

Leisure Routine and Positive Attitudes *Age-Graded Comparisons of the Path to Happiness*

Andrew W. Bailey

University of Tennessee–Chattanooga

Hyoung-Kil Kang

Kyungnam University

Charlene Schmidt

University of Tennessee–Chattanooga

Abstract

Behavior, attitudes, and lifespan development are key antecedents of happiness. However, little is known about the multivariate effect of those items on happiness. Thus, the purpose of this study was to determine the comparative impacts of leisure routines and attitudes on overall happiness and to elucidate how routine leisure activities and attitudes may influence happiness at different life stages. Questionnaires were completed by 379 students and 253 alumni members of the same university. Analysis of variance indicated alumni rated locus of control and happiness variables significantly higher than did current students. Students rated the leisure routine variable significantly higher than did alumni. Structural equation modeling showed leisure routines had a significant indirect effect on happiness with attitudes as a full mediator. Multigroup path analysis showed there is little variance between the two groups. Findings indicate that one's routine leisure activities and attitudes can have a significant positive effect on overall happiness, and this path is consistent at different life stages.

Keywords: *Wisdom, locus of control, life stages, path analysis*

Andrew W. Bailey is an assistant professor and program coordinator in Sport and Leisure Service Administration at the University of Tennessee–Chattanooga. **Hyoung-Kil Kang** is an assistant professor in the Department of Physical Education at Kyungnam University, Korea. **Charlene Schmidt** is an assistant professor of dietetics at the University of Tennessee–Chattanooga. Please send correspondence to Hyoung-Kil Kang, hkilkang@kyungnam.ac.kr.

An abundant amount of research has helped to identify predictors and inhibitors of happiness. Happiness, defined as positive affect and subjective well-being, has been associated with demographics (Lyubomirsky, King, & Diener, 2005), job satisfaction (Weiss, Nicholas, & Daus, 1999), social life (Lyubomirsky et al., 2005), and physical and mental health (Mroczek & Spiro, 2005). Pragmatically speaking, one's leisure activities present an opportunity for immediate influence on happiness, given the voluntary nature of involvement (Godbey, 2007). Accordingly, associations between happiness and leisure satisfaction have been established (Riddick, 1985), and key aspects of leisure that enhance life satisfaction, identified (Doerksen, Elavsky, Rebar, & Conroy, 2014; Lyubomirsky et al., 2005).

The prolific findings from individual studies on happiness have been summarized in meta-analyses and books on popular psychology (Lyubomirsky, 2008; Lyubomirsky et al., 2005; Seligman, 2002). Seligman (2002; 2011) asserts happiness is a product of environment, attitudes, and inheritance. Lyubomirsky (2008) agrees that up to 50% of variability is due to genetics/inheritance, but also associates 10% with circumstance (e.g., life context) and 40% with intentional activities (e.g., routine and personal development). Furthermore, Layous and Lyubomirsky (2014) assert that a large portion of individuals' happiness is determined by the way they "choose to think and behave in their daily lives" (p. 474). This statement creates a clear connection to a person's habits of thought (i.e., attitude) and freely chosen daily behaviors (i.e., leisure routine). Finally, Fujita and Diener (2005) argue that happiness demonstrates considerable variability across time, age, and contexts (i.e., circumstance and activities). In this regard, behaviors, attitudes, and age cohorts are salient influencers of changes in happiness. Although it is likely that the various predictor-domains are inter-correlated and produce a compounded influence on happiness, little research has empirically examined the unique and combined effects of behavior and attitude across age cohorts. Thus, our current study utilized leisure routine (i.e., behavior), Locus of Control (LOC) and wisdom (i.e., attitudes), and age cohorts (i.e., circumstance) as representatives of the three predictor-domains to determine the nature of their influence on happiness. The twofold purpose of this study was to: 1) determine the impact of leisure routines and attitudes (LOC and wisdom) on overall happiness and 2) elucidate how routine leisure activities and attitudes may influence happiness at different life stages. To provide a rationale for the present study design, we review selected empirical and theoretical works on our key variables to explain the inclusion of factors in our study.

Literature Review

Happiness

Happiness, a concept largely delimited to philosophy in the past, has also become popular in psychological research. Perhaps the most renowned dialogue on happiness came from Aristotle (1996), who heralded happiness as the highest good; the result of a life well-lived. For Aristotle, happiness represented human flourishing gained from virtuous living, but could be influenced by internal (i.e., attitudinal) and external (i.e., circumstantial) conditions. He argued that, while external, nonmalleable factors (e.g., age, income, macro-social conditions) may influence happiness, it is mainly determined by intrapersonal factors (e.g., personal attitudes and behaviors). The search for happiness continues today both in philosophy and in positive psychology (Seligman, 2000). Common psychological conceptualizations include subjective well-being (Diener, Suh, Lucas, & Smith, 1999) and positive affect (Barrett & Russell, 1998). Positive affect is indicated by the presence of positive feelings (e.g., enthusiasm) and the absence of negative

feelings (e.g., sadness) at any given time. Subjective well-being (SWB) refers to a cognitive and/or emotional evaluation of one's life as a whole (e.g., "I am very satisfied with my life;"). SWB is, quite literally, one's evaluation of the quality of his or her life (Diener et al., 1999). Thus, the terms "well-being," "life satisfaction," and "happiness" are empirically related and often used synonymously (c.f. Diener et al., 1999; Layous & Lyubomirsky, 2014). For the purpose of this study, happiness was operationalized as satisfaction with life, assessed with a three-item factor (Musikanski, 2014).

Age

Age influences the way people interact with the world (i.e., context) and their level of happiness. Diener and Suh (1998) found a constant level of happiness over the lifespan, while Lyubomirsky et al. (2005) reported a positive association of happiness with age. Recent research (Fukuda, 2013; Oswald & Blanchflower, 2008) reported a quadratic curve in happiness over the lifespan. Individuals grew happier into their 20s, and then declined until their 40s, only to begin a steady increase after the age of 50. The reason for this trend in happiness is unclear, but it has been ascribed to age cohort differences and life stages (Fukuda, 2013; Oswald & Blanchflower, 2008). This pattern of influence for age on happiness may indicate that age is less salient than life development. Major changes in life circumstance (e.g., leaving college to begin a career) would likely have an influence on one's daily routine, attitude, and happiness, albeit temporarily (Layous & Lyubomirsky, 2014). As with wisdom and LOC, age may be less influential than growth through experience. Positive habits and a mature response to life events, garnered through developmental experiences, may be necessary for happiness to emerge with age.

Age cohorts. This study compared two groups (current university students vs. alumni) to understand how routine leisure activities and attitudes may influence happiness at different life stages. While age in years presents a clear distinction between these two samples, life context is perhaps the more definitive influence. The student group in this study (*Mean* age = 20.64, *SD* = 3.23) fell into the adolescent and young adult stages of Erikson's model of development (Erikson, 1982). This transitional stage can extend well into the traditional age of adulthood (~age 26), leading some psychologists to argue for the inclusion of another developmental stage titled "Emerging adulthood" (Arnett, 2007; Littwin, 1986). According to this conceptualization, adolescents are fundamentally concerned with the development of their unique identity. During this stage, individuals may experiment with many activities, social groups, and roles as they are seeking intimacy and exploring long-term commitments. Standing at a crossroads between youth and adulthood, they strive to find their purpose and passions in life, especially in regards to careers and relationships. Ideally, these students experience an increased degree of freedom and responsibility, having space to explore and discover their own life direction. Conflicts with adults and other forms of authority (e.g., religion) are not uncommon, as adolescents come to terms with their own worldview and maturing beliefs (Erikson, 1982). Lacking clear identity, autonomy, and purpose could impede wisdom, LOC, and happiness in this stage (Lyubomirsky, 2008).

The alumni group (*Mean* age = 40.46, *SD* = 15.07) in this study represented the middle adulthood stage of development (Erikson, 1982). Adults in this stage attempt to avoid stagnation and contribute to society and future generations. They are driven by a need for productivity and accomplishment with a sense of applying their beliefs to the world. This alumni group, then, is expected to be less self-centered and more concerned with meaningful, creative, and worthwhile experiences. They are less open to experimenting with new roles and more interested in using their accumulated knowledge and experience to make their life count (Erikson, 1982). Their

experiences have created wise teachers so that they may pave the future for those who follow (Erikson, 1982, p. 267). A more developed sense of identity, autonomy, and purpose in the middle adulthood stage of development distinguishes the alumni group from the student group. Given that these developmental assets have been tied to subjective well-being (Lyubomirsky, 2008), our study included age and associated life stages as variables that influence happiness.

Habits and Behaviors

Routine habits and behaviors influence personal health, attitudes, and subjective well-being (Doerksen, Elavsky, Rebar, & Conroy, 2014; Veenhoven, 1994). Social interaction, for example, has a powerful effect on one's level of happiness. Friendships, frequency of interaction, and involvement in formal and informal social activities (e.g., parties, clubs) have all been associated with higher levels of subjective well-being (Argyle & Lu, 1990; Lyubomirsky et al., 2005). Alternatively, time spent alone in personal reflection also influences happiness (Bailey & Fernando, 2012; Holder, Coleman, & Wallace, 2010).

Leisure routines. Leisure can promote happiness because leisure experiences may induce the expression of positive emotions, enhance self-identity, facilitate social connections, and engender lifelong learning (Doerksen et al., 2014; Godbey, 2007; Iwasaki, 2007). Other components of leisure such as voluntary activity, intrinsic motivation, and self-discovery also positively influence happiness (Csikszentmihalyi, 1975; Godbey, 2007; Iso Ahola, 1980).

Given the voluntary nature of leisure, it could be seen as the most malleable of factors. It was reported that Americans (age 15 and over) enjoy about five hours of free time on a typical day (Bureau of Labor Statistics, 2011). A large portion of this time (about 3 hours) is spent watching TV, followed by socializing (39 minutes), using the computer (25 minutes), reading (20 minutes), and doing sports/recreation activities (19 minutes). One's usage of daily leisure time can have a temporary impact on levels of happiness (Doerksen et al., 2014), but the cumulative effect of routine leisure activities represents a continual influence on an individual's daily life.

Recent research indicates that certain leisure activities are more conducive to happiness than others. Social activities, be they formal (e.g., clubs) or informal (e.g., hanging out with friends), are consistently tied to subjective well-being (Burger & Caldwell, 2000; Lyubomirsky et al., 2005). The converse is also true, as individuals spending time alone report lower levels of happiness (Csikszentmihalyi & Hunter, 2003). Social media, though designed to improve connectedness, may be detrimental to happiness. Facebook users, for example, report increased feelings of isolation and a decline in life satisfaction with extended use (Kross et al., 2013). Regular physical activity can improve objective and subjective well-being whether it is done individually or with others (Lyubomirsky et al., 2005). Time spent in natural outdoor environments has been shown to enhance positive moods and improve physical health, while inhibiting symptoms of stress and anxiety (Maas et al., 2009; Scopelliti & Giuliani, 2004). Finally, reflection activities such as journaling and meditation may influence mental health and life satisfaction (Bailey & Russell, 2010; Nidich et al., 2009).

This study chose five leisure activities to account for variations in leisure experiences between students and alumni, to address areas of heightened awareness in recent literature, and to examine the influence of uniqueness among leisure domains (e.g., social, physical, psychological, etc.). For example, while television occupies a large portion of leisure time activity, there is little variation in average daily TV consumption for those 15 and over (Bureau of Labor Statistics, 2011). In addition, TV consumption has remained relatively stable over the last decade, while social network usage has increased from 9% to 90% for young adults (aged 18–29) and from 6% to 65% for 50- to 65-year-olds (Pew Research Center, 2015). Similar trends can be seen

in other leisure variables, with increased literature addressing concerns about: less time dedicated to clubs and social groups (Putnam & Fieldstein, 2003), decreasing levels of physical activity and time spent outdoors (Cleland et al., 2008), and a lower proclivity for personal reflection in younger generations (Ergas, 2015; Rousseau, 2013). Given these relevant issues and piecemeal support of the influence of leisure items on happiness from previous research, our study included the combined influence of socializing, reflection, time outdoors, physical activity, and social media as the behavior factor in this study.

Attitude

Individual attitudes are also associated with happiness. Hope, optimism, meaning in life, wisdom, and self-efficacy have been identified as predictors of happiness (Ardelt, 2000; Bailey & Fernando, 2012; Caprara, Steca, Gerbino, Paciello, & Vecchio, 2006; Seligman, 2002). Although genetics and circumstance are influential, "...the impact of external events on happiness is mediated by the person's system of values and cognitive interpretive structures" (Csikszentmihalyi & Hunter, 2003, p. 186). Those with an optimistic attitude, for instance, see failure as circumstantial and not as a measurement of their self-worth. Such a response depends on the interpretation of events and a mature (i.e., wise) perspective on life (Csikszentmihalyi & Hunter, 2003). Life circumstances typically affect happiness levels for a limited time, whereas attitudinal factors have a more lasting effect. Thus, happiness can be experienced regardless of circumstance and behavior. To assess the influence of attitude on levels of happiness, this study included measures of wisdom and Locus of Control (LOC).

Wisdom and LOC. Wisdom and LOC have been identified as personal traits that transcend specific contexts and guide individual behavior (Ardelt, 2003; Judge, Erez, Bono, & Thoresen, 2002). This conceptualization assumes that the constructs are relatively stable over time, but still allows for some element of malleability due to growth and development (Caspi & Roberts, 1999). Wisdom and LOC are evaluative constructs that influence the way life circumstances are interpreted. Both constructs have been explored extensively through previous research, providing a foundation for the current study.

Based on Erikson's (1982) model of human development, wisdom emerges after negotiating many psycho-social crises over the lifespan. Though wisdom is mainly associated with adulthood, its origins may exist in adolescence (Staudinger & Pasupathi, 2003). Young adults are rarely considered wise, but they can be placed on the spectrum of wisdom development. In fact, Baltes and Staudinger (2001) reported that wisdom grows at the fastest rate between the ages of 13 and 25. As such, variability in this domain at the college age could demonstrate influence on overall well-being. Researchers have found that wiser individuals exhibit: less alcohol and cigarette use; fewer violent behaviors and depressive symptoms; as well as greater self-efficacy, well-being, purpose in life, life satisfaction, optimism, and positive family relations (Ardelt, 2003; Perry et al., 2002; Svence & Greaves, 2013).

Researchers have investigated wisdom using implicit and explicit approaches. Explicit theorists define wisdom as optimal human performance (Baltes, Gluck, & Kunzmann, 2005) and assess it primarily as a form of cognitive and reflective functioning. Implicit theorists assert that wisdom is akin to a personality trait, not a type of performance that can vary across contexts (Ardelt, 2004). Implicit researchers frequently use survey instruments to measure multiple dimensions of the wisdom construct (Ardelt, 2003; Webster, 2003). Despite a lack of consensus on assessment, most researchers agree that wisdom involves a complex balance of multiple personal domains (Trowbridge, 2005). Maintaining a wise balance of personal domains could be vital for evaluating and responding to life circumstances in a way that promotes happiness.

LOC, along with self-efficacy, comprises the core self-evaluation construct. Multicollinearity within the dimensions has led to the argument that the two all measure a single factor (Judge et al., 2002). However, Bandura, Caprara, Barbaranelli, Gerbino, and Pastorelli (2003) distinguished LOC as a global belief about how the world works (e.g., “Some people are just born lucky”) from self-efficacy as a belief in one’s competence regarding a specific situation or activity (e.g., “I am very capable of succeeding at this college”). Individuals with an internal LOC generally believe that their life is controlled by their own efforts and not by outside forces. Internal LOC can predict higher job performance and satisfaction, academic motivation, subjective well-being, and pro-social behavior (DeNeve & Cooper, 1998; Jernigan, 2004; Judge et al., 2002; Twenge, Zhang, & Im, 2004).

Individuals with an external LOC tend to blame others, experience lower levels of environmental mastery, and report higher levels of depressive symptoms (Benassi, Sweeney, & Dufour, 1988; Twenge & Campbell, 2008). This disposition of blame and despair is closely associated with Seligman’s (2002) account of pessimism. Those with wisdom and an internal LOC would present a mature, integrated, optimistic attitude toward life circumstances and would have high levels of happiness. Thus, wisdom and LOC were included as attitudinal predictors of happiness in this study.

The inclusion of age cohorts (current university students vs. alumni), behavior (leisure routine), and attitude (wisdom and LOC) factors in this study enables the investigation of the complex relationships of major constructs influencing happiness. Wisdom, for example, is often associated with age. This does not preclude the possibility that young adults may be wise, nor does it guarantee that all fully developed adults are wise (Staudinger & Pasupathi, 2003). The development of wisdom, as with the development of LOC, is presumed to be a process of learning through difficult life circumstances (Baltes, Gluck, & Kunzmann, 2005). Challenging circumstances exist at all stages of the life span, albeit through different mediums. The interaction of behavioral and attitudinal variables at various life stages would likely affect one’s evaluation of life, expressed through their self-reported subjective wellbeing. With this presumption, this study aimed to test the following research questions regarding the modeling of a path to happiness:

RQ1: What is the discrete and combined influence of behaviors (i.e., leisure routines) and attitudes (LOC and wisdom) on overall happiness?

RQ2: Is there a difference in the influence of behaviors (i.e., leisure routines) and attitudes (i.e., LOC and wisdom) on happiness at different life stages?

RQ3: What is the nature of the influence of age in years on overall happiness?

Method

Participants

Research was conducted at a private college in western Michigan. The instrument was distributed to 1,000 randomly-selected college students via campus email. Random selection was performed through SPSS from a list of all students. A total of 379 students (61% female, *Mean* age = 20.64 ranging from 18 to 50, *SD* = 3.23) completed the survey, resulting in a 38% response rate. The survey was also distributed to alumni, advertised in the formal newsletter (electronic version) providing a link to the online survey. A total of 253 alumni completed the survey (75% female, *Mean* age = 40.46 ranging from 22 to 83, *SD* = 15.07). The newsletter was sent to 5455 addresses, of which 2014 were opened. Thus, 12.6% of alumni reached completed the entire

survey. All participants were provided with a comparison of their happiness score to that of the normative score for the United States upon survey completion. That minor incentive, paired with a survey requiring less than 10 minutes to complete, prevented any attrition. All participants who started the survey also completed it and all questions relevant to the study were required.

Given an imperfect response rate for both samples, nonresponse analyses were conducted on both groups. Researchers used independent samples *t*-tests to conduct demographic comparisons, wave analysis, and benchmarking analysis, determining unique characteristics of respondents (Werner, Praxedes, & Kim, 2007). Demographic comparisons (age, ethnicity, gender) revealed a significant difference for gender between the student respondents and that of the entire student body, but not age or ethnicity. Additionally, no significant differences were found in the ethnicity of the student and alumni sample. Caucasians were the primary respondents for the student (91%) and alumni (96%) groups, followed by Koreans (students = 5%, alumni = 1%), African Americans (students = 3%, alumni < 1%), and Hispanics (students = 1%, alumni = 1%). There was a significant difference for gender, as a higher proportion of females responded to the alumni survey. Given a lack of clear influence for gender on wisdom, LOC, or happiness, this was not likely to introduce undue bias.

Wave analysis involves measuring differences in all relevant variables between the immediate respondents (first 10%) and those who responded the latest (last 10%). The latest responders were, in effect, nonresponders to the initial survey invitation (Werner, Praxedes, & Kim, 2007). No significant differences were found between initial and late responders for the student or alumni samples. The final analysis included a benchmark analysis, based on normative happiness scores reported by the Happiness Initiative (Musikanski, 2014). Based on the average age for the student and alumni sample, there was no significant difference in overall happiness from that of the normative population of the United States.

This sample provided a unique opportunity for comparison of similar groups at different life stages. In addition to the comparable demographics of both groups, the school used in this study was known as the “flagship” institution for a particular Christian denomination. All faculty members were formally associated with that denomination, as were a majority of the student body and their parents. While alumni may not be currently immersed in this denominational environment, their previous attendance and their involvement with alumni social media indicate that they continue to associate with the values of the school. Thus, this study used the commonalities to compare a similar sample of students and alumni across life stages.

While a consistent worldview across comparison groups provides a unique research context, active religious involvement could also be seen as a confounding variable. Previous research has found a positive correlation between religious practice and happiness (Francis, Robbins, & White, 2003). Other research indicates that there is no relationship (Lewis, Maltby, & Burkinshaw, 2000), or that spirituality is important, but not religious practice (Holder, Coleman, & Wallace, 2010). Much of the discrepancy may be due to a lack of consensus regarding the definition and measurement of religious involvement (Lewis & Cruise, 2006). A recent study by Lim and Putnam (2010) asserted that religion only influences happiness because it enhances social networks and community bonds. Thus, there is no definitive evidence that religious belief, nor routine participation in religious rites, would confound the findings of this study. As always, care should be taken when extrapolating findings from a single study to the entire population.

Measures

The survey included items addressing the following factors: General happiness (three items), demographic information (age, gender, and race), routine participation in various leisure

activities over the last month (five items), wisdom (five items), and a short version of the Nowicki-Strickland Locus of Control Scale (Nowicki & Duke, 1974). A confirmatory factor analysis (CFA) on each construct was conducted using Amos 21. Good model fit was indicated by a relative chi-square value (X^2/df) between 1 and 3, a comparative fit index (CFI) value greater than .90, and a root-mean-square error of approximation (RMSEA) value less than .80 (Bakker, Hakanen, Demerouti, & Xanthopoulou, 2007). For the purpose of freeing up parameters for CFA, two items of the happiness construct were constrained to 1. All subsequent analyses allowed for free estimation of all but one item for each factor.

Happiness. Subjective well-being (SWB) has been measured in a variety of ways (Diener, Suh, Lucas, & Smith, 1999). This study utilized a three-item measure of general happiness included in the Gross National Happiness Index (Musikanski, 2014). Our conceptualization includes items regarding life satisfaction, happiness, and quality of life. Thus, the factor would be related to concepts in similar research on “well-being” and “life satisfaction” (Doerkson et al., 2014) and perceived “quality of life” (Iwasaki, 2007). Participants rated themselves on an ordinal scale based on the following statements: “All things considered, how satisfied are you with life as a whole nowadays” (0 = *Not at all*, 10 = *Extremely satisfied*) and “Taking all things together how happy would you say you are” (0 = *Extremely unhappy*, 10 = *Extremely happy*). The third item asked participants to rate their current life as compared to their idea of the best life for them (0 = *Worst possible life for me*, 10 = *Best possible life for me*). Based on the model fitness values stated above, the construct demonstrated a strong fit for the data through CFA: $\chi^2 = 2.25$, $p = .13$, $\chi^2/1df = 2.25$, CFI = .99, RMSEA = .039, CI [.000, .111].

Wisdom. A total of five items with a five-point Likert scale (1 = *Strongly disagree*, 2 = *Disagree*, 3 = *Neutral*, 4 = *Agree*, 5 = *Strongly agree*) were taken from Ardel's (2003) three dimensional wisdom scale (3DWS) and Webster's (2003) self-assessed wisdom scale (SAWS) to address five domains of wisdom: cognition, affection, reflectivity, experience, and humor. The highest loading item for each wisdom domain in previous research with a college-aged sample (Bailey & Russell, 2008; Bailey & Russell, 2009) was chosen to represent the wisdom construct in this study. Cognition referred to one's willingness and ability to comprehend experience on a deep level by accepting the ambiguities of life (e.g., “You can classify almost all people as either honest or crooked”). The affective dimension represented one's demeanor and sympathetic compassion towards others (e.g., “Sometimes I feel a real compassion for everyone”). Reflectivity measured one's ability to overcome subjectivity by viewing phenomena from various perspectives (e.g., “I like being around persons whose views are strongly different than mine”; Ardel, 2003). The fourth dimension, humor, involved the ability to laugh at oneself and life's ironies (e.g., “At this point in my life, I find it easy to laugh at my mistakes”). Finally, experience referred to one's belief that s/he has endured life situations that “allow for some degree of profundity” (Webster, 2003, p. 14). This item was measured with their level of agreement to the following statement: “I have overcome many painful events in life”. The five-item construct demonstrated a strong fit for the data ($\chi^2 = 10.49$, $p = .07$, $\chi^2/5df = 2.01$, CFI = .96, RMSEA = .019, CI [.012, .027]).

Locus of control. Eight items with a five-point Likert scale (1 = *Strongly disagree*, 2 = *Disagree*, 3 = *Neutral*, 4 = *Agree*, 5 = *Strongly agree*), were selected from the original Nowicki-Strickland LOC scale to remain relevant across the contexts of this study (Nowicki & Duke, 1974). Participants rated their level of agreement with statements addressing their acceptance of responsibility and ability to influence certain outcomes. Examples include “Some people are just born lucky,” “Most of the time I find it hard to change a friend's opinion,” and “The best way to handle problems is just not to think about them.” For analysis, all items were recoded so that

a higher LOC score indicated a more internal LOC. This construct demonstrated a strong fit for the data ($\chi^2 = 33.011$, $p < .034$, $\chi^2/20df = 1.651$, CFI = .934, RMSEA = .052, CI [.015, .082]).

Leisure routine. To assess leisure routine, participants were asked to indicate “how they utilize their free time.” Five routine leisure time activities were measured with one item each, including: social media use (spent an hour or more on social networking sites), hanging out with friends (spent an hour or more with friends “doing nothing special”), time spent outdoors (spent more than 30 minutes outdoors), reflection (taken 20 minutes or more for personal reflection such as prayer, meditation, or journaling), and physical activity (physical activity lasting 30 minutes or more). With a five-point Likert scale (1 = *Never*, 2 = *Once or twice*, 3 = *Three to five times*, 4 = *A few times a week*, 5 = *Daily*), participants rated their daily time spent in the activities over the last month. Considerable thought was given to the specification of this construct, given a lack of empirical precedent for the convergence of these items. The items were first specified reflectively, as indicators of the latent variable “Leisure Routine.” This structure would indicate that one’s routine is the cause of their participation in each activity. This reflective construct demonstrated a strong fit for the data ($\chi^2 = 13.762$, $p < .017$, $\chi^2/5df = 2.745$, CFI = .937, RMSEA = .079, CI [.029, .13]). The structural paths were then reversed to test for a formative model, with all items jointly causing the leisure routine variable. This resulted in a depreciation of model fit (CFI = .83) so the reflective model was used for all subsequent analyses (Byrne, 2004).

Data Analyses

After identifying valid measurement models through CFA, we used a multivariate analysis of variance (MANOVA) to investigate a difference of combined variables between students and alumni. If the MANOVA yielded a significant difference, a series of univariate analyses of variance (ANOVA) were conducted to analyze the mean differences among each psychological construct between students and alumni. We also conducted bivariate correlations among leisure routine, wisdom, LOC, and happiness variables on students and alumni each to compare the directions and magnitudes of correlations of the four variables. Due to the relatively high number of free parameters for a full structural equation model (SEM) and a multigroup path analysis, we chose to use observed rather than latent variables to assess wisdom and LOC constructs while leisure routine, attitude, and happiness were measured using latent variables. Kline (2005) suggested that the desirable ratio of cases to free parameters for reliable statistical tests is a 10:1, and a 20:1 ratio is acceptable. In this study, 63 free parameters were necessary for a full SEM model, but the number of usable cases for students and alumni was 379 and 253 respectively. Thus, to measure a latent variable of attitudes, we used a mean score of each of wisdom and LOC rather than using five indicators of wisdom and eight indicators of LOC. This combined approach resulted in 25 free parameters, an acceptable number of parameters for a multigroup path analysis.

Analyses were conducted from a theoretical model-building perspective (Kline, 2005). The initial model was determined using student data only. This was done in order to first establish structural validity of the model with one sample (Byrne, 2004). Once model fit was achieved, tests for invariance of that model across groups were performed. The three constructs were added into the model first to assess construct validity. Given a satisfactory measurement model, paths were added from leisure routine (path a) and attitude (path b) constructs to happiness. The final step was to add a path from leisure routine to attitude (path c) to test for meditational influence.

Once a path model was established, a multigroup path analysis was conducted to determine differences between students and alumni. Using the multigroup path analysis, we simultaneously examined each predictor variable’s contribution to happiness in students and alumni groups and

analyzed the differences of path coefficients between students and alumni. Three nested models were established by constraining path loadings (model 1), observed means (model 2), and unobserved variances (model 3) to be equal across groups. Differences across individual variables were analyzed through critical ratio values (z -test) between groups.

Finally, the influence of age on overall happiness was tested with curve estimation through regression. In order to compare results with previous findings, linear, cubic, and quadratic curves were assessed.

Results

Model Development

Prior to SEM analyses, the variables were analyzed between groups to determine propriety of the SEM. Table 1 presents the descriptive statistics and analysis of variances of the each construct including leisure routine, wisdom, LOC, and happiness. A multivariate analysis of variance (MANOVA) revealed the combined variables were significantly different between students and alumni, Wilks' $\lambda = .93$, $F(4, 587) = 11.25$, $p < .001$, $\eta_p^2 = .07$. Following this, a series of analyses of variance (ANOVA) on each psychological construct between students and alumni were conducted, and results of the ANOVA tests are presented in Table 1. Follow-up ANOVAs revealed that alumni rated LOC and happiness variables significantly higher than did students. Students rated the leisure routine variable significantly higher than did alumni.

Table 1

Descriptive Statistics and Analysis of Variances of Psychological Constructs

	Students ($n = 379$)		Alumni ($n = 253$)		F	P	η_p^2
	M	SD	M	SD			
Leisure Routine	3.49	.69	3.35	.60	7.35	.01	.11
Wisdom	3.43	.45	3.45	.48	.24	.63	.02
LOC	4.29	.47	4.43	.44	13.26	.00	.15
Happiness	7.19	1.52	7.85	1.31	32.23	.00	.22

Note. F-statistics based on the univariate ANOVAs conducted after a MANOVA showed a significant difference. The range for Happiness was one to ten-10. All other variables ranged one to five.

Table 2 presents the bivariate correlations among the four psychological constructs. Correlations showed similar directions and magnitudes for students and alumni, except the correlation between leisure routine and LOC variables. The leisure routine was significantly positively related to LOC for students, but this relationship was not significant for alumni.

Table 2

Correlations for Psychological Constructs of Students and Alumni

Variable	1	2	3
Students (<i>n</i> = 379)			
1. Leisure Routine			
2. Wisdom	.17**		
3. LOC	.13*	.15**	
4. Happiness	.26**	.15**	.47**
Alumni (<i>n</i> = 253)			
1. Leisure Routine			
2. Wisdom	.16*		
3. LOC	.01	.19**	
4. Happiness	.17**	.21**	.42**

p* < .05, *p* < .01

The SEM (Figure 1) showed a fit for the data ($p = .000$, $\chi^2 = 161.335$, $\chi^2 / 64df = 2.521$, CFI = .953, RMSEA = .049, CI [.404, .593]). Leisure routine had a significant direct effect on happiness (path a) before path “c” was introduced in the model. However, the relationship between leisure routine and attitude rendered path “a” insignificant. To test for a mediation effect of attitude on the relationship between leisure routine and happiness, path “a” was constrained to zero. This specification had no significant effect on model fit, confirming attitude as a full mediator (Kline, 2005). Table 3 displays all standardized path loadings in the final model for students and alumni. These results provide insight for discussion regarding RQ1.

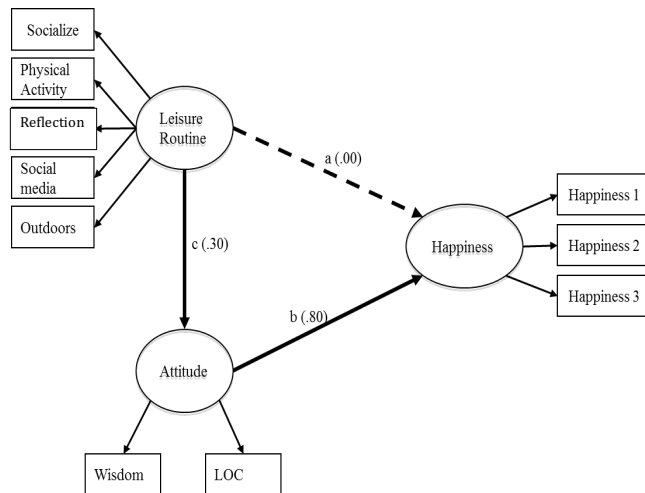


Figure 1. Final SEM for Leisure Routine, Attitudes and Happiness.

Table 3*Standardized Path Loadings of All Variables for Students and Alumni*

			Standardized Estimate	
			Students	Alumni
Attitude	←	Leisure Routine	0.100	0.190
Happiness	←	Leisure Routine	0.000	0.000
Happiness	←	Attitude	3.208	3.502
Happiness 1	←	Happiness	1.000	1.000
Happiness 2	←	Happiness	1.227	1.211
Happiness 3	←	Happiness	1.235	1.166
LOC	←	Attitude	1.000	1.000
Wisdom	←	Attitude	0.597	0.890
Friends	←	Leisure Routine	0.318	0.380
Outdoors	←	Leisure Routine	1.000	1.000
Physical Activity	←	Leisure Routine	0.794	1.022
Reflection	←	Leisure Routine	0.371	0.475
Social Media	←	Leisure Routine	0.005*	-0.347

* This variable was *not* significant at a level of $p < .05$.

Age and Cohort Effects

The second stage of SEM analyses involved testing for invariance of the model across groups. Sets of path coefficients were set to be equal across student and alumni groups. Then the chi-square difference test (Δc^2) between nested models was conducted and model fit was evaluated (Byrne, 2001). With path loadings constrained to be equal (model 1), there was no significant depreciation of the model fit, indicating that leisure routine and attitude variables predict happiness in a similar fashion across student and alumni groups ($c^2(df) = 2.909$, $p < .001$, $\Delta X^2(df) = .136$, CFI = .938, RMSEA = .055). Model 2, with observed Means constrained to be equal did demonstrate a significant reduction in model fit, evidenced by a significant chi-square difference, indicating that Means for observed variables were not equal across groups ($c^2(df) = 4.856$, $p < .001$, $\Delta c^2(df) < .001$, CFI = .854, RMSEA = .078). Analysis of the pairwise parameter comparisons revealed a significant difference for LOC ($p < .05$). Model 3 with unobserved variances constrained to be equal demonstrated a moderate decline in model fit ($c^2(df) = 2.910$, $p < .001$, $\Delta c^2(df) = .072$, CFI = .937, RMSEA = .055). Investigation of the critical ratios revealed a significant difference for variance of leisure routine ($p < .05$) but not for attitudes or happiness. A further look at the loadings and variances for leisure routine indicators showed a discrepancy in the social media variable. This variable had a significant loading on leisure routine for alumni, but not for students. Additionally, the variance for social media was less robust for students ($p = .048$) than for alumni ($p < .001$). This may indicate that social media usage is more ubiquitous among college students, thus limiting the variance and the influence on overall leisure routine.

Table 4*Standardized Total Effects for All Constructs (Students and Alumni)*

	Leisure Routine		Attitudes	
	Alumni	Students	Alumni	Students
Social Media	-0.154	0.003	-	-
Reflection	0.259	0.210	-	-
Physical Activity	0.665	0.635	-	-
Outdoors	0.706	0.869	-	-
Friends	0.265	0.265	-	-
Wisdom	0.229	0.118	0.500	0.396
LOC	0.274	0.190	0.600	0.635
Attitude	0.457	0.299	-	-
Happiness	0.361	0.227	0.789	0.760

Table 4 displays the standardized total effects for alumni and students illustrating the nature of the differences between the two groups. Of particular interest is the higher influence of leisure routine on attitude among alumni (individual indicators and unobserved variables) as well as on overall happiness. Also noteworthy is the balanced influence of attitude on wisdom and LOC for alumni compared with the imbalance evident in the same variables for students.

Table 5*Means, Variance, and Variance Explained for All Variables in the Model*

	Means		Variance		R^2	
	Students	Alumni	Students	Alumni	Students	Alumni
Leisure Routine	-	-	0.799	0.399	-	-
Attitude	-	-	0.081	0.054	0.089	0.209
Happiness	-	-	0.668	0.510	0.578	0.623
Happiness 1	7.222	7.877	0.669	0.328	0.000	0.024
Happiness 2	7.103	7.802	0.568	0.379	0.044	0.067
Happiness 3	7.251	7.814	0.430	0.322	0.403	0.442
LOC	4.289	4.427	0.132	0.122	0.755	0.499
Wisdom	3.405	3.474	0.171	0.163	0.070	0.070
Friends	3.778	2.870	1.073	0.759	0.157	0.250
Outdoors	3.656	3.745	0.258	0.401	0.403	0.359
Physical Activity	3.588	3.499	0.744	0.526	0.849	0.851
Reflection	2.673	3.245	2.374	1.257	0.807	0.840
Social Media	3.719	3.375	1.656*	1.981	0.703	0.805

* $p < .05$; all other variance variables were significant at a level of $p < .001$

Table 5 illustrates the means, variance, and overall variance explained (R^2) for each variable in the model. Of interest is the discrepancy of variance for happiness and leisure routine variables, as well as variance explained for attitude and LOC. The variables in this study accounted for about 60% of the variance for both students and alumni. However, more variance in LOC was accounted for in the student sample. In addition, the variance of leisure routine items is not equal across groups. Though all variance statistics are significantly different from zero, students have a higher level of variance for all leisure variables except for time spent outdoors and social media. These results provide information to address RQ2.

The final analysis using a curve estimation through regression assessed the effect of age on overall happiness for the entire sample. This analysis revealed that the relationship was not clearly quadratic, but both linear ($F = 16.653, p < .001, R^2 = .065$) and quadratic ($F = 8.407, p < .001, R^2 = .065$) with linear being preferred due to parsimony. This provides insight for discussion about RQ3.

Discussion

The purpose of this study was to determine the comparative impacts of routine leisure behaviors, wisdom, and LOC on overall happiness and to elucidate how routine leisure activities and attitudes may influence happiness at different life stages. This discussion will proceed with an elaboration on findings for each construct in the study. ANOVAs revealed a significantly lower composite score on leisure routine, but higher mean scores on LOC and happiness for alumni. Lower leisure routine scores could be indicative of a life stage that allows for fewer leisure activities. According to the American Time Use Survey (Bureau of Labor Statistics, 2011) those with full-time jobs and those with children have substantially less leisure time than the average American. A lower mean score for alumni supports this assertion, as they may have less time for all activities on a routine basis compared to students. Additional insight can be garnered through investigation of the positive correlation of LOC and leisure routine for students, but not for alumni. Those in middle adulthood may have objective time limitations that preclude their ability to experience mastery through leisure activities. Students with objectively more free time may experience mastery more commonly through those leisure pursuits.

Attitudes

Higher LOC scores for alumni indicated that alumni had higher levels of an internal LOC. Individuals with a more internal LOC show more acceptance of responsibility and more confidence in controlling life circumstances (Kelley & Stack, 2000). Existing in a realm between adolescence and adulthood, students experience a considerable amount of freedom to express their will and test their competence (Arnett, 2007). However, their main psycho-social concern involves finding their identity, as well as deciding on an appropriate career path (Erikson, 1982). This process can be empowering, but it is often overwhelming and ambiguous. On the contrary, alumni may be confronting a crisis of generativity, testing their influence and mastery through concrete challenges such as parenthood and career advancement. While the challenges alumni face would not be less daunting, feedback regarding their performance would be more immediate and clear, illustrating their true influence over their environment (Hattie & Timperley, 2007).

Although college students experience increased freedom away from parental oversight, many may have yet to suffer real consequences for life decisions without any kind of safety net. While certainly not the case for every student in every situation, it could be argued that a supportive, protective environment provides students with fewer opportunities to make their own

life decisions and diminishes acceptance of responsibility for their decisions. This lack of responsibility for and perceived influence over life circumstances represents a higher external LOC (Kelley & Stack, 2000). Thus, the difference of LOC scores in the student and alumni groups could be indicative of life responsibilities that induce development. This interpretation can be further tested through future work comparing LOC between full time college students and those who have a full time job right after high school graduation. This is because the full time college students typically have a more supportive and protective environment and less life responsibilities than do those with a full time job.

Age

Previous studies reported mixed results in an examination of the relationships between happiness and age. Argyle (2001) and Myers (1993) reported a tenuous increase of happiness with age. Fukuda (2013) reported that happiness levels increased until the 20s, moved downward between 20 and 55 years old, upward between 56 and 69 years old, and were almost flat between 70 and 79 years old. Blanchflower and Oswald (2000) found rising well-being among young people. Then, in their subsequent study (Oswald & Blanchflower, 2008), a U-shaped happiness trend through the life cycle was identified. They argued that a hill-shaped anxiety and depression trend with increased age may associate with the U-shaped happiness levels. In our study, students reported being less happy than their alumni counterparts. While not definitive, this is consistent with Argyle (2001) and Myers' (1993) findings. Curve estimation analysis supported both the linear and quadratic trends, lending little clarification to previous findings. Some of this effect may be attributable to higher LOC scores reported by alumni in this study, as LOC and happiness have shown a positive correlation in previous research (Pannells & Claxton, 2008). Future research with a larger sample and more age categories will be needed to provide more insight. The multigroup path analysis that follows provides a further investigation of this variance in happiness.

Leisure Routine

Our findings indicate that students spent time on social media more commonly than did alumni. This finding is consistent with the report that social media usage is prevalent among emerging adults (Pew Research Center, 2010). Alumni demonstrated less variance in all other leisure routine items, perhaps indicating that their adult routines are more comparable than those of students. Given a higher overall mean for leisure routine for students, it can be inferred that they may have more leisure time in general. However, their choice of activities during that leisure time (i.e., social media use) may render leisure less beneficial to students than it is to alumni. Despite claims of enhanced social connectivity, social media has been reported to have an isolating effect (Kross et al., 2014). Additionally, the material existing on social media may present a false reality, with which individuals compare their lives unfavorably. Comparison with one's peers is a key process whereby individuals assess satisfaction with life (Lyubomirsky, 2008). Personal interaction that allows for a deeper connection along with a true assessment of life quality may be preferable to the digitized version provided by social media.

A Path to Happiness

In addition, our study found that the latent leisure routine variable had a significant direct influence on happiness without attitude in the model. This provides support for a cumulative effect of leisure routine on happiness and confirms previous findings indicating that leisure activities and leisure satisfaction can have a potent influence on overall life satisfaction (Doerksen et al., 2014; Lyubomirsky et al. 2005). All leisure routine indicators (reflection, physical activity,

time outdoors, and socializing) except for social media use had a positive influence on the leisure routine construct and on happiness. Social media had a negative influence on the leisure routine, affirming previous reports (Kross et al., 2013) that extended time spent on Facebook and other social media outlets may be detrimental to subjective well-being.

The findings of the multigroup path analysis also indicated that those engaging in a set of leisure activities that includes adequate socializing, reflection, time outdoors, physical activity, and limited social media use reported a more internal LOC and higher levels of wisdom regardless of age. Given the mental and physical benefits associated with these activities, these results are not unfounded. The stress relief and mental restoration afforded by outdoor physical activity (Maas et al., 2005; Scopellitti & Giulliani, 2004), for example, could influence one's life perspective and aid wise decision-making. Unlike many behavioral factors (e.g., family obligations, work activities), leisure is relatively malleable. Constructive use of unobligated free-time can perhaps facilitate developmental growth which promotes life satisfaction. Leisure scholars (Godbey, 2007; Iso Ahola, 1980) have asserted this for years. These findings build upon previous theories by investigating the combined influence of specific leisure pursuits.

As suggested by Csikszentmihalyi and Hunter (2003) the effect of leisure routine on happiness was mediated by attitudes. Those reporting higher levels of wisdom and internal LOC also reported higher levels of happiness, regardless of leisure routine. A positive association between wisdom, higher internal LOC, and happiness was consistent with previous similar findings (Ardelt, 2000). An internal LOC leads to a stronger feeling of environmental mastery and responsibility. Those who perceive control over their lives may be more likely to make productive efforts toward changing their environment, rather than accepting it as fate (Twenge et al., 2004). This perception could influence overall subjective well-being, as any set of circumstances are viewed as changeable and temporary. Additionally, wisdom denotes maturity and discretion that promotes good decision-making and positive coping behaviors directed at the common good (Perry et al., 2002). Thus, wise individuals would engage in positive behaviors, prefer positive environments, effectively cope with situations that are beyond their control, and subsequently have higher levels of happiness.

Conclusion and Limitations

While there are certainly many paths to happiness, the findings of this study indicate that one's routine leisure activities and attitudes can have a significant positive effect on overall happiness. This path is consistent at different life stages, with subtle differences in structural effects found in our multigroup path analysis. It may be argued that leisure routines are a minor aspect of one's overall behavior. Yet, the significant influence of these activities and the ease of adaptability associated with leisure routines lend them practical import.

The results of this study should be interpreted with awareness of the following limitations. While the homogeneous characteristics of the two groups in terms of ethnicity are apt to elucidate age-graded differences in the paths to happiness, the lack of diversity in ethnicity also render these findings difficult to generalize. Historically, minorities have reported lower levels of happiness than whites (Stevenson & Wolfers, 2012) while recent research reports a closing of the happiness gap, implying that other factors (e.g., working conditions) may play a larger role than ethnicity today (Stevenson & Wolfers, 2012). Gender also has demonstrated a weak or null effect on happiness (Csikszentmihalyi & Hunter, 2003), and some research reports a higher rating for females (Fukuda, 2013). Our study did not account for ethnicity and gender variables in our multigroup path analysis. Future research can be directed to elucidate the relationships

among leisure routine, attitudes, and happiness across ethnicity or gender using a multigroup path analysis.

In addition, the cross-sectional nature of the data in this study makes any assertion of causality inconclusive. It is just as likely, for instance, that a higher internal LOC could empower an individual to make good choices about how to use leisure time. In this way, attitudes would influence leisure behavior and happiness. A complete discussion of this influence is beyond the scope of this paper. Accepting the premise that behavior and attitude likely have a complex, reciprocal influence in each other, and that leisure routine is more readily changed than LOC and wisdom, our findings present a practical approach to influencing overall happiness. In effect, more positive use of daily free time can influence attitudes, leading to higher levels of life satisfaction and happiness (Layous & Lyubomirsky, 2014).

In consideration of these limitations, the findings suggest that researchers and practitioners should promote positive use of unstructured time as an important aspect of positive development and life satisfaction across the lifespan. The term “positive use of leisure” implies a value judgment, identifying certain behaviors as more preferable than others. Exactly what constitutes such virtuous use of one’s time has been contested for generations (c.f. Aristotle, 1996; Layous & Lyubomirsky, 2014). This study, built upon previous research, provides evidence to support the promotion of specific leisure pursuits. Socializing, personal reflection, physical activity, and time outdoors are associated with positive attitudes and a higher level of happiness. Excessive social media use can inhibit positive outcomes. Any rigid prescription of the exact proportion of leisure activities for happiness may be over-reaching and unnecessary. Access to various leisure pursuits is limited by one’s context. However, a balance of these discrete leisure domains can be recommended as a path to positive attitudes and happiness across life stages.

References

- Ardelt, M. (2000). Antecedents and effects of wisdom in old age. *Research on Aging*, 22(4), 360–394.
- Ardelt, M. (2003). Empirical assessment of a three-dimensional wisdom scale. *Research on Aging*, 25(3), 275–324.
- Ardelt, M. (2004). Where can wisdom be found? *Human Development*, 47, 304–307.
- Argyle, M. (2001). *The psychology of happiness*. New York: Routledge.
- Argyle, M., & Lu, L. (1990). The happiness of extroverts. *Personality and Individual Differences*, 11, 1011–1017.
- Aristotle. (1996). *Nicomachean ethics*. (H. Rackham, Ed., S. Watt, Trans.). Ware, Hertfordshire: Wordsworth Editions.
- Arnett, J. J. (2007). Emerging adulthood: What is it, and what is it good for? *Child Development Perspectives*, 1(2), 68–73. doi: 10.1111/j.1750-8606.2007.00016.x
- Bailey, A., & Fernando, I. (2012). Routine and project-based leisure, happiness and meaning in life. *Journal of Leisure Research*, 44(2), 139–154.
- Bailey, A., & Russell, K. (2008). Psycho-social benefits of a service-learning experience. *Journal of Unconventional Parks, Tourism and Recreation Research*, 1(1), 9–16.
- Bailey, A., & Russell, K. (2009). Engaging youth through volunteer travel: In service of the common good. *Journal of Youth Development*, 4(4), 60–72.
- Bailey, A., & Russell, K. C. (2010). Predictors of interpersonal growth in volunteer tourism: A latent curve approach. *Leisure Sciences*, 32(4), 352–368.

- Bakker, A. B., Hakanen, J. I., Demerouti, E., & Xanthopoulou, D. (2007). Job resources boost work engagement, particularly when job demands are high. *Journal of Educational Psychology, 99*, 274–284.
- Baltes, P. B., Gluck, J., & Kunzmann, U. (2005). Wisdom: Its structure and function in regulating successful life span development. In C. R. Snyder & S. J. Lopez (Eds.), *Handbook of positive psychology* (pp. 327–347). New York: Oxford University Press, Inc.
- Baltes, P. B., & Staudinger, U. M. (2000). Wisdom: A metaheuristic (pragmatic) to orchestrate mind and virtue toward excellence. *American Psychologist, 55*(1), 122–136.
- Bandura, A., Caprara, G., Barbaranelli, C., Gerbino, M., & Pastorelli, C. (2003). Role of affective self-regulatory efficacy in diverse spheres of psychological functioning. *Child Development, 74*(3), 769–782.
- Barrett, L. F., & Russell, J. A. (1998). Independence and bipolarity in the structure of current affect. *Journal of Personality and Social Psychology, 74*, 967–984.
- Benassi, V. A., Sweeney, P. D., & Dufour, C. L. (1988). Is there a relation between locus of control orientation and depression? *Journal of Abnormal Psychology, 97*(3), 357–367. doi:10.1037/0021-843X.97.3.357
- Blanchflower, D. G., & Oswald, A. J. (2000). *Well-being over time in Britain and the USA* (Working Paper No. 7487). National Bureau of Economic Research. Retrieved from <http://www.nber.org/papers/w7487>
- Bureau of Labor Statistics. (2011). *American time use survey*. Retrieved from <http://www.bls.gov/tus/charts>
- Burger, J., & Caldwell, D. (2000). Personality, social activities, job-search behavior and interview success: Distinguishing between PANAS trait positive affect and NEO extraversion. *Motivation and Emotion, 24*(1), 51–62.
- Byrne, B. M. (2001). *Structural equation modeling with Amos*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Byrne, B. M. (2004). Testing for multigroup invariance using AMOS graphics: A road less traveled. *Structural Equation Modeling, 11*, 272–300.
- Caprara, G. V., Steca, P., Gerbino, M., Paciello, M., & Vecchio, G. M. (2006). Looking for adolescents' well-being: Self-efficacy beliefs as determinants of positive thinking and happiness. *Epidemiology and Social Psychology, 15*(1), 30–43.
- Caspi, A., & Roberts, B. W. (1999). Personality continuity and change across the life course. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (Vol. 2nd, pp. 300–326). New York: Guilford Press.
- Cleland, V., Crawford, D., Baur, L. A., Hume, C., Timperio, A., & Salmon, J. (2008). A prospective examination of children's time spent outdoors, objectively measured physical activity and overweight. *International Journal of Obesity, 32*(11), 1685–1693. doi: 10.1038/ijo.2008.171
- Csikszentmihalyi, M. (1975). *Beyond boredom and anxiety*. San Francisco: Jossey-Bass.
- Csikszentmihalyi, M., & Hunter, J. (2003). Happiness in everyday life: The uses of experience sampling. *Journal of Happiness Studies, 4*, 185–199.
- DeNeve, K. M., & Cooper, H. (1998). The happy personality: A meta-analysis of 137 personality traits and subjective well-being. *Psychological Bulletin, 124*(2), 197–229.
- Diener, E., & Suh, E. (1998). Subjective well-being and age: An international analysis. *Annual Review of Gerontology, 17*, 304–324.
- Diener, E., Suh, E., Lucas, R., & Smith, H. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin, 125*(2), 276–302.

- Doerksen, S. E., Elavsky, S., Rebar, A. L., & Conroy, D. E. (2014). Weekly fluctuations in college student leisure activities and well-being. *Leisure Sciences*, 36(1), 14–34.
- Ergas, O. (2015). The deeper teachings of mindfulness-based “interventions” as a reconstruction of “education.” *Journal of Philosophy of Education*, 49(2), 203–220. doi: 10.1111/1467-9752.12137
- Erikson, E. H. (1982). *The life cycle completed*. New York: Norton.
- Francis, L. J., Robbins, M., & White, A. (2003). Correlation between religion and happiness: A replication. *Psychological Reports*, 92(1), 51–52. doi: 10.2466/pr0.2003.92.1.51
- Fujita, F., & Diener, E. (2005). Life satisfaction set point: stability and change. *Journal of Personality and Social Psychology*, 88(1), 158–164. doi: 10.1037/0022-3514.88.1.158
- Fukuda, K. (2013). A happiness study using age-period-cohort framework. *Journal of Happiness Studies*, 14, 135–153.
- Godbey, G. (2007). *Leisure in your life: New perspectives*. State College, PA: Venture Publishing.
- Hattie, J., & Timperley, H. (2007). The power of feedback. *Review of Educational Research*, 77(1), 81–112. doi: 10.3102/003465430298487
- Holder, M. D., Coleman, B., & Wallace, J. M. (2010). Spirituality, religiousness, and happiness in children aged 8–12 years. *Journal of Happiness Studies*, 11(2), 131–150.
- Iso-Ahola, S. (1980). *The social psychology of leisure and recreation*. Dubuque, IA: William C. Brown.
- Iwasaki, Y. (2007). Leisure and quality of life in an international and multicultural context: What are major pathways linking leisure to quality of life? *Social Indicators Research*, 82, 233–264.
- Jernigan, C. (2004). What do students expect to learn? The role of learner expectancies, beliefs, and attributions for success and failure in student motivation. *Current Issues in Education* [Online], 7(4).
- Judge, T., Erez, A., Bono, J. E., & Thoresen, C. J. (2002). Are measures of self-esteem, neuroticism, locus of control, and generalized self-efficacy indicators of a common core construct? *Journal of Personality and Social Psychology*, 83(3), 693–710.
- Kelley, T. M., & Stack, S. A. (2000). Thought recognition, locus of control, and adolescent well-being. *Adolescence*, 35(139), 531–550.
- Kline, R. B. (2005). *Principles and practice of structural equation modeling* (2nd ed.). New York: The Guilford Press.
- Kross, E., Verduyn, P., Demiralp, E., Park, J., Lee, D. S., Lin, N., & Ybarra, O. (2013). Facebook use predicts declines in subjective well-being in young adults. *Plos One*, 8(8), e69841.
- Layous, K., & Lyubomirsky, S. (2014). The how, why, what, when, and who of happiness: Mechanisms underlying the success of positive interventions. In J. Gruber & J. Moskowitz (Eds.), *Positive emotion: Integrating the light sides and dark sides* (pp. 473–495). New York: Oxford University Press.
- Lewis, C. A., & Cruise, S. M. (2006). Religion and happiness: Consensus, contradictions, comments, and concerns. *Mental Health, Religion and Culture*, 9(3), 213–225. doi: 10.1080/13694670600615276
- Lewis, C. A., Maltby, J., & Burkinshaw, S. (2000). Religion and happiness: Still no association. *Journal of Beliefs and Values*, 21(2), 233–236. doi: 10.1080/713675504
- Lim, C., & Putnam, R. D. (2010). Religion, social networks, and life satisfaction. *American Sociological Review*, 75(6), 914–933. doi: 10.1177/0003122410386686
- Littwin, S. (1986). *The postponed generation: Why America's grown-up kids are growing up later*. University of Virginia: Morrow.

- Lyubomirsky, S. (2008). *The how of happiness: A new approach to getting the life you want* (Reprint edition). New York: Penguin Books.
- Lyubomirsky, S., King, L., & Diener, E. (2005). The benefits of frequent positive affect: Does happiness lead to success? *Psychological Bulletin*, *131*(6), 803–855.
- Maas, J., Verheij, R. A., de Vries, S., Spreeuwenberg, P., Schellevis, F. G., & Groenewegen, P. P. (2009). Morbidity is related to a green living environment. *Journal of Epidemiology and Community Health*, *63*, 967–973.
- Mroczek, D. K., & Spiro, A. (2005). Change in life satisfaction during adulthood: Findings from the Veterans Affairs Normative Aging Study. *Journal of Personality and Social Psychology*, *88*, 189–202.
- Musikanski, L. (2014). Happiness and public policy. *Journal of Social Change*, *6*(1), 55–85.
- Myers, D. G. (1993). *The pursuit of happiness: Discovering the pathway to fulfillment, well-being, and enduring personal joy*. New York: William Morrow Paperbacks.
- Nidich, S., Rainforth, M., Haaga, D., Hagelin, J., Salemo, J., Travis, F., & Schneider, R. (2009). A randomized controlled trial on effects of the transcendental meditation program on blood pressure, psychological distress, and coping in young adults. *American Journal of Hypertension*, *12*(12), 1326–1331.
- Nowicki, S., & Duke, M. (1974). A locus of control scale for college as well as non-college adults. *Journal of Personality Assessment*, *38*, 136–137.
- Oswald, A., & Blanchflower, D. (2008). Is well-being U-shaped over the life cycle? *Social Science and Medicine*, *66*(6), 1.
- Pannells, T. C., & Claxton, A. F. (2008). Happiness, creative ideation, and locus of control. *Creativity Research Journal*, *20*(1), 67–71. doi: 10.1080/10400410701842029
- Perry, C. L., Komro, K. A., Jones, R. M., Munson, K., Williams, C. L., & Jason, L. (2002). The measurement of wisdom and its relationship to adolescent substance use and problem behaviors. *Journal of Child and Adolescent Substance Abuse*, *12*(1), 45–63.
- Pew Research Center. (2010). *Generations 2010* (pp. 1–29). Washington, D.C.: Pew Research Center. Retrieved from pewinternet.org
- Pew Research Center. (2015). Social Networking Fact Sheet. Retrieved from <http://www.pewinternet.org/fact-sheets/social-networking-fact-sheet/>
- Putnam, R. D., & Feldstein, L. M. (2003). *Better together: Restoring the American community*. New York: Simon & Schuster.
- Riddick, C. C. (1985). Life satisfaction determinants of older males and females. *Leisure Sciences*, *7*, 47–63.
- Rousseau, D. B. (2013). *Your conscious classroom: The power of self-reflection*. Bloomington, IN: Balboa Press.
- Scopelliti, M., & Giuliani, M. V. (2004). Choosing restorative environments across the lifespan: A matter of place experience. *Journal of Environmental Psychology*, *24*, 423–437.
- Seligman, M. (2002). *Authentic happiness*. New York: Free Press.
- Seligman, M. E. (2000). Positive psychology: An introduction. *American Psychologist*, *55*(1), 5–14.
- Seligman, M. E. (2011). *Flourish: A visionary new understanding of happiness and well-being*. New York, NY: Free Press.
- Staudinger, U. M., & Pasupathi, M. (2003). Correlates of wisdom-related performance in adolescence and adulthood: Age-graded differences in “paths” toward desirable development. *Journal of Research on Adolescents*, *13*(3), 239–268.

- Stevenson, B., & Wolfers, J. (2012). Subjective and objective indicators of racial progress. *Journal of Legal Studies*, 41(2), 459–493.
- Svence, G., & Greaves, V. (2013). Factors of resilience, wisdom, and self-efficacy as positive resources of leaders in sample of Latvian business managers. *Problems of Psychology in the 21st Century*, 5, 96–108.
- Trowbridge, R. (2005). *Project demonstrating excellence: The scientific approach to wisdom* (Doctoral dissertation). Union Institute and University.
- Twenge, J., & Campbell, S. (2008). Generational differences in psychological traits and their impact on the workplace. *Journal of Managerial Psychology*, 23(8), 862–877.
- Twenge, J., Zhang, L., & Im, C. (2004). It's beyond my control: A cross-temporal meta-analysis of increasing externality in locus of control, 1960–2002. *Personality and Social Psychology Review*, 8, 308–319.
- Veenhoven, R. (1994). *World database of happiness: Correlates of happiness: 7837 findings from 603 studies in 69 nations*. (Vol. 1–3). Rotterdam, The Netherlands: Erasmus University.
- Webster, J. D. (2003). An exploratory analysis of a self-assessed wisdom scale. *Journal of Adult Development*, 10(1), 13–22.
- Weiss, H. M., Nicholas, J. P., & Daus, C. S. (1999). An examination of the effects of affective experiences and job beliefs on job satisfaction and variations in affective experiences over time. *Organizational Behavior and Human Decision*, 78, 1–24.
- Werner, S., Praxedes, M., & Kim, H. G. (2007). The reporting of nonresponse analysis in survey research. *Organizational Research Methods*, 10(2), 287–295.