

IMPORTANCE OF PERCEIVED ADULTHOOD AND GOAL PURSUIT IN
EMERGING ADULT COLLEGE STUDENTS

by

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B.S., University of Utah, 2006
M.S., Kansas State University, 2008

AN ABSTRACT OF A DISSERTATION

submitted in partial fulfillment of the requirements for the degree

DOCTOR OF PHILOSOPHY

School of Family Studies & Human Services
College of Human Ecology

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Abstract

Previous research has discovered that most 18-to-25 year olds do not feel they have reached the rite of passage known as adulthood. This period of development, termed “emerging adulthood”, is characterized by identity exploration and myriad possibilities related to who one is and what one wants out of life. Empirical evidence suggests that future goals linked to one’s identity are more likely to be obtained through three actions specified in the Selection-Optimization-Compensation (S.O.C.) model: selecting goals to focus one’s resources, optimizing goal-relevant means, and, when necessary, compensating for losses that may occur in these means. The purpose of this study was (a) to identify the proportions of 18-to-25 year old perceived adults vs. emerging adults in a university sample (n = 828); (b) to assess the degree to which self-reported perceived adult status distinguishes self-reports of achieved adult criteria, goal-pursuit strategies, and subjective well-being, and; (c) to determine the predictive utility of perceived adult status, background characteristics, and goal-pursuit strategies for understanding individual differences in life satisfaction, positive affect (i.e., subjective vitality), and negative affect (i.e., depressive symptoms). Analyses of on-line survey responses indicated that approximately one-fourth (24%) of participants reported they had reached adulthood, and, compared to their emerging adult peers, had achieved more criteria for adulthood and were using more effective goal-pursuit strategies. Step-wise multiple regression analyses revealed that specific background characteristics (e.g., relationship status and GPA) and goal-pursuit strategies (e.g., optimization) were significant and strongest predictors of the participants’ life satisfaction, positive affect, and negative affect. Perceived adult status was a significant moderate predictor

of both life satisfaction and positive affect but was unrelated to negative affect. Implications of the findings for developmental researchers, educators, and practitioners are discussed.

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In the field of human development it is well documented and understood that we humans do not develop in isolation. Although each of us have our own unique genetic make-up, personalities, and predispositions; it is clear that our environment—particularly the people in that environment—have a tremendous impact on who we are and what we will become. This has been true for me throughout my life and especially during my doctoral work at Kansas State University. It is both ironic and fitting that the successful completion of this dissertation was achieved as I *selected* an area to investigate, *optimized* the relevant resources to do so, and *compensated* when resources became scarce (i.e., brain power and time). Without exception, my personal goals at Kansas State University have been realized because of the following individuals who have been vital resources of motivation, wisdom, correction, hope, relief, and love.

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Dedication

Dedicated to my sweet sister Mikel, whose recent unexpected passing reminds us all the brevity of this life and the need to develop, grow, and pursue our goals and dreams while we have the opportunity to do so. **SEIZE THE DAY!**

Chapter 1 - Introduction

Statement of the Problem

Various societies and cultures throughout the ages have had significant events or ceremonies signifying the passage into a new station or status in life. Historically in the United States the rite of passage from adolescence into adulthood meant obtaining a certain level of authority, commanding more respect, and more freedom or autonomy (Arnett, 2004), making this transition exciting, celebrated, and desirable. Today, the stage of life following adolescence—now known as emerging adulthood—looks much different as in years past as the majority of 18-to-25 year olds do not consider themselves to be adults and often have conflicted feelings about “growing up” (Arnett, 2000a, 2004; Badger, Nelson, & Barry, 2006). Traditional markers signifying adulthood such as marriage and full-time employment are now replaced by more internal criteria, namely: taking responsibility for ones actions, financial independence, and independent decision-making (Arnett, 2000a, 2006; Kins & Beyers, 2010; Nelson, 2009; Shannahan, 2000). Perhaps the primary feature of emerging adulthood is the exploration of an individual’s identity in areas such as love, work, education, religion, and values—in other words, determining who one is and what one wants out of life (Arnett, 2004, 2006; Cote, 2002; Shulman, Kalnitzki, & Shahar, 2009). More than any other decade, the quality of development that occurs in these areas of identity exploration are pivotal as it will largely shape the landscape of an emerging adult’s life and help to make a bright future become a reality (Schwartz, Cote`, & Arnett, 2005; Tanner, 2006).

Jeffery Arnett (2004), the author of the term “emerging adulthood”, asserts that this period “is the age of possibilities, when many different futures remain open, when little about a person’s directions in life has been decided for certain” (p. 16). As an emerging adult discovers more about him or herself (i.e. identity formation) through increased possibilities, he or she will establish and pursue life plans or goals intrinsically linked to this self-discovery (Roberts, O’Donnell, & Robins, 2004; Salmela-Aro, Aunola, & Nurmi, 2007). These goals and the manner in which they are pursued largely determine an emerging adult’s quality of development not just into adulthood but also throughout the rest of their life (Tanner, 2006). There is sufficient empirical evidence to support that major life goals are more likely to be achieved as individuals of all ages’ accurately and realistically select goals (e.g. education or family), effectively allocate appropriate resources in pursuit of such goals, and make adjustments when necessary (Ebner, Freund, & Baltes, 2006; Riediger, Freund, & Baltes, 2005). Such actions in emerging adulthood will increase the probability that one takes advantage of opportunities and reaches the end of this era—whether sooner or later—with a strong sense of self or identity (e.g. values and roles) as a full-fledged adult (Arnett, 2004, 2007b; Cote, 2006; Tanner, 2006).

Even though opportunities and potential for growth are tremendous, there are many emerging adults who are ambivalent about reaching adulthood and report purposefully delaying this rite of passage as long as possible—associating becoming an adult with boredom and drudgery (Arnett, 2000a, 2004; Ravert 2009; Roisman, Masten, Coatsworth, & Tellegen, 2004). Conversely, there is also a small percentage within this age group that believe they are adequately responsible and independent having emerged into an adult much sooner than their peers (Blinn-Pike, Worthy, Jonkman, Smith, 2008; Nelson, 2009; Nelson & Barry, 2005). This stark contrast is characteristic of the variability and heterogeneity of developmental trends that

exist among 18-to-25 year olds. Whether delaying or embracing adulthood, 18-to-25 year olds from either camp look toward the future and see happy marriages, satisfying careers, and getting everything they want out of life (Arnett, 2000b). What remains to be understood is the impact that perceived adult status has on the realization of these high hopes and strategies used in pursuing them.

Can identity formation and the arrival of adulthood be compared to a meal where speedy (e.g. microwave) rather than slow (e.g. crock pot) cooking might compromise the quality (e.g. taste) or end product? In other words, are there advantages and disadvantages in taking a shorter path into adulthood? How do self-perceived adults differ from their self-perceived emerging adult peers in the selection and pursuit of life goals? Furthermore, what other psychological outcomes—such as subjective well-being—are effected by perceived adult status and goal pursuit strategies? Such inquiries are worthy of investigation given the pivotal time of life that these individuals are experiencing.

Context of the Problem

Emerging adults often report that in some respects they are adults but in many other respects they are not. One of the most common reported reasons for not feeling like an adult is that they feel they are still in the process of understanding who they are and what they want out of life—in other words, their identity is still developing. Identity development has historically been associated with adolescence (Arnett, 1997; Erikson, 1963, 1968; Shannahan, 2000), yet Arnett (2000) asserts that this self-discovery does not hit its apex until emerging adulthood and there is ample evidence to support this claim (Arnett, 2003, 2004; Cote, 2006; Nelson & Barry, 2005; Ravert, 2009; Schwartz, Cote, & Arnett, 2005; Shulman, Kalnitzki, & Shahar, 2009).

It seems logical to assume that most, if not all, emerging adults look forward to and are actively working toward full independence and responsibility. Yet, it appears that there remains among some emerging adults, a desire to delay the requirements and responsibilities associated with adulthood including working full-time after college, getting married, having children, and just being “grown up” (Arnett, 2004, 2007a; Ravert 2009). One possible explanation for this is the perceived loss of fun and freedom that comes with taking on such adult roles. In the United States today, it seems that youth and independence are often promoted and glamorized in the media while aging and responsibility is associated with work and unhappiness (Lacey, Smith, & Ubel, 2006). If this is the case then these messages are likely to have an impact on the attitude emerging adults have toward adult-like responsibilities because they simply want enjoy themselves before it is too late.

As previously mentioned, there is a small proportion of 18-to-25-year-olds who hold a contrasting attitude about adulthood as they feel that they already have come of age and consider themselves to be “grown up” (Blinn-Pike et al., 2008; Nelson, 2009). The adult minority in this age group is unique and little research has been conducted to understand how they differ from their emerging adult peers. An important question to ask is if the 18-to-25-year-olds who perceive themselves as adults have any advantages over their perceived emerging adult peers? Because the emerging adult years are fraught with more transitions (e.g. education to work) and life decisions (e.g. marriage) than any other stage in the life span (Arnett, 2007b; Caspi, 2002), and because many of these transitions and decisions take several years to complete (Salmela-Aro, Aunola, & Nurmi, 2007), one must inquire whether it is better to take an elongated or abbreviated path into adulthood. So perhaps the best question to ask is which perceived status

among 18-to-25 year olds—emerging adult or adult—will derive the most beneficial outcomes, specifically in the effectiveness of goal pursuit strategies and overall psychological well-being?

Significance of the Problem

Life span theories on motivation contest that the challenges, opportunities, and demands individuals experience at a specific stage of their lives hone the kinds of personal decisions and goals they construct (Brandtstadter, 2006), and that these personal goals—such as obtaining a college education—play an important role in the ways in which people direct their individual development (Baltes & Baltes, 1990; Ebner, Baltes, & Freund, 2006; Heckhausen, 1999). These theories further assume that the manner in which goals are selected and pursued strongly influence the growth and well-being of an individual, regardless of age (Baltes, 1997). This is especially true for 18-to-25 year olds in industrialized countries as they move through a phase of life characterized by possibilities and self-discovery (Arnett, 2004; Roberts, O'Donnell, & Robins, 2004). In the United States, the majority of emerging adults attend college after high school (67%) and have tremendous access to resources such as professors, counselors, academic advisors, textbooks, libraries, technology, and much more that can help them gain a better understanding about who they are (i.e. identity), what they want out of life (i.e. life goals), and how to go about getting it (i.e. goal pursuit) (Arnett, 2004, 2006; Heckhausen, 1999; Riediger, & Freund, 2004; Salmela-Aro, Aunola, & Nurmi, 2007).

According to Baltes, Lindenberger, and Staudinger's (2006) life-span theory in developmental psychology, maturity and individual development—or ontogenesis—does not end upon reaching adulthood but extends throughout the life course. This process involves adaptive responses to experiences, which determine successful or effective development as one attempts

to maximize gains and minimize losses (Baltes & Baltes, 1990). What constitutes a gain and a loss is rather subjective and varies with culture and age. An emerging adult example of this is a 20-year-old college student deciding to study each weeknight instead of partying with friends; he or she will gain knowledge and eventually a degree but will lose some opportunities for fun, leisure, and possibly social development. How gains are chosen and obtained, and losses adapted to and handled is at the heart of successful development of any individual (Brandtstadter & Renner, 1990). A meta-model proposed within Baltes' theory (2006) for successfully regulating gains and losses throughout the life span is known as selective optimization with compensation (SOC) (Baltes, 1997; Baltes & Baltes, 1990).

The basic tenets of the SOC model are as follows: first one *selects* a goal or a desired outcome such as losing weight. Then the person focuses on utilizing means and resources relevant to the selected goal such as creating a workout plan, exercising, reducing caloric intake, and so forth. This process then *optimizes* these goal-specific means to achieve higher levels of functioning within that selected domain, in this case maximizing weight loss. When temporary or permanent losses in such means (e.g. injury, schedule conflicts, or expired gym membership) impede one's level of functioning, one must *compensate* for these losses by investing more or using other resources to maintain the level of functioning (Baltes & Bates, 1990). Adults of varying ages and stages will use different combinations of the SOC model that can be employed as strategies to regulate ones life—thus fostering successful development in various areas or domains (Freund & Baltes, 2002). There is abundant evidence suggesting that persons who employ SOC related strategies in their life tend to be happier, healthier, and more successful at managing their overall lives than those who do not (Bauer & McAdams, 2004; Ebner, Freund, & Baltes, 2006; Riediger, Freund, & Baltes, 2005; Sheldon & Kasser, 2001). Due to the

tremendous empirical research supporting the SOC model, the current study will use its mechanisms as a guidepost for measuring life management and effective goal pursuit strategies.

One important study in the SOC literature compared younger adults ages 19-30 with older adults ages 55-80 and found that younger adults had more goals, experienced more goal interference (i.e. goals that were unrelated to each other), pursued goals with less intensity, and reported lower subjective well-being (Riediger, & Freund, 2004). These findings should not be surprising considering that emerging adulthood—the primary age group of the younger adults in the said study—is characterized by instability, exploration, and identity formation. This raises the question of whether there are subgroups among 18-to-25 year olds that utilize the SOC model more effectively than others. If so, are they more likely to feel that they have already reached adulthood? If emerging adulthood is indeed a pivotal period of life when the path into adulthood is varied in its approach and duration, and if opportunities and means relevant to life goals are plentiful, then investigating the relationship between perceived adulthood status and goal pursuit strategies (as measured by SOC) would be of great value. Does the mere psychological shift that occurs, as one perceives passage into adulthood improve ones life management strategies and goal-directed behavior (SOC)? Or are perceived adults between 18-to-25 experiencing emerging adulthood so shortened that they are selling their identity and individual development short?

To date there is no research viewing emerging adulthood through the lens of the SOC meta-model. Such a study could not only enhance the understanding and validity of Baltes' SOC model and Arnett's proposed emerging adulthood, but also “link emerging adulthood with the years that precede and follow this period as this is the way that life span human development is understood” (Tanner, 2006, p. 25). It is therefore the purpose of this study to (a) identify a subset of 18-to-25-year old perceived adults and compare them with their emerging adult peers;

(b) understand how emerging adults differ from perceived adults in goal pursuit strategies, namely: the focus of resources on goals (selection), the acquisition, refining, and coordinating application of relevant resources (optimization), efforts to maintain a given level of functioning despite loss (compensation); and (c) examine the impact that perceived adult status and SOC strategies has on an individual's subjective well-being.

Chapter 2 - Review of Literature

Life-Span Development

Human development, including life-span developmental psychology, has sought to understand a myriad of developmental phenomena throughout the life span and in various domains of functioning (Baltes, Lindenberger, & Staudinger, 2006; Brandtstadter, 2006; Elder, 1985; Erikson, 1963). In each stage of the life span (e.g. infancy, childhood, adolescence, adulthood, old age), individuals experience different developmental environments. These age-graded environments have been conceptualized in many different ways, including developmental tasks (Erikson, 1968), role transitions (Arnett, 1997), constraints (Heckhausen, 1999) and institutional tracks (Bronfenbrenner, 1979) to name a few. The various kinds of age-related tasks and institutional structures are important because they include an assortment of demands, challenges, and opportunities for individual action, creating predictable and recognizable paths for life span development (Brandtstadter & Renner, 1990; Lerner, Theokas, & Jelicic 2005). Such structures also provide a barometer that can indicate to individuals when one has completed one stage and is ready for the next. For a task related example, infants must learn to sit up, then crawl, followed by scooting or assisted walking, and finally learning to walk on his or her own. At an institutional level, an adolescent must successfully complete the demands and challenges of middle school before he or she is ready for the increased complexity of high school (Feldman, 2009).

At every point in the life span, individuals are faced with change, transitions, and life decisions—some more serious than others. A preschooler transitioning to kindergarten is

confronted with change as he or she will likely be away from home a lot more and receive more formal schooling than previously experienced. Parents usually make the decisions during this time of transition and the child has little, if any, opinion or influence about the nature of this transition. When this child grows and matures cognitively, socially, and physically, his or her decisions become more complex (e.g. peer groups, hobbies, schooling) and the child's influence in such decisions increases (Feldman, 2009). However, as adolescents exit high school, they will be experiencing the years that hold the most significant, life-marker events, while having unprecedented freedom to direct their own lives (Arnett, 2004; Grob, Krings, & Bangerter, 2001). These include significant markers that are related to the transition from high school to college, from education to work, initiating intimate relationships, and starting a family (Shannahan, 2000). Life transitions or markers usually take many years to complete as each is closely related to the individuals personal goals and individual identity (Schwartz, Cote, & Arnett, 2005). With normative deadlines for life markers approaching at an ever-increasing rate, those in the post adolescent phase of life feel pressured to invest more effort into attaining their developmental goals (Greene, Wheatley, & Aldava, 1992; Heckhausen, 1999).

Emerging Adulthood

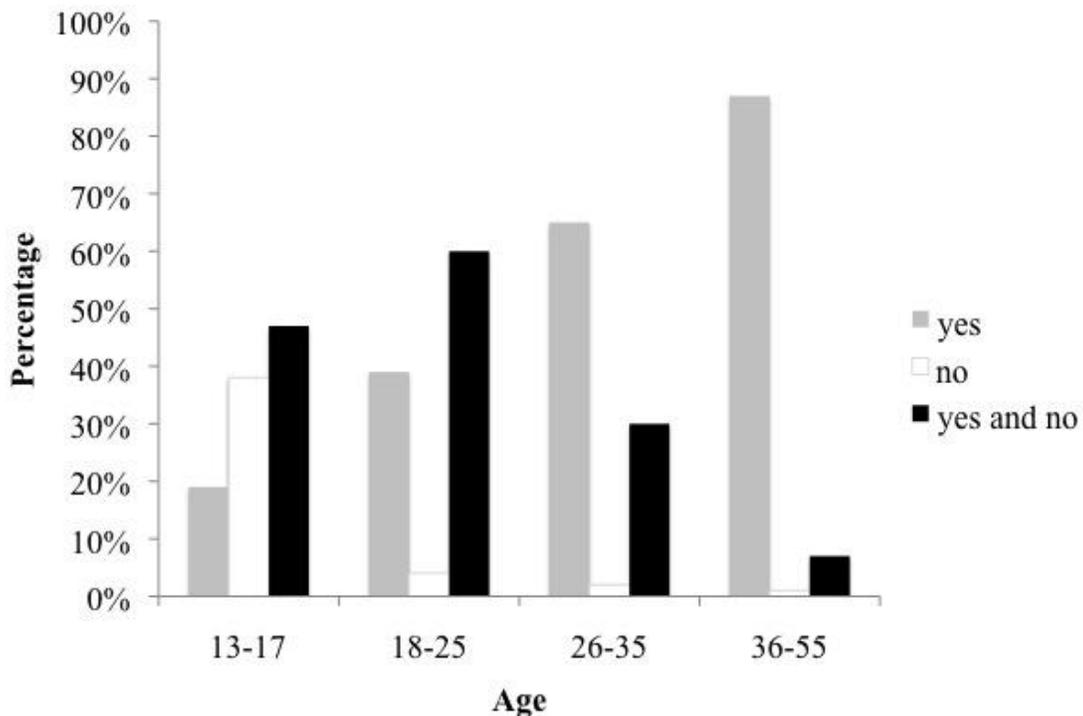
Over the past two decades, many contemporary life span development theories have been revised and updated as a result of two primary factors: (a) the enhanced understanding of the complexity of human development gained from empirical research either verifying or nullifying previous theoretical claims; and (b) the evolution of sociocultural milestones as a result of changes in the economy and technological advancement (Arnett, 2000; Bandura, 1997; Inglehart, 1990). One particular developmental pathway that has evolved over the years is the passage

from teen to adult; although many theorists and scholars have long been interested in distinguishing when and how this rite of passage takes place (Arnett, 2006). In years past, moving from adolescent to adult was a relatively quick and smooth transition as the majority of 21-year-olds in industrialized countries were married with children and heading toward home ownership (Arnett, 2000). Such roles gave clear markers for when a boy became a man and a girl a woman; however, today it is much more difficult to determine when an individual has completed the pre-adult phase and is ready for adulthood. Economic and sociocultural changes in the United States especially (i.e. increased demand for higher education, invention of birth control, delayed age of marriage, etc.), have resulted in the postponement of traditional adult markers (Arnett, 2004). Moving from child to adult has never looked more different nor has the path ever been as long and winding than it is today. Although many scholars have acknowledged the evolution in the third decade of the life span (Cote & Allahaar, 1994; Shannahan, 2000), it did not become a new period or conception of development until Jeffery Arnett's proposal of "emerging adulthood" (see Arnett, 2000a).

Emerging adulthood is the period of life spanning the late teens through the 20's with a focus on ages 18 to 25 (Arnett, 2000a, 2004). As previously mentioned, a body of recent research reveals that these individuals who are actually transitioning to adulthood do not consider traditional markers or events (e.g. marriage) as important criteria for being an adult. Instead, studies of 18-to-25-year olds have found that young people use more internal and individualistic qualities as their criteria for adulthood, such as (a) taking responsibility for one's self, (b) making independent decisions, and (c) becoming financially independent (Arnett, 2000a, 2004, 2006; Nelson & Barry, 2005; Kins & Beyers, 2010). This is consistent with cognitive research indicating that as an individual advances in cognition—or process of thought

and information—their self-concept (i.e. understanding of self) shifts from a physical or external trait focus to that of a psychological or internal focus (Marsh & Ayotte, 2003; Lerner, Theokas, & Jelicic, 2005). It is interesting to note the language of “becoming” or “making” in the given adult criteria; this seems to imply that the individual has not yet fully achieved the capability of doing these tasks; hence the individual is “emerging” into adulthood. Because this rite of passage is more of a process rather than a switch that one merely flips on, it is not surprising that the majority of 18-to-25 year olds report being somewhat ambivalent about their adult status (see Figure 2.1). Even a substantial number (30%) in their late twenties or early thirties still feel they have not reached adulthood (Arnett, 2000a).

Figure 2.1. Subjective Conceptions of Adult Status in Response to the Question: “Do You Feel That You Have Reached Adulthood?”



Note. N = 519. Adapted from “Emerging Adulthood: A Theory of Development From the Late Teens Through the Twenties,” by J. J. Arnett, 2000, *American Psychologist*, 55, p. 472.

A more recent study found roughly 70% of 18-to-25 year olds hold this undecided “yes and no” attitude toward their perceived adult status (Nelson & Barry, 2005). Taken together, what we learn from the this research illustrated in Figure 2.1 is that emerging adulthood is neither an extended adolescence, nor a mere quick transition to adulthood; but rather, a unique developmental period and should be studied as such.

The Main Features of Emerging Adulthood

Arnett (2004) asserts that there are five main features that make emerging adulthood a distinct period in the life span, separate and apart from adolescence and young adulthood. These features were derived from Arnett’s research with emerging adults spanning over a decade and others have confirmed this claim in recent years (Arnett, 2007a; Reifman, Arnett, & Colwell, 2005; Schwartz, Cote, & Arnett, 2005). Emerging adulthood is the age of instability; the age of feeling in-between (neither adolescent nor adult); the most self-focused age of life; the age of identity explorations—particularly in the domains of love, work, and education; and the age of possibilities—when the future looks bright and lives can be transformed (see also Arnett, 2006). Each of these features plays a distinct and important role in emerging adulthood; however, for the purposes of this study we will only discuss identity explorations and possibilities in the following sections. For more detailed information on each these defining features of emerging adulthood see Arnett (2004) or (2006).

The Age of Identity Explorations

It has long been assumed by psychologists that identity exploration is the bedrock of adolescence. Erikson (1968) believed that adolescents go through an exploration period seeking to understand who they are and what their rightful place is in the world. Those who successfully

chose vocational goals and values achieved a healthy sense of self as adults, while those who did not develop a working set of ideals were left in a state called identity confusion. Marcia (1980) built on Erikson's work by sorting an individual's progress toward a mature identity into four categories—identity achievement (exploration followed by commitment), identity foreclosure (commitment with minimal exploration), identity diffusion (lacking in both exploration and commitment), and identity moratorium (active exploration with very little commitment). Each category is based on a level of exploration and commitment in adolescence and connected to a specific set of beliefs, values, and goals. So how do these older theories on identity exploration fit into emerging adulthood? Schwartz and colleagues (2005) put it this way, “one of the most striking features of emerging adulthood is that it represents an extension of Erikson's (1968) psychosocial moratorium, the period during which youth[s] are free to explore potential identity alternatives without having to assume permanent adult commitments” (p. 204).

Arnett (2004) also believes that identity exploration is the most central feature of the emerging adulthood years as it is often accompanied by more freedom and independence for self-discovery than in adolescence. During these years there is an unprecedented opportunity to try out different ways of living and various options in love and work. In the arena of love, emerging adults learn more about the qualities that they desire most in a partner as they become increasingly involved with different people (Demir, 2008). Understanding work and career interests takes a similar path, as emerging adults try out a variety of jobs and/or college majors they can not only provide income but gain a better understanding about their interests and abilities (Arnett, 2006; Cote, 2006; Murphy, Blustein, Bohlig, & Platt, 2010). All identity explorations, however, are not serious business as many explore through play and leisure such as traveling, volunteer work (e.g. Americorps, Peace Corps), and social gatherings (e.g. parties) to

name a few. These leisure-oriented activities can provide a broad range of life experiences before taking on more permanent adult roles (Arnett, 2004; Cote, 2002; Ravert, 2009). One drawback to this kind of self-discovery is if not kept in check, it can lead to risk-taking behaviors such as sexual promiscuity, binge drinking, and trouble with the law (Galambos, Barker, & Krahn, 2006; Nelson & Barry, 2005; Piquero, Brame, Mazerolle, & Haapanen, 2010). One final way that emerging adults explore more about themselves is through revising and customizing their worldviews and religious beliefs; with many changing their views from those of their family of origin (Arnett, 2004; Arnett & Jensen, 2002; Barry & Nelson, 2005; Schwartz, Arnett, & Cote, 2005).

Perhaps the most important aspect of identity development is the amount of control one has over such explorations. Most, if not all of the aforementioned ways in which emerging adults discover more about themselves implies some sense of agency, self-direction, or free exercise of choice. Though there are many definitions of agency (e.g. Bandura, 1997; Brandtstadter, 2006), for the purposes of this study we will use the definition given by Cote and Levine (2002) as it refers to “a sense of responsibility for one’s life course, the belief that one is in control of one’s decisions and is responsible for the outcomes, and the confidence that one will be able to overcome obstacles that impede one’s progress along one’s chosen life course” (p. 207). Research supporting this definition of agency found that agency was positively related to identity achievement and negatively related to identity diffusion (Cote & Schwartz, 2002; Schwartz, Cote, & Arnett, 2005). For the most part, emerging adults living in industrialized countries have the power, freedom, and resources to determine who they become and what they want out of life. Even for many of those who come from less-than-ideal circumstances (e.g. abuse, neglect, divorce) emerging adulthood signifies an opportunity to leave home and possibly

change the trajectory of development (Cote & Levine, 2002; Galambos, Barker, & Krahn, 2006; Piquero, Brame, Mazerolle, & Haapanen, 2010).

The Age of Possibilities

The post-high school years represent a time of possibilities, when emerging adults pursue many different goals to shape their future and identity as they set out on a different path from their parents. Emerging adulthood is the age of possibilities in two important ways: (a) it is a time of tremendous optimism with high hopes for the future regardless of past experiences or present circumstances (Arnett, 2000b, 2006); and (b) a time that provides new opportunities for individuals who come from difficult conditions (e.g. abuse, neglect) as they move away from home (Cote, 2006).

Emerging adults are incredibly optimistic about the future—particularly their own. Most emerging adults look down the road and see themselves working at their dream job and marrying and staying married to their soul mate. In a national survey of 18-to-24 year olds, the vast majority (96%) felt very sure that they would eventually get to where they want to be in life (Hornblower, 1997). This statistic is not too surprising when one considers that the fires of life and reality have not yet tested emerging adult expectations regarding work and love. Today in the United States, nearly half of marriages end in divorce (Wilcox & Marquardt, 2010) and many of those who stay married report being unhappy; feelings on work follow a similar pattern as the majority of Americans (55%) report being unsatisfied with their jobs (Murphy, Blustein, Bohlig, & Platt, 2010). However, given that most emerging adults do have the agency and resources (Arnett, 2000b, 2006; Cote, 2006; Kins & Beyers, 2010) to make these goals and expectations a reality, one should not dismiss their optimism with dream-killing skepticism. Furthermore,

increased possibilities for different futures “is one of the most important features of emerging adulthood, [as] it represents a possibility for people from difficult backgrounds to transform their lives. Emerging adulthood is arguably the period of the life course when the possibility for dramatic change is greatest” (Arnett, 2004, pp. 189-190).

Children and adolescents decisions and actions in life are, in large measure, at the discretion of their parents. When the adolescent leaves the home, decisions are now more self-directed rather than parent-directed. In *Emerging Adulthood: The Winding Road from the Late Teens Through the Twenties* Arnett (2004) discusses many of the emerging adults he interviewed that had come from horrific backgrounds, were incredibly resilient and had changed their lives in dramatic way. One such case was a 25-year-old man who had grown up in several different homes and was physically abused much of that time. He was finally kicked out of his home at the age of 15, began to drink heavily and use drugs. During the emerging adult years Jeremy decided to change his life around because as he put it, “I couldn’t look far enough ahead. I wanted instant gratification.” So he enrolled in college at the age of 23 and started setting and pursuing long-term goals and he stated that he now “can see a goal and is much more prepared” (p. 194). Other studies have confirmed that this is not an isolated example of resilience in emerging adulthood, thus supporting the claim this is indeed an age of possibilities (see Masten, Obradovic, & Burt, 2006).

It is important to point out that the resources and possibilities that exist in emerging adulthood do vary greatly. As many emerging adults move out of their parents’ home after high school (Kins & Beyers, 2010) some will enter full-time employment and others will join the military. But for the majority of those nearing the third decade of life, the arrival of emerging adulthood has almost become synonymous with college with nearly 70% of high school

graduates enrolling (Arnett, 2004). This particular transition comes closer than any other event to being an American rite of passage as very few countries in the world have a higher education system as vast and open as the United States (Hamilton & Hamilton, 2006). Perhaps there is no better example of an institutional structure providing developmentally appropriate challenges and opportunities for emerging adults than higher education. The college experience provides emerging adults with opportunities to obtain more education in a setting that seems to naturally breed identity explorations and possibilities. They can take a wide variety of classes, meet with trained academic advisors, talk to professors, and utilize other resources on campus such as computers, libraries, and career counselors. In light of all this, it is interesting to note that many emerging adults report that the majority of what they learn in their college experience had little to do with schooling (Hamilton & Hamilton, 2006). This is due to the many other opportunities that the college experience can provide such as roommates, romantic partners, parties, and many other social events. Arnett (2004) posited that “college is social island set off from the rest of society, a temporary safe haven where emerging adults can explore possibilities in love, work, and world views with many of the responsibilities of adult life minimized, postponed, kept at bay” (p. 140).

In summary, identity exploration and increased possibilities are two of the distinguishing features that make emerging adulthood distinct from adolescence and young adulthood. This means that emerging adults are at a point in their lives when they are trying to discover who they are and what they want to become as they gradually move toward adulthood. Furthermore, many of them experience an increase in independence and resources—especially those in college—giving them added power or agency to direct the course of their life. For most emerging adults,

it appears that when it comes to moving toward maturity and adulthood—the ball is truly in their court.

Adulthood Status

Both Arnett (2003) and Hamilton & Hamilton (2006) propose that emerging adulthood is perhaps the period of life in which variance is greatest for many aspects of development. For example, it is often assumed that 18-to-25 year olds are a homogeneous group and all feel somewhat ambivalent about their perceived adulthood status. As discussed previously, between 30-40% of 18-to-25 year olds feel that they have reached adulthood, aside from a handful of studies, very little attention has been given to these perceived adults (Arnett, 1997; 2001; Blinn-Pike et al., 2008; Galambos, Turner, & Tilton-Weaver, 2005; Nelson & Barry, 2005). But was reaching adulthood sooner a choice by these perceived adults or was it thrust upon them by their circumstances? The answer is yes—to both. Many 18-to-25 year olds who have come from a difficult upbringing such as poverty and abuse often take on adult roles much earlier than what is considered normative. For the most part, however, those who feel they have reached adulthood in this age group experience a shortened moratorium by choice (Cote, 2006; Nelson, 2009).

For some 18-to-25 year olds attending college, emerging adulthood is not a time of growth and achievement but of play and leisure (Arnett, 2004; Ravert, 2009). These emerging adults view becoming an adult as an inevitable doom that must be delayed as it marks the end of fun and freedom. In short, the high hopes for long-term goals never come to fruition due to the anticipation of future loss (i.e. fun and excitement), which can promote overindulgence in unhealthy behaviors (i.e. risk-taking) in the present (Blinn-Pike et. al, 2008; Nelson & Barry,

2005; Ravert, 2009). Essentially goals related to developing a healthy sense of self are replaced—consciously or unconsciously—with goals related to filling a pleasure canteen.

A study conducted by Russell Ravert (2009) uncovered a theme of engaging in what he termed as “now-or-never behaviors” among emerging adults attending college. Over three-fourths (77%) of the students in the study reported engaging in risk-taking behaviors because of the lack of freedom and opportunities that will come with adulthood. This philosophy is illustrated in interviews from Arnett’s (2004) research as one emerging adult reported, “I associate being an adult with being really boring, and I just don’t feel quite that boring yet” (p. 218). A 22-year-old college student put it this way, “I hope to be married by the time I’m 30. I mean, I don’t see it being any time before that. I just think I have a lot of life left in me, and I want to enjoy it. There’s just so much out there” (p. 102). Another emerging adult expressed a similar feeling with adult roles such as marriage, stating that she wanted “to be a little selfish for a while, and selfishness and marriage don’t seem to go hand in hand. I’d like to be able to experience as much as I can before I get married, just so I can be well-rounded” (p. 30). Although these statements do not reflect the feelings that all emerging adults have about adulthood, they do demonstrate a common perception. With emerging adults it can be difficult to determine whether one is purposefully thriving or stagnating through this period.

Due to the heterogeneity in emerging adulthood, it becomes very complicated when trying to conclude whether one should strive for adulthood sooner than later. One possible method would be through measuring presence of positive processes and outcomes (e.g. effectiveness of goal pursuit and subjective well-being) and absence of negative ones (e.g. depression) in both perceived and emerging adults. In one study Nelson & Barry (2005) compared 19-to-25 year old students attending a large, public, mid-Atlantic university who

perceived themselves as adults with their peers who did not. This was the first of a small handful of studies that sought to understand if these two groups (perceived and emerging adults) differed in adulthood criteria and the achievement of those criteria. They also sought to determine if the two groups differed in other key developmental issues such as identity formation, risk-taking behaviors, and depressive symptoms. This was done by use of a packet questionnaire containing Arnett's (1997) perceived adulthood status measure (e.g. "do you think that you have reached adulthood?"), criteria for adulthood measure (e.g. financially independent of parents"), and how much they felt they have achieved such criteria (e.g. "how much do you feel you have achieved?"). Also included in the questionnaire were reliable measures pertaining to identity issues (e.g. "by this point in my life, I feel like I know and understand myself well"), risk-taking behaviors (e.g. drunk driving), and depression (e.g. "I thought my life had been a failure"). The results showed that perceived adults, compared to emerging adults: (a) did not differ in adulthood criteria; (b) believed they had achieved more of the adulthood criteria; (c) had a better sense of their overall identity; (d) were less depressed; (e) and engaged in fewer risk taking behaviors. If simply understanding oneself better (identity), minimizing depression, and avoiding risky behaviors constituted a happy, fulfilling life then these findings could help answer the question if adulthood should be actively sought by emerging adults. We know that the main developmental focus in emerging adulthood is determining who one is and what one wants to become through the increased opportunities afforded during this period. Yet, what remains to be understood is if those 18-to-25 year olds who perceive themselves as adults employ more effective strategies in the pursuit of their individual (identity related) life goals better than those who perceive themselves as still emerging into adulthood.

As previously stated, an individual's primary task during the transition from emerging to young adulthood is to determine how one's current life goals will develop into coherent adult roles as related to one's identity (Arnett, 2000; Roberts, O'Donnell, & Robins, 2004). Because emerging adulthood is the time in life when individuals make major decisions and set goals concerning the shape of their life course (e.g. education, marriage, career, beliefs), it is important to understand the effectiveness of emerging adult's strategies for pursuing these goals. It is clear that most emerging adults envision achieving their life goals with tremendous optimism (Arnett, 2004, 2006); even so, optimism alone does not guarantee that goals will be realized. For example, an adolescent may want (i.e. hope), and even believe (optimism) that he can play college basketball; but if the only time spent practicing basketball is in a video game then he may need to change either this less effective goal pursuit strategy or his goal of playing college ball altogether. More research is needed to elucidate how researchers, teachers, practitioners, advisors, and employers might help emerging adults create a positive trajectory for pursuing personal goals related to identity, relationships, and career during this pivotal period.

Goal Pursuit

Goal directed behavior is one of the major driving forces behind individual development throughout the life span (Baltes & Baltes, 1990; Brandtstadter, 2006; Ebner, Freund, & Baltes, 2006). The term "goal" here is to be understood as a desired state or outcome that people seek to obtain, maintain, or avoid (Emmons, 1996). Many of our daily actions are connected to a goal of some sort—even if we are not consciously aware of what those goals are. For example, most individuals enroll in college with the intention to graduate. This goal of graduating can and should direct his or her day-to-day behavior as choices are made to study, attend class, and

complete assignments. This goal directed behavior would likely lead to opportunities for cognitive and social growth; such growth can extend into young adulthood and beyond. The assumption that development does not end at the arrival of adulthood but extends across the life span is at the core of Paul Baltes and colleagues (2006) life-span developmental theory (Baltes, 1987; Baltes & Baltes, 1990). Another basic premise of this theory is that lifelong development and change is associated with both losses and gains (Baltes, Lindenberger & Staudinger, 2006). To illustrate, consider that as a 5-year-old begins to attend kindergarten full-time he or she will *lose* the comforts of being at home (e.g. cooked meals, familiar faces) while *gaining* more academic knowledge and hopefully more friends. According to Baltes, the kindergartener in this example can successfully adapt to these changes by striving to learn as much as he or she can while maintaining a strong relationship with his or her family when at home. Thus, success is found in maximizing gains (i.e. knowledge, friends) and minimizing losses (time with family) (Baltes & Baltes, 1990).

Taking this idea further, Freund (2008) characterized successful development as a “level of functioning that allows one to strive to fulfill personal goals and maintain personal standards and is, to a substantial degree, a result of having successfully managed internal (e.g. cognitive abilities) and external resources (e.g. money) throughout the life span” (p. 94). However, having goal-relevant means does not necessarily result in goal achievement. Resources can be invested wisely and practically or carelessly. When one invests resources prudently it often results in positive returns and increasing resource gains; conversely the same is true as well. This description of successful development applies perfectly and most pointedly to 18-to-25 year old individuals who find themselves in a critical turning point of the life span where hopes,

aspirations, goals, resources, and possibilities are all generally high; therefore Freund's (2008) definition will be used here when describing successful development.

SOC Model

Within his life-span developmental theory, Baltes proposed a model for successful development describing how developing individuals effectively manage resources (i.e. means for achieving a goal) and pursue personal goals; this is the model of selection, optimization, and compensation—also known as the SOC model. This has been called a model, not a theory because “in its generality is still located at a level of analysis that is distant from specific theory” (Baltes, Lindenberger, & Studinger, 2006, p. 1054). Action-theoretical approaches such as SOC are based on the assumption that people—including emerging adults—are active agents, intentionally initiating, maintaining, and altering goal-related behaviors (Brandtstadter, 2006; Brandtstadter, & Renner, 1990; Freund & Baltes, 2000; Heckhausen, 1999).

Although the fundamental principles of the SOC model are a universal process of development, the manifestation of such principles will vary throughout life (Baltes & Baltes, 1990; Freund & Baltes, 2002). What informs and influences one to choose or *select* a specific goal, is a combination of individual (e.g. age and personality) and cultural factors (e.g. family type, SES, country) (Riediger, Freund, & Baltes, 2005). This is why a 20-year-old in Canada might have a goal to be great at ice hockey while a 45-year-old man in China may be driven to be a successful businessman. Because we have chosen the SOC model as the theoretical lens for understanding and measuring 18-to-25 year olds *strategies* in goal pursuit for this study, the process of selection, optimization, and compensation will be discussed in further detail below. For a more detailed definition of SOC processes see, e.g. Freund, 2008; Riediger, Li, &

Lindenberger, 2006. Table 2.1 contains sample items from the SOC questionnaire that was developed to measure an individual’s use of SOC mechanisms in his or her goal pursuit strategies.

Table 2.1. Selection, Optimization, and Compensation (SOC)—an Action-Theoretical Framework

Selection (goals/preferences)	Optimization (goal-relevant means)	Compensation (means for counteracting loss in/blockage of goal-relevant means)
<i>Elective selection</i>	-Attentional focus	-Substitution of means
-Specification of goals	-Seizing the right moment	-Use of external aids/help of others
-Goal system (hierarchy)	-Persistence	-Use of therapeutic intervention
-Contextualization	-Acquiring new skills/resources	-Acquiring new skills/resources
-Goal commitment	-Practice of skills	-Activation of unused skills/resources
	-Resource allocation	
<i>Loss-based selection</i>	(effort, time)	-Changes in resource allocation (effort, time)
-Focus on most important goals	-Modeling successful others	
-Reconstruct goal hierarchy		-Modeling successful others who compensate
-Adaptation of standards		
-Search for new goals		-Neglect of optimizing other means

Note. Adapted from “The Measure of Selection, Optimization, and Compensation (SOC) by Self-Report,” by P. Baltes, M. Baltes, Freund, & Lang, 1999, Berlin, Germany: Max Planck Institute for Human Development.

Selection

Elective Selection. Selection involves directionality, goals, and outcomes. Baltes and colleagues (2006) posit that this selection process begins in the womb as the central nervous system develops. Throughout the lifespan, opportunities and constraints in various domains (e.g. biological, social, and individual) identify a range of alternative ways of functioning. From this large number of options individuals, in conjunction with other forces (i.e. cultural and parental expectations) choose a subset (or a goal) on which to focus their resources—this is known as *elective selection*. This function of selection is aptly illustrated by the saying, “those who follow every path never reach any destination” (Freund, 2008).

Loss-Based Selection. Selectivity can also be an adaptive response to losses threatening one's goals. This type of selection is *loss-based* rather than elective. An example of loss-based selection is concentrating on one's most important goals (e.g. getting good grades) and giving up less important personal goals (e.g. working out everyday) when an illness constrains the level of energy one can devote to various activities (Riediger & Freund, 2004).

Optimization

To achieve higher levels of functioning or skill in a selected goal, related or relevant resources need to be acquired, refined, coordinated, and applied—in other words, goal relevant means need to be *optimized*. An example of optimization is practicing chords when starting to learn to play the guitar. By practicing chords, one can acquire finger movements and strumming techniques, both important skills for playing the guitar. The means that are most appropriate for achieving a goal depends on the domain (e.g. hobbies), the social and cultural context providing opportunity structures (e.g. college) that make certain means more accessible than others, and personal characteristics (e.g. age and personality). One must also be aware that there are different ways to optimize; consistent with the saying, “there is more than one way to skin a cat” (Baltes, Lindenberger, & Studinger, 2006).

Compensation

When temporary or permanent losses in goal-relevant means threaten one's functioning, one must devote resources to *compensate* for the losses in order to maintain the desired level of functioning. For instance, when hip problems make it difficult to golf a full 18 holes, using a golf cart as a compensatory means of transportation can help maintain one's routine and golf score without impacting the handicap—pun intended. Compensation differs from loss-based

selection in that the focus of the former is on compensating through alternative resources and methods, whereas the latter is a change in goals altogether. Declines and losses happen in every stage of the life span and are not just reserved for those who are in the “twilight” of life. As is true in optimization, the means that are best suited for compensating for declines or losses depends on the domain, the context, and individual (Baltes, 1997).

An example that illustrates the SOC process well is a story cited by Baltes and colleagues (2006) about the concert pianist Arthur Rubinstein. As an 80-year-old man, Arthur was asked in an interview how he managed to maintain such a high level of expert piano playing. In his reply was embedded components of the SOC model. First, he said that he played fewer pieces (*elective selection*); second, he pointed out that he played these pieces of music more often (*optimization*); finally, he told how he counteracted his loss in mechanical speed by using a kind of impression management such as introducing slower play before fast segments, so to give the listener the impression that the latter was faster (*compensation*).

The Development of the SOC Questionnaire

As once already stated, the SOC model was developed to explain how individuals of all ages regulate their lives and successfully reach their goals. SOC is a metatheory. Its specification varies by the domain of functioning considered and by the particular theoretical approach. Table 2.1 illustrates the meaning of the three components taking an action-theoretical approach. In this framework, Baltes, Baltes, Freund, and Lang (1999) developed a self-report questionnaire that operationalizes the process of adaptive development proposed in the SOC model. Freund and Baltes (2002) later provided evidence on “the psychometric properties of the instrument, its relationship with related measures, and its predictive validity for subjective

indicators of life management (well-being)” (p. 642). They concluded that the measure lacks redundancy when compared “with other well-conceived and tested measures of developmental regulation” (p. 654), or that the SOC model and related questionnaire is a distinct, conceptually unique framework. This SOC questionnaire will be further detailed in Chapter 3 and can also be found in its entirety in Appendix B.

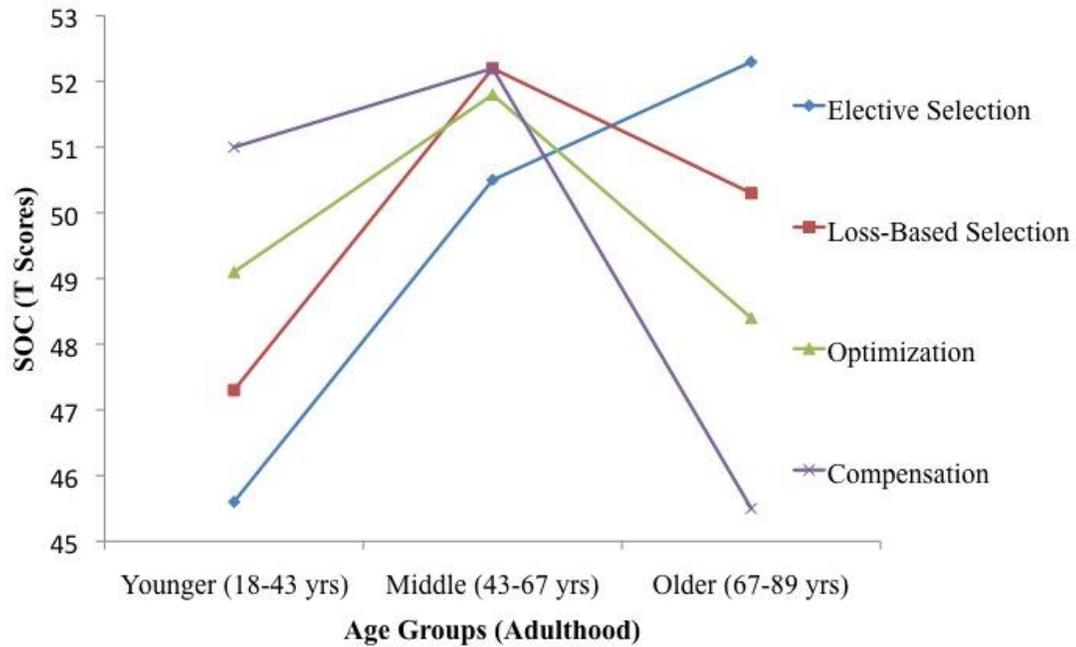
Important Findings Regarding SOC

To date, the SOC framework has been valuable in stimulating research on active and adaptive life management (Freund & Baltes, 2000), also known as intentional self-development (Brandtstadter, 1999). The predictive value of SOC has been evident in the samples of healthy individuals in different age groups such as adolescence (Gestsdottir & Lerner, 2007), young adults (Ebner, Freund, & Baltes, 2006), middle-aged adults (Freund & Baltes, 2002), and older adults (Riediger, Freund, & Baltes, 2005). Areas including family studies (Baltes & Heydens-Gahir, 2003) and organizational behavior (Baltes & Dickson, 2001) have also employed the utility of SOC mechanisms, further substantiating both the SOC questionnaire and the model. However, for the purpose of this study, the SOC research comparing adult (younger, middle, and older) goal pursuit strategies and the predictive value of such strategies will be delineated further. Without exception, the findings from these studies demonstrate that higher engagement in SOC related strategies is predictive of concurrent as well as future developmental success (Riediger, Li, & Lindenberger, 2006). The criteria for success in the SOC research were measured by Freund’s (2008) definition stated previously. Riediger and colleagues (2006) concluded that the individuals between 18-89 years of age who use SOC strategies in their life

have achieved a level of functioning that allows them to strive to fulfill personal goals, maintain personal standards, and successfully manage internal and external resources throughout the life.

In a series of cross-sectional studies, Freund & Baltes (2002) measured the development of selection, optimization, and compensation strategies across the age range of adulthood (i.e. ages 18-89) and found an age-related increase in these mechanisms from young to middle adulthood and a decrease in late adulthood. When considered as a whole (see Figure 2.2), middle adults showed the most convergence of SOC behaviors; meaning, in middle adulthood most individuals are at their peak in their ability to effectively select goals, optimize goal related resources, and compensate for any decline or loss in such resources. Put differently, the apex seen in Figure 2.2 is when most people report effectively managing resources and pursuing life goals. One exception to this was *elective selection* as it was positively correlated with age and continued into old age. Freund & Baltes concluded that young adults experience a heightened need to explore many different, possible pathways of development. By middle and late adulthood individuals tend to realize their place in life resulting in a greater focus on *selected* priorities (see Figure 2.2) (Freund & Baltes, 2002). Considering that a sizable portion of the younger adults in this study were between 18-25 years of age, these conclusions are congruent with Arnett's claim that as emerging adults move toward adulthood they try on many possible paths to discover who they are and what they want in life—in other words, their life goals (Arnett, 2000a; 2004). Due to the fact that said SOC research conceptualized 18-to-43 year olds as young adults, it is unclear how many of the 18-to-25 year olds in the SOC studies consider themselves to be emerging or perceived adults. Based on the emerging adulthood literature discussed previously, it is likely that the majority (65-70%) of the 18-to-25 year olds in the SOC research would consider themselves to be emerging adults.

Figure 2.2. Age-Related Mean Differences in Reported Use of SOC (Selection, Optimization & Compensation) Mechanisms



Note. Adapted from “Life-Management Strategies of Selection, Optimization, and Compensation: Measurement by Self-Report and Construct Validity,” by Freund & Baltes, 2002, *Journal of Personality and Social Psychology*, 82, p. 653.

In two other studies using a multi-method approach that sought to understand differences in goal management strategies between younger (18-26 years) and older adults (65-84 years), it was found that younger adults selected more goals, pursued those goals with less intensity, and were less effective at employing goal relevant resources than older adults (Ebner, Freund, & Baltes, 2006; Riediger, Freund, & Baltes, 2005). The findings here associated with younger adults further substantiate two of the main features of emerging adulthood: the age of identity explorations and the age of possibilities. As discussed previously most emerging adults have a great deal of freedom to select their goals, access to appropriate resources to optimize these goals, and this freedom is very high in the post adolescent phase of life. In spite of the high

hopes and possibilities that come with the emerging adulthood years, the differences between adult groups (younger, middle, older) in goal pursuit indicates that not only age but psychological maturity is needed to capitalize on such resources and that this such maturity is strongly linked to a strong sense of self (i.e. identity) (Freund, 2008).

The SOC research presented in this study not only supports that the questionnaire used to measure SOC strategies is both reliable and valid, but provides evidence that SOC is indeed an effective strategy of life management. Though it must be said that with this theory, Baltes' and colleagues (2006) acknowledged the idea of equifinality when speaking of successful development and effective goal pursuit; meaning, the same developmental outcome or goal can be reached by different means and combination of means.

Even so, might the findings from the SOC research comparing the goal pursuit strategies in the different adult groups (younger, middle, older) be true when comparing perceived adults with their emerging adult peers? In other words, are 18-to-25 year olds who feel they've reached adulthood more likely to use SOC mechanisms in their goal pursuit strategies? Exploring the answers to the aforementioned questions relating to the differences in the use of SOC strategies between perceived and emerging adults would prove to be most valuable. If reaching adulthood (i.e. accepting responsibility, making independent decisions, and becoming financially independent) sooner rather than later increases the effectiveness of pursuing important life goals, then this area deserves further investigation.

Subjective Well-Being

Diener, Suh, & Oishi (1995) have proposed that “subjective well-being is a multidimensional construct consisting of three separate components: (a) the presence of positive

affect; (b) the relative lack of negative affect, and (c) people's cognitive evaluations of their life circumstances" (p. 27). Subjective well-being is one particular construct that has shown to have a strong relationship with individuals using SOC strategies to regulate their lives. Freund and Baltes (2002) first discovered this association as each of the SOC components was significantly and positively related to measures of subjective well-being. Riediger and Freund (2004) examined the relationship that goal interference/facilitation—how well personal goals relate to one another—had on subjective well-being. Their three studies found that goal facilitation was related to SOC strategies in goal pursuit and higher subjective well-being. Said differently, when a person can see how his or her individual goals are related to one another, then he or she will be more likely to effectively pursue his or her goals and experience positive emotions.

Emerging adulthood research has also demonstrated that these years are often a time when trajectories in subjective well-being can drastically change (Schulenberg, Bryant, & O'Malley, 2004). Kins & Beyers, (2010) found that the achievement of both adult status and Arnett's (1997) adult criteria, positively predicted emerging adults' well-being. As noted previously, Nelson and Barry (2005) found that emerging adults report more depressive symptoms than their perceived adult peers. But depressive symptoms, or negative affect, are only one dimension of subjective well-being. If the prevalence use of SOC strategies are associated with higher subjective well-being, middle adults are more likely than younger adults to employ such strategies, and emerging adults report higher depressive symptoms than their adult peers, then it seems likely that 18-to-25 year old perceived adults will report a greater use of SOC strategies and higher subjective well-being than their emerging adult peers.

Research Purposes

Research Purpose 1

In this study we merge two empirically based areas within the life span development literature—emerging adulthood as proposed by Arnett (2000), and a model for successful, adaptive development (SOC) as proposed by Baltes and Baltes (1990). To date there are only a handful of studies comparing emerging adults with their perceived adult peers (Blinn-Pike et al., 2008; Galambos, Turner, & Tilton-Weaver, 2005; Nelson, 2009; Nelson & Barry, 2005; Kins & Beyers, 2010). In order to expand this research and our knowledge about the heterogeneity that exists in the third decade of life, the first purpose of this study is to assess perceived adult status among 18-to-25 year olds and to identify the proportion that classify themselves as adults or emerging adults. To compare both proportions and classification criteria to other related studies, Arnett's (1997) questionnaire for assessing perceived adult status will be employed.

Research Purpose 2

Furthermore, there has been virtually no research investigating how both of these 18-to-25 year old subgroups—perceived adults and emerging adults—differ in developmentally significant tasks such as goal pursuit strategies. Additionally, the SOC questionnaire developed by Baltes and colleagues (1999) and validated by Freund and Baltes (2002) has not been utilized in the emerging adulthood context. Our hope is that the investigation of effectiveness of identity related goal pursuit strategies in emerging adulthood would enhance our understanding of this critical period in life span. Therefore, the second purpose of this study is to investigate the relationship between perceived adult status and self-reported use of each of the SOC mechanisms (elective selection, loss-based selection, optimization, and compensation) as measured by the

SOC questionnaire. The present study will aid developmentalists who seek to integrate this new developmental period—emerging adulthood—into life span theory as it “represents a unique turning point in human development when the exploratory nature of emerging adulthood gives way to commitments to adult roles” (Tanner, 2006, p. 25).

Research Purpose 3

Finally, existing research literature relating the transition to adulthood and subjective well-being is rather sparse. From the little evidence we do have, it is clear that emerging adults in general demonstrate increase in subjective well-being in conjunction with psychosocial maturity (Galambos, Barker, & Krahn, 2006; Kins & Beyers, 2010; Kins, Beyers, Soenens, & Vansteenkiste, 2009). Understanding the relationship that exists between perceived adult status, goal pursuit strategies (SOC), and well-being is important in validating Arnett’s proposition that emerging adulthood is the age of identity explorations and possibilities where many negative adolescent-type stressors are shed and well-being increases (Arnett, 2000a, 2004). The final purpose of this study is to assess the predictive power that perceived adult status and reported use of SOC strategies has for explaining the variance in each of the three components (i.e. life satisfaction, positive, and negative affect) of an 18-to-25 year olds’ subjective well-being.

Chapter 3 - Methods

Sample

The sample in the current study is comprised of students who were previously enrolled in FSHS 110 – Introduction to Human Development at Kansas State University. All students (N = 3,487) who had completed this course between 2008-2010 were invited to participate. An online survey was constructed using the Kansas State University Axio Survey System. A link to the survey was emailed to students located on the past rosters of the human development course. Students were asked if they would be willing volunteer their time; no incentive was offered. Students had 25 days to complete the survey with two reminder emails sent to prompt those who had not yet completed the survey (see the complete survey in the appendix). The survey took approximately 25-30 minutes to complete. The participants were anonymous—meaning the researchers did not know the identity of any of the participants. The data collected also remained confidential. At the close of the survey, all responses were automatically downloaded into an Excel file and converted into an SPSS data file.

Initially, the number of students who had participated in the survey was 937 (response rate = 27%), however, only data from participants who had fully completed the survey and between 18-to-25 years of age were analyzed, thus adjusting the sample size to 828. Due to the large number of respondents and their homogeneity (in regards to background characteristics) with those included in the final sample, it did not seem necessary to retain data from those who had only partially completed the survey. The mean age of the adjusted sample was 20.53 (SD = 1.403). Due to the high percentage of female enrollment in the history of the course (or

sampling frame), it is not surprising that the majority of the 828 participants in our sample were: female (76%), Caucasian/White (91.2%), and unmarried (96%). The sample was also predominantly enrolled in college full-time (94.2%), employed part-time (64.6%), and living with non-related roommates (71.5%). Eight percent of the participants were Freshman, 24% were Sophomores, 36% Juniors, 28% Seniors, and 4% were in graduate school. Participants come from families with a variety of educational backgrounds. For mothers of the participants, 15% had a high school degree or less, 19% had completed some college, 12% had an Associates degree, 36% had a Bachelors degree, and 18% had a graduate degree (e.g. Masters, Doctorate, or Professional). For fathers of the participants, 17% had a high school degree or less, 21% had completed some college, 9% had an Associates degree, 34% had completed a Bachelors degree, and 19% had obtained a graduate degree. See Table 4.2 for more detailed demographic data.

Procedure

The rationale for using the past students was the sheer number of student emails available on these class rosters, which dramatically reduced the time and energy devoted to data collection. Consequently, the sample is constituted of nonprobability-derived volunteers. The online survey method was chosen for three main reasons: (a) the measures lend themselves to a survey format; (b) most other relevant studies have employed the survey method, making data comparison easier; and (c) the online survey is convenient and efficient in both time and cost. This methodology assumes that the participants are capable of accurately evaluating their own adult status, goal pursuit strategies, and well-being. As the purpose of this study was to understand how the participant's perceptions impact other areas of their life, it is necessary to understand their subjective views. Ideally, follow-up studies should examine behavioral correlates and

definers of adult status beyond subjective self-reports. This will be discussed more fully in later pages.

Measures

Background Information

Initial questions assessed demographic information including age, gender, ethnicity (i.e., African American, Asian, Pacific Islander, Caucasian, American Indian, Middle Eastern, Hispanic, Bi-racial, or other), and relationship status (i.e., single, single & dating, boy/girlfriend not living together, engaged & not living together, cohabitating, or married). The categories regarding relationship status are somewhat unusual when compared to standard categories (i.e., single, married, divorced), this is because of the unique, varied nature of this period of development (i.e., emerging adulthood). In addition to these background questions, students were asked to report their current living situation (i.e., parents, family members, non-related roommates, significant other, or live alone), current enrollment status (i.e., full-time or part-time student), current year in school (i.e., Freshman, Sophomore, Junior, Senior, or graduate student), parents' levels of education (i.e. less than high school through doctoral/professional degree), current employment status (i.e., full time, part time, or not employed), and current grade point average (GPA). See Appendix B for a more detailed description regarding the demographic items.

Adult Status

Perceived Adults Versus Perceived Emerging Adults

To determine whether the participants consider themselves to be an adult, the following item was asked within the survey: “Do you think that you have reached adulthood?” Response options included *yes*, *no*, or *in some respects yes, in some respects no*. This method of adult-status classification has been used effectively elsewhere (e.g. Arnett, 1997; Blinn-Pike et al., 2008; Nelson & Barry, 2005). Because the current study sought to understand differences between self-perceived adults and self-perceived emerging adults, individuals who responded “*yes*” were classified as self-perceived adults, and those who responded either “*no*” or “*in some respects yes, in some respects no*” were combined into a single group (i.e. self-perceived emerging adults) for all analyses.

Achieved Criteria for Adulthood

To measure the criteria for the achievement of adulthood, participants rated themselves on the extent that 34 criteria/items for adulthood currently apply to them. These criteria have been used in previous research with 18-to-25 year olds (Arnett, 1997, 2001; Kins & Beyers, 2010; Nelson 2009; Nelson & Barry, 2005); however, these studies have also measured the level of importance (i.e. *very important to not at all important*) 18-to-25 year olds place on these criteria for reaching adulthood. Because the findings of each of these studies have provided strong evidence that perceived adults and emerging adults do not significantly differ in the importance of the criteria for adulthood, it was decided to have participants only rate themselves on their level of achievement of the 34 item adulthood criteria. These items are organized within six subscales and each of these were tested for reliability: independence ($\alpha = .43$) (e.g. financially independent of parents), interdependence ($\alpha = .42$) (e.g. committed to long-term love relationships), role transitions ($\alpha = .38$) (e.g. married), norm compliance ($\alpha = .67$) (e.g. avoid

illegal drugs), family capacities ($\alpha = .84$) (capable of supporting a family), and biological transitions ($\alpha = .33$) (e.g. grown to full height). Twenty-two of the items across the subscales (e.g. establish equal relationship with parents), have a three-category response format: *very true*, *somewhat true*, or *not true*. The remaining 12 items (e.g. *have purchased a house*) are bivariate: 1 = yes, applies to me, or 2 = no, does not apply to me. All items were reverse coded and summed within each subscale, yielding six summary scores across the criteria.

SOC Questionnaire

In order to measure strategies in goal pursuit and life management as it relates to the SOC model, participants completed the 24-item SOC questionnaire (short version) developed by Baltes et al. (1999) and further validated by Freund and Baltes (2002). Each of four components of SOC (i.e. elective selection, loss-based selection, optimization, and compensation) was assessed by six items. The items are formulated—using a forced-choice format—such that each item consists of two statements, one statement describing behavior reflecting either ES, LBS, O, or C (i.e. target), and the other statement describing a behaviors reflecting a non-SOC-related strategy (i.e. alternative/distractor). Students rated which of the statements—Persons A (SOC) or B (alternative)—about life management behaviors that best characterize their own behavior. The force-choice format was chosen because Baltes et al. (1999) found the choice of SOC items to be less susceptible to people’s tendencies to respond in socially desirable ways, thus providing a better statistical distribution of responses and reducing this potential source of constant error.

On every subscale, a total score (sum) for each response reflecting SOC items was calculated to denote the student’s level of endorsement of SOC strategies. According to Freund and Baltes (2002) a high score on *elective selection* means “that a person endorses such

behaviors as developing clear goals, selecting only a limited number of goals on which to focus one's resources, and building a goal hierarchy according to the importance of goals" (p. 647). Additionally, a high score on *loss-based selection* reflects that an individual who is facing a loss in goal-relevant resources will likely focus on the most important goals while giving up fewer important goals and restructuring the goal hierarchy. Similarly, a high score on *optimization* represents a person who holds behaviors such as acquiring and investing resources or means into goals and persists in goal pursuit in the face of obstacles. Finally, Freund and Baltes (2002) conclude that a high score on *compensation* implies "endorsement of a large number of behaviors indexing investment into alternative or substitute means in the face of loss or decline in means—for instance, searching for new means or ways of goal pursuit or activation of unused skills or resources" (p. 647). Internal consistency reliability tests were performed on each of the components of SOC, yielding moderate results: elective selection ($\alpha = .60$), loss-based selection ($\alpha = .53$), optimization ($\alpha = .62$), compensation ($\alpha = .52$), and SOC composite index ($\alpha = .78$).

Subjective Well-Being

To cover the different aspects of each of the three dimensions found in the construct of subjective well-being described by Diener, Suh, & Oishi (1997), three separate scales related to each dimension have been utilized, namely: (a) the degree of positive affect measured by the Subjective Vitality Scale (SVS; Ryan & Frederick, 1997); (b) the degree of negative affect measured by the Center for Epidemiologic Studies-Depression Scale (CES-D; Radloff, 1977); and (c) the cognitive evaluations of one's life circumstances measured by the Satisfaction With Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985). This multi-measure approach to assessing subjective well-being in 18-to-25 year olds has been used in other studies (e.g. Ebner,

Freund, & Baltes, 2006; Kins & Beyers, 2010; Kins et al., 2009) (see appendix). Kins and Beyers (2010) conducted a factor analysis with each of the above measures (SVS, CES-D, SWLS) and found that all three measures loaded “substantially on one factor explaining 66.96% of the variance” (p. 753). Instead of working with three separate scores, the authors used these factor scores to develop a composite measure of SWB utilizing items from the three measures. However, in the present study, three distinct factors emerged from a factor analysis (varimax rotation) of data from these same SWB measures. The first component or factor contained all items from SWLS, the second component contained each item found in the SVS, and the last component comprised 19 or the 20 items (excluded item: “I help hopeful about the future”) from the CES-D. Because of the strong theoretical and statistical implications of this approach, each measure or component of subjective well-being will be examined separately in this study in determining participants overall subjective well-being.

Satisfaction With Life Scale (SWLS)

The SWLS, a commonly used questionnaire developed by Diener et al. (1985), consists of 5 items measuring an individual’s cognitive evaluation of satisfaction with life in general (e.g., “I am satisfied with my life,” and “If I could live my life over, I would change almost nothing”). Respondents selected one of seven options (ranging from 1 = “strongly disagree” to 7 = “strongly agree”) for each question. Responses are summed to provide a total life satisfaction score for each participant. Research has repeatedly established acceptable reliability and psychometric properties for the SWLS among a variety of age groups (Diener et al., 1985; Diener et al., 1995; Kins & Beyers, 2010; Lacey, Smith, & Ubel, 2006). The internal consistency reliability of this measure in the present study was high ($\alpha = .87$).

Subjective Vitality Scale (SVS)

The SVS is primarily concerned with measuring positive affect, specifically, the present state of feeling alive and alert. The original version of SVS was created and validated by Ryan and Frederick (1997). Further work by Bostic, Rubio, and Hood (2000) using confirmatory factor analyses indicated that a 6-item version was more accurate for measuring subjective vitality than the 7-item version. Ryan and Frederick (1997) also found that the SVS questionnaire displayed strong reliability ($\alpha = .86$) and other studies (e.g. Kins & Beyers, 2010) produced similar results among emerging adult populations. In the present sample, the Cronbach's alpha was .93 for this measure. A sample item reads, "Currently, I feel so alive I just want to burst." All 6 items in this study were scored on a 5-point Likert-type scale, ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

Center for Epidemiologic Studies-Depression Scale (CES-D)

The CES-D was developed by Radloff (1977) to measure symptoms of depression in community populations and has been used in many studies as a screen for the presence of depressive illness. Each of the 20 items was selected to represent the major components of depression on the basis of the clinical literature and factor analytic studies. These components include previous research demonstrated that "internal consistency as measured by Cronbach's alpha is high across a variety of populations—generally around .85 in community samples and .90 in psychiatric samples" (Radloff, 1977). The current study also found strong reliability for this measure ($\alpha = .78$).

Participants indicated how often they have suffered from these symptoms targeted in each of the items (e.g. "I felt that everything I did was an effort" or "I felt depressed") during the past

week on a 4-point Likert-type scale, ranging from 0 (*rarely or none of the time*) to 3 (*most or all of the time*). Four of the items are worded in a positive direction to control for response bias. CES-D scores range from 0 to 60; higher scores indicate more severe depressive symptoms. Items 4, 8, 12, and 16 (which control for response bias) were reverse coded; scores are summed to indicate overall level of symptom severity (see Appendix B).

Chapter 4 - Results

After collecting and analyzing descriptive background information, there were 3 main objectives pursued in the present study: (a) assess perceived adult status among 18-to-25 year olds by identifying the proportion that classify themselves as adults or emerging adults; (b) investigate the relationship between perceived adult status and self-reported goal-pursuit strategies (SOC) as measured by the SOC questionnaire; and (c) measure the predictive power that demographic information, perceived adult status, and reported use of SOC strategies has in explaining an 18-to-25 year olds' life satisfaction, positive affect, and negative affect (i.e. subjective well-being). The following are findings related to each of these objectives.

In order to determine the strength of the relationships among all variables, a standard correlational analysis was conducted. Table 4.1 displays the relationships among these variables. As expected, SOC components were moderately related to one another ranging from .27 to .49. Effect sizes (r^2) for these coefficients ranged from .07 to .24. Moderate relationships also appeared between the SWB components as well. Each of the SOC components and SWB components were significantly related to one another (see Table 4.1). Out of the SOC components, Optimization appeared to have the strongest correlation with each of the components of SWB: Life Satisfaction (SWLS) .28, $p < .01$, Subjective Vitality (SVS) .29, $p < .01$, Depression (CES-D) -.23, $p < .01$. Effect sizes (r^2) for these coefficients ranged from .05 to .08. Because of the significant relationships with other key variables, current GPA was included in the correlational matrix.

Table 4.1. Correlations Among Independent and Dependent Variables

Measure	1	2	3	4	5	6	7	8
1. Current GPA								
2. Adult Status	-.05							
3. Elective Selection	.12**	.10**						
4. LB Selection	.22**	.03	.40**					
5. Optimization	.22**	.10**	.37**	.42**				
6. Compensation	.15**	.04	.27**	.31**	.49**			
7. SWLS	.26**	.06	.21**	.18**	.28**	.26**		
8. SVS	.12**	.07*	.21**	.13**	.29**	.26**	.61**	
9. CES-D	-.19**	-.02	-.12**	-.15**	-.23**	-.16**	-.34**	-.34**

Note. “Adult Status” is interpreted as 1 = Perceived Emerging Adult, 2 = Perceived Adult. Higher summative scores on each variable denote a greater achievement of that variable.

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

Perceived Emerging Adults Versus Perceived Adults

In regards to the first purpose of this study—whether the participants felt they had reached adulthood—24% responded in the affirmative (yes), 76% indicated that they had not. Accordingly, responses were aggregated into two separate groups (i.e., perceived emerging adults and perceived adults). To further understand differences between these two groups, background information was analyzed as a function of self-perceived adults status.

Proportionately, more males (31%) in our sample ($n = 828$) perceived themselves as an adult than females (21%). Another finding of interest is that the number of perceived emerging adults who are cohabiting with their boy or girlfriends is higher than the number of perceived adults (see Table 4.2). This is interesting when one considers the amount of psychological and emotional maturity that is needed in this type of relationship. In regards to employment status, more perceived emerging adults worked full-time ($n = 30$) than perceived adults ($n = 24$). More

detailed findings regarding background information as a function of self-perceived adult status can be found in Table 4.2.

Table 4.2. Frequencies of Background Information as a Function of Self-Perceived Adult Status

	Perceived Emerging Adults	Perceived Adults	Total
Gender			
Males	135 (68.9)	61 (31.1)	196 (24)
Females	499 (79)	133 (21)	632 (76)
Ethnicity			
African American/Black	8 (61.5)	5 (38.5)	13 (1.6)
Asian/Pacific Islander	5 (100)	0 (0)	5 (0.6)
Caucasian/White	576 (76.2)	179 (23.8)	755 (91.3)
Hispanic	23 (82.1)	6 (17.9)	29 (3.5)
Bi-racial	17 (94.4)	1 (5.6)	18 (2.1)
Other	5 (62.4)	3 (37.6)	8 (0.9)
Relationship status			
Single (not interested in dating)	75 (83.3)	15 (16.7)	90 (11)
Single & Dating (or interested in dating)	244 (79)	65 (21)	309 (37.3)
Boy/Girlfriend (Not living together)	252 (82.1)	55 (17.9)	307 (37)
Engaged (Not living together)	25 (71.4)	10 (28.6)	35 (4.3)
Cohabiting (Living w/ boy/girlfriend)	31 (57.4)	23 (42.6)	54 (6.4)
Married	7 (21.2)	26 (78.8)	33 (4)
Current Living Arrangement			
Parents	73 (84)	14 (16)	87 (10.5)
Family members	21 (70)	9 (30)	30 (3.6)
Non-related roommates	483 (82.1)	109 (17.9)	592 (71.5)
Significant other	30 (40.5)	44 (59.5)	74 (8.9)
Live alone	27 (60)	18 (40)	45 (5.5)
College Enrollment Status			
Full-time student	605 (77.6)	175 (22.4)	780 (94.2)
Part-time student	16 (76.2)	5 (23.8)	21 (2.5)
Not currently enrolled	13 (48.1)	14 (51.9)	27 (3.3)
Employment Status			
Full-time	30 (55.5)	24 (44.5)	54 (6.5)
Part-time	412 (77)	123 (23)	535 (64.7)
Not employed	192 (80.3)	47 (19.7)	239 (28.8)

Note. All values within parentheses are percentages based on the total number of participants within the group (n = 828).

A Chi-square analysis was performed on self-perceived adult status as a function of gender, ethnicity, relationship status, living arrangement, college enrollment and employment status; significant differences were discovered for gender ($\chi^2 = 8.47, p < .01$), relationship status ($\chi^2 = 76.42, p < .001$), living arrangement ($\chi^2 = 76.42, p < .001$), college enrollment status ($\chi^2 = 14.15, p < .001$), year in college ($\chi^2 = 31.29, p < .001$), and employment status ($\chi^2 = 15.24, p < .001$). The meaning of these data, particularly statistically reliable distinctions related to gender, will be discussed in the following chapter.

Achieved Criteria for Adulthood

The next step in the data analysis was to ascertain the number of endorsed criteria for adulthood reported by the participants. To reiterate, the participants were presented 34 items or criteria for adulthood taken from previous studies (Arnett, 1997, 2001; Nelson & Barry, 2005) and asked to endorse those they felt they had achieved. Following the same course of action as other researchers utilizing this measure, each of the items for achieved adulthood criteria were reverse coded and then summed into the subscales of: independence, interdependence, role transitions, norm compliance, family capacities, and biological transitions. A multivariate analysis of variance or MANOVA was conducted in order to further explore differences between perceived emerging adult and perceived adult reports on the six separate measures of adulthood. This procedure is similar to those conducted by other researchers of emerging adulthood, including Arnett (1997) and Nelson and Barry (2005). The MANOVA was chosen over ANOVA to adjust for possible correlations among the six dependent measures. Results indicated that compared to perceived emerging adults, perceived adults reported greater achievement on all six subscales, although the significance in reported differences between the two groups did vary

among the subscales: independence, $F(1, 826) = 95.76, p < .001$; interdependence, $F(1, 826) = 21.10, p < .001$; role transitions, $F(1, 826) = 66.57, p < .001$; norm compliance, $F(1, 826) = 3.88, p < .05$; biological transitions, $F(1, 826) = 4.24, p < .05$; and family capacities $F(1, 826) = 102.35, p < .001$ (see Table 4.3).

Table 4.3. Results for Multivariate Analysis of Variance on Achieved Criteria for Adulthood and SOC Behaviors as a Function of Perceived Adult Status

	Perceived Adult Status				<i>F</i>
	Adults (<i>n</i> = 194)		Emerging Adults (<i>n</i> = 634)		
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Achieved adulthood criteria					
Independence	14.65	1.81	13.20	1.81	95.76***
Interdependence	7.70	1.21	7.24	1.24	21.10***
Role transitions	7.62	1.15	6.98	0.88	66.57***
Norm compliance	20.29	2.20	19.91	2.45	3.88*
Biological transitions	8.47	0.73	8.35	0.76	4.24*
Family capacities	9.20	2.35	7.28	2.30	102.35***
SOC components					
Elective selection	9.18	1.60	8.79	1.72	7.90**
Loss-based selection	10.49	1.35	10.41	1.42	0.54
Optimization	10.82	1.26	10.49	1.54	7.45**
Compensation	9.90	1.38	9.78	1.47	1.49
Total SOC score	40.39	3.87	39.44	4.52	6.98**

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

df = 826

Differences in Reported SOC Strategies Based on Perceived Adults Status

The second purpose of the study was to assess the differences between perceived adults and perceived emerging adults' goal-pursuit strategies as measured by the SOC model. Students

were asked to identify which person (i.e., A or B) resembled their approach to goal pursuit. This portion of the survey contained a total of 24 items related to the SOC model. Each of the four subscales (i.e., elective selection, loss-based selection, optimization, and compensation) was then totaled to create a summary score for each component of SOC. A second set of MANOVAs was then conducted to investigate the potential differences in SOC (effective goal-pursuit) strategies used by perceived adults and perceived emerging adults. The independent variable was perceived adult status, and the dependent variables were the four summary scores of each of the aforementioned SOC subscales. Results indicated that compared to perceived emerging adults, perceived adults reported greater use of elective selection $F(1, 826) = 7.90, p < .01$ and optimization $F(1, 826) = 7.45, p < .01$. For loss-based selection and compensation, no significant differences in perceived adult status were found (see Table 4.2). Analysis of the aggregated scores (four summary scores) revealed that perceived emerging adults significantly differed from their perceived adult peers in their overall use of SOC strategies $F(1, 826) = 6.98, p < .01$.

Predictive Power of Background Information, Perceived Adult Status, and SOC Behaviors on Components of Subjective Well-Being

The final objective of this study was to understand the predictive power that background information, perceived adult status, and reported use of SOC strategies have for understanding an 18-to-25 year olds' life satisfaction, positive affect, and negative affect (i.e. subjective well-being). In order to achieve this objective, the final portion of the survey consisted of three measures, each assessing a component of subjective well-being: life satisfaction (SWLS), positive affect (SVS), and negative affect (CES-D). This approach to examining the subjective

well-being of 18-to-25 year olds is similar to Kins and Beyers (2010). Kins and Beyers (2010) conducted a factor analysis of the three measures and found that select items across the measures loaded substantially on one factor explaining nearly 70% of the variance. A factor analysis of the present data employing a varimax rotation, each of the scales separated into three separate, distinct components supporting our approach to examine SWB as three dimensions rather than one.

Accordingly, three separate stepwise multiple regression analyses were conducted to determine the predictive value of three domains of independent variables (background/demographic characteristics, perceived adult status, and SOC components) for explaining variation in composite-derived scores on life satisfaction (SWLS), subjective vitality (SVS), and negative affect (CES-D). The predictor domains were entered in the following order: Step 1, Background Information; Step 2, Perceived Adult Status; Step 3, SOC strategies and its four components. Both relationship and employment status were treated as categorical variables in the regression (SPSS analytical software). Three separate general linear models (GLM) were utilized for each dependent variable. Each of the overall regressions were significant: Life Satisfaction $R^2 = .20$; $F(10, 808) = 15.02, p < .001$, Subjective Vitality $R^2 = .13$; $F(10, 808) = 10.82, p < .001$, and Depression $R^2 = .13$; $F(10, 808) = 9.15, p < .001$. These analyses further indicate that both perceived adult status and loss-based selection were weaker predictors of the overall variance of each of dimensions of the participants' subjective well-being. Conversely, each stepwise regression revealed the stronger predictive power (beta weights) that optimization and current GPA has in each of the aforementioned dependent variables (see Table 4.4).

Considering that participants in this study were college students, it should come as no surprise

that a background variable such as GPA would be a significant predictor in the students' subjective well-being.

Table 4.4. Stepwise Multiple Regression Analyses Predicting Life Satisfaction, Subjective Vitality, and Depression

	Life Satisfaction		Subjective Vitality		Depression	
	ΔR^2	β	ΔR^2	β	ΔR^2	β
Step 1	.11***		.03***		.07***	
Age		-.05		-.04		-.01
Gender		.02		-.02		.15***
Relationship status		.11**		.09*		-.08*
Employment status		.07*		.07*		.03
Current GPA		.25***		.11***		-.21***
Step 2	.01*		.01*		.00	
Perceived adult status		.08*		.08*		.00
Step 3	.08***		.09***		.06***	
Elective selection		.11**		.11**		-.04
Loss-based selection		.01		-.04		-.03
Optimization		.13**		.18***		-.15***
Compensation		.12**		.13***		-.04
Total R^2	.20***		.13***		.13***	

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

Chapter 5 - Discussion

Life span human development seeks to understand a multitude of growth-related phenomena throughout the various stages in life (Baltes, Lindenberger, & Staudinger, 2006). The life span model of motivation asserts that age-related demands and opportunities hone the kinds of goals individuals construct (Brandtstadter, 2006; Elder, 1985; Roberts, O' Donnell, & Robins, 2004). For 18-to-25 year olds, such goals play a fundamental role in the development of individual identity and life trajectory (Arnett, 2004; Salmela-Aro, Aunola, & Nurmi, 2007). This study sought to fuse two areas of research within the field of life span human development—Arnett's (2000) proposition of emerging adulthood, and Baltes and Baltes' (1990) model for effective adaptive development (SOC). This goal was achieved through identifying 18-to-25 year olds' perceptions of their adult status (adult or emerging adult) and determining whether the two groups differed in background characteristics, achievement of adulthood criteria, and goal pursuit strategies. Additionally, this study sought to understand the predictive power that these variables had in explaining the 18-to-25 year olds' subjective well-being, namely: life satisfaction, positive affect (happiness), and negative affect (depression).

The Heterogeneity of Emerging Adulthood

In general, the findings related to the first purpose of this study further substantiated “the heterogeneity of the period...as one of emerging adulthood's distinguishing characteristics” (Arnett, 2000a, p. 479). Specifically, these results revealed that there was a small group (24%) of 18-to-25 year olds who considered themselves to be adults and, compared to their emerging

adult peers differed significantly in a variety of background characteristics: gender, relationship status, living arrangement, college enrollment status, year in college, and employment status. Perceived adults were more likely to be in a long-term relationship (i.e., engaged or married), living independently (usually with a significant other), and further along in school; whereas perceived emerging adults were more likely to be unemployed and attending school full-time. These findings are consistent with previous studies (Arnett, 2003; Badger, Nelson, & Barry, 2006; Hamilton & Hamilton, 2006; Kins & Beyers, 2010) and are not surprising especially when one considers the various lifestyles, relationships, jobs, and overall opportunities characteristic of an 18-to-25 year old college student. These discoveries add further evidence to Arnett's (2004) claim that emerging adulthood is an age of instability and possibilities.

The finding that more males (31%) felt they had reached adulthood than females (21%) is particularly interesting considering its inconsistency with previous emerging adulthood research finding that males did not differ from females in reported identity achievement (Padilla-Walker, Barry, Carroll, Madsen, & Nelson, 2008). Although identity achievement and adult status are not identical constructs they are closely related (Arnett, 2000a; Cote, 2006) and "perceiving oneself as an adult coincides with making progress toward resolution of one's identity" (Nelson & Barry, 2005, p. 256). Additionally, Padilla-Walker et al. (2008) found that compared to their male peers, 18-to-25 year old females reported higher levels of altruistic behavior, interdependence, and empathy—attributes consistent with psychological maturity and, perhaps, adulthood. Taken together, it seems there are conflicting data about gender and perceived adult status between the females in the current study and females in previous research; however, one explanation of this contradictory data may be found in the subjectivity of the individual's responses. Carol Gilligan's Theory of Womens' Moral Development posits that men and women

use distinct types of judgment and thinking when defining themselves (Gilligan, 1977). Research investigating this claim has found that women regard relationships, changes in the family realm, and issues relating to the quest for identity as important life-markers more often than men (Hareven & Masaoka, 1988). Men, however, tend to regard critical decisions connected to work or job-related events as turning points (Clausen, 1995). These differences in females and males perceptions may be contributing to the female college students' perceived adult status in the present study. Perceiving oneself as an adult could be considered an important life-marker or turning point; and if meaningful relationships are vital to this marker, it is reasonable to suggest that there is an association between the female participants' perceived adult status and relationship status in this study. In sum, a significant number of these females (84%) reported not being in a long-term, committed relationship thus lowering the percentage of female participants who perceived themselves as adults. Because the current study has employed self-report measures seeking to understand differences in 18-to-25 year olds *perceived* adult status, the findings in regards to gender—and all other findings here—should not be interpreted as *objective* or observable actions of the participants. That is, there may be a discrepancy between what the participants' believe (i.e., perceive) and what others see in their actions (i.e., objective).

In order to add power and validity to the subjective nature of perceived adult status, participants were asked to indicate to what degree they had achieved predetermined criteria for adulthood; these criteria were determined by Arnett (2000a) and replicated in previous emerging adult research (Arnett, 1997, 2001; Blinn-Pike, et al., 2008; Kins & Beyers, 2010; Nelson, 2009). The present findings revealed that these criteria for adulthood do indeed distinguish perceived adults from emerging adults. Perceived adults believed that they had achieved the criteria to a

greater extent than their peers in each area (i.e., independence, interdependence, role transitions, norm compliance, biological transitions, and family capacities). In line with Nelson and Barry (2005), the areas where the two groups showed the most difference were independence and family capacities. The divergence in reported independence is not surprising when considering Arnett's (2000a, 2004) claim that markers signifying adulthood are very much based in individuality: taking responsibility for *ones* actions, financial *independence*, and *independent* decision-making. Moreover, the predominant culture in the United States places more of an emphasis on individuality and freedom whereas other cultures such as Japan emphasize interdependence (Hasebe, Nucci, & Nucci, 2004). Such factors can offer understanding when interpreting the large differences here in achieved independence between the two groups (emerging and perceived adults). Future research in countries that are predominantly collectivistic could find different dynamics in achieved adult criteria in this age group (Nelson, Badger, & Wu, 2004). It should be noted that one area in which the groups showed little difference was biological transitions. The most likely reason for this is that this is a biological function that has little to do with choice or action and the majority of individuals reach these markers in the teen years.

Goal Pursuit in Emerging and Perceived Adults

Apart from examining associations between perceived adult status, background information, and achieved adult criteria, the present study also sought to uncover differences in goal pursuit strategies used by perceived and emerging adults. Effective goal pursuit was measured by Baltes and Baltes' (1990) model of adaptive development called selective optimization with compensation—also known as the SOC model. It was expected that perceived

adults would endorse such strategies more than their emerging adult counterparts. Results indicate that this was in fact the case when taken as a whole (total SOC score). This is consistent with previous research showing endorsement of SOC strategies increasing from adolescence into middle adulthood (Ebner, Freund, & Baltes, 2006; Freund & Baltes, 2000, 2002). Freund and Baltes (2002) also found that as individuals move toward adult functioning, they “acquire and refine their knowledge and expression (i.e., use) of SOC-related behaviors” (p. 644).

However, when comparing the separate SOC subscales significant differences were found between perceived adults and emerging adults endorsement of goal-pursuit strategies related to elective selection and optimization. To understand these results, it is important to revisit the original meaning of these two components of the SOC model. According to Baltes (1997), a higher elective selection score means that an individual sanctions behaviors such as developing clear goals—rather than vague possibilities—selecting only a regulated number of goals on which to focus one’s time, energy, and resources. Additionally, a higher optimization score implies that an individual endorses behaviors related to the acquisition and investment of means into one’s goals and persistence in goal pursuit when obstacles arise (Freund & Baltes, 2002). Salmela-Aro et al. (2007) conducted longitudinal research with college students making the transition from emerging to perceived adulthood. They discovered that typical early challenges and demands in college, including adapting to the student lifestyle and building relationships with peers, often lead to the channeling of personal goals and the resource acquisition related to such goals. Taken together, it is clear that these behaviors (i.e., elective selection and optimization) would seem to necessitate two adult-related characteristics (a) a developed sense of self (i.e., identity) and (b) psychological capital (i.e., resources). However, it is difficult to discern the causal directionality of these two variables (i.e., perceived adult status

and goal pursuit strategies) in the present study. Did the participants who felt they had reached adulthood get there sooner because of existing goal pursuit strategies (i.e., elective selection and optimization), hastening individual development (Baltes, Lindenberger, & Staudinger, 2006), or did the process of refining and working toward adulthood naturally improve goal pursuit strategies?

Regardless of perceived adult status, participants in the present study did not differ in their endorsement of behaviors related to loss-based selection and compensation. Loss-based selection denotes that a person confronted with losses in goal-relevant means is likely to restructure his or her goal hierarchy by focusing on the most important goals and giving up less important goals. Furthermore, individuals endorsing compensation-related strategies are likely to search for new ways or means of attaining a particular goal when faced with a loss in goal relevant resources (Freund, 2008). These results are consistent with Arnett's (2000b) claim that emerging adulthood is a time when ideals and possibilities are high. Individuals in the present study are 18-to-25 year old college students who may not have experienced significant losses in goal-relevant means, consequently the need to employ the aforementioned SOC behaviors is low—regardless of ones perceived adult status. Put differently, the protective bubble provided by college may inoculate students enough from the real world (Hamilton & Hamilton, 2006) as to minimize substantial losses in resources relevant to ones goals, thus minimizing the difference between groups in loss-based selection and compensation behaviors.

Predicting College Students' Subjective Well-Being

The final purpose of the present study was to understand the predictive utility of background characteristics, perceived adult status, and SOC behaviors for participants'

subjective well-being, specifically: life satisfaction, positive affect, and negative affect (i.e., depressive symptoms). It was found that most of these factors were important predictors in all three components of subjective well-being. Relationship status and GPA were the most predictive background characteristics across all three components. Gender had little predictive value for explaining variation in life satisfaction or positive affect among those in this sample. However, findings in this study suggest that gender (i.e., female) was a significant predictor of ones reported depressive symptoms. Prior research has also confirmed this relationship between women and depression (Galambos, Barker, & Krahn, 2006; Piccinelli & Wilkinson, 2000). Neurological and hormonal (i.e., puberty, pregnancy, and giving birth) differences between men and women have been found to be important contributors in explaining this disparity in depressive symptoms (Graber, 2004).

Also consistent with previous research (Galambos et al., 2006; Kins & Beyers, 2010), it was found that perceiving oneself as an adult is related to higher levels of life satisfaction and positive affect. Conversely, the present study found no relationship between perceived adult status and negative affect (i.e., depressive symptoms). These discoveries were incongruent with Nelson & Barry's (2005) finding that perceived emerging adults reported higher levels of depressive symptoms than their adult counterparts. This could be due to variations in participant characteristics, sampling, data-gathering strategies, and local cultures. Furthermore, differences in unassessed personality traits might also contribute to this incongruity (e.g., strong associations in previous research between neuroticism and negative affect). Finally, in regards to the predictive power of SOC behaviors for explaining variation in subjective well-being, the results were varied. The endorsement of elective selection, optimization, and compensation behaviors was related to higher levels of life satisfaction and positive affect. Freund & Baltes (2002) found

similar results with middle and older adults showing reports of higher subjective well-being for individuals endorsing SOC strategies in their goal pursuit. However, in the present study, optimization was the only SOC component with significant predictive power pertaining to participants' negative affect. That is, an 18-to-25 year old who is not effectively maximizing relevant means to achieve a particular goal will be more likely to experience depressive symptoms than one who do endorses this strategy in goal pursuit.

Limitations

There are several limitations that impact both the internal and external validity of the present study. First, the method of data collection was entirely self-report. Self-report methods assessing issues of high personal relevance may invite socially-desirable responses (i.e., systematic error). As mentioned previously, it is possible that a portion of the male respondents in this study may have answered in the affirmative when asked about their perceived adult status because of a cultural expectation that men are to be independent, self-sufficient, and career-oriented (Padilla-Walker et al., 2008). Fortunately the effects of social desirability on one's reported goal-pursuit strategies are somewhat moderated by the finding that the SOC questionnaires forced-choice format lessened the susceptibility of people's tendencies to respond in socially desirable ways (Freund & Baltes, 2002). Nonetheless, assessment of social desirability would allow control of this error type.

Second, the present study did not include individual characteristics such as personality traits and other various background factors (e.g., parental divorce) that may have accounted for variations in perceived adult status, goal-pursuit, and subjective well-being. As stated previously, the personality traits neuroticism and extraversion have been shown to be

significantly related to an individual's subjective well-being (Diener & Lucas, 1999). Furthermore, research has found that each of the SOC components is also moderately associated with individual personality traits (Freund & Baltes, 2002). The failure to assess relevant personality traits limits the explanatory interpretations of the current findings. Also, individuals who come from difficult backgrounds—such as divorce, death of family members (i.e., siblings and/or parents), poverty, and abuse—have experienced non-normative events that can influence the rate at which they mature and develop (Feldman, 2009). These and other background characteristics may influence the timing and perception of one's arrival at adulthood.

Finally, as this study employed a convenience sample, findings here are difficult to generalize. First, the sample included only college students at a rural Midwestern university; second, 18-to-25 year olds who are working full-time or unemployed (i.e., not attending college) were excluded; and third, a significant portion of the sample consisted of White females. Future research should include students attending other universities (i.e., urban, community college enrollees, etc.), including those not attending college (i.e., fully employed, military, etc.) and ethnically diverse populations in order to increase the external validity in the findings here. Such studies would expand our knowledge of both emerging adulthood and goal-pursuit behaviors.

Implications for Future Research

The purpose of this study was to examine 18-to-25 year olds self-perceptions about their own adult status and goal-pursuit strategies. Thus, these findings are helpful in understanding the *perceptions* of individuals as they move into adulthood. This subjective assessment may not coincide with other individuals' assessment of identical criteria. Future research should investigate the consistency of agreement (i.e., concurrent validity) between the subjective reports

of this age group and those of other individuals such as parents and peers. Furthermore, methods such as the experience sampling method (ESM) or the daily reconstruction method (DRM) are useful for understanding one's feelings and behaviors while in the moment (or day-to-day) might prove to be useful in deciphering between the actual behaviors from their subjective responses of 18-to-25 year olds. One's self-impression may not always be reflected in what one does.

Socioeconomic status (SES), sometimes referred to as one's standing in society, involves much more than money; it includes occupation, residence, education, and access to resources such as health insurance (Gershoff, Aber, Raver, & Lennon, 2007). These factors may be playing a powerful role in the development of both effective goal-pursuit strategies and subjective well-being. Future research in emerging adulthood should focus more closely on the impact of both present and childhood SES on reported goal-pursuit behaviors and subjective well-being.

In summary, the results from this study show evidence that individuals in this stage of life vary greatly in background, achieved criteria related to adulthood, goal-pursuit strategies, and well-being. Although the general findings related to effective goal pursuit strategies in emerging adulthood are not all statistically significant, they are perhaps the most important of the present study as it links together phenomena in emerging adulthood (i.e. Arnett, 2000a, 2006) and adult development (i.e. Baltes, 1997; Baltes & Baltes, 1990). Emerging adulthood is a decisive time in the life span when the majority of individuals have unprecedented freedom and resources to set and pursue important life goals (Arnett, 2004, 2006, 2007; Bauer, & McAdams, 2004), thus leading to the resolution of one's identity. This identity resolution has been tied to other important outcomes such as increased well-being, decreased depression, healthy relationships, and the perceived arrival of adulthood. Moreover, progress toward the achievement of adulthood and identity-related goals may be so intrinsically related that it may be difficult to determine

which factor is preceding or driving the development of the other. Therefore, purposefully delaying adulthood in order to postpone taking responsibility for one's actions may lead many emerging adults to sacrifice future goals and aspirations by over-indulging in the present.

In higher education, college professors and academic advisors would do well to become aware of strategies to help their students effectively pursue their goals and develop a healthy sense of self (i.e., identity), thus promoting optimal development in a pivotal stage in the life span. Arthur Chickering (1969)—known for his theory of identity development in college students—has offered much in this forum to aid academicians' awareness of such strategies. For example, Chickering and Schlossberg (1995) found that college students' healthy identity formation and efficacy in pursuing academic-related goals was related to: (a) relationships with faculty; (b) active, student-driven learning; and (c) collaboration with other students.

From a life span development perspective, emotional regulation in children has been shown to be a key character trait that might predict later success in life management (Denham, Blair, DeMulder, Levitas, Sawyer, & Auerbach-Major, 2003). Parents are often the most influential figure in helping their children learn to manage emotions and much of this learning is taught by example. Baltes and Baltes (1990) selective optimization with compensation (SOC) has been shown to be an effective model for life management. It is plausible that the participants in this study who endorsed such behaviors do so because they learned to regulate their emotions in their formative or younger years. Future research on childhood antecedents of effective goal-pursuit in emerging adulthood could uncover possible relationships between emotional regulation and life management strategies. If such a relationship exists, parents can be informed of these implications to help them teach their children the benefits that can be found in setting, pursuing, and achieving goals—perhaps enabling them to successfully seize the third decade of

life (Brandtstadter, & Renner, 1990).

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Appendix A - Measures

Background Information

What is your current age?

What is your gender?

Male

Female

What is your ethnicity?

African American/Black

Asian/Pacific Islander

Caucasian/White

Native American

Hispanic

Middle Eastern

Bi-racial (please explain below)

Other (please explain below)

Further comments about your response:

With whom do you currently live?

Parents

Family members

Non-related roommates

Significant other

Live alone

What is your current relationship status?

Single (not interested in dating)

Single & Dating (or would like to be dating)

Boyfriend/Girlfriend (Not living together)

Engaged (Not living together)

Cohabiting (Living with a boyfriend/girlfriend)

Married: We are legally married

What is your current school enrollment status?

Full-time student

Part time

What year are you in school according to your completed credit hours?

- Freshman
- Sophomore
- Junior
- Senior
- Graduate Student

What is the highest level of education your father completed?

- Less than high school
- High school
- Some college
- 2 year college degree (Associates)
- 4 year college degree (Bachelors)
- Masters degree
- Doctoral /Professional degree (PhD, MD, JD, etc.)
- Other

What is the highest level of education your mother completed?

- Less than high school
- High school
- Some college
- 2 year college degree (Associates)
- 4 year college degree (Bachelors)
- Masters degree
- Doctoral /Professional degree (PhD, MD, JD, etc.)
- Other

What is your current employment status?

- Full time
- Part time
- Not employed

What is your current GPA?

Perceived Adulthood Criteria

Please indicate the extent to which the statement currently applies to you:

(1 = very true, 2 = somewhat true, 3 = not true)

Independence

- Financially independent of parents
- No longer living in parents' household
- Not deeply tied to parents emotionally
- Decide on personal beliefs and values independently of parents or other influences
- Accept responsibility for the consequences of your actions
- Establish equal relationship with parents

Interdependence

- Committed to long-term love relationships
- Make life-long commitments to others
- Learn always to have good control over your emotions
- Become less self-oriented, develop greater consideration for others

Role transitions

- Finish education
- Married
- Have at least one child
- Settle into a long-term career
- Purchase a house
- Become employed full-time
- Have served in the military

Norm compliance

- Avoid becoming drunk
- Avoid illegal drugs
- Have no more than one sexual partner
- Drive safely and close to the speed limit
- Avoid use of profanity or vulgar language
- Use contraception if sexually active and not trying to conceive a child
- Avoid drunk driving
- Avoid committing petty crimes such as vandalism and shoplifting

Biological transitions

- Grow to full height
- Become biologically capable of having children
- Have had sexual intercourse

Chronological transitions

- Have obtained a driver's license
- Reached age 18
- Reached age 21

Family capacities

- Capable of supporting a family financially
- If a man, become capable of caring for children
- If a man, become capable of running a household
- If a man, become capable of keeping family physically safe

SOC Questionnaire

INSTRUCTIONS: Which of the statements (Person A or B) below characterize your life-management behavior? In other words, to which person are you most similar: Person A or B? Select only one for each pair of statements.

ELECTIVE SELECTION

(Person A) I concentrate all my energy on a few things

(Person B) I divide my energy among many things

(Person A) I always focus on the one most important goal at a given time

(Person B) I am always working on several goals at once

(Person A) When I think about what I want in life, I commit myself to one or two important goals

(Person B) Even when I really consider what I want in life, I wait and see what happens instead of committing myself to just one or two particular goals

(Person A) I always pursue goals one after the other

(Person B) I always pursue many goals at once, so that I easily get bogged down

(Person A) When I decide upon a goal, I stick to it

(Person B) I can change a goal again at any time

(Person A) I consider exactly what is important for me

(Person B) I take things as they come and carry on from there

LOSS-BASED SELECTION

(Person A) When I can't do something as well as I used to, I think about what exactly is important to me

(Person B) When I can't do something as well as I used to, I wait and see what comes

(Person A) If I can't do something as well as before, I concentrate only on essentials

(Person B) Even if I can't do something as well as before, I pursue all my goals

(Person A) When I can't carry on as I used to, I direct my attention to my most important goal

(Person B) When I can't carry on as I used to, I direct my attention, like usual, to all my goals

(Person A) When things don't work so well, I pursue my most important goal first

(Person B) When things don't go so well, I leave it at that

(Person A) When I am not able to achieve something anymore, I direct my efforts at what is still possible

(Person B) When I am not able to achieve something anymore, I trust that the situation will improve by itself

(Person A) When I can no longer do something in my usual way, I think about what, exactly, I am able to do under the circumstances

(Person B) When I can no longer do something in my usual way, I don't think long about it

OPTIMIZATION

(Person A) I keep working on what I have planned until I succeed

(Person B) When I do not succeed right away at what I want to do, I don't try other possibilities for very long

(Person A) I make every effort to achieve a given goal

(Person B) I prefer to wait for a while and see if things will work out by themselves

(Person A) When I want to achieve something difficult, I think carefully about the best time and opportunity to act

(Person B) When I want to achieve something, I take the first opportunity that comes

(Person A) When I have started something that is important to me, but has little chance at success, I make a particular effort

(Person B) When I start something that is important to me but has little chance at success, I usually stop trying

(Person A) When I want to get ahead, I also look at how others do it who succeed

(Person B) When I want to get ahead, only I myself know the best way to do it

(Person A) I think about exactly how I can best realize my plans

(Person B) I don't think long about how to realize my plans, I just try it

COMPENSATION

(Person A) For important things, I pay attention to whether I need to devote more time or effort

(Person B) Even if something is important to me, it can happen that I don't invest the necessary time or effort

(Person A) When things aren't going so well, I accept help from others

(Person B) Even in difficult situations, I don't burden others

(Person A) When things don't work the way they used to, I look for other ways to achieve them

(Person B) When things don't work the way they used to, I accept things the way they are

(Person A) When I can't do something as well as I used to, then I ask someone else to do it for me

(Person B) When I can't do something as well as I used to, I accept the change

(Person A) When something doesn't work as well as usual, I look at how others do it

(Person B) When something doesn't work as well as usual, I don't spend much time thinking about it

(Person A) When something does not work as well as before, I listen to advisory broadcasts and books as well

(Person B) When something does not work as well as before, I am the one who knows what is best for me

Subjective Vitality Scale (SVS)

Please respond to each of the following statements in terms of how you are feeling **right now**. Indicate how true each statement is for you at this time, using the following scale:

1 - strongly disagree | 2 - disagree | 3 – neither agree nor disagree | 4 – agree | 5 – strongly agree

1. At this moment, I feel alive and vital.
2. Currently I feel so alive I just want to burst.
3. At this time, I have energy and spirit.
4. I am looking forward to each new day.
5. At this moment, I feel alert and awake.
6. I feel energized right now.

Center For Epidemiological Studies Depression Scale (CES-D)

Circle the number of each statement which best describes how often you felt or behaved this way
DURING THE PAST WEEK.

	Rarely or none of the time (less than 1 day)	Some or a little of the time (1-2 days)	Occasionally or a moderate amount of the time (3-4 days)	Most or all of the time (5-7 days)
DURING THE PAST WEEK:	0	1	2	3
1) I was bothered by things that usually don't bother me	0	1	2	3
2) I did not feel like eating; my appetite was poor	0	1	2	3
3) I felt that I could not shake off the blues even with help from my family and friends	0	1	2	3
4) I felt that I was just as good as other people	0	1	2	3
5) I had trouble keeping my mind on what I was doing	0	1	2	3
6) I felt depressed	0	1	2	3
7) I felt that everything I did was an effort	0	1	2	3
8) I felt hopeful about the future	0	1	2	3
9) I thought my life had been a failure	0	1	2	3
10) I felt fearful	0	1	2	3
11) My sleep was restless	0	1	2	3
12) I was happy	0	1	2	3
13) I talked less than usual	0	1	2	3
14) I felt lonely	0	1	2	3
15) People were unfriendly	0	1	2	3
16) I enjoyed life	0	1	2	3
17) I had crying spells	0	1	2	3
18) I felt sad	0	1	2	3
19) I felt that people disliked me	0	1	2	3
20) I could not get "going"	0	1	2	3

Satisfaction With Life Scale (SWLS)

Directions: Below are five statements with which you may agree or disagree. Using the 1 -7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your response. The 7-point scale is as follows:

**1 - strongly disagree | 2 - disagree | 3 – slightly disagree | 4 – neither agree nor disagree
5 – slightly agree | 6 – agree | 7 – strongly agree**

1. In most ways my life is close to my ideal.
2. The conditions of my life are excellent.
3. I am satisfied with my life.
4. So far I have gotten the important things I want in life.
5. If I could live my life over, I would change almost nothing.