 - Strongly disagree

Vita Auctoris

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YEAR OF BIRTH:	1993
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