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Smiling at Risk: A Theoretical Test of the Formula for Happiness

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SMILING AT RISK

A THEORETICAL TEST OF THE FORMULA FOR HAPPINESS

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Intervention programs for juvenile offenders must be built on sound theoretical knowledge and designed for one of a number of specific reasons. Among these reasons are those programs developed with the goal of deterring offending through the development of competencies or other life knowledge, which, once gained, will assist offenders in becoming productive members of society. One such program is the Facts of Life, created by Ramm (2003) and based on a theory developed by Ramm and Czetli (2004), known as the Formula for Happiness.

Although the Facts of Life program is enjoying increased implementation within the discipline of juvenile justice, the theory this intervention is built upon has not yet been subjected to appropriate empirical testing. The present project utilizes a sample of college students enrolled in two universities to assess the assertions posited by Ramm. Using ordinary least squares regression techniques, two hypotheses are to be tested. H_1 is that life satisfaction/happiness is influenced by achievement in specific life domains; and, H_2 is that increased life satisfaction reduces engagement in criminal activity.

Results revealed mixed support for the hypotheses. Hypothesis 1 was supported and the predictor variables accounted for a large portion of happiness variance; however, only three of the core values conceptualized by Ramm emerged as significant. Further testing revealed that seven life domains more aligned with the wider positive psychology

literature emerged as significant predictors of happiness. Hypothesis 2 was weakly supported. Discussion of the results, ideas for secondary tests of Hypothesis 2, and directions for future research were then offered.

ACKNOWLEDGEMENTS

As far back as I can remember, human behavior and cognition has fascinated me. One of the earliest memories I have is of an elderly patient at a state hospital talking to my mother, describing a non-existent mink stole. I was too young to understand then what delusions and hallucinations were. My mother continued to open doors to the human mind by allowing me to keep volunteering at the hospital until I was through undergraduate studies. I am forever grateful to her, and to the hundreds of patients and workers I had interacted with at this institution over those 15 or so years, for opening my eyes and making me want to understand.

After graduation, I immediately began working with delinquent offenders. I am pretty certain this opportunity came about, in part, because my father had known the man who would soon be my director, even if they knew each other from the Vietnam era when recruitment to the military was an alternative to juvenile court. The behavior and thought processes of the thousands of youths I supervised or talked to over the next decade plus kept my curiosity alive. I am thankful to these kids for allowing me into their lives long enough to make me ask "what" and "why." Rest easy and peacefully, Dad.

Sometime after these experiences, I found myself wanting a doctorate. Jill, Bernie, Cynthia and Mary Ann, knowingly or not, all pushed me to finally submit the application. Because of their support, I made it to IUP.

The short years I have been here have been rather intense and informative, but they have also allowed me to find many of the answers I had been looking for since I overheard that mink stole conversation at age five. These answers came by learning from and talking to professors like Drs. Hanrahan, Frenzel, Gibbs, Austin, Gido, and J. Martin.

Like all excellent professors, these six people also gave me ideas and questions I never would have come to on my own. Extending through all these interactions was my time spent working under Dr. (Dave) Myers at CJPR. Saying thank you to him for the things I both learned and gained during my time in the "office-cave" understates my gratitude.

In addition to intellectual exchanges in the classrooms and during countless office visits, Drs. Giever, Roberts and Lee (aka Dennis, Jen and Dan) graciously accepted my invitation to ride along with me on the dissertation trail. Working through the construction zones and potholes of index and scale development, matrix building and strain (just to name a few) has been enlightening and challenging. Your time, knowledge, experiences and willingness to bear this project out with me have made Smiling at Risk so much more than a theory test. I bow once more to each of you.

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The entire time this project was underway, Linda had to tolerate my late nights in the loft drinking coffee, typing, reading and sometimes growling. Still, she stayed the course and would even bring Princess Stripey up for study breaks. To both of you, thank you- and sorry.

To my twin, Dr. Jennifer “Poof” Olson-Merichko. No one has ever pushed, challenged and competed with me like you did, and still do, to continually be better tomorrow than I was today. I miss you every day. Whhhh.

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CHAPTER 1

INTRODUCTION

Juvenile crime costs time and money, disrupts families, and creates other social consequences. These consequences extend beyond the immediate offender and victim to communities, schools, employers and taxpayers. The Justice Policy Institute reports that during 2008 American states spent more than $5.7 billion housing juvenile offenders in out of home placements (Institute, 2009). Annually, there are about 110,000 youth released from such placements and returned to their communities (Abrams, Shannon, & Sangalang, 2008). Between newly adjudicated, returned, and recidivistic offenders, about the same number of youth will be enter these facilities in any given year (Unruh, Gau, & Waintrup, 2009).

Although, while in these placements, youth are to be receiving instruction in educational, employment and other socialization programs that will ensure their safe and productive returns to the community, these efforts appear to be failing at about the same rate as they are succeeding. Nationally, recidivism for released youth has held relatively constant, at between 45% (Unruh, et al., 2009) and 55% (Abrams, et al., 2008), since the metric has been kept. Despite the increased costs in terms of money, time, and effort associated with these placements, re-offense rates of youth released from such institutions are not much different when compared with recidivism rates of all youthful offenders. The latter are reported to be 56% for youth at any referral to juvenile court (Snyder & Sickmund, 2006).

These counts reflect the number of apprehended, adjudicated and subsequently placed youth. As they do not reflect the number of youth who commit delinquent

offenses and are not placed, those who are not apprehended for their delinquent acts, and those whose crimes are never reported to officials. These counts do not capture the true involvement of youth in criminal or delinquent behaviors. Official juvenile arrest and disposition rates and self-reported participation in delinquency related behaviors can illuminate closer approximations of the extent of juvenile offending.

According to Snyder and Sickmund (2006), there were 2.2 million youth arrested in 2003. These youth represented about 624,500 delinquency adjudications and 529,400 youth put under probation supervision or into court custody during the same year. These data do not reflect all youth offending.

The 2008 National Survey on Drug Use and Health (NSDUH), administered by the US Department of Health, Substance Use and Mental Health Services Administration (SAMHSA) (United States Department of Health and Human Services, 2008), includes a subsample of school-enrolled youth aged 12-17 years. Reports by these youth reveal that in the 12 months prior to responding to this survey, seven percent engaged in a serious fight at work or school, 1.13% carried a gun, and 2.4% attacked someone with the intent to cause serious harm. While these percentages may appear minimal, the US Census Bureau reports an estimated 24,074,808 American youth were between the ages of 12 and 17 years old in 2000[1] (Bureau, 2000). Because the NSDUH engages great effort to secure a nationally representative sample, assuming stability in both population and offenses, we can estimate that about 1.68 million youth of juvenile court age are in a serious fight at work or school, 272,045 carry a gun, and 577,795 attack someone with the intent to harm each calendar year.

[1] This is the last year full census data were available.

These three acts involve a large number of people (offenders, victims, witnesses, police officers, etc), finances, and health care and other services annually devoted to their consequences. Combined with arrest and disposition rates, the problem of juvenile offending becomes obvious. There is a clear need for approaches to both prevent initial offending and curb recidivism in youth.

Efforts to intervene in and redirect delinquent behavior have traditionally been built on theories of crime causation or psychological treatment. On one hand, the former typically take the perspective that environmental, societal, biological, economic, individual or community factors play roles in leading people to crime (Akers & Sellers, 2009; Kubrin, Stucky, & Krohn, 2009). Although these schools of thought recognize that each of the other schools exists, they tend to minimize the role of any but their own set of factors as the sole or dominant causes of crime. For example, General Strain Theory (GST), as posited by Agnew (2005), suggests negative relationships with others or failure to achieve goals (either situation referred to as 'strain') generate negative emotions in a person that lead the person to crime (Agnew, 2005; Bernard, Snipes, & Gerould, 2010). The theory largely avoids any influence of biological, developmental, economic or environmental causes of delinquency. Where these factors are addressed, they are seen to be consequences of the strain, not causes and correlates of crime. Rethinking such single-cause approaches within criminology could lead to more effective delinquency and recidivism prevention programs.

On the other hand, psychological interventions with delinquents are largely based on the traditional view of psychological dysfunction. Simply, these interventions view the youth as having some cognitive or other mental process missing or improperly

working and employ a psychological therapy to cure delinquency by correcting the problem. These interventions have largely failed (Carmichael, Gover, Koons-Witt, & Inabnit, 2005; Spencer & Jones-Walker, 2004), although sometimes this is because the program had not been implemented by practitioners as designed by theorists rather than because the theory is flawed (Lane, Lanza-Kaduce, Frazier, & Bishop, 2002; Mears & Kelly, 2002). It is reported in the literature that juvenile cases referred for psychiatric assessment are not representative of delinquency in general (Hurwitz, Hutcheson, & Cooper, 1961) and that some juvenile justice agencies routinely disregard psychologically based intervention recommendations when they are given (Shook & Sarri, 2007). Further, intervention workers sometimes operate without a sound theoretical knowledge base (Ladwa-Thomas & Sanders, 1999). Finally, research suggests that treatment aimed at improving lives or reaching positive goals [i.e., a positive treatment focus] is often more successful than treatment based on fixing a problem [i.e., from the disease model] (Davidson, Redner, Blakely, Mitchell, & Emshoff, 1987). Correcting these issues may vastly increase psychological successes.

Evidence is also emerging that by integrating theories or focusing on positive individual factors, some things work for some juvenile offenders sometimes (Gies, 2003; Sherman, Farrington, Welsh, & MacKenzie, 2006). In particular, interventions designed on extant research or sound theoretical models and judiciously implemented based on their design (i.e. the activities and plans are fully implemented at the institution), those that are of appropriate dosage, and those that are multi-modal in service delivery appear successful (Altschuler, Armstrong, & MacKenzie, 1999; Olson & Lee, under review; Spencer & Jones-Walker, 2004). Further, interventions that seek changes relevant to the

daily lives and communities of the youth by comprehensively targeting each youth's individual dynamic and criminogenic characteristics via age and developmentally appropriate methods show the greatest reductions in recidivism (Altschuler & Armstrong, 2002; Altschuler, Armstrong, & MacKenzie, July 1999; Gies, 2003; Lane, et al., 2002; Spencer & Jones-Walker, 2004; Wells, Minor, Angel, & Stearman, 2006).

It appears, then, that most success comes through multi-modal, multi-causal perspectives, both from criminology and psychology. Further, attention to malleable and dynamic factors, such as strength and asset building, at the individual and systems levels creates more and longer lasting reductions in recidivism than do singular domain efforts. This latter approach, strength and asset building, is the realm of a relatively young sub-discipline in psychology, known as positive psychology.

During his Presidential Address to the American Psychological Association in 1998, Martin E. P. Seligman called for a sub-discipline of psychology that sought to understand what makes people healthy and helps them to function optimally (Baumgardner & Crothers, 2009). Although psychological health and optimal functioning had both been studied in psychology before, Seligman called for this new sub-discipline to abandon all pursuit of dysfunction and focus solely on positive functioning. Since then, the study of positive psychology has primarily focused on what makes life satisfying (Baumgardner & Crothers, 2009; Csikszentmihalyi, 2008; King & Napa, 1998; D. G. Myers & Diener, 1997; Seligman, 2011), or in other words on what creates happiness in people.

Of course, this was not the first attention paid to happiness as an important aspect of human experience. More than two millennia ago, Aristotle opined that happiness was

the ultimate human goal (Csikszentmihalyi, 2008). America's Founding Fathers felt so strongly about a man's happiness that they made its pursuit an "inalienable right." The current Dalia Lama goes so far as to note that the whole purpose of our lives is to seek happiness (Lama & Cutler, 1998). Happiness has even been discussed in criminology. In *The Principles and Morals of Legislation*, Bentham (1781) proposed that punishments meted out by governments should extend only so far as to remove the happiness one would gain from the profits of crime. Also known as the utilitarian or rational choice model, this thinking is applied today in deterrence theory and criminal justice interventions.

However, Seligman's address in 1998 more formally began the *scientific* study of happiness and its impact on behavior and mental process. Known interchangeably in the literature as happiness, well-being, quality of life, or satisfaction with life (Csikszentmihalyi, 2008; Diener, Suh, Lucas, & Smith, 1999; Seligman, 2002), happiness is believed to be dependent on a tripartite model of factors: subjective (as opposed to objective) well-being; positive affect; and, negative affect (Baumgardner & Crothers, 2009). Of these, subjective well-being (SWB) has received the most attention in empirical connections with behaviors.

For the most part, SWB has been studied in relation to normally functioning people. This is intuitive, since the focus of the sub-discipline has been to study the correlates and causes of mental health, such as joy, success, courage and other strengths, rather than to study ill health from the disease model. However, there have also been suggestions raised that the information learned from positively functioning people be subjected to theoretical and empirical testing to determine if the information can be

applied to increase the functioning of the dysfunctional (Huebner, 2004). To date, SWB has been shown to be associated with success after stays in mental hospitals (Laudet, Becker, & White, 2009), overcoming adverse conditions and traumas encountered in life (Tugade & Fredrickson, 2004), understanding conduct disorder symptoms (Cimbora & McIntosh, 2003) and remission from drug abuse (Laudet, et al., 2009), among other positive changes.

Despite progress and knowledge in these areas, there are few studies on the relationship between satisfaction with life and delinquent behaviors. A review of the literature available through EBSCOHOST (including Academic Search Complete, CINAHL, EconLit, Education Research Complete, ERIC, MEDLINE, MLA Directory of Periodicals, Philosopher's Index, Psychology and Behavioral Sciences Collection, Serials Directory, SOCIndex, Sociology Collection and Criminal Justice Abstracts) revealed only 215 articles published using the keywords "crime," "delinquency," and "life satisfaction." Of these, only five were empirical tests of the relationships between life satisfaction and delinquent, violent or aggressive adolescent behaviors (Estevez, Murgui, & Musitu, 2009; MacDonald, Piquero, Valois, & Zullig, 2005; Suldo & Huebner, 2004; Valois, Paxton, Zullig, & Huebner, 2006; Valois, Zullig, Drane, & Huebner, 2001). It is important to note that all five did show evidence that increased life satisfaction was related to decreased delinquent, violent and/or aggressive behaviors in youth.

Thus far, the literature indicates that while American society expects all teens will learn to live independently, establish a career path, obtain and maintain an education or job, and begin to engage in healthy, meaningful social relationships and leisure activities (Olson & Lee, under review; Unruh, et al., 2009), the 110,000 of them annually

committed to institutions at appropriations exceeding $5.7 billion would seem to be failing to do so, at a rather high rate. While the final verdict is far from in, preliminary studies offer highly encouraging potential for integrating positive psychology and criminology to reduce the high societal costs associated with delinquency. Given this potential and the serious questions raised about the effectiveness of most of our more contemporary deterrence-based policies, it would seem that we may want to begin developing, implementing and testing programs resulting from the marriage of criminology and positive psychology (Tweed, et al., 2011). Of course, once developed, these hybrid programs must be subjected to rigorous scientific testing to determine their success or failure and the reasons for either (Mears, 2010; D. L. Myers & Spraitz, 2011).

Currently, there appears to be only one such program for working with juveniles that provides this integration of positive psychology and criminology. This is the Facts of Life Program, developed by Ramm (2003). It is an adaptation of his earlier theory, known as The Formula for Happiness (Ramm & Czetli, 2004), which was proposed to be applicable to people of all ages (Ramm, 1996). This adaptation applies specifically to juvenile delinquents.

According to Ramm and his colleagues (Ramm, 2003; Ramm & Czetli, 2004; Ramm, Driscoll, Beighley, & Ramm, 2009), the curriculum arising from the Formula for Happiness/Facts of Life acts as a motivator toward pro-social behaviors in offenders by increasing their moral development and then applying this to decision making processes. Central to the program are what Ramm calls Core Values, ten factors necessary for any individual's happiness. These are separated by Ramm into sets of *things, relationships* and *conditions* of human existence. This initial part of the Formula for Happiness

suggests that a person's quality of life (happiness) is dependent on acquiring most or all of these ten core values; a low quality of life is felt by those who do not hold many of the core values, while a high quality of life is enjoyed by those who attain and maintain the great majority or full complement of these core values (Ramm & Czetli, 2004). Table 1 places each of the core values in their respective set.

Table 1: Ramm's Core Values in Their Sets

	Things:	
Money	Meaningful Material Objects	
	Relationships:	
Companionship	Intimacy	Affirmation
	Conditions:	
Health	Freedom	Security
Rewarding Occupation		Renewing Recreation

The theory further posits that, once people learn and appreciate that their happiness is associated with keeping these core values, they will be motivated to act in ways that will not threaten their retention of these things, relationships and conditions. Couched in both utility (i.e., goal-directed behavior) and deterrence (i.e., avoidance of crime for fear of punishment), this part of the theory holds, in part, that people will not engage in (further) crime as they will recognize that to do so is self-defeating in respect to maintaining the core values (i.e., it will decrease happiness). Modeling this theory, one can see:

Core Values → *(increased) Happiness* → (*decreased) Crime*

Figure 1: Model of The Formula for Happiness

Ramm (2003) does not suggest that attainment of the core values alone leads to decreased crime. Rather, it is through conscious and systematic moral reasoning that offenders come to recognize and act in ways that will not threaten their achieving and maintaining their core values. The curriculum is briefly summarized here from the course instructor's manual (Ramm, 2003). First, youth are taught the core values and reflect on how these are important to their individual life circumstances. Next, the participants are educated about what Ramm (1996) refers to as self-defeating behaviors, six behavioral patterns that threaten retention, or cause loss, of the core values. Many delinquent behaviors are described at this point as being self-defeating. Finally, information is presented on four alternatives to self-defeating behaviors which are referred to in the program as scientifically formulated principles of moral reasoning. It is proposed that by attending to the curriculum when considering future courses of action, youth will (immediately) recognize situations that are self-defeating and, hence, perilous to their core values. Knowing that their happiness is contingent upon keeping these core values, the youth are motivated to engage one or more of the principles, thereby avoiding loss of happiness and, many times, delinquency.

Acquiring this moral component to the Facts of Life is seen as a function of attendance to, active participation in, and completion of the full Facts of Life curriculum. As such, empirically validating this path from achievement of core values to increased

happiness to reduced delinquency participation- through moral reasoning- would be a function of an outcomes' evaluation. An outcomes' evaluation may or may not be premature (Mears, 2010), but it is beyond the scope of the current project, exactly because the foundational theory has not yet been tested.

Since its introduction in Pennsylvania in 2003, the Facts of Life curriculum has received national attention from practitioners. This is evidenced by its inclusion in the competency development resource guide for Pennsylvania, published by the National Center for Juvenile Justice (Hunninen, 2008) and its presentation at training seminars hosted by the National Partnership on Juvenile Services, the Pennsylvania Center for Juvenile Justice Training and Research and the Pennsylvania Association on Probation, Parole and Corrections (Herb, 2011; Ramm, 2011a). The program has also received recent publication in the *Juvenile and Family Court Journal* by the National Council of Juvenile and Family Court Judges (Ramm, et al., 2009).

As a result of this attention, more than 70 practitioners working in over 30 agencies have now been trained to instruct in the curriculum in Pennsylvania alone (Herb, 2011). Further, the program has received grant funding for implementation in two Pennsylvania counties (Szumanski, 2011) and one parish in Louisiana (Ramm, 2011b). It has also been implemented as an intervention in several juvenile agencies in Pennsylvania, Texas, and Florida without grant funding (Herb, 2011; Ramm, 2011a).

This growing popularity and implementation of the Facts of Life by practitioners involves increasing investments of youth and service provider time and tax-generated funding. Across the country, there is growing concern that juvenile and criminal justice policies and programs be empirically tested to assess their efficacy in reducing recidivism

and worth of continued investment (Dunn, 2008; Mears, 2010; D. L. Myers & Spraitz, 2011; Sherman, et al., 2006). The Facts of Life has yet to receive such evaluation. Further, according to at least one author (Mears, 2010), such evaluations of outcomes should be predicated on a theory evaluation.

Various strategies exist for policy and program analysis. These include reviewing the literature and either applying a systematic score [such as the Maryland system (MacKenzie, 2006; Sherman, et al., 2006)] or conducting a meta-analysis to existing tests and then making a decision about the program's efficacy. Researchers can also conduct original tests of individual programs through experimental or quasi-experimental methods applied to a sample of program participants and a control group of youth not in the program to determine the success or failure of the program. When analysts are interested in assessing if the program has been implemented as planned (i.e., a process evaluation) or in learning of the experiences of those involved in the program, qualitative methods with the youth, staff, parents, probation officers or other stakeholders can help. Standard cost-benefit analysis can illuminate whether the program costs more to implement than available alternatives.

An underlying assumption by researchers applying any of these methods is that the theory upon which the program or policy is founded is correct or has already been tested. As Mears (2010) notes, once the need for an intervention is established, it is important to "assess whether the theory underpinning any program or policy is logical; coherent; and, ideally, supported by research" (p. 10) prior to attempting to validate implementation, outcomes or cost-benefit. The thinking here is clear: If the theory comprising the foundation of a program is flawed, the program itself is then inherently

flawed. Much like a flawed bridge foundation could cause the bridge to (eventually) fail, the program built on faulty theory simply cannot be sustained in the long-term. With the growth of practitioner traffic onto the Facts of Life bridge, its foundation must now be tested to determine its ability to (continue to) support this increased usage.

The Present Study

To empirically test the propositions of Ramm's (1996, 2003; Ramm & Czetli, 2004; Ramm, et al., 2009) theory, the current project employed quantitative methods to assess whether satisfaction with life is indeed a result of achieving a set of *things*, *relationships* and *conditions* and to determine if satisfaction with life is associated with reduced involvement in crime. Therefore, two primary hypotheses are tested:

$H_{1:}$ achievement of the core values leads to increased life satisfaction

$H_{2:}$ increased life satisfaction reduces involvement in delinquent/criminal behaviors

To assess these hypotheses, a questionnaire that combines existing measures of Ramm's core values, satisfaction with life, and participation in criminal/delinquent behaviors is utilized. Ramm (2001) has developed a set of items that relate directly to his core values, known as the General Inventory of Life Satisfaction (GILS). These items have received initial validation as an indicator to global happiness (Ramm, 2002). Several instruments have been developed, validated and widely employed in the assessment of life satisfaction. Of these, the Satisfaction with Life Scale (SWLS) developed by Diener and his colleagues (Diener, Emmons, Larsen, & Griffin, 1985) was deemed most appropriate to this project. The scale is a generally accepted, five item instrument that has been administered to college students across several countries (Diener

& Fujita, 1995; D. G. Myers & Diener, 1995; Proctor, Linley, & Maltby, 2009). Assessing respondents' involvement in self-reported delinquent behaviors is determined by their reports to an adapted version of the Self Report Delinquency Scale originally developed by Eliott, Ageton and Huizinga (1985). This scale has been widely employed and adapted in criminology and has been subjected to validation studies (Piquero, MacIntosh, & Hickman, 2002).

The aggregate instrument is then administered to students enrolled into two universities, one of which is a mid-sized, state-owned university and the other of which is a small, Catholic liberal arts university. Both institutions are located in rural areas of Pennsylvania. Although the Facts of Life intervention targets juvenile offenders, Ramm argues that the overarching theory, the Formula for Happiness, is applicable to any population (Ramm, 2003; Ramm & Czetli, 2004). Further, Pennsylvania's juvenile act allows for the retention of juvenile offenders under the jurisdiction of the juvenile court until age 21 ("Pennsylvania Juvenile Act," 2008) and adolescence is widely accepted to extend from the onset of puberty through about age 22 (Berk, 2007). Based on these factors and due to the present project being the first assessment of Ramm's theory, it is believed that college students comprise an appropriate population from which to draw the sample for this work.

Analyses of the data generated from the psychometric instrument begins with factor analysis to ensure that the GILS items assessing the ten core values load on to the postulated ten separate factors. This is important as the Facts of Life posits that happiness is a function of acquiring these ten values. Then, for H_1, index scores measuring attainment of each of the core values from the GILS items are regressed

against reported satisfaction with life from the SWLS. The finding that attaining levels of satisfaction within certain life domains positively influences reported life satisfaction demonstrates support for H_1. However, only three of the core values proposed by Ramm act as significant predictors of happiness. Rather, seven domains more closely resembling those described in the wider literature emerge as influencing life satisfaction.

As to H_2, the reported level of satisfaction with life from the SWLS are regressed against rate of involvement in delinquent/criminal behaviors, measured by an adapted version of the Self-Report Delinquency (SRD) scale of Elliott and colleagues (1985). The findings that higher ratings of life satisfaction negatively influenced reports of involvement in criminal activity demonstrate support for H_2. Yet, there is some further discussion about the relative amount of influence that life satisfaction exerts on deviance.

Additional hypotheses related to General Strain Theory (Agnew, 1992, 2005) are outlined and then tested for comparison to the main hypotheses. The findings offer additional ideas for the link between emotionality and deviance. Finally, based on everything uncovered in this investigation, recommendations are offered for the future of the Formula for Happiness, research into this theory and the program that is founded on the theory, and the future of linking positive psychology with criminology.

Summary

In sum then, this project is a theory test of the Formula for Happiness. Utilizing existing scales, college students are sampled and asked to complete a psychometric instrument that measures their attainment to Ramm's core values, their subjective satisfaction with life, and their self-reported involvement in delinquent/criminal acts. These measures are subjected to reliability and validity testing. Then, two main

hypotheses are tested via quantitative statistical methods. The first of these is that increased attainment of the core values increases life satisfaction. The second is that increased life satisfaction decreases delinquent/criminal offending. Support for the hypotheses is mixed.

CHAPTER 2

REVIEW OF THE LITERATURE

Two primary assertions of the Formula for Happiness are that youth will come to understand that a major life goal is happiness and that its acquisition is tied to earning and keeping the core values. Within this theory, involvement in crime is seen to be an immediate and certain threat to these core values. Therefore, because delinquent behavior would ultimately entail a substantial reduction in happiness by loss of core values, youth will be motivated toward pro-social activities and avoid crime. This logic is consistent with the classical school of criminology, including deterrence theory, and a recent adaption of an economic model of behavior, known as rational choice theory. As these theories are closely related in their propositions and assumptions, they are discussed together.

The Rationality of Deterring Crime

It is widely held that contemporary criminology began with the writings of two philosophers during the classical era of history, Cesare Beccaria and Jeremy Bentham (Akers & Sellers, 2009; Kubrin, et al., 2009; Paternoster, 2010; Williams & McShane, 2004). Together Beccaria's (1764) *On Crimes and Punishments* and Bentham's (1781) *An Introduction to the Principles and Morals of Legislation* laid the foundation for a new system of criminal justice, which was based on the idea of deterrence. These authors held that freely acting people would follow the established set of laws when they feared the punishment they would incur from the system for not doing so.

Beccaria argued further that any punishments meted out by a legitimate criminal justice system had to be swift, severe, and certain (Akers & Sellers, 2009; Beccaria,

1764). In other words, citizens had to believe that the system would deliver strong punishments almost immediately after the behavior occurred, every time the behavior occurred. To Beccarian thinking, stronger punishments were required for crimes that threatened the dissolution of society than were necessary for offenses committed against any single member of that society (Beccaria, 1764). However, if any punishments far exceeded the harm done by the offenses, the system would be ineffective and illegitimate (Beccaria, 1764; Bernard, et al., 2010). When commensurate with the societal harm done, the fear of these punishments alone would deter members of society from giving in to their natural state of barbarity and offending against each other (Beccaria, 1764); thus, this system of thought became known as *deterrence* (Bernard, et al., 2010).

Bentham diverged slightly from this logic. Swift and certain punishments had to be severe enough to outweigh the personal gains from engaging in crime (Bentham, 1781). Instead of punishments alone acting as barriers against natural barbarous instincts, Bentham believed that people would weigh the benefits and losses of potential courses of action and then choose the alternative that provided the greater benefit to self (Bentham, 1781; Kubrin, et al., 2009). If the punishments did not surpass the rewards of the act the potential offender would choose to commit the crime, first suffering the consequences and then reaping the rewards. As this line of thinking suggested that people weigh costs-benefits when determining how to best reach their goals, it became known as utility or *utilitarianism* (Bernard, et al., 2010).

Deterrence and Utilitarianism are similar enough in their basic propositions and logic that they are discussed together in criminological texts as the "Classical School" of criminology (Akers & Sellers, 2009; Kubrin, et al., 2009; Shoemaker, 2005; Williams &

McShane, 2004). The Classical school believed people could be deterred from crime either because they had seen someone else punished for committing crimes and knew the same fate could visit them [general deterrence] or because they themselves had previously been punished for a crime [specific deterrence] (Akers & Sellers, 2009; Bentham, 1781). Despite the passing of two and one-half centuries and the development of competing theories of criminal thinking and behavior, this reasoning continues to be a basic assumption of the American criminal justice system today (e.g., the national "Click it or Ticket" campaign; three-strikes laws).

The contemporary view of deterrence/utility shares with the original version the idea that free-willed people will make decisions to commit crimes that are based on the likelihood punishment. However, rather than mainly the fear of punishment, current thinking emphasizes the economic calculus of utility as the predictor and controller of [offending] behavior (Cornish & Clarke, 1987). This latter perspective is now often referred to as Rational Choice theory (Kubrin, et al., 2009). Here, *rationally thinking* free-willed people will make the decision to engage in acts under consideration if the benefits outweigh the costs (Cornish & Clarke, 1987; Cromwell & Olson, 2004; Kubrin, et al., 2009; Williams & McShane, 2004). Like deterrence above, rational choice allows that a person may act after considering the *risks* of crime, but also allows for the weighing of the *rewards* of acting to the equation (Akers & Sellers, 2009; Cornish & Clarke, 1987; Cromwell & Olson, 2004). Mathematically, this can be displayed by the equation:

$$T\,(B > R) = C; \qquad \text{(eq 1)}$$

where “T” represents the function of rational thought; “B” represents the benefits of a criminal act; “R” represents the risks associated with the criminal act; and “C” represents the commission of the criminal act.

The costs of criminal activity are seen by utilitarianism to be the formal punishments meted out by the criminal justice system and also their informal accoutrements (i.e., ostracism after conviction, loss of trust) (Bentham, 1781; Maxwell & Gray, 2000; Paternoster, 1987, 2010; Paternoster & Piquero, 1995). Some versions of rational choice theory expanded this view somewhat to include as costs the shame felt by the offender for her actions and guilt brought on by crossing moral convictions (Braithwaite & Makkai, 1991; Cromwell & Olson, 2004; Paternoster & Pogarsky, 2009; Paternoster & Simpson, 1996). Under the rational choice calculus, all these costs are to be weighed against the benefits of crime, perceived or real (Bachman, Paternoster, & Ward, 1992; Braithwaite & Makkai, 1991; Paternoster & Simpson, 1996).

These costs and benefits do not exist wholly at the level of the individual. Some authors posit that offenders must also consider any organizations (or communities) they are closely nested within (Braithwaite, 1989; Braithwaite & Makkai, 1991; Cornish & Clarke, 1987; Paternoster & Pogarsky, 2009; Paternoster & Simpson, 1996; Pratt, 2008). For example, Paternoster and Simpson (1996) suggest that white collar criminals must take into account how their actions will affect and are affected by the rules and norms held by the organizations that employ them. But, not all wider costs and rewards must be considered; the decision maker will consider only the macro-level factors that are also salient to his goals. If a mid-level manager needs cash to pay his gambling debts and is weighing his options to earn this extra money, potential government sanctions against his

superiors for insider trading practices will not influence his decision to sell drugs at work. To the contrary, overhearing the Vice President of Marketing laughingly comment that the bathroom sink at the recent executive retreat was filled with cocaine probably will have significant influence when making his choice. This is because the latter conditions convey a more accepting attitude toward drug use than do the former.

More recent adaptations to deterrence by rational choice also propose that when considering behavior at the individual and/or macro levels offenders must consider costs and benefits which vary with each step of each crime under consideration (Cornish & Clarke, 1987). Having acquired the skills necessary for safe-cracking when deciding how to best open a commercial safe filled with weekend receipts while alone in an empty store imay reduce the risks to taking the time to open the safe without damaging the contents. These skills, however, are of no use when deciding whether driving skills are sufficient enough to avoid injury to self or others when fleeing from the police in the speeding getaway car one-half hour later. Further, neither safe-cracking ability nor driving skills will help increase the rewards or reduce the costs of undertaking a Ponzi scheme. Hence, criminal decisions will be limited by the opportunities, time, and abilities available to the offender at each moment of the instant offense (Cornish & Clarke, 1987).

All told, offenders seem to have much to consider when deciding whether to engage in criminal activity. Ideally, deterrence/rational choice theorists believe offenders will weigh the swiftness, celerity, and certainty of all known/perceived costs, including those of lost rewards from forgone alternative courses of action (Chamlin & Cochran, 2000), against all known/expected rewards of the crime, while simultaneously assessing

the skills needed to continue offending, at each moment of the offense(s). When swift, certain, and severe costs outweigh the rewards of offending, crime will be avoided.

Despite more than two centuries of inquiry since its introduction and a significant following in American legislatures, the evidence on deterrence theory remains invariably questionable (Akers & Sellers, 2009; Bernard, et al., 2010; Paternoster, 1987, 2010). In part, this is because there is substantial uncertainty of criminals being apprehended by the system (Akers & Sellers, 2009; Bernard, et al., 2010). Further, even when apprehended and subsequently convicted, there is extensive time lapse between commission of a criminal act and final administration of punishment by American criminal justice (Kubrin, et al., 2009; Williams & McShane, 2004). When punishments are finally delivered to the few offenders who do get them, they are often seen as relatively weak and lack any continued and meaningful contact with criminal justice personnel (Lane, et al., 2002).

In light of the continued experience with deterrence theory within the American criminal justice system, it does not seem that a quick weighing of the costs and benefits will do much to deter many criminal acts, at least in America. Further, parse, simplistic, and seemingly commonsense models of human calculus do not tell the whole story of decision making, no matter how alluring they may be. Other considerations influence how and why people choose to act.

One of these considerations is psycho-social development. For example, as Piaget aptly noted humans develop cognitively through very distinct degrees of abstractness (Bee, 1989; Feldman, 2008; Piaget, 2008, 2009). According to Piaget, it is not until adolescence that people can reason concretely, let alone think beyond the

bounds of what they can touch or manipulate directly (Piaget, 2008). Therefore, before this age, most actions would seemingly be avoided simply because of the direct and immediate consequences they involve, which in turn are learned from experience (e.g., not touching a hot stove because of burns received in the past and anticipated to be received again). More directly related to crime, Kohlberg argued that people progress through a series of six stages of moral reasoning (Berk, 2007; King, 2008). Only the earliest stages of Kohlberg's moral reasoning (pre-conventional morality) were believed to be based on rewards and punishments of actions, while higher levels of moral development were believed to entail concern for the person's place in and effects on society (Kohlberg, 2008; Kohlberg & Hersh, 1977). Many other theorists, both in- and outside psychology, suggest that people develop at different rates, to different levels, with different effects on their thinking and behavior (cf. Derryberry, Wilson, Snyder, Norman, & Barger, 2005; Erikson, 1966; Erikson, 1994; Paternoster & Brame, 1997; Piquero, Farrington, Nagin, & Moffit, 2010; Sampson & Laub, 1990; Simons, Wu, Conger, & Lorenz, 1994; Verplaetse, 2008; Wilber, 2006)

Another consideration to be made is whether humans attend to all the information at their disposal when encoding experiences and, if not, how this variant attention may affect both memory of past events and future expectations. This is important because if two offenders experience the same punishment but encode the severity or certainty differently the impact of the memory on their future decisions will vary. Levels-of-processing theory tells us that there is a significant chance of this occurring (Feldman, 2008; Lee, 2008; Mandler, 2002). These important issues arising from just

developmental and levels-of-processing theories strongly suggest that a full economic calculus to criminal thinking simply does not occur.

Still, evidence exists supporting certain propositions forwarded by the classical school. Paternoster's (1987) extensive review of the deterrence literature did find a weak but significant relationship between punishment and use of marijuana and stealing [what he termed "trivial and infrequent behaviors of high school and university students" (p. 214)] and a larger and significant relationship between certainty of punishment and vandalism. Additionally, Paternoster and Piquero (1995) explored whether actual or vicarious experiences of punishment led to an increased or decreased perception of risk for apprehension/punishment when engaging in alcohol or marijuana consumption. These authors found that perceived risk to self had a greater deterrent effect than perceived risk to others for their 10th grade respondents. Further, once the youths had actually drank alcohol or used marijuana, many either were not caught or were weakly punished when their behavior came to light; as a result, their perceptions of risk for repeating these activities decreased and they became more likely to engage in the behaviors. In other words, some support was shown for deterrence because when these behaviors were not punished at all (no certainty of punishment) or when the behaviors were not punished harshly enough (lack of severity), youths re-engaged in the behaviors more often.

Also encouraging are the results from Bachman, Paternoster and Ward (1992). These authors asked male college students to gauge the likelihood that they would engage in potential sexual assault scenarios discussed in vignettes. They found that the risk of formal sanctions, in addition to morality, inhibited respondents from believing that they

would engage in similar illegal and harmful sexual acts as had the offenders in the vignettes. Therefore, detection and morality seem to reduce sexual assaults on college campuses (although their relative influences on such behavior remains unclear).

Meanwhile, Paternoster and Simpson (1996) explored the influences and interactions of certainty, severity, morals and shame at the individual and corporate levels upon intent to commit white collar crimes. After gathering survey data from groups of MBA graduate students and a group of executives, the authors asked each respondent to read four corporate crime vignettes and then discuss if they would engage in the action portrayed. These authors found that morality of the respondents weighed heavily in the deterrent process. When the respondents held strong moral convictions against crime, no other deterrent was needed to prevent them from intending to commit the acts. They also found support for parts of the deterrence triad when moral convictions against crime were not strongly held. In these instances, certainty of sanctions (personal and corporate) and shame both decreased intent to act criminally, while rewards of crime at both the individual and company levels increased respondents' intent to commit the acts.

More recently, Maxwell and Gray (2000) examined the effects of belief in detection on probation violations in a sample of 516 supervisees enrolled into an intensive drug probation program in New Jersey. Interviews and statistical methods conducted by these authors revealed that the more an individual offender believed that a vicarious "street smart" offender would be detected violating the rules, the offender's chances of success in completing her intensive drug probation program increased. In other words, if an offender felt someone with good street sense would be caught breaking

the rules, the offender tended to follow the rules herself. This was interpreted to be evidence for certainty of detection as a general deterrent.

In a study of the cognitive process in rational choice where respondents were interviewed every six months over two years, Paternoster and Pogarsky (2009) used data from the National Longitudinal Study of Adolescent Health (Add Health) to determine the effects of what they call Thoughtfully Reflective Decision Making (TRDM). TRDM was measured via self-report items that indicated whether youth; got as many facts as possible when beginning the decision making process, thought of many different solutions to a problem under consideration, systematically made a decision, and analyzed the results for success/failure and the reasons for either. Three waves of Add Health data were utilized: Wave 1 when respondents were between 12 and 17 years old at initial interview; Wave 2 was six to eighteen months later; and, Wave 3 was five and one-half to seven years after first responses were reported. The researchers reported that youth who engaged more detailed TRDM at Wave 1 were less likely to have committed delinquent/risky behaviors at Wave 2 than the lower TRDM processing youth. These same youth were also more likely to be enrolled in college, had higher social participation, used fewer drugs, alcohol, and cigarettes, and had less criminal engagements at Wave 3 than their less TRDM processing counterparts.

When testing the deterrence triad, Ward, Stafford and Gray (2006) employed computer-manipulated levels of reward, certainty, and severity of punishment. By randomly adjusting the certainty of detecting respondents' cheating behavior to the study task, the severity of punishment if caught and the rewards for not cheating, the authors assessed the respondents' willingness to cheat under varying degrees of these variables.

Findings indicated general support for deterrence in that certainty of detection and severity of punishment decreased the cheating behavior of respondents during the task.

Last, Paternoster (2010) conducted a second review of the deterrence literature almost a quarter century after the one noted above. After reviewing the more recent evidence, this author ends where he started, by noting that "there is a marginal deterrent effect to some changes in criminal justice policy" (Paternoster, 2010, p. 818). While people do adjust their perceptions of risk based on their own and others' experiences with punishment and while the certainty of capture is more influential in decreasing crime than are swiftness or severity, there is little support for the full deterrence doctrine in the literature (Fagan & Piquero, 2007; Paternoster, 2010).

If deterrence authors are accurate, it appears that a takeaway point from 200 years' of deterrence research is that individuals who lack moral conviction to conventional behaviors tend to avoid criminal acts when there is a perceived certainty of detection/punishment. Further, this certainty is affected by their own and others' experiences with capture and punishment. The words that Meithe and Meier (1994) attribute to Geis seem especially salient as a summary of deterrence knowledge, "even kleptomaniacs seem to gain astonishing control over their impulse when they notice a store detective about" (p. 12). Obviously, we cannot dispatch detectives to continually observe every potential criminal in the hopes of deterring offenses. Yet, there may exist a way to engage an internal detective in most.

On Being Happy

When Psychological Abstracts began indexing "happiness" in 1973 (Diener, 1984), attention was focused on understanding the demographic correlates of happiness

(Baumgardner & Crothers, 2009; Diener & Seligman, 2004). What we have learned from these initial studies is that, regardless of demographics such as race, age, sex, ethnicity, income, where they live, and the grade they are in, the vast majority of people report being happy (Argyle, 1987; King & Napa, 1998; D. G. Myers & Diener, 1995, 1997). Campbell, Converse, and Rodgers (1976) report that, across America, 85-90% of the people report being "very happy" or "pretty happy" in their surveys. Baumgardner and Crothers (2009) report that, on a scale of 1-10, the average American rates her happiness as a 7.2. Diener and Diener (1996) indicate that about 85% of the people in 86% of the countries studied report being happy or very happy.

We have also learned that happiness is more than not being unhappy (Argyle, 1987). Despite centuries of being told that pleasure is the absence of pain (Bentham, 1781; Keyes, 2003; Layard, 2005), we now know that people who "are impoverished, depressed, or suicidal, care about much more than just the relief of their suffering" (Seligman, 2002, pp. xi-xii). If, in fact, happiness was simply the absence of unhappiness, such people would not care, as they do "sometimes desperately, about virtue, about purpose, about integrity, about *meaning*" (Seligman, 2002, pp. xi-xii emphasis added). Nor would this meaning be so potent as to pull people from the worst experiences one could encounter. Yet, even in the depths of despair, people can find meaning, purpose and, sometimes, a way to happiness (Frankl, 2006).

In an interesting study to test if people sought out happiness as a life goal, King and Napa (1998) asked a group of adults and a sample of college students at and near a religion-based university to rate fictitious career surveys on the grounds of desirability of the life portrayed in the survey and on the moral goodness of the person portrayed in the

survey. The sample presumably included religious and non-religious respondents. One of the ratings the subjects were asked to make was the likelihood that the portrayed person would go to heaven. In both the adult and student samples, happiness was desired above money and, along with meaning, was seen as a key to earning a heavenly reward.

So, natural or intentional, most people around the world are happy and their happiness is unrelated to demographic characteristics. Those few people who are not happy apparently want to be, even if only to help get them into Heaven. Still, by discounting demographics, the early research did not reveal why or how people get happy. This dearth in happiness knowledge created a research movement away from aggregate demographic correlates and toward individual perceptions and experiences with life to try to better understand happiness and from whence it comes.

Almost immediately, distinctions between three components of happiness were discovered: positive affect; negative affect; and, subjective well-being. Both positive and negative affect are now believed to be somewhat inherent or genetically passed and directly related to emotional responding (Baumgardner & Crothers, 2009). Thus, they are seen as having top-down influence on peoples' experiences; those predisposed to positive affectivity tend to see things positively, while the opposite is true for those endowed with negative affect. On the other hand, subjective well-being was seen to be a function of a person's experiences and circumstances in the world (Kahneman, Krueger, Schkade, Schwarz, & Stone, 2004). Further, the research into this as a stand-alone concept was beginning to show subjective well-being held potential as a dynamic force in social development. Because people have greater control over the behavior that leads to

experiences than they do genetically inherited emotionality, subjective well-being has received much of its own scientific attention.

Subjective Well-being

Subjective well-being (SWB) is no more than the extent to which a person reports that he or she is happy with the circumstances of life (hereafter the terms "subjective well-being," "satisfaction with life," "life satisfaction," and "quality of life" will be used interchangeably). Regardless of how that person's life appears to us from the outside, the only true consideration here is how the person herself rates her satisfaction with her own situation. Argyle (1987) offers perhaps the clearest example of SWB when he says that "if someone says that they are very satisfied with, say their mud hut on stilts, then we must assume that they *are*" (p. 3, emphasis in original). This is not to suggest that science is blindly accepting unstable, whimsical ratings from respondents when attempting to understand social phenomena. Rather, SWB is seen to be a socially constructed variable that is dependent upon the historical, collectivistic, and social factors of respondents (Martikainen, 2009).

As a social construct, its rating is influenced by external circumstances and events in the person's life, the person's perceptions of these circumstances and events, standards against which to compare these circumstances and events to determine if they are good or bad (Baumeister, 1991; Martikainen, 2009), and by actual or perceived satisfaction of wants and needs (Kasser, 2002; Layard, 2005). If our mud-hut dweller is well sheltered while living in a barren flatland among similarly situated colleagues, his self-report of happiness is more scientifically palatable than if he were living *in his mud hut* on the frozen Canadian tundra among First Nation peers. Therefore, it is when our expectations

and needs are met and we are equal with or better off than our reference group that we are more likely to report higher life satisfaction (Baumeister, 1991).

Life satisfaction has been associated with many features important to people's lives. These include more happy memories, positive life perceptions, positive expectations for the future, and the acquisition of personal resources (Baumgardner & Crothers, 2009). These benefits have been connected with greater ability to overcome the hardships and trials of life, or resilience, and asset building (Fredrickson & Joiner, 2002; Tugade & Fredrickson, 2004). Park, Peterson and Seligman (2004) report that people perceiving higher satisfaction with life are good problem solvers, perform better at work and are more resistant to strain. The latter are, again, associated with a range of positive outcomes in life.

So, a few things are known about life satisfaction. SWB is a concept borne from larger studies of happiness and it serves as an indicator of a person's own perceptions of her life circumstances and expectations. Increasing SWB/happiness appears to be a goal that people (want to) work toward (and therefore its loss is to be avoided). SWB seems to have at its base socially constructed and dynamic factors that, when pooled together, open the paths to a more successful future. If need be, SWB can be called upon to help traverse and overcome the sometimes trivial, sometimes serious obstacles of life. All of this is considered to be supportive of the 'happiness as a goal' proposition of Ramm's theory; but how SWB is tied to specific life domains is unknown.

Life Domains as Influencers of Subjective Well-being

The literature indicates that there are a limited number of domains that exert influence on life satisfaction; and, similar such domains consistently emerge regardless of

where the studies have been undertaken (Argyle, 1987; Baumeister, 1991; Diener, 1984; Diener & Diener, 1996; Diener & Seligman, 2004; Grouzet, et al., 2005; Huebner, Drane, & Valois, 2000; Kahneman, et al., 2004; King & Napa, 1998; D. G. Myers, 2000; D. G. Myers & Diener, 1995, 1997). Cultural differences do account for some of the variability in rankings of relative importance of specific domains to life satisfaction across countries and within countries (Martikainen, 2009; Schwartz, 1992), as do changing objective circumstances within peoples' lives (Diener, 1984; Pavot & Diener, 2008). Still, when separated out statistically, most of these domains recur and each seems to add unique influence on reported global life satisfaction (Campbell, et al., 1976; Huebner, et al., 2000).

For instance, Campbell, Converse, and Rodgers (1976) undertook a study on well-being and domain satisfaction by interviewing 2,164 Americans, aged 18 years and older, between July and August 1971. Published in book form, this work was one of the first attempts to apply regression analysis to examine the relative contributions of domain satisfactions to overall happiness. Relevant findings are reported in Table 2 in adapted form and by descending rank of beta.

Table 2: Campbell et al. Life Domains and Their Importance

Domain:	Mean:	R^2:	β:
Family Life	1.46	28	.408
Marriage	1.44	16	.364
Finances	2.94	15	.333
Housing	2.10	11	.303
Job	2.19	18	.274
Friendships	2.08	13	.256
Community	2.21	08	.253
Health	1.37	08	.219
Leisure	2.79	29	.213
US government	1.54	05	.149
Organizations	4.01	04	.123
Religious faith	2.35	05	.107

Note: R^2= percentage variance explained; β= regression coefficient;
Scale to mean: 1= "extremely important" to 5= "not at all important"
Adapted from Campbell, Converse and Rodgers (1976)

Looking at this table, it appears that no life domain singly accounts for reported happiness, but clearly some domains influence happiness more so than others. Further, domains related to fluid factors are seen as more important to people than those beyond their control (e.g., citizens' finances are rated higher in importance to happiness than are respondents' perceptions of the support they receive from the U.S. government). The authors reported that these findings were largely stable across age, sex, race, education and income levels.

On the other hand, Sears (1977) conducted a smaller but much more detailed investigation into factors related to life satisfaction. His study derived from follow up interviews with 486 of the original 875 "Termites" in 1972. The Termites were a group of men assessed with high intelligence and studied across their lifetimes by psychologist Lewis Terman beginning in 1921. Included in Sears' interviews were questions to determine what areas of life these men considered to be most important to their happiness. Results indicated that six domains were important to the Termites. In decreasing order of importance, they were: occupation; family life; friendships; richness

of cultural life; service to community; and, joy in living. Although variant in relative importance, the domains uncovered by Sears as important to satisfaction with life included many of those reported by Campbell and his colleagues (1976).

Outside the United States, Martikainen (2009) studied a group of 192 Finnish people all born in 1968 and assessed how these young adults constructed life satisfaction. Again, several factors emerged as important to predicted life satisfaction. She reports that eight categories were relevant: work; health; family; material needs; hobbies; friends; studies; and substance use. Although there was variability as to the relative ranking of these factors when age, sex and residential location were combined, the eight factors held across all demographic variables. Again, these are similar to findings from the studies noted above.

Querying youth life satisfaction specifically, Proctor, Linley and Maltby (2009) conducted a literature review and found 141 empirical studies of youth life satisfaction as related to such things as economic deprivation, family dysfunction, physical activity, and race relations. Their findings again were consistent with that above in that youths were generally happy regardless of demographics, their happiness was tied to similar life domains as found in adult studies, and that negative events and traumas could weaken SWB.

Last, while preparing his own text on happiness, Argyle (1987) collapsed these recurring domains and their component variables into three dimensions of life satisfaction based on commonality. He referred to these as "material, tangible help," such as money or housing during a divorce; "emotional support," such as a close friend to confide in when death occurs; and "shared interests," such as safe neighborhoods in which to raise

children. Argyle's categories fit well with the three categories of *things*, *relationships* and *conditions* posited by the Facts of Life and provided earlier in Table 1.

Summarizing here, the literature supports the contentions from the Facts of Life that global assessment of one's life satisfaction is positively influenced by events, circumstances and needs which can be placed into a limited number of life domains. There is also support for the idea that each of these domains exerts unique influence to global satisfaction, meaning that loss of or growth in any one will independently affect SWB and that attaining most or all is important to overall SWB. The final component that needs to be reviewed before we can fully explore the theory is whether increased life satisfaction leads to less criminal behavior.

The Courtship of Deterrence and Positive Psychology

Currently there is a paucity of research into the integration of criminological and positive psychological concepts. It seems that if criminology and positive psychology enter into a successful marriage it will be despite the apparent lack of interest from most researchers to investigate the potential for these social sciences to work together. Take for example the thoughts of Huang and Blumenthal (2009) who, summarizing numerous authors, offer an extensive list of likely suitors to positive psychology;

> "business ethics and social responsibility, cigarette taxation, development economics, disadvantaged subpopulations, education, employment discrimination litigation, environmental protection, income inequality, labor market regulation, macroeconomics, marriage, obesity, organizational behavior, political economy, public housing, taxation, terrorism, and urban planning" (p. 592).

Missing is any suggestion that the concepts relevant to the field of positive psychology could prevent crime, reduce recidivism, or decrease prison populations.

Huang and Blumenthal are not alone in this neglect. When talking of the attendees to one of the largest gatherings of top positive psychology theorists and researchers, Lopez (2009) noted that the goals of positive psychology, as outlined in the so-called "Akunal Manifesto," are to: improve education; direct psychotherapy; improve family life; increase work satisfaction; help organizations and society; and to develop the moral character of society. Again, there was no criminal justice mention.

All is not lost. One of the most prolific writers in positive psychology, Mihalyi Csikszentmihalyi (pronounced Me-high Cheek-sent-me-high, aka "Mike"), began to discuss how life satisfaction and crime are possibly related. About a decade ago, he suggested that the lack of resources or opportunities to experience flow (which he describes as a state of total absorption in whatever activity a person is engaged, also known as a peak experience) could lead teenagers to experience boredom and frustration and then to their engagement in delinquent or other offending behaviors as a result of this boredom (Csikszentmihalyi, 1999). Others, notably Huebner and colleagues (Huebner, 2004; Suldo & Huebner, 2004; Valois, et al., 2006; Valois, et al., 2001), have begun to directly discuss and study the influences of life satisfaction on youth crime. The argument is made by these authors that increasing youths' life satisfaction can decrease crime, aggression, substance use, and the costs associated with these negative behaviors. They have also suggested that increased SWB can positively impact pro-social reactions when adolescents are faced with adverse events. Tweed and his co-authors (2011) promoted the use of positive psychology as an intervention with youths because it can

help to identity and build personal resources, such as community and peer relations, and character strengths, such as forgiveness and humility, which work to lead youths away from crime. At the same time, racial and community stigma often associated with enforcement style interventions, such as targeted gang enforcement or drug sweeps, is reduced or eliminated (Tweed, et al., 2011).

These few discussions of life satisfaction and crime are supported by comparably sparse empirical tests. There are only five studies known that test the influence of life satisfaction on crime or violent/aggressive behaviors. However, all of these have shown evidence for an inverse relationship between SWB and offending or aggression. Four studies have at least one shared author and two make use of the same datasets. These tests are reviewed chronologically.

In the first of these, Valois and his colleagues (Valois, et al., 2001) examined self-reported violent and aggressive behaviors and domain satisfaction in a randomly selected, representative group of 5,032 South Carolina adolescents responding to the 1997 South Carolina Youth Risk Behavior (SC YRB) survey. The results were separated out in to four race/sex groups, white males, white females, black males and black females. One finding emerged as significant across all four of these groups; when reporting lower life satisfaction, South Carolina youths also reported increased participation in physical fights within the 30 days before taking the survey. Other criminal behaviors also were committed more consistently by less happy youth across the various race/sex groups: These were carrying a weapon both in and out of school and riding in or driving a car where the driver had been drinking. An additional related finding was that youths who reported lower life satisfaction also felt less safe while at school.

Next, Suldo and Huebner (2004) studied the moderating effects of life satisfaction ratings on internalizing and externalizing behaviors over two survey administrations spanning 12 months. Their time 1 (T1) sample consisted of 1,045 students from two high schools and three middle schools in a southeastern US city in fall of 2000. Time 2 (T2) respondents were 816 members of the original sample, surveyed in fall of 2001. Their findings were that decreased T1 life satisfaction was associated with T2 externalizing behaviors (e.g., delinquency and aggression), but not T2 internalizing behaviors (e.g., anxiety, self-harm). These findings held when T1 internalizing behaviors were controlled. The authors reported that their findings were important given that "when initial reported levels of psychopathology are taken into account, low adolescent life satisfaction reports appear to be a risk factor for subsequent externalizing problems, but not internalizing problems" (Suldo & Huebner, 2004, p. 98). This is noteworthy for the proposed study since internalizing behaviors are rarely the direct cause of attention by juvenile courts.

In the third of these studies, MacDonald, Piquero, Valois and Zullig (2005) analyzed responses from 5,545 high school youth answering the 1997 SC YRB. Using the same scales as Valois et. al (2001) and employing ordinal probit regression to determine the influence of happiness on several forms of offending, these authors found that as reported life satisfaction increased carrying a weapon other than a gun, carrying a weapon other than a gun in school, carrying a gun anywhere, and fighting all decreased significantly. The authors also controlled for the common criminological variable of "broken homes" and found no effects of living with one or both parents on the life satisfaction-violence link.

Valois, Paxton, Zullig and Huebner (2006) examined happiness-crime associations across the same four race/sex groups reported earlier by Valois et. al. (2001). The sample consisted of 2,138 US middle school students in one southern state, and this time, no offending behaviors were significant across all four groups. However, for some groups, lower SWB was significantly correlated with varying degrees of carrying a knife or club as a weapon, fighting with and without injury requiring medical care, and carrying a gun.

In looking at the topic of school bullying, Estevez, Murgui and Musita (2009) studied the relationship between youths' ratings to the Diener et. al. (1985) Satisfaction with Life Scale (SWLS) and involvement in school bullying. A total sample of 1,319 was selected from all adolescents attending schools in Valencia, Spain. Respondents were identified as either bullies (n= 223), bully/victims (n= 104), or victims (n= 212) and were compared against a group of students not involved in bullying (n= 780). The authors' findings were that higher reports of life satisfaction were significant in predicting membership to the group of students not involved in any way with bullying. There were no differences in life satisfaction ratings between the three groups of students who were bullies, bully/victims or victims. Additionally, Estevez et. al.'s results (2009) shed some additional light on the results reported above (Valois, et al., 2001) that students who had lower levels of life satisfaction felt less safe at school. It appears that increased life satisfaction may not only decrease offending behavior, but may also decrease victimization experiences, thus youths with higher SWB just may be less fearful of life's necessary interactions.

Two other studies examined the effects of life satisfaction on what Gottfredson and Hisrchi (1990) would call the analogous behavior of drug usage; one in youths with co-occurring conduct disorders (Donohue, et al., 2003), and the other with long-term adult drug users (Laudet, et al., 2009). Again, both report findings supportive of the positive psychology-crime courtship.

Donohue and his colleagues (Donohue, et al., 2003) were interested in validation of the Life Satisfaction Scale for Problem Youth (LSSPY) and sampled 193 twelve to seventeen year old adolescents referred to an outpatient mental health center for drug abusing and conduct disorder problems. All youths had at least one current diagnosis recognized in the Diagnostic and Statistical Manual of Mental Disorders, Fourth edition (DSM-IV). The authors report that their results are suggestive that, when given greater latitude in treatment choices, life satisfaction increases in these youths. More importantly herein, when life satisfaction increased, continued involvement in substance abuse decreased, as did the exhibition of conduct disorder-related behaviors.

Last, Laudet and her co-authors (Laudet, et al., 2009) reported that higher levels of life satisfaction at the onset of treatment were associated with increased remission over a two year follow-up period. Further, former addicts who remained substance free for ten years or more reported life satisfaction similar to people who had never abused substances. It is noteworthy that the participants in this study all had some significant negative event in their lives brought about by their drug use. Although the authors argue that the results may not apply to users less negatively impacted by drugs, findings are consistent with other researchers' findings that life satisfaction and/or positive affect can

help people overcome variegated traumas in life, known as resilience (Fredrickson, 2001; Fredrickson & Joiner, 2002; Tugade & Fredrickson, 2004).

Again, this research is promisingly supportive to the current research questions. It appears that increased happiness may lead to decreased violence, aggression, and drug use. We can now turn to dissecting the Facts of Life.

The Formula for Happiness

The required elements for any theory of human well-being are that its components must be pursued for their own sake, be defined and measured exclusive of other elements, and have adaptable goals or values that account for cultural worldviews (D. G. Myers & Diener, 1995; Seligman, 2011). The Formula for Happiness is proposed as just such a theory about well-being (Ramm, 1998, 2001; Ramm, et al., 2009). Ramm chose to frame the objective of happiness into self-reinforcing, mutually exclusive, and socially relevant elements that he calls the core values.

Ramm conceded that happiness is an emotion; yet, he and his co-author are careful to clarify that

> *happiness* is a positive emotional state, which is more complex and multifaceted than any single positive emotion…While it involves pride, love, joy, and excitement, happiness is more a matter of how we are simultaneously situated with respect to the totality of those things, people, and events that constitute the circumstances of our lives. In other words, *happiness occurs when we have more or less continuous access to what is essential to our contentment and satisfaction in life* (Ramm & Czetli, 2004, p. 14, emphasis in original).

Thus, for the Facts of Life, rather than the separate moment-to-moment experiences a person can have, happiness is a mostly recurring belief that one has reached a point in life where all or most survival requirements and important wants are met. This is notably similar to what some call *eudemonia*, a pleasurable state of existence resulting from the satisfaction of the psychological needs for security, competence, connection with others, and autonomy (Kasser, Ryan, Couchman, & Sheldon, 2004). One of the basic or underlying assumptions of the Facts of Life is that all people want to acquire this eudemonic state (Ramm, 2003; Ramm & Czetli, 2004). It is also assumed that not all people are in this state. Further, according to the assumptions in the Facts of Life, maintenance of this state is a goal for those who have achieved it, while acquiring eudemonia is a goal for those not yet there. Still, there is recognition that happiness is not a one-size-fits-all phenomenon. The Facts of Life offers that people will act in ways that move them toward their own ideas of happiness, or their nearest achievable approximation. According to Ramm and Czetli (2004), it is when people have acquired the elements in these core values important to *their* individual lives that this primary goal of happiness is achieved (Ramm & Czetli, 2004).

The motivation for any goal achievement is thought to necessarily be self-reinforcing. In other words, the behavior is engaged for its own reward; in this case, happiness for happiness' sake. We have already seen that fear of punishment is not a successful crime deterrent nor is it a good motivator to get people to act in more socially favorable ways. Verplaetse (2008) informs us further that, after about age 12, religious-based motivations toward (Heavenly) happiness fade in favor of more socio-cultural norms. Ramm (1996, 1998) recognizes all of this and agrees with Layard (2005) that the

desire to produce behaviors that work toward a decent life must be intrinsically derived and voluntarily engaged. To him and the Facts of Life, attaining the full complement of the core values fits this charge.

A point of value clarification is required before moving forward in the discussion. Within the happiness/life satisfaction literature, values, or domains, are not defined in terms of moral behaviors. Rather than prescriptions to "treat others as you want to be treated" or proscriptions that "Thou Shalt Not Kill," values here are taken to be what Kasser (2002) calls "needs for human functioning, motivation and well-being" (p. 24). Kasser himself identified four categories of these needs: safety, security and sustenance; competence, efficacy and self-esteem; connectedness; and, autonomy and authenticity (Kasser, 2002, p. 24). Such values are believed to be a set of social, personal, and tangible resources required to open the doors to successful life participation and happiness (Argyle, 1987; Cantor & Sanderson, 1999). In fact, Argyle (1987), like Ramm and his various co-authors (Ramm, 2003; Ramm & Czetli, 2004; Ramm, et al., 2009), went so far as to propose that these resources were either acquired or not and that without them, one simply cannot be happy. Much like moral and ethical values, these concepts can still "pertain to desirable end states or behaviors, transcend specific situations, guide selection or evaluation of behavior, and are ordered by relative importance" (Schwartz, 1992, pp. 3-4). To be accepted, proposed happiness values must finally meet Seligman's (2002) three criteria for psychological and social strengths: they must be valued in all cultures; valued in their own right; and, malleable.

Ramm and Czetli (2004) report that a search of the literature, combined with Ramm's experiences as a clinical psychologist, led them to deduce that there are ten core

values that meet these criteria and are required for happiness. These are money, meaningful material objects, companionship, intimacy, affirmation, health, a rewarding occupation, renewing recreation, freedom, and security (Ramm, 1996). Ramm and Czetli (2004) further categorized these under the three broader concepts of things, relationships, and conditions of human existence. Their parsimonious contention is that this is the fewest number of categories into which the fewest number of individual values can be sorted. They are supported in this by Schwartz (1992), who found three very similar universal human requirements; "needs of individuals as biological organisms, requirements of coordinated social interaction, and survival and welfare needs of groups" (p. 4).

Other researchers working in life satisfaction have found a limited number of closely-related domains of human needs both within and across cultures (Campbell, et al., 1976; Grouzet, et al., 2005; Sheldon, Elliot, Kim, & Kasser, 2001). For comparison, the specific values of two of these authors, as well as those of Ramm, are noted in Table 3. As can be seen in the table, many of the values recur across authors and are similar.

Table 3: Values by Author

Author(s):		
Campbell, Converse and Rodgers (1976)	Sheldon, Elliot, Kim and Kasser (2001)	Ramm (1996)
Values:		
Leisure/non-work activities, finances, work, education, friends, family/marriage, physical environment, health, civic involvement, national satisfaction	Pleasure-stimulation, money-luxury, relatedness, popularity-influence, security, autonomy, competence, physical thriving self-esteem, self-actualization-meaning	Renewing recreation, money, rewarding occupation, companionship, intimacy, affirmation, health, freedom, security, meaningful material objects

Having completed this overview, the premises of the Facts of Life can now be summarized. First, happiness is a general and recurring state of having met a set of basic biological, social and psychological needs of life. These needs are universal to all people in all cultures, yet are malleable enough to permit individuals to adjust their levels of acquisition to the specific circumstances of their own lives. There are ten such needs and they comprehensively address three broad categories of existence. Perceived happiness is a direct function of having all or most of these needs met. Next, although everyone wants to be happy, not everybody is. Knowing that one is happy will direct future behaviors so that this state can be maintained, while knowing that one is not happy will serve as a strong motivator of future behaviors toward a state of happiness. Finally, happiness as a state and the motivation to pursue it are intrinsically rewarding to people, sought for their own sake. With this knowledge at hand, we now turn to defining and explaining Ramm's specific core values, as outlined in his collected works (Ramm, 1996, 1998, 2001, 2002, 2003; Ramm & Czetli, 2004; Ramm, et al., 2009). Again, as appropriate, the extant literature will be examined.

The Core Values in Their Sets

Things. *Money* is "a social convention instituted for the purpose of trading goods or services" (Ramm, 2003, p. 8). As such, this core value includes anything that is traded, bartered or offered in exchange for other needs. Mainly the accepted form of state currency, money can also include services or tangible resources offered to acquire wanted or needed values. For instance, babysitting services can be exchanged for $10 (USD) per hour or a teenage daughter may offer her parents an afternoon's watching her younger brother in exchange for use of the family car for one evening.

Money is often considered to be a main aspiration of people and there is no question that having money available is necessary for life to continue. Early research considered money to be a major influence on happiness, but these studies looked primarily at the unhappiness experienced by the very poor (Argyle, 1987) or the tendency for people to report they would forego other important needs to earn more money (Layard, 2005). More recent research has shown that once out of poverty, increased income does not increase happiness and that people who are highly concerned with money actually suffer greater life anxiety, especially regarding money than do less financially-centered people (Argyle, 1987; Baumgardner & Crothers, 2009; Csikszentmihalyi, 1999; D. G. Myers, 2000). Today, it is generally agreed that money is important to most people only to the extent that they have met their biological needs for survival as well as their perceived needs for meaningful material objects, with relative levels of the latter dependent upon a reference group of peers (Argyle, 1987; Baumeister, 1991; Csikszentmihalyi, 2004; Kasser, 2002; Layard, 2005). Past this point, concern for money, and the next core value, degrades life satisfaction (Csikszentmihalyi, 2004; Kasser, 2002; Kasser, et al., 2004; Solberg, Diener, & Robinson, 2004).

Meaningful Material Objects are the "necessities of life as well as the objects that contribute to a person's contentment and satisfaction in living" (Ramm, 2003, p. 8). This core value includes both the basics of survival- food, shelter and clothing- and the tangible objects that give life meaning above survival (e.g., cell phones, cars, iPads). These objects are purchased with money or other meaningful material objects and can be used as money to help acquire any of the other core values when necessary. The research does support a set of tangible objects as needs, although sometimes these are offered in

the same category as money, with the same concerns and consequences (see especially Kasser, 2002; Kasser & Kanner, 2004; Kasser, et al., 2004; Solberg, et al., 2004).

Relationships. Ramm (2003) posits that there are three values to be met through social relationships. *Companionship* is experienced when people share "concerns, interests, and activities with people whose company they enjoy" (p. 9). Having friends *with whom one enjoys spending time* is qualitatively different than simply *being with* others (Harlow & Cantor, 1996) and has been related to positive outcomes in life.

Myers (1999) found that people who reported having five or more close associates: were 60% more likely to rate their satisfaction with life as "very happy;" coped better with traumas such as rape, bereavement, illness, and job loss; and, reported greater well-being when questioned by family or friends than people with less than five close associates. Civitci and colleagues (Civitci, Civitci, & Fiyakali, 2009) reported that a disjunction between friendships aspired to and those perceived to have been reached was a major predictor of decreased adolescent life satisfaction. Also, it is noteworthy that troubled close relationships are the top reason people seek out psychotherapeutic help (Reis & Gable, 2003). But, having relationships is not enough to be happy.

Affirmation is "the experience of being recognized as an adequate, competent, acceptable and/or lovable human being" (Ramm, 2003, p. 9). Reis and his colleagues (Reis, Sheldon, Gable, Roscoe, & Ryan, 2000) confirm the need for affirmation when they inform that the best predictor of relatedness with others is when interpersonal interactions are marked with meaningful talk and when both partners in a relationship feel understood and appreciated. Like companionship, affirmation is required for a close relationship to continue. However, affirmation is not limited to relationships with close

companions, it is also necessary for people to experience this recognition with others generally (i.e., with colleagues or students).

On the other hand, *intimacy* occurs when close relationships are "built on affirmation and companionship but where people go on to share their most private thoughts, emotions, and experiences with one another" (Ramm, 2003, p. 9). Intimacy is usually confined to those relationships people consider to be the closest and deepest they have. Giordano et al (Giordano, Lonardo, Manning, & Longmore, 2010), Argyle (1987), Reis and Gable (2003) and Myers (1999) all have confirmed intimate relationships to be unique from friendships and significant predictors of happiness in youths and adults.

Speaking of relationships with others in more general terms, one would be hard pressed to locate a study, theory or review of human motivation or existence that does not include social relationships as must haves (Argyle, 1987; Baumgardner & Crothers, 2009; Cantor & Sanderson, 1999; Diener & Seligman, 2004; Kahneman, et al., 2004; Kasser, 2002; Martikainen, 2009; D. G. Myers, 1999; Reis & Gable, 2003; Reis, et al., 2000). Reis and Gable (2003) inform us that, even though there were many overlaps among many cultures and nations, social relationships were the only significant predictor of SWB in *all* the studies they reviewed, and Campbell, Converse, and Rodgers (1976) have reported that marital status is the best single predictor of happiness across studies.

Further, Cantor and Sanderson (1999) tell us that sociality, which they define as "cooperativeness, group loyalty, and adherence to various norms" (p. 232), is likely a fundamental part of human nature. Myers (1999) suggested that this is because social bonds serve four important functions: aiding in survival; fulfilling the want to belong; increasing social acceptance; and, maintaining important relationships. Thus,

relationships consist of more than mere interactions. The importance of interpersonal relationships to peoples' happiness has been supported in so-called "deathbed" and "death reflection" tests wherein people near the end of their earthly presence reflect back and detail the most important aspects of their lives (Baumgardner & Crothers, 2009; Reis & Gable, 2003; Sears, 1977). For example, Cozzolino and co-authors (Cozzolino, Staples, Myers, & Samboceti, 2004) asked their participants to imagine that their lives were ending suddenly and tragically and then reflect back on how their lives would be perceived. Repeatedly, respondents discussed regrets and thoughts about the important people in their lives (Baumgardner & Crothers, 2009; Cozzolino, et al., 2004). Further, when these reflections stimulated future change in the participants' actions, the changes affected acquiring and holding intrinsic values and building closer relationships with family and close friends (Cozzolino, et al., 2004).

Conditions. The last of Ramm's categories contains five core values that are seen as important both to individual well-being and to the mutual well-being of people living, working, and relaxing together. However, even where these core values speak to the well-being of others, their primary impact is on the individual. The first of these is health.

Health is the "state of physical and mental well-being, absence of disease, disability, and pain" and includes "the confidence that one will continue to be well" (Ramm, 2003, p. 10). Ramm included here both physical and mental health, in both present and predicted future states. The literature on health as a required component of well being is contradictory, not because researchers are uncertain as to whether or not it is

required- it is- but because it is unclear whether objective or subjective health is necessary for happiness.

Health is seen to be important to life satisfaction; physical health is the second highest life domain (after marriage) reportedly sought by the British (Argyle, 1987). Additionally, physical illness is linked to decreased exercise and well being (Diener & Seligman, 2004; Proctor, et al., 2009). Further, being diagnosed with mental illnesses almost always decreases patients' well-being and increases the suffering of family members (Diener & Seligman, 2004). Since the introduction of antipsychotic and other medications for mental disorders, the population of psychiatric hospitals has decreased by more than 400,000 in the United States alone (Layard, 2005), presumably due to more mentally healthy former patients.

Given that health is so highly rated and seems to influence the happiness of individuals and their families, it is odd that it is the domain least predictive of life satisfaction (Campbell, et al., 1976). Subjectivity in the assessment of one's health is likely the explanatory factor to this paradox. People who believe they are healthy report lower pain intensities than do those who feel unwell (Diener & Seligman, 2004). There is also strong evidence that people inflicted with chronic illnesses or serious injuries seem to adapt rather quickly to their conditions, so long as their illness or injury does not preclude them from some level of participation in daily life (Baumgardner & Crothers, 2009; Diener & Seligman, 2004). It appears that health is a required component for life satisfaction but that, with some limitations, *believing* one is healthy is more influential to feeling happy than is actually *being* healthy.

Ramm's next core value is a *rewarding occupation*. This is defined as "a condition an individual experiences when he or she enjoys and is competent at the tasks required in an occupation and experiences a sense of accomplishment in a job well done" (Ramm, 2003, p. 10). This work may be an occupation or profession engaged in for pay or it may be the uncompensated activities of those otherwise engaged in occupational tasks, such as those of homemakers or students. Full enjoyment of an occupation requires the perception that tasks are pleasant, possession of the necessary skills to complete these tasks, and the perception of some sense of accomplishment when the tasks are completed successfully.

Research has shown than some form of work is necessary for life satisfaction (Argyle, 1987; Campbell, et al., 1976; Csikszentmihalyi & Schneider, 2000). This is partly because work is the main source of income for most individuals and partly because enough intrinsic draw exists in work itself (Argyle, 1987; Wrzesniewski, Rozin, & Bennett, 2003). Although declining over the past 50 years, researchers have charted a trend that most people would continue to work for free if they had all the money they needed (Wrzesniewski, et al., 2003). Further, 70% of American high school students expect to be employed in some well-paying job that they enjoy after schooling (Csikszentmihalyi & Schneider, 2000). This is all good news for happiness, since as soon as nine months after graduation from high school, students employed full-time report greater life satisfaction than both full-time college students- whether or not the latter are employed part-time- and unemployed students (Proctor, et al., 2009). Further, unemployment has been noted to have immediate negative effects on happiness (Baumgardner & Crothers, 2009).

However, work must be more than a paycheck at the end of the week. Wrzesniewski, Rozin, and Bennett (2003) reported finding three distinct orientations people hold to work: some see work as a means to a financial end; others see work as a career; and, the remaining see work as a calling. The last group experiences the greatest satisfaction with work, regardless of pay. Still deeper into the investigation, we uncover information that satisfying work has several distinct components. The Gallup Workplace Poll (GWP) has gathered workplace information from more than 198,500 employees serving in 7,939 various business units of 36 companies across 21 industries, and it has been doing so for more than 30 years (Harter, Schmidt, & Keyes, 2003). Reviews of this vast GWP data indicate that the most satisfying work entails known expectations, opportunities for growth and personal expression, personal affirmation from co-workers and supervisors, and workmates who are committed to quality products or service (Harter, et al., 2003). Similar components were found by Warr (1999) in his review of workplace happiness. Warr found a set of 10 factors related to job satisfaction. They were opportunities for personal control, for interpersonal contacts, and for skill use, externally generated goals, a variety of tasks, clarity in the work environment, the availability of money, physical security, supportive supervisors, and seeing the job as a valued social position. It appears that employment is needed for life satisfaction and that people seek more than money when choosing to begin or stay in a position.

Obtaining a "sense of renewal…from activity that is intended for the mere joy or pleasure the behavior provides" (Ramm, 2003, p. 10) is the function of *renewing recreation*. Ramm suggests that by participating in such activities we get a break from

the daily grind and stresses of life and obtain a sense of refreshment or recharge. Therefore, we look forward to them while attending to other aspects of life, like work.

In developed countries, most of people's income is obtained from work but spent in leisure (Wrzesniewski, et al., 2003). The amount of time and money we spend while engaged in leisure activities such as watching television or playing cards is not proportional to the enjoyment we receive from the activity (Argyle, 1987). Thus, full refreshment extends beyond simply taking a moment to "smell the roses" (which is necessary in its own right) and into actively seeking challenge and exhilaration (Csikszentmihalyi, 2004). To be fully renewing, there has to be a sense of invigorating exhaustion after participation in our chosen non-work activities (Seligman, 2002). Both leisure and full recharge are necessary to life satisfaction.

The next core value, *freedom,* is "the ability to do what we want when we want" (Ramm, 2003, p. 10). This is limited, though, by the proscription that one will not engage in behaviors that decrease the life satisfaction of others. Freedom is enhanced by the knowledge that others- including the criminal justice system- will not arbitrarily interfere with the activities and lifestyle one chooses to pursue.

Research has shown that autonomy of choice is a major factor in life satisfaction (Cantor & Sanderson, 1999; Kasser, 2002; Layard, 2005). Self-directed, freely chosen goals are more intensely pursued and achieved more often than externally controlled or coerced actions (Cantor & Sanderson, 1999; Festinger, 1961; Festinger & Carlsmith, 1959; Kasser, 2002; Maehr & Braskamp, 1986; Reis, et al., 2000). These factors are shown to be relevant in the personal, economic and political activities people wish to participate in (Layard, 2005).

Ramm's final core value is *security*, which he defines as "physical safety as well as the confidence that a person can maintain those things, relationships, and conditions which make life worth living" (Ramm, 2003, p. 11). Security includes the perceptions of physical safety and the ability to acquire and keep the other core values. Without security, a general (or acute) sense of anxiety and uncertainty arise.

The knowledge that one is free to choose actions and is protected by a stable government has been shown to be related to well being (Campbell, et al., 1976; Diener & Seligman, 2004). Instability in at least one other category of core values- relationships- is the primary reason people seek psychological interventions (Reis & Gable, 2003). When encountering serious illness or injury, the ability, at some level, to continue to pursue the important things, relationships, and conditions of life is highly predictive of positive adjustment to the injury or illness (Baumgardner & Crothers, 2009). Therefore, there is no apparent need to question the importance of security to overall life satisfaction.

The existence of a set of fundamental human needs which extend past survival of the organism is apparent from the literature. Ramm proposed that these needs reside comprehensively in the ten core values. His propositions appear to be supported by other researchers working on happiness and to offer some possible answers to an under-addressed area of the criminological theory known as strain.

Life, in the Way of Happiness

As noted several times, Ramm (1998, 2003; Ramm & Czetli, 2004; Ramm, et al., 2009) contends that increased happiness can result in a decrease in deviance. The criminological theory that seems to most closely relate to his theory is Strain Theory, albeit coming from an opposite direction. Strain theory suggests that when a person is

unable to achieve sought after or culturally prescribed goals, he or she is likely to be relegated to a state of anomie, or emotional negativity, and is then more likely to engage in deviance (Agnew, 1992, 2006; Akers & Sellers, 2009; Merton, 1938; Shoemaker, 2005; Williams & McShane, 1998).

Originally proposed to be a function of factors residing at the societal level (Cohen, 1955; Farnworth & Leiber, 1989; Kubrin, et al., 2009; Merton, 1938, 1968), strain was re-envisioned to include individual level factors that prevent the acquisition of goals (Agnew, 2006; Agnew & White, 1992; Broidy, 2001; Lilly, Cullen, & Ball, 2007; Martin, 2000; Williams & McShane, 2004). According to strain theory, when factors work to prevent a person from achieving his or her goals, a feeling similar to that of positive psychology's negative affect is felt. When this negative emotion combines with insufficient social resources, crime in both the short- and long-term is more likely (Agnew, 2005; Broidy, 2001; Kubrin, et al., 2009).

As was noted in the Introduction to the present project, happiness is believed to be comprised of three factors: subjective well-being; positive affect; and, negative affect (Baumgardner & Crothers, 2009). Agnew's version of strain theory, General Strain Theory (GST) (Agnew, 2005, 2006; Agnew & White, 1992), matches most closely with the idea of negative affect. Agnew proposed that there are three circumstances that can lead to negative affect: desired goals being unfairly blocked; an inability to reach desired goals; and, the removal of stimuli that are positively valued (Agnew & White, 1992; Baron, 2004; Williams & McShane, 2004). When any of these three strain inducing circumstances occur, the person's adaptive skills are challenged, requiring a call upon his or her acquired social resources (Broidy, 2001). Where social resources are sufficient,

coping will occur and the person will adapt positively. Where social resources are lacking, deviance is more likely to occur. Social resources can be at least roughly equated to the life domains from the happiness literature. Therefore, a full model of the general strain theory would be:

Strain		Negative	↗	(sufficient)	⇨	coping
Inducing	⇨	Emotional		Social resources		
Event		Reaction	↘	(insufficient)	⇨	deviance

Figure 2: Strain Theory

However, at its base, strain theory posits a relationship between the experience of negative emotionality and deviance. This fundamental premise is the one most closely tied to the theory underlying the Formula for Happiness. Because the present project was more concerned with testing Ramm's theory than with testing Agnew's theory, it was this premise that was of interest here. Thus, a testable strain-adapted hypothesis closely related to the present project becomes: experiencing negative emotional reactions to strain-inducing events leads to deviance.

This hypothesis is aligned with an area of strain that Agnew (1992) characterized as under-represented in criminological research. Specifically, Agnew noted that researchers have not examined the potential impact of existential strain on deviance. In other words, Agnew believes that one manifestation of strain is the failure of an individual to achieve actual goals that he or she perceives to be important to life, especially when compared to social equals. According to Agnew, this possible contributor to strain should be address because achieving greater understanding in this

realm will permit a deeper integration of strain with other criminological theories. Theoretical integration is one of the main concerns driving the present project.

Summary

Evidence from researchers and theorists has shown that the certainty and, to lesser and limited extents, severity of punishment work (sometimes) to reduce criminal offending and recidivism. This appears to be especially true when the actor has either directly experienced punishment or when the perceived punishment is believed to directly apply to the offender, rather than when the offender sees or perceives others being punished. Further, when weighing the costs and benefits of an act, potential offenders may not consider the full range of risks and rewards; yet, they do calculate some level of risk-reward and can be taught the necessary steps of the full process.

We also know that most people are or want to be happy. This happiness has usually been assessed by asking people at least one question about how their lives are going overall. These ratings are (as they should be) subject to the respondents' aspirations and life experiences, as well as the social and cultural norms placed upon them. Accurate SWB assessments also require a group of close associates against whom comparisons of life circumstances can be made. Self-reported global life satisfaction is likely a function of acquiring or having access to social, personal, financial, and tangible assets which can be categorized within a limited set of life domains.

The life domains represented by the ten core values proposed by Ramm (1996, 2003) have all been shown in the literature to be major influencers on life satisfaction. With a possible confounding between money and meaningful material objects, these core values appear to have unique impact on peoples' global life satisfaction. Although

Ramm suggests that all the core values exert equal influence on happiness, based on the literature, those related to interpersonal relationships are expected to offer the greatest impact on global life satisfaction.

Subjective well-being has also been shown to be associated with aggression, violence and bullying (including victimization and the fear of victimization). The literature suggests that happier youths commit less serious offenses less often, if at all. Youths who believe that their lives are filled with happiness are also less likely to fear becoming the victim of violence and bullying and to avoid acting as bullies. These varied and positive findings held in both cross-sectional and longitudinal studies of youths in middle and high school, as well as with those who were and were not exhibiting deviant behaviors.

All told, there is evidence for the individual theoretical propositions founding the taxpayer-funded Facts of Life program; people want to be happy, happiness appears to be tied to certain life domains, and happiness seems to reduce crime. However, despite its growth in use, no study has yet empirically tested the full model of the program that has evolved from the Formula for Happiness, let alone doing so within the same sample of respondents. Hence, we still do not know if the foundations of this theory can hold the increasing (delinquent) traffic relying on its premises. Further, there is a clear need for evidence-based juvenile justice interventions that prevent the harms and costs associated with initial youthful offending and that reduce recidivism. Following the suggestions of Mears (2010), theoretical propositions underlying the Formula for Happiness should now undergo direct empirical testing of its assertions so that the overall validity of the theory and suggestion for its continued use can be assessed.

This project operationalizes a model for the components of Ramm's (1996, 2001, 2003; Ramm & Czetli, 2004) theory and develops a strategy to test his propositions. Included with these tests of Ramm's theory are additional tests of the propositions within General Strain Theory (1992). Using appropriate statistical procedures, data collected from a sample of college-aged respondents is assessed and interpreted to determine if the data supported the theory. Based on the results, recommendations relevant to the program and to the integration of positive psychology and criminology are made. Sampling and methodology are presented next.

CHAPTER 3

METHODOLOGY

As outlined in the preceding chapter, this study tests the assertions of Ramm (1996, 1998; Ramm & Czetli, 2004; Ramm, et al., 2009) that achieving satisfaction to a specific set of ten life domains or core values increases the happiness of people (H_1) and that, in turn, as happiness increases, participation in criminal and deviant activity decreases (H_2). This chapter presents the methods employed to empirically test these contentions. The design of the study and the psychometric instrument utilized are presented first, including reliability and validity assessment. Next, information is presented on how the study accesses a sample appropriate to testing the research questions. Then, the procedures followed in the administration of the psychometric instrument are discussed. Finally, preliminary strengths and limitations of the design are noted.

Research Design

Because the unit of analysis, the individual student, is randomly sampled from a population and asked to complete the psychometric instrument at only one point in time (see discussion below), the current study is a cross-sectional design (Dillman, Smyth, & Christian, 2009; Rosnow & Rosenthal, 2008). This project is an initial theory test of the Formula for Happiness. As noted earlier, Ramm and Czetli (2004) contend that this theory should apply to all people, across times and culture, which necessarily includes any given people at any given time. Further, for this initial theory test, correlation coefficients are adequate to determine covariation of the variables in question. Therefore,

cross-sectional, research is appropriate to the present research question. The details of the proposed research design and procedures are discussed in the following section.

Survey Methods

Survey research is applicable to both cross-sectional and longitudinal efforts aimed at understanding phenomena by gathering data available from the perspectives of the respondents (Rosnow & Rosenthal, 2008) or when attempting to learn about respondents' opinions and behaviors (Dillman, et al., 2009; Thornberry & Krohn, 2000). Further, when careful attention is given to the construction of the instrument, data gleaned from its administration can be compared to other existing datasets (Thornberry & Krohn, 2000). The current project aims to assess respondents' self-perceived satisfaction both with life in general and within particular life domains, to estimate their engagement in behaviors that could be considered deviant/delinquent and, in part, to assess the reliability and validity of the General Inventory of Life Satisfaction against existing measures of happiness. Therefore, survey methods are appropriate to the goals of the project.

There are several forms a survey instrument may take. This project utilizes paper-based surveys. Paper-based surveys allow for several benefits over alternative survey methods. In paper form, respondents may easily work at their own paces and may move forward or backward when answering questions by simply flipping the pages to the desired location. This type of instrument also does not require internet access or other technical abilities for the respondents to answer. If the instrument is prepared in a language in which the sample members are fluent, they can respond. Response rates to paper surveys have consistently been found to be greater than web or electronic based

instruments (Dillman, et al., 2009; Dommeyer, Baum, Hanna, & Chapman, 2004). The anonymity offered by in-hand and self-answered surveys increases the honesty of respondents to the questions posed (Dillman, et al., 2009; Thornberry & Krohn, 2000). Finally, group administration of paper-based psychometrics does not require special equipment or procedures.

The project asks English speaking college students for accurate information about their subjective assessments of happiness and to report on their deviant behaviors while they attend a regularly scheduled university class with other students. The aggregate instrument (see Appendix B) is comprised of a total of 111 items that include a set of control items and scales/indices that measure happiness, attainment of the core values, strain, and deviant behaviors.

Control Items

Items that collect information on the age, sex, and race of the respondent were asked in the project. The items are employed as control variables and included:

1. What is your age?

   _____ years old

3. Which racial or ethnic group do you most identify with?

   _____ African American/black

   _____ Asian

   _____ Caucasian/white

   _____ Other _____

4. What is your sex?

_____ Female

_____ Male

Scale and Index Items

The instrument items testing the main hypotheses primarily derive from three existing inventories; the *Satisfaction with Life Scale (SWLS)*, the *General Inventory of Life Satisfaction (GILS)*, and the *Self- Report Delinquency, General Delinquency Sub-Scale (SRD-GD)* [herein considered an index]. Both the SWLS and the SRD-GD are public domain instruments which can be employed with attribution to the authors. The GILS is a private domain psychometric owned by Ramm; permission has been obtained to utilize this inventory (see Appendix A). Discussion of each begins with the SWLS.

Satisfaction With Life Scale. The SWLS was designed by Diener and his colleagues (Diener, et al., 1985) to be a measure of global happiness. The scale consists of five statements tapping respondents' perceptions of their current overall subjective well-being ("in most ways, my life is close to my ideal"; "the conditions of my life are excellent"; "I am completely satisfied with my life"; "so far I have gotten the important things I want in life"; and "if I could live my life over, I would change nothing"). Responses to these five items are marked on a seven point Likert-type scale where 1 = "strongly disagree" and 7 = "strongly agree." SWLS items are encountered early in the psychometric and are displayed so that each related item is answered individually on the same scale. For example,

This section asks a few questions about how satisfied you are with several general areas of your life. Please read each item and then circle the number that best reflects your agreement to each statement. The scale used for the statements in this section will be:

1 2 3 4 5 6 7

Where,

1 = "Strongly Disagree"

2 = "Disagree"

3 = "Slightly Disagree"

4 = "Neither Agree nor Disagree"

5 = "Slightly Agree"

6 = "Agree"

7 = "Strongly Agree"

5. In most ways, my life is close to my ideal.

1 2 3 4 5 6 7

Responses to all five statements on this scale are summed together to determine a satisfaction with life score ranging from 5 to 35. Scores are classified according to level of perceived life satisfaction, as displayed in Table 4.

Table 4: SWLS Score Classifications

Score:	Interpretation:
5 – 9	Very Dissatisfied, much below average
10 – 14	Dissatisfied, clearly below average
15 – 19	Slightly dissatisfied, a bit below average
20 – 24	Somewhat satisfied, average for American adults
25 – 29	Very satisfied, above average
30 – 35	Extremely satisfied, much above average

Adapted from Seligman (2002, p. 63).

There are no modifications made to the SWLS in the current project.

The "happiness" score on the SWLS serve as the dependent variable for Hypothesis 1 and as the independent variable in Hypothesis 2. For H_1, it is anticipated that higher reported levels of satisfaction/attainment of the core values (as measured by the GILS) will be related to higher indicated levels of happiness. For H_2, higher indicated levels of happiness should correlate to decreased self-reported delinquent behaviors (as measured by the SRD-GD).

General Inventory of Life Satisfaction.

The General Inventory of Life Satisfaction (GILS) is a scale developed by Ramm (2001) to assess the respondents' levels of satisfaction/attainment of each of the ten core values. The GILS contains 68 items (e.g., "I have a general sense of well-being"; "I am satisfied with the level of companionship I receive from people in my community") scored as A = "agree"; SA = "Somewhat Agree"; SD = "Somewhat Disagree"; D = "Disagree"; and NA = "Not Applicable". The number of items varies per core value, as outlined in Table 5.

Table 5: GILS Items per Core Value

Number of Items:	Core Value(s):
10	Money; Affirmation
9	Companionship; Security
7	Intimacy
6	Meaningful Material Objects; Freedom
5	Health
3	Rewarding Occupation; Renewing Recreation

In order to maintain the same general meaning and direction of responding within this study, the GILS items are adapted to a numeric Likert-type scale, marked in the same direction as the SWLS. This is done to maintain general consistency in response

categories, thus helping to eliminate respondent error when answering (Dillman, et al., 2009). The conversion will change "SD" to "1"; "D" to "2"; "SA" to "3"; and "A" to "4" in the psychometric, with no additions of numeric meaning. The option for "NA" is slightly off-set in the instrument. An example of this adjusted format is given below.

> For items in this section, please read each statement and then circle the number that best reflects your agreement to the statement. The scale used for the items in this section will be:
>
> 1 2 3 4 NA
>
> Where,
>
> 1 = "Disagree"
>
> 2 = "Somewhat Disagree"
>
> 3 = "Somewhat Agree"
>
> 4 = "Agree"
>
> NA = "Not Applicable"
>
> 21. I have sufficient money to acquire & maintain those material objects that make my life satisfying.
>
> 1 2 3 4 NA

The adapted scoring method for the GILS calls for use of the following equation to the responses on the items representing each core value on the GILS (Ramm, 2001, p. 6):

$$\frac{(\text{“}n_4\text{”} \times 10) + (\text{“}n_3\text{”} \times 7.5) + (\text{“}n_2\text{”} \times 2.5)}{(N - NA)} \qquad \text{(eq 2)}$$

For example, if a person answers "4" to all three questions assessing Renewing Recreation, her score for this core value would be (3 x 10) / 3 = 10. This calculation,

when so applied to the items representing each core value, results in 10 separate core value satisfaction estimates, each with a possible range from zero to ten.

It is these individual core value satisfaction estimates (CVSEs) that serve as the independent variables for H_1 (i.e., core values → happiness). As such, there are ten subscales generated from the instrument items for the core values. These are:

Table 6: Core Value Satisfaction Estimate Subscales by Survey Item Number

CVSE subscale:	Items:
Money	6 to 15
Meaningful Material Objects	16 to 21
Companionship	22 to 31
Intimacy	32 to 38
Affirmation	39 to 48
Health	49 to 53
Rewarding Occupation	54 to 56
Renewing Recreation	57 to 59
Freedom	60 to 65
Security	66 to 74

Adding the individual results from each of these core values together results in a Global Estimate of Life Satisfaction (GELS) score, ranging from 0 to 100 and interpreted as noted in Table 6.

Table 7: GELS Score Classifications

Score:	Interpretation:
0 – 25	Generally Dissatisfied
26 – 50	Somewhat Dissatisfied
51 – 75	Somewhat Satisfied
76 – 100	Satisfied

Note: Adapted from Ramm (2001, p. 9)

When the SWLS scores are regressed onto the core value satisfaction estimates, if the Facts of Life theory is correct, it is anticipated that all ten CVSEs will be significant indicators of SWLS score and that each CVSE will contribute unique influence to SWLS score.

Self-Report Delinquency, General Delinquency Sub-Scale.

The Self-Report Delinquency Scale was originally developed by Elliott, Ageton and Huizinga for a national study of youth behavior (Elliott, et al., 1985). The SRD currently resides in the public domain and it is free to use by any researcher as long as credit for its origins are offered in the work. The original General Delinquency sub-index of the SRD (SRD-GD) [cf. Piquero et. al. (2002, p. 524)] asks respondents to mark the number of times, in the past 12 months, that they have engaged in 24 different acts that are either delinquent or deviant but not illegal.

These acts range from minor offending such as

_____ stolen (or tried to steal) things worth $5 or less,

to violent offending like:

_____ attacked someone with the idea of seriously hurting or killing him/her.

The scale also includes one item measuring deviant, but legal behavior,

_____ had sexual intercourse with a person other than your husband/wife,

and one for status offending,

_____ run away from home.

The time frame for requested responses, 12 months, is common in social science research (Thornberry & Krohn, 2000) [see examples in the "Monitoring the Future" (U.S. Department of Health and Human Services, 2008) and "National Survey on Drug Use and Health" (United States Department of Health and Human Services, 2008) projects].

Three modifications are made to the original sub-index in the proposed project. As the study population for the present project is college students (see sampling section below for details), the question asking about sexual intercourse with someone other than husband/wife is removed. In its place are added four questions (#78 through 81) more likely to be associated with college age respondents. These are:

78. _____ lied to your parents about a grade.

79. _____ cheated on an exam.

80. _____ plagiarized work for a class.

81. _____ intentionally "bounced" a check.

Second, the original SRD-GD does not ask about use of illegal drugs, so two questions are added measuring two categories of illicit substances. Literature has indicated that use of illicit substances is strongly associated with deviancy and that self-reported use of substances is similar between those youths who come to the attention of the juvenile court and those who do not (Thompson & Bynum, 2010). Therefore, question 88 is added and asks how many times in the past 12 months respondents have "smoked or used marijuana or hashish ("pot," "grass," "hash") and question 90 asks participants, in the same time frame, how many times they have "injected, smoked or used hard drugs such as heroin, cocaine, or LSD."

Third, because of the rise in illicit use of pharmaceuticals, questions are added to ask about use and sales (#89 and #92, respectively) of prescription medications. The wording of the drug use items is kept the same as the original SRD-GD questions asking about sales of such substances. These new items are:

88. _____ smoked or used marijuana or hashish ("pot," "grass," "hash").

89. _____ ingested over-the-counter or prescription medication to "get high."

91. _____ sold marijuana or hashish ("pot," "grass," "hash").

92. _____ sold prescription medication to another person

The SRD-GD can be scored several different ways (Thornberry & Krohn, 2000). One version is to create sub-indices, such as violent offenses (items 84 to 86), deviant but not illegal acts (items 78 to 81), property theft (items 82 and 83), and substance use/sales (items 87 through 93). Once created, these sub-indices could be compared against each other to elucidate differences in who commits them or in the number of commissions. Another possibility is to adapt the index by excluding certain items and only asking about targeted offenses, such drug sales, person crimes, or minor offenses. The index can also be employed as developed, resulting in a frequency count of the total offenses committed by respondents.

The current project utilizes several of these existing scoring methods by first asking respondents to report how many times in the last 12 months they have engaged in the behaviors. These raw reports are then assessed for outliers and identified outliers are removed. Remaining responses are added together into one delinquency index. This results in the creation of an index of overall crime, *newfreq*. The *newfreq* variable is then regressed against scores from the SWLS to determine if happiness influences respondents' engagement in crime and deviance behaviors. If the theory holds, it is anticipated that increased happiness will negatively influence self-reported criminal and deviant acts. In other words, happiness should decrease crime and deviance.

Strain. Strain was assessed and employed as an independent variable to Hypotheses 3 and 4. According to strain theory, when factors work to prevent a person

from achieving his or her goals, a feeling similar to that of positive psychology's negative affect is felt. This negative affect is then believed to increase the likelihood that one will engage in crime and deviance (Agnew, 1992, 2005; Agnew & White, 1992; Broidy, 2001; Kubrin, et al., 2009), especially when legitimate coping skills or social resources are not available (Broidy, 2001; Cohen, 1955).

Broidy (2001) tested a conceptual model that strain could induce negative emotions, including anger, and that it was this emotional anger that would lead to deviance. In testing this conceptual model, Broidy offered two scales to assess whether negative emotions resulted from strain-inducing events. One of these assessed respondents' emotional responses to blocked goals and the other assessed emotional responses when bad events happened to the respondent. Both scales consisted of seven Likert type items which were scored from 1 = "never" to 4 = always. The emotions tapped in the scales were angry, cranky, depressed, insecure, resentful, stressed and worthless.

The first scale (*Block*) asked respondents to assess how often they felt each of these emotions when they were unable to reach their goals (#94-100) while the second scale (Event) asked respondents how often they felt each of these emotions when bad things happened to them (#101-107). The raw scores on each scale were then tallied to create the *Block* and the *Event* scales, each of which had possible ranges from 7 to 28. A final *Strain* scale was computed by adding all 14 items together and had a possible range from 14 to 56. These scales served as the independent variables when testing Hypotheses 3 and 4.

Future Deviance. Four questions were created to assess the respondents' predictions of the likelihood they would engage in deviance. These questions asked respondents to assess their beliefs that they would lie to their parents about a grade (#108), cheat on an

exam (#109), plagiarize for a class (#110), and/or drive while intoxicated (#111). Respondents assessed their likelihoods for engagement in future deviance by marking each item on a four point Likert type scale where 1="not at all likely" and 4="very likely." Raw scores were then tallied into a future deviance score which had a possible range of 4 if all items were marked with a one to 16 if all items were marked with a four. The resulting score (*future*) served as the dependent variable for Hypothesis 3.

Survey Construction

The construction of the final instrument (see Appendix B) follows several recommendations that attempt to increase responding, accuracy, validity and reliability, and comparability with other social science research instruments (Dillman, et al., 2009). First, the administered version of the survey is offered in booklet format, similar to the textbooks familiar to all college students. Immediately inside the front cover is a notice thanking students for their consideration of participation in the study and outlining informed consent. Additional thanks and encouragement toward completion are extended at section breaks throughout the booklet. These words are intended to build social exchange between the investigator and respondents.

All items are grouped for similarity of both question stem and response style to increase understanding and ease of completion. In other words, the items comprising each of the original three instruments are clustered together so that each is answered fully

prior to moving on to the next. Items are ordered so that less intrusive queries- those for control variables and more interesting questions- those on happiness from the SWLS- appear first.

Response types are kept the same throughout the instrument such that respondents circle Likert measures and short lines appear where numeric or written answers are needed. Response categories are exhaustive and mutually exclusive. For all items, questions are bolded to separate question from response. Finally, where appropriate, definitions, such as for the core values, are offered to increase understanding for respondents.

Sampling and Procedures

There are a number of factors that must be considered when developing a sample for a research study such as the one undertaken here. First, sample members must adequately reflect the study characteristics within the population of interest so that inferences can be drawn from the sample and applied to the greater population. Also important is that the sample size is large enough to ensure statistical support for the analyses to be conducted. Finally, because the study employs human subjects, certain protections must be afforded to the sample members. Only when these conditions are met can the study proceed. This section discusses how this study assures that the sample is appropriate in terms of population character and size, as well as efforts to guarantee protection of human subjects. Then, specific procedures for administration of the instrument are discussed.

Sample Characteristics

The sample for this study is randomly selected from the undergraduate enrollment of students at two universities located in Pennsylvania. Undergraduate students are deemed to be an appropriate population from which to draw a sample for this initial test of the Formula for Happiness theory for several reasons. First, the authors inform that the theory and the core values were developed to be

> in one way or another, universal. This meant that they would have to contribute to the quality of life for any human being, anywhere, and at any time. They would have to be circumstances which affect happiness across the lines of gender, race, religion, and nationality (Ramm & Czetli, 2004, p. xxiii).

Thus, the theory should hold equally to undergraduate students as to similarly aged youths who have been identified as delinquent (or any other person).

This contention is supported in the literature, noted in Chapter 2 above, in that no demographic variable alone has been found to definitively influence happiness. Second, adolescence is commonly held to extend from the on-set of puberty through about age 22 (Berk, 2007), meaning that undergraduate students and youths who have been adjudicated delinquent come from the same general age group and therefore can be presumed to be in similar developmental phases. For instance, there is evidence that the frontal lobe of the brain, thought to be responsible for planning, organization and inhibition of emotions- among other things, does not finalize neural connections with other areas of the brain until about the age of 22 (ABA, 2004; Berk, 2007; Romine & Reynolds, 2005). Finally, Pennsylvania law grants to the county juvenile courts

jurisdiction over youths who commit crimes until they reach age 21 ("Pennsylvania Juvenile Act," 2008).

Given this, two statements can be made relevant to the current study. First, according the theory, there should be no theoretical differences from one population to another: The theoretical propositions behind the Formula for Happiness should apply equally between youths who decide to attend college and those who are formally recognized as delinquent (whether they attend college or not). Second, adolescents, whether they are in college or under supervision by the juvenile court, should be comparable on all of the variables of interest to this study. Therefore, students appear to be a suitable population from which to draw the sample for this study and initially assess the Formula for Happiness theory. The appropriate size of this sample is now discussed.

Sample Size

It is generally held that for regression analyses approximately 30 cases should be obtained per independent variable and that for most factor analyses, about 300 cases should be collected (DeVillis, 2003). However, before accepting this as a standard for the present study, additional considerations must be made.

First, consideration needs to be given to control variables in the models. Since the theory posits that each of the propositions applies equally to all people, everywhere, there is no theoretical basis to account for control variables. The literature does not suggest demographic influence on happiness. Further, no consistent sex (or age or race) differences have held in the few direct tests of the happiness-crime link (MacDonald, et al., 2005; Suldo & Huebner, 2004; Valois, et al., 2006; Valois, et al., 2001). Paradoxically, much evidence shows that males commit more and different types of

offenses than females (although, for contradictory findings, see Canter, 1982), that differential arrest patterns exist between the races (Akers & Sellers, 2009; Kubrin, et al., 2009; Williams & McShane, 2004), and that crime tends to peak in the late adolescence or early adulthood and then declines (Paternoster & Brame, 1997; Piquero, et al., 2010; Sampson & Laub, 1990; Simons, et al., 1994). Therefore, controls for age, sex and race, add 90 cases to the sample size needed, bringing the total so far to an *n* of 390.

Finally, anticipated response and completion rates need to be considered. In-class paper surveys administered to college students have generally enjoyed response rates between 43% (Porter & Umbach, 2006) and 75% (Dommeyer, et al., 2004). Further, it is inevitable that a number of the instruments will be returned incomplete or otherwise be unusable for data analysis. The project samples enough classes to meet anticipated needs based on the above response rates and continues data collection until the number of required completed instruments is attained.

Taking all this into account, in order for the present project to satisfy the sample requirements of regression and factor analysis, about 390 cases are needed (30 cases x 13 variables). The sample pool will also need enough members to prepare for non-response and incomplete psychometrics. Students are sampled at each university until as near the minimum of 390 usable surveys as possible are returned.

Sampling Procedures

To obtain these 390 completed instruments, individual students enrolled at two universities in Pennsylvania are selected and asked to complete the psychometric. These universities were selected and their students are being pooled because doing so offers ready and available access to appropriate study populations for the investigator.

University A is a mid-sized, rural, public university. The modal class size at this university is 20 – 29 (mid-point ≈ 25) students per class (CollegeData, 2011). University B is a small, private, liberal arts university located near University A. Class sizes here are most often 10 – 19 (mid-point ≈ 15) students (CollegeData, 2011). Because of the enrollment differences, more students in the sample were attending University A than were attending University B.

Selection of the final sample resulted from compiling a list of all courses and their respective sections at each institution where enrollment was required for either incoming freshman or transfer students. There were 80 such sections available at University A and nine such sections were access was granted at University B. Once this list was developed, course sections assigned a serialized number, beginning with "1" and ending with "89." The investigator then generated random integers using the random number generator available at www.random.org. As this process selected course sections for inclusion in the sample, the professors, adjuncts, or teaching associates assigned to the courses were contacted via email and asked about their willingness to allow students enrolled in their classes an opportunity to participate in the research project. Once permission was secured, the investigator met with the students at class times permitted by the course professor. The survey was then administered according to the following procedures and continued until the required number of psychometrics was attained.

Survey Administration

Immediately upon introduction to the class by the assigned professor, the investigator passed out the paper instrument and read the Informed Consent (IC) notice to all students. As can be seen on the IC notice in Appendix C the IC provides students

with the various requirements of informed consent. Also in the IC, a general discussion of the information asked in the psychometric is then provided.

After the IC notice was read and any questions answered, the students were asked to complete the survey if they were willing to participate. Pens were provided to any student needing one and the instruments were completed in each classroom as a group. Students were asked to maintain the integrity and anonymity of their answers by making no identifying markings on the surveys and by taking the same protective actions as they would if they were taking a routine class examination. Any participant questions arising during administration were answered by the investigator in turn. Completion of the psychometric took about 15 – 25 minutes. Students were asked to remain quietly seated until all surveys were completed and collected, whether the students were participating or not. Students were also advised that, if they chose to withdraw from participation at any time after they have started, they should write "withdraw" on the front of the booklet and turn it in to the researcher when all others were collected.

Once it appeared that all students had finished writing, the investigator ascertained whether additional time was needed. When there were no affirmative responses, students were instructed to close the booklet so that no answers could be readily seen by others and the survey was collected from each student. The researcher then assessed whether there were any additional questions from participants or professors. When all final queries had been answered, the researcher thanked all participants and the assigned professor once more for their time and cooperation and then left the room. The investigator maintained sole possession of all instruments at all times

until they were transported to and secured in his faculty office for later coding into IBM SPSS. Additional steps for the protection of the participants follows.

Human Subjects Protections

As noted above, participants had the informed consent letter both read to them and distributed to them at the time of survey administration. As can be seen in the informed consent letter in Appendix C, solicited participants were informed as to the research purpose, were given anonymity, and were offered voluntary participation with no cost or harm. Students were further informed that if they chose to participate, they simply needed to fill out the survey and return it to the investigator when all others were collected.

There was no deception in this project. There were also no protected or disadvantaged populations targeted as the focus of the study. If a member of one of the protected groups was selected for the sample, participation was not seen to increase his or her risk in any way (e.g., a pregnant female has no added risk to her pregnancy by answering these questions). Although notice was not given to this, when any student reported not having reached the age of majority (as evidenced on item #1), the entire response set for that student was removed from the final dataset.

Strengths and Limitations

An immediate strength of the current project is that two of the instruments being employed to test the Facts of Life theory have been reported in the literature to be reliable and valid (SRD-GD and SWLS), while the third (GILS) was created by the theory's developer. These facts significantly decrease the likelihood that experimenter bias or misspecification entered into the results. Although the GILS has not received validity

and reliability testing, another strength of the project is that this testing occured before regression analyses were undertaken. Internal consistency, factor analysis, and correlations between the GILS and SWLS scores either supported or refuted the propositions made by Ramm.

The use of ten CVSEs as predictors to happiness is also deemed to strengthen the present study. As noted by both Blalock (1979) and by Slocum-Gori et. al. (2009), it is too common an experience that social science research attempts to draw relationships between an outcome and too few predictors. In fact, Blalock goes so far as to say that for most social science phenomena a minimum of 50 independent variables are likely needed to accurately predict an outcome.

Of course, this logic can also be considered a limitation to the test of the second hypothesis. Regressing reported frequency of crimes committed onto the SWLS score violates the need for several independent variables. However, evidence is emerging in the literature that a relationship between these factors does exist, at least in violent and aggressive behaviors exhibited by youths. Employing the SWLS in the psychometric can determine whether there is support to the findings from these extant reports.

The research design, to include the survey methods, herein leads to both strengths and limitations. Since this is a cross-sectional, non-experimental design, no temporality can be determined. This is one of three requirements for establishing causality (Rosnow & Rosenthal, 2008). Even if 100% of the variance between the IVs and the DVs is explained in the findings, this study cannot fully determine if the attainment of the core values unequivocally results in increased happiness and if experiencing greater happiness does in fact decrease engagement in crime. Still, the literature is suggestive that,

separately, these links exist. Finding such connections in the current project is an excellent first step in validating the Formula for Happiness.

Additionally, since this project seeks to understand the behavior, subjective experiences, and attitudes of the respondents, survey methods are the most appropriate method for proceeding (Dillman, et al., 2009; Rosnow & Rosenthal, 2008). Paper-based surveys ensure that every respondent is presented with the exact same information, can be administered in groups and are exceptionally economical to employ. Presenting everyone with the exact same items, in the same order, every time reduces chance bias or bias projected from the researcher when interacting with the respondents (Dillman, et al., 2009).

Finally, the sample receiving the survey is not known to be a representative sample of any population outside of the sampled universities. This may limit, or even extinguish, generalizability. To the contrary though, the theory is posited such that its propositions should apply to everyone, everywhere, at any time. Therefore, a randomly selected sample close in age and developmental characteristics to the population of interest serves as an appropriate group against which to initially test the theory.

Summary

To test the hypotheses that acquisition of the core values increases happiness and that increasing happiness reduces crime, the current project administers a paper-based survey to a randomly chosen sample of classes enrolling incoming undergraduate students at two different universities. The non-experimental, cross sectional design of this project allows for understanding the beliefs, behaviors and attitudes of respondents in a consistent and economical manner.

Reliability and/or validity of all the scales/indices which comprise the psychometric have been at least minimally examined a priori. The project both conducts more extensive tests (GILS) and compares current findings against extant results (SWLS and SRD-GD) to further determine reliability and validity of the full instrument. Once reliability and validity are established, the respondents' answers to the items are subjected to regression analyses to uncover the predictive ability of the IVs to the DVs.

The methods employed herein generate both strengths and limitations to the study. The strengths are consistent with and will help further extant understanding of the phenomena of interest. None of the limitations are deemed to be fatal. Having fully dissected and digested the project's procedures, we turn next to analyses of generated data.

CHAPTER 4

ANALYSIS AND RESULTS

The purpose of this project was to assess the interrelationships among several concepts derived from a theory of happiness and applied to a program of deviance reduction. Two main hypotheses were tested: attainment of core values increases happiness; and, increased happiness will lead to reduced engagement in deviant behaviors. Data collected via administration of a paper-based psychometric instrument to a randomly chosen sample of college students (n=381) were analyzed using ordinary least squares (OLS) regression in order to assess support for these hypotheses. Generally, the hypotheses were not supported.

This chapter details the statistical procedures, discusses their results and then offers interpretations for these results as related to each of the two main hypotheses. This chapter also examines two hypotheses based on strain theory which were included to offer additional exploration of the role that negative emotions may play in deviant behavior. The first of these, H_3, is that experiencing strain would lead to involvement in deviance. The second strain hypothesis, H_4, is that experiencing strain would lead a respondent to believe that he or she would engage in future deviance. H_3 was not supported by the results of statistical testing, while findings for H_4 found mixed support.

Before turning to the results of hypothesis testing, it is important to note the descriptive information for the data and to discuss the outcomes of reliability and validity testing of the measures employed. The descriptive information will assist the reader in understanding both the sample characteristics and the measures employed in data

analysis. Reliability and validity results will help the reader assess the consistency of the data utilized in hypothesis testing.

Sample and Variable Descriptives

A total of 393 surveys were collected over a three week period at the two universities described in Chapter 3, using the methods also discussed in that chapter. Of those sampled, three respondents chose not to participate and nine others submitted incomplete and unusable instruments. This resulted in a final sample of 381 participants whose data were included for analyses (96.95% response rate).

Demographics

As can be seen in Table 8, the vast majority of students (n=311, 81.6%) represented University A, with only 70 students (18.4%) in the sample attending university B. Respondents were specifically chosen such that age ranged from 18 to 25 years old, with a final sample mean age of 19.12. There were more female respondents (n=220, 57.7%) than male respondents (n=161, 42.3%). The most common race of respondents was white, followed by African American/black (87.7% white, 6.6% black, 5.8% other). These percentages are generally comparable to the representation of age, sex and race noted by each university. University A has a 59% female population while University B has about 61% females; A's racial enrollment is 79% white, 12% black and about 9% other races, whereas B's students are 80% white, 9% black and about 11% other races (CollegeBoard.com, 2012; website, 2012) [names are intentionally removed from citations to protect the identities of participating institutions] and the age of the sample is characteristic of the target population of this study, adolescents [cf. the section on *sampling characteristics* in chapter 3]. Although not shown in Table 8, the sample did

capture more than 150 majors from the two universities. Taken together, these data demonstrate that the sample was successful in capturing a global representation of students on surveyed campuses.

Table 8: Descriptives- Demographics by Sample and University

		University A (% sample/*university*)	University B (% sample/*university*)	Overall sample
N		311 (81.6%)	70 (18.4%)	381 (100%)
Sex				
	Male	134 (43.1/*41*)	27 (38.6/*39*)	161 (42.3%)
	Female	177 (56.9/*59*)	43 (61.4/*61*)	220 (57.7%)
Race				
	White	75 (88.4/*79*)	59 (84.3/*80*)	334 (87.7%)
	Black	20 (6.4/*12*)	5 (7.1/*9*)	25 (6.6%)
	Other	16 (5.1/*9*)	6 (8.6/*11*)	22 (5.8%)

Life Satisfaction

Life satisfaction served as the dependent variable for H_1 and as the independent variable for H_2. Life satisfaction was measured two ways in this project. One way was via Diener et al's (Diener, et al., 1985) Satisfaction With Life Scale (SWLS) while the other was via Ramm's (2001) General Inventory of Life Satisfaction (GILS). Each of these scales was discussed at length in Chapter 3, yet a short review will again be offered for each.

Satisfaction With Life Scale (SWLS). The five items of the SWLS (survey items #5 through #9, see Appendix B) asked respondents to score their perceived level of satisfaction in five life areas using a 7 point Likert type scale, where 1 = "disagree" and 7 = "agree." The raw scores from all five questions were added to create the SWLS score, an interval level measure whose range could be between 5 if respondents disagreed with all five items and 35 if respondents agreed with all five items. This SWLS score served

as the dependent variable for hypothesis 1 and as an independent variable for hypothesis 2.

The range of scores in the present project was 5 (n=1) to 35 (n=3). The mean for this scale was 23.92, with a standard deviation of 5.859. The average of the sample was comparable to the means found in several studies which employed the SWLS in assessing the life satisfaction of college students both across the U.S. and in several other countries (Pavot & Diener, 2008). In those studies, the means ranged from 23.0 to 25.2 and the standard deviations fell between 2.8 and 6.4. This indicates that the current sample is as satisfied with their life circumstances, as measured by the SWLS, as are college students across the globe.

General Inventory of Life Satisfaction (GILS). The GILS is a psychometric developed by Ramm (2001) specifically to assess respondents' perceived core value satisfaction levels. The 68 items (#10 - #77 of the Smiling at Risk survey) were scored on a 4 point Likert type scale where 1 = "Disagree" and 4 = "Agree." Use of the GILS resulted in two sets of scores. The first of these was the GILS core value satisfaction estimates (CVSEs) and the second was the Global Estimate of Life Satisfaction (GELS). Each holds a separate place in the analysis.

CVSEs. The items from the GILS are organized into ten subscales that are reported to measure attainment of each of Ramm's ten core values (2001, 2002, 2003; Ramm & Czetli, 2004). These subscales and their item numbers were reported earlier in Chapter 3, Table 6. The CVSEs can attain a minimum score of 0, indicating that the CVSE domain does not apply to the respondent's life, to a maximum score of 10,

indicating that the respondent is "satisfied" with their life circumstances in that CVSE domain.

The means for all CVSEs ranged from 6.87 (CVSE for *rewarding occupation*) to 8.84 (CVSE for *security*) which indicates that the respondents were, on average, "somewhat satisfied" to "satisfied" with their attainment of each of the core values. Standard deviations ranged from 1.44 (CVSE for *security*) to 3.0 (CVSE for *rewarding occupation*). The CVSEs served as independent variables for testing hypothesis 1.

GELS. The GELS score is determined by simply adding all ten CVSEs together to obtain an interval level score which ranges between 0 and 100. Interpretation of this score was reported earlier in Table 7, Chapter 3. The average GELS score was 78.96 with a standard deviation of 12.94. This indicates that, overall and on average, respondents were "satisfied" with their perceived level of satisfaction on all ten core values. The GELS served as an independent variable for the testing of hypothesis 2.

Table 9 reveals the means and standard deviations for the SWLS, all ten Core Value Satisfaction Estimates (CVSEs), the General Estimate of Life Satisfaction (GELS), and the full scaled version of the GELS (ScalGELS).

Table 9: Descriptives- Life Satisfaction

Variable	Mean	s.d.
Affirmation	8.19	1.80
Companionship	8.30	1.71
Freedom	7.83	1.84
Health	6.97	2.22
Intimacy	7.69	2.14
MMO	8.53	1.65
Money	6.96	2.40
Rewarding Occ	6.87	3.00
Renewing Rec	8.78	1.54
Security	8.84	1.44
GELS	78.96	12.94
SWLS	23.92	5.86

Note: s.d. = standard deviation

Strain

The data in Table 10 reveal that the means of the Block and Event sub-scales of strain were basically equal at 18.80 (s.d.=4.57) and 18.96 (s.d.=4.89), respectively. This indicates that, on average, respondents experienced emotional strain when their goals were blocked about as equally as they reported experiencing strain when bad events happened to them. Therefore, the analyses will not be overly influenced by one or the other strain factor. Overall strain felt for all items reported by the sample averaged 37.76.

Table 10: Descriptives- Strain

Variable	Mean	s.d
Block	18.80	4.57
Event	18.96	4.89
Strain	37.76	8.88

Note: s.d. = standard deviation

Deviance

Scores to the measures of deviance served as the dependent variables for testing H_2 and H_3. The first set of scores was obtained by combining scores on the 16 items adapted from Self-Reported Delinquency- General Delinquency (SRD-GD) subscale of Elliott, Ageton & Huizinga (1985) [cf. Survey Methods section of Chapter 3 for the complete discussion on these adaptations]. The second set of scores was obtained through use of a scale, created by the author, to assess respondents' prediction that they would engage in four deviant acts. Discussion of the SRD-GD is first.

Self-Reported Delinquency- General Delinquency (SRD-GD). It is again noted that this scale can be utilized several ways (Thornberry & Krohn, 2000). One of these is to simply add all reported acts of deviance together to create a total deviance index. The dependent variable for H_2, *newfreq*, was determined by combining respondents' reported frequencies of engaging in deviant and illegal acts on the SRD-GD. It is noted that some cases were clear outliers and, therefore, these were removed from the dataset prior to the regression equations being run. For example, one respondent indicated that he or she had used marijuana a total of 11,204 times in the past year. Prior to removing outlier cases, the mean marijuana use reported in the sample was 75.084, with a standard deviation of 625.695. After outliers were removed, the average marijuana use reported by the respondents was 5.20, with a standard deviation of 12.346. After all items were examined and adjusted, a total of 36 cases were removed from the sample and the equations were run using the remaining 345 cases. As can be seen in Table 11, these remaining sample members reportedly engaged in anywhere between 0

and 108 incidences of deviance and/or illegal acts in the year prior to completing the survey (mean = 9.8406, s.d.=16.1074).

Table 11: *Newfreq* Descriptives

N	Valid	345
	Missing	36
Mean		9.8406
Median		3.0000
Mode		.00
Std. Deviation		16.10740
Std. Error of Mean		.86719
Range		0 - 108
Sum		3395.00

Future Deviance. The respondents indicated that, on average, they are "probably not likely" to commit any future offenses given their current life situations ($\overline{X}$ =5.83, s.d.=2.15).

Summary of Descriptive Analysis

Given the information presented above, the survey respondents are representative of each institution sampled. Additionally, as targeted, they are within the age range which was established in Chapter 3 as relevant to the present project. Respondents were, on average, as satisfied with life as their college attending peers across the globe and were not under- or overly- prone to experiencing emotional strain under the two conditions queried by this project. Finally, the respondents were neither "angels" who did not engage in deviant acts at all nor were they "demon-children" who were overly deviant. Thus, it appears the captured sample meets the demographic expectations and that the project can continue on to testing of instruments for reliability and validity.

Reliability and Validity Testing

Reliability and validity testing helped to determine whether the psychometric used in the project produced consistent and valid data. Several analyses were undertaken with the data to assess various aspects relating to reliability and validity. We first briefly Assespresent each type of reliability and validity assessed and then report the results of these assessments by scale or index.

Assessments Employed

Internal consistency measures allow us to determine the degree to which each item on a scale relates to all other items on the same scale (Rosnow & Rosenthal, 2008). For example, in this project, we would expect that someone who has a general sense of physical well-being (item #10) would report lower levels of physical pain or discomfort (item #11), less depression (item #12), and less anxiety or worry (item #13), yet at the same time, report more confidence that he or she will continue to experience physical and emotional well-being (item #14). If the responses on this *Health* CVSE did not relate to each other, the scale may not be a consistent measure of health satisfaction.

One method of determining the internal consistency of a scale or index is by calculating Crohnbach's coefficient alpha (DeVillis, 2003). This method is appropriate for all scales and indices here. A scale is generally accepted as internally consistent when Crohnbach's coefficient $\alpha \geq .70$ (DeVillis, 2003; Spector, 1992).

Borrowing directly from Allen (nd), we can see that Crohnbach's alpha, α, is calculated by the equation

$$\text{“}\alpha = \frac{n}{n-1}\left(1 - \frac{\Sigma Vi}{Vtest}\right) \qquad \text{(eq 3)}$$

where; n = number of questions; Vi = variance of scores on each question; and Vtest = total variance of overall scores on the entire test" (slide #4). As can be seen, the variance in scores for each item (Vi) is measured against the variance of all scores (Vtest) in each subscale in order to determine α. Because Crohnbach's alpha is partially dependent on the number of items in the (sub)scale (n/n-1), internal consistency will be somewhat more difficult to attain for scales with fewer items, especially when there is greater variance in the individual item scores. Internal reliability was assessed for all scales, excepting the SRD-GD, using calculations available in SPSS.

Validity of the instruments was also assessed. Generally, validity is a statistical assessment of how well the concepts and ideas measured by the items in a scale or index seem to match concepts and ideas experienced in the real world (Carmines & Zeller, 1979). In other words, do the specified items appear to match the broader conceptualizations and the realities of those conceptualizations? The primary types of validity assessed in this project were content and construct validities.

Content validity is an assessment of whether the instrument accurately reflects the material of interest (Carmines & Zeller, 1979). For instance, Ramm (2003; Ramm & Czetli, 2004) suggests that life satisfaction results from achievement of personal standards within each of the ten core values. Therefore, the items measuring these domains should all relate very well with obtained life satisfaction scores. Such validity tests were performed via interpretation of factor analysis results.

Factor analysis is a statistical technique that "attempts to reduce a large set of correlated variables to a smaller set of hypothetical characteristics" (Girden, 1996, p. 119). For instance, remembering the discussion of *Health* CVSE items above, we would

not only expect these items to be answered similarly, we would also expect that they would be answered more similarly among each other than if we compared them with the items for the *Renewing Recreation* CVSE. Since health and renewing recreation do not seem to be theoretically linked, the questions specific to each of these CVSEs should account for separate influence, via two factors, to the overall GELS score. If health questions are in fact answered similarly among each other while simultaneously dissimilar from renewing recreation questions (which themselves are answered similarly among each other), it can then be argued that these items appear to be measuring the concepts of health and renewing recreation (i.e., items equal constructs).

Basically, factor analysis uses the correlations between the items in a scale, a hypothetical factor and weighted z scores in a complex mathematical manner to determine how well each item "loads" onto the hypothetical factor (Girden, 1996; Spector, 1992). As (partial) measures of correlation, factor loadings can have scores ranging from 0 to 1.0, with higher values signifying greater loadings. Continuing our example, we would expect that the ten items reflecting the core values to load onto one factor that, theoretically, is life satisfaction.

But, if the items under consideration load about equally onto more than one factor, statistical rotations can be applied to offer a better understanding of how the items correlate to each other (referred to as items hanging together). When the items are thought to be unrelated, orthogonal rotations will identify unique factors; where the variables may be related to each other, oblique rotations account for this relatedness.

Once the loadings are assessed, Eigenvalues can then be calculated and interpreted to help us understand if these factor loadings are stable and reliable. Based on

the math involved in calculating Eigenvalues, if the these are greater than 1, they are considered stable and reliable (Girden, 1996). When these processes uncover more than one factor with Eigenvalues above 1, Scree plots showing the descending Eigenvalues can assist in evaluating which factors have the most influence on the overall variable of interest. When examining these Scree plots, a distinct elbow will be seen immediately after the last factor with important (i.e., other than chance) influence (DeVillis, 2003; Spector, 1992).

In an ideal statistical world, all items querying the variable of interest will load onto one factor with an Eigenvalue above 1 [and for reasons beyond the scope of this paper, that Eigenvalue would ideally be close to the number of items in the scale] (Bryant & Yarnold, 1995; DeVillis, 2003; Flanagan, 1935; Girden, 1996; Spector, 1992). Factor analysis can be accomplished via several approaches, each with complex and divergent considerations; for simplicity, only those methods relevant to the current assessments are discussed below.

The other type of validity assessed here was *construct validity*. In these types of assessments, results from an emerging instrument that is purported to measure some underlying construct(s) can be compared against results obtained on an existing and accepted measure of the same construct (Carmines & Zeller, 1979; Rosnow & Rosenthal, 2008). Similar results between the instruments can indicate that both instruments are assessing the same underlying construct. In the present project, Ramm's (2001, 2003; Ramm & Czetli, 2004) assertion that the items in the General Inventory of Life Satisfaction (GILS) measure life satisfaction was assessed by comparing the GILS results

against those obtained on the generally accepted Satisfaction with Life Scale of Diener et al. (1985; Diener, et al., 1999; Pavot & Diener, 2008).

Finally, *external reliability* was assessed. This type of reliability is considered a form of replication where the interest is in attaining similar results from one study to the next (Cook & Campbell, 1979; Rosnow & Rosenthal, 2008). This is important because the extent to which independent researchers can produce similar findings across studies will work to strengthen the assertions of each individual study. To assess external reliability, the extent to which our scale results match the results of other studies using the same instrument was determined. This method is acceptable when there are no changes made to the instrument utilized, the samples are similar, and when the instrument has received general acceptance as a measure of its underlying construct (Rosnow & Rosenthal, 2008). Such acceptance was the case with one of the measures used in this project, the Satisfaction with Life Scale (cf. Diener, et al., 1985; Pavot & Diener, 2008; Seligman, 2002).

Both reliability and validity of the data are required for scientific usefulness. The following discussion details the procedures employed by the present project in assessing the obtained data and the interpretations of the assessments. Each scale or index is discussed in sum before moving to the next scale or index, beginning with the Satisfaction With Life Scale.

Satisfaction With Life Scale: Reliability and Validity

The Satisfaction With Life Scale is a five-item instrument designed to assess the respondent's overall life satisfaction. The scale enjoys general acceptance in the positive psychology literature as a reliable and valid measure of the concept of life satisfaction.

The current project sought to assess internal consistency, content validity and external reliability for the SWLS.

The Crohnbach coefficient alpha obtained for all five items of the SWLS was .816. An alpha of .816 indicates a high degree of similarity among the respondents' marks to the questions asked on the SWLS. Since this obtained alpha is above the .70 set for acceptance, the scores on this instrument are considered to be internally consistent.

Previous studies have reported that factor analysis of these five items items uncovered one factor, with all items loading onto it between .588 and .911 (Diener, et al., 1985; Pavot & Diener, 2008; Slocum-Gori, et al., 2009). Thus, there is a pre-determined model to compare instant results against. Therefore, confirmatory factor analysis, using maximum likelihood estimations, was deemed most appropriate (Bryant & Yarnold, 1995) and was run on the data. As shown in Tables 12 and 13, the present sample yielded results consistent with the literature in that one factor was uncovered with an Eigenvalue above 1.0 (component 1= 3.094) and all five items loaded onto that factor between .583 (Lnochange) and .874 (Lcompsat). These results appear to confirm that the items on the SWLS functioned similarly with other studies using the same instrument and scaling procedures.

Table 12: Factor Analysis SWLS

Component	Eigenvalue	% Variance	Cumulative %
1	3.094	61.884	61.884
2	.747	14.936	76.819
3	.503	10.052	86.871
4	.359	7.178	94.049
5	.298	5.951	100.000

Table 13: GILS Factor Loadings

GILS item	Component 1
Lideal	.852
Lexcel	.803
Lcompsat	.874
Limport	.787
Lnochang	.583

As to central tendency, the mean of the SWLS scores obtained here was compared against findings by other researchers using this same instrument within college student samples across several countries. As noted earlier, such studies found the average of SWLS ratings to be between 23.0 and 25.2, with standard deviations ranging from 5.8 to 6.4 (Pavot & Diener, 2008). The life satisfaction mean and standard deviation in the Gernpresent sample, 23.92 and 5.86 respectively, are consistent with SWLS scores obtained from college students across the globe.

The instant SWLS results have high internal consistency. They also match with factor analyses and sample means uncovered in previous studies. Hence, the data obtained from this instrument were considered both reliable and valid.

General Inventory of Life Satisfaction: Reliability and Validity

The reader is reminded that according to Ramm (2003) there are ten important life domains; when a person achieves satisfaction in all or most of these, the person will experience a global sense of life satisfaction. Ramm developed the GILS as a 68 item measure of respondents' perceived attainment of satisfaction to each of these ten domains. The responses to individual items on this scale are grouped to create a core value satisfaction estimate (CVSE) for each of the ten core values. The ten resulting

CVSEs are then added together to form a global estimate of life satisfaction (GELS) score. Because this instrument has not yet been subjected to reliability and validity testing, extensive assessments were conducted in the present study. A discussion of results begins with content validity.

Ramm's assertion that each core value independently and uniquely influences life satisfaction can be readily translated into an *a priori* model suggesting that the General Estimate of Life Satisfaction (GELS) score will be determined by ten individual CVSEs (factors). In order to assess the validity of this, maximum likelihood estimates factor analysis, without rotations, was run. If Ramm is correct, the data attained from the items on each of the CVSEs will load on to one factor, this factor will show a distinct elbow immediately to its right on a Scree plot, and it will have an Eigenvalue above 1.0.

The results of the analysis are displayed in Table 14 and in the Scree Plot shown in Figure 2. Two factors with Eigenvalues above 1.0 emerged and all ten CVSEs loaded higher onto the first factor than the second. The first factor obtained an Eigenvalue of 4.886, while a second factor emerged with an Eigenvalue of 1.013 [Eigenvalues not displayed]. The first factor reveals a clear elbow immediately to its right. Interestingly, the items for the CVSE of *Money* loaded about equally onto both factors (factor 1=.486, factor two=.483). Also of note is that the CVSE for *Rewarding Occupation* only loaded onto factor one at .119.

For the most part, Ramm's assertions are supported here in that all ten domains load higher on the first factor. Yet, as they are conceived by the items on the GILS, *Money* may capture a second concept about as well as it captures life satisfaction and *Rewarding Occupation* may have a much lower role in global life satisfaction than Ramm

suggests. The latter results could also reflect a belief in college students that education is not a career, evidenced by a greater likelihood of "NA" responses in this category of items.

Table 14: Factor Analysis: CVSE to GELS

CVSE	Factor	
	1	2
Affirmation	.885	-.082
Companionship	.936	-.154
Freedom	.674	.314
Health	.584	.334
Intimacy	.810	-.069
MMO	.595	.174
Money	.486	.483
Rew. Occ.	.119	.042
Renew. Rec.	.465	.190
Security	.646	.289

Extraction Method: Maximum Likelihood

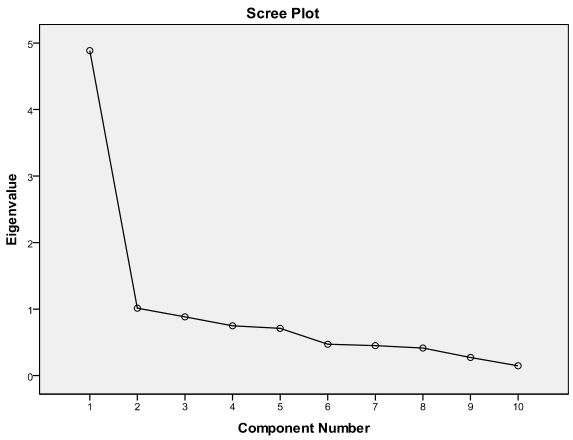

Figure 3: Scree Plot for CVSE to GELS Factor Analysis

To further assess content validity, a factor analysis was then run on all 68 GILS items. The expectation was that the GILS items would load onto ten factors and that upon inspection each could conceivably relate to one of the CVSE domains. When the 68 GILS items were assessed without an *a priori* model, the factor analysis terminated after 25 iterations without providing conclusive results. Afterward and because Ramm (2001) developed the GILS items to specifically group into the ten domains, a principal components/varimax rotations estimate imposed this *a priori* model on the data and set the number of factors at 10.

Before discussing the results, it is noted that there were a total of 68 items entered into the equations and that results are based on 381 cases. While there is no generally agreed upon sample size or case-to-item ratio to satisfy factor analyses, many authors often suggest sample ratios of 10 and 20 cases per item evaluated (cf. Costello & Osborne, 2005; MacCallum, Widaman, Zhang, & Hong, 1999 for a more detailed discussion). Following this criteria, any factor analysis examination of the 68 GILS items would require between 680 and 1,360 cases. Therefore, a sample size of 381 may not permit a thorough statistical analysis of the 68 GILS items (but cf. MacCallum, et al., 1999 for a broader discussion of suggested minimal requirements across disciplines). As such, these results should be interpreted with some caution. Yet, some interesting observations are made.

Table 15 summarizes the resulting item loadings, under domain names ascribed by the author of this project. Contrary to what was expected, no single set of items loaded together, fully and separate from all other GILS items onto any one factor which would be consistent with any of Ramm's domains. The closest any of Ramm's items

loaded together were in the items measuring *Money*, *Rewarding Occupation* and *Renewing Recreation*.

Referring back to the discussion in Chapter 2, these reformulated domains agree more closely with the conceptualizations of Campbell, Converse and Rodgers (1976) than with the other authors discussed, including Ramm. For instance, rather than the features of a relationship (i.e., Ramm's companionship, intimacy, affirmation), it is more apparent that relationships with certain people important to one's life (i.e., Campbell et al's friends, family/marriage) drive interpersonal happiness. Further, rather than a clear dichotomy between internally (e.g., intimacy, affirmation, security) and externally (e.g., money, meaningful material objects) located conditions, life satisfaction in at least some domains may be more the work of a wider combination of general opportunity, access to intangible resources and accumulated tangible property. Of minor note in the table is that the item measuring satisfaction with the meaningful material object "transportation" received its highest loading (.344) onto the factor representing pets. The second highest loading for this item (.302) was onto Factor #1, "external." Intuitively, a person's access to transportation has more in common with things external to oneself that it does to his or her pets.

This analysis did not support Ramm's conceptualization that the GILS items group into domain CVSEs which can then be used to estimate life satisfaction. The reformulated domains are incorporated into the test of Hypothesis 1 below.

Table 15: Reformulated GILS Item Clusters

Factor 1: "External"	Factor 2: "Health & Security:	Factor 3: "Money"	Factor 4: "Home & Family"	Factor 5: "Paramour"
MMOfurn/32/.382	Hlthsens/10/.505	RRopp/18/.283	MMOhome/31/.399	Comppar/42/.955
MMOward/33/.329	Hlthpain/11/.231	Monsuff/21/.402	MMOenter/35/.366	Intpart/50/.956
MMOstore/36/.377	Hlthdepr/12/.440	Monresp/22/.664	Comppts/41/.744	Affpart/59/.960
Compcom/37/.646	Hlthanxs/13/.334	Monactiv/23/.683	Compxfam/43/.501	Freepart/68/.916
Comppeer/38/.655	Hlthcont/14/.518	Monblock/24/.571	Intpts/48/.783	
Compfrnd/39/.722	Freeappr/63/.304	Monhlth/25/.666	Intxfam/49/.498	
Intfrnd/46/.714	Freecom/64/.360	Moncare/26/.491	Affpts/58/.761	
Affcomm/53/.630	Secmmo/69/.613	Monfair/27/.436	Affxfam/60/.560	
Affpeer/54/.652	Secmon/70/.644	Monrr/28/.653	Freepts/67/.655	
Affsups/55/.502	Secaff/71/.669	Monopt/29/.744		
Afffrnd/56/.700	Seccomp/72/.701	Monsafe/30/.739		
Freefrnd/66/.605	Secint/73/.618			
	Sechlth/74/.723			
	Secrr/76/.644			
	Secfree/77/.596			

Factor 6: "Work"	Factor 7: "God"	Factor 8: "Pet"	Factor 9: "Relationship with kids"	Factor 10: "Leisure"
ROskil/15/.726	CompGod/45/.943	MMOtran/34/.344	Compkids/40/.428	RRrefres/19/.638
ROtask/16/.840	Intprof/51/.425	Comppet/44/.838	Intkids/47/.779	RRlook/20/.636
ROacco/.844	IntGod/52/.944	Affpet/61/.834	Affkids/57/.780	
Freework/65/.405	AffGod/62/.938			
Secro/75/.481				

Note: Item name/Smiling at Risk survey item number/factor loading, highest

Turning to internal consistency, the 68 items on the General Inventory of Life Satisfaction (GILS) were assessed within the domains Ramm proposes they measure. The Crohnbach alpha coefficients for the items in each of these domains, or core value satisfaction estimates (CVSEs) are reported in Table 16. As can be seen there, the similarity in responses among the items for *Companionship, Intimacy, Affirmation* and *Freedom* were lower than .70. The reader may recall from discussion in Chapters 2 and 3 that the author had some initial concern that Ramm's ideas about companionship, intimacy and affirmation conflicted with the findings of other writers that, rather than features of relationships, satisfaction in the inter-personal domain was dependent upon

establishing relationships with certain other people (Campbell, et al., 1976; Diener & Diener, 1996; Frankl, 2006; Martikainen, 2009; Proctor, et al., 2009; Sears, 1977). The results of the current internal consistency assessments support the wider research more than they support Ramm's contentions about relationships and happiness. Meanwhile, the moderate internal consistency among *Freedom* items could indicate that respondents do not perceive that their freedom is reliant on the items Ramm suggests. All other items grouped by CVSE achieved Crohnbach's alpha scores above .70. These results indicate acceptable levels of internal consistency among the GILS items measuring the remaining six of Ramm's domains.

Table 16: Crohnbach's Alpha for CVSEs

CVSE	α
Freedom	.428
Companionship	.429
Intimacy	.519
Affirmation	.566
Renewing Recreation	.705
Meaningful Material Objects	.752
Health	.759
Money	.807
Security	.861
Rewarding Occupation	.880

Note: CVSE = Core Value Satisfaction Estimate α = Crohnbach's alpha

The final step in validating the GILS was to compare the results on this instrument against the results obtained on the SWLS. As discussed above, when a new instrument is offered to measure a concept and it can be assessed against an accepted measure of the same concept, construct validity can be established (Carmines & Zeller, 1979; Rosnow & Rosenthal, 2008). As reported in Chapter 3, even though the GILS had been subjected to one previous validation effort there were concerns raised with this attempt. Recalling also from Chapter 3, the SWLS has achieved a level of general

acceptance in the positive psychology literature as a valid measure of life satisfaction (cf. Baumgardner & Crothers, 2009; Diener, et al., 1985; Pavot & Diener, 2008; Seligman, 2002). Because the GILS had not previously achieved validation, demonstrating correlation between this scale and the SWLS would serve as a unique contribution of this project to the literature.

Correlation tests measured the strength of association between the GILS and the SWLS scores. Table 17 reveals that the correlation between the scores on these two instruments is .660 ($p < .01$, two-tailed). This result indicates that the items on the GILS and those on the SWLS enjoy a strong relationship (Salkind, 2011) with each other when assessing respondents' life satisfaction ratings. As such, this project offers the first empirical validation of the GILS as a life satisfaction assessment instrument.

Table 17: SWLS to GELS Correlations

		SWLS	GELS
SWLS	Pearson Correlation	1	.660**
	Sig. (2-tailed)		.000
	N	381	381
GELS	Pearson Correlation	.660**	1
	Sig. (2-tailed)	.000	
	N	381	381

Note: **p < 0.01, (2-tailed).

Overall, reliability and validity of the GILS were strong, but incomplete. When presented in the CVSE domains, the data loaded onto one factor as hoped. However, when the individual GILS items were assessed for their own groupings on any number of factors, the results were terminated before sound conclusions could emerge. Following up on this, the items were made to load onto a set of 10 factors, as predetermined in Ramm's original formulation. The analysis revealed that the items grouped on factors

more closely associated with the wider life satisfaction literature than with Ramm's own ideas. Also, internal consistency analyses were not achieved for the GILS items capturing the three *relationships* domains. Again consistent with the wider literature, it may be that having relationships with people important to one's life is more related to life satisfaction than are the feelings one experiences in such relationships. Finally, the GILS was found to yield results that were strongly associated with a well established life satisfaction instrument, Diener's SWLS.

Self-Reported Delinquency- General Delinquency

The Self-reported delinquency- General delinquency (SRD-GD) scale is one of the most widely employed and easily adaptable indices in the study of criminology and it enjoys general acceptance as reliable and valid (Piquero, et al., 2002; Thornberry & Krohn, 2000). Throughout a wide array of adaptations, both internal consistency (Hindelang, Hirschi, & Weiss, 1981) and reliability (Huizinga & Elliott, 1986) have been well established. Consequently, it was determined that no additional assessment of reliability or validity was required for its use in this project.

Strain: Reliability and Validity

The final scale to be assessed was the strain scale imported from Broidy (2001). Internal consistency analyses were conducted separately for the Block and the Event subscales and then for all Strain items. The Crohnbach's alphas are reported in Table 18. There the reader can see that the Strain subscales achieved almost equal internal consistency within this sample (Block=.820; Event=.828). When considering all strain items together, respondents' scores were also highly consistent (Strain=.897). Given these results, all three strain scales demonstrate reliability.

Table 18: Crohnbach's Alpha for Strain

(Sub) Scale	Alpha
Block	.820
Event	.828
Strain	.897

Summary of Key Findings

Reflecting on the totality of results from reliability and validity testing, several conclusions are offered. First, the SWLS data herein can be considered both reliable and valid. Second, the data regarding the GILS did not fare so well. On this instrument, validity was established for the CVSEs' ability to capture the idea of life satisfaction. However, further testing revealed a second set of domains that are more consistent with research conducted on happiness over the last 35 years. Both Ramm's CVSEs and this reformulated domain are employed in the test of hypothesis one below. Reliability testing of the GILS yielded mixed results, with six domains achieving internal consistency and four not achieving internal consistency. Still, the GILS responded very well when compared to a generally accepted life satisfaction scale. This last finding resulted in the first scientific validation of the GILS as a positive psychology psychometric. Overall, the GILS is considered reliable and valid enough to permit hypothesis testing. Third, the strain scales demonstrated high internal consistency. Combined with the knowledge that these scales have also been used in other criminological studies, the data arising here are considered to be reliable and valid. As a final note, the reader may question why the Self-Reported Delinquency- General Delinquency scale was not assessed above. The author believes that this particular scale

has held up in previous studies well enough to import its own reliability and validity within this present project, even with the adaptations made.

Considering all of these results together, the data appeared to be reliable and valid. Therefore testing of the hypotheses were undertaken. The results are discussed now.

Testing the Hypotheses

The main purpose of this project was to empirically test the positive psychology theory underlying a juvenile delinquency intervention program known as the Facts of Life (Ramm, 2003; Ramm, et al., 2009). The theory upon which this program is built is called The Formula for Happiness (Ramm, 1996, 2003; Ramm & Czetli, 2004). In general terms, the author of this intervention and its theory posits that there are ten core values which, when acquired, increase life satisfaction. The theory further posits that because criminal and deviant acts will cause a risk to or loss of these core values, youths who have acquired them will not engage in deviance. In order to test the existence of relationships among the core values, life satisfaction, and deviance, two hypotheses were developed. The first of these was that attainment of the core values would lead to increased reports of happiness; and, the second hypothesis was that increased reports of happiness would lead to reduced deviance.

Contrasting, yet strikingly similar to, Ramm's theory are the propositions of the criminological theory known as strain. Strain theory suggests that a person's inability to obtain desired, legitimate goals will lead to negative emotional reactions (Agnew, 1992; Agnew & White, 1992; Merton, 1938, 1968). When these secondary emotional reactions are not quelled by appropriate social resources, the person is more likely to engage in

crime and deviance (Agnew, 1992, 2005, 2006; Broidy, 2001). Testing strain theory, as it may relate to the emotionality propositions within the Formula for Happiness, was seen as parallel to the main purpose of the current project. In adapted form, the relationships between negative emotionality (strain) and deviance were tested via two additional hypotheses. The first of these hypotheses, H_3, was that experiencing negative emotional reactions to strain inducing events would lead to deviance in the short term. The second hypothesis, H_4, was that experiencing the negative emotional reactions to strain inducing events would lead to a self-prediction of engaging in deviance in the future.

All four of these hypotheses were subjected to ordinary least squares (OLS) regression models. The results were mixed. Each hypothesis test and its statistical findings are now discussed in turn, beginning with whether attaining the core values leads to an increase in life satisfaction ratings.

H_1: Attainment of the Core Values Increases Life Satisfaction

The core value satisfaction estimates (CVSEs) for each of the ten core value domains served as the independent variables for hypothesis 1. As reported in Chapter 3, the 68 General Inventory of Life Satisfaction (GILS) items are grouped to calculate these CVSEs and are ordinal rankings in their original form. When the calculations are applied to transform these GILS items into the CVSE sub-scales, the additive measures have a possible quantitative range of zero to ten (0 – 10), yet the "0" does not indicate an absence of happiness. Because of these transformations, the CVSEs can be considered interval level measures.

The dependent variable of interest for H_1 is the scaled Satisfaction With Life (SWLS) score. As noted in Chapter 3, the SWLS is comprised of five ordinal level items

that are scored between 1 and 7 on a likert-type scale. The individual scores are added together to create the SWLS score, which has a possible range of 7 – 35. Again, this additive scale is quantitative and has no true or meaningful "0" point. Therefore, it can also be considered an interval level measure.

Control variables were age, race and sex. Age was reported in years and is a ratio level measure. Race was coded into three dichotomous variables, *white*, *black,* and *other*, where a case was coded as "1" depending on the identification made by the respondent. In regression analyses, *other* was left out of the equations as a control variable. Sex was coded as female (0) or male (1). These last two variables are therefore categorical measures. Although respondents' major courses of study was recorded, because of the complexity involved in organizing the more than 150 majors that were reported into usable variables and because of the representativeness of the sample to each university that emerged when assessing the descriptive statistics, major was not employed as a variable in this or any other hypothesis test. According to Ramm's conceptualization, none of the included control variables should exert any influence on life satisfaction.

When an outcome of interest is measured at the interval or ratio level and the predictor and control variables are either dichotomous or numeric, ordinary least squares (OLS) regression is appropriate (Berry, 1993). It was expected that as measures of core value attainment the CVSE scores would exert direct and linear influence on obtained SWLS scores; in other words, respondents who reported greater attainment to each of the core values would also report greater satisfaction with life.

Therefore, the equation tested in Model 1 was:

$$Y^*_{SWLS} = a + \beta_{CVSEaff} + \beta_{CVSEcomp} + \beta_{CVSEfree} + \beta_{CVSEhlth} + \beta_{CVSEint} + \beta_{CVSEMMO} + \beta_{CVSEmon} + \beta_{CVSERO} + \beta_{CVSERR} + \beta_{CVSEsec} + \beta_{age} + \beta_{white} + \beta_{black} + \beta_{sex} + \varepsilon \quad \text{(eq 4)}$$

Where: Y^*_{SWLS} = the predicted SWLS score; a = the intercept of the slope; $\beta_{CVSEaff}$ = the coefficient for the CVSE of affirmation; $\beta_{CVSEcomp}$ = the coefficient for the CVSE of companionship; $\beta_{CVSEfree}$ = the coefficient for the CVSE of freedom; $\beta_{CVSEhlth}$ = the coefficient for the CVSE of health; $\beta_{CVSEint}$ = the coefficient for the CVSE of intimacy; $\beta_{CVSEMMO}$ = the coefficient for the CVSE of meaningful material objects; $\beta_{CVSEmon}$ = the coefficient for the CVSE of money; β_{CVSERO} = the coefficient for the CVSE of rewarding occupation; β_{CVSERR} = the coefficient for the CVSE of renewing recreation; $\beta_{CVSEsec}$ = the coefficient for the CVSE of security; β_{age} = the coefficient for age; β_{white} = the coefficient for a white respondent; β_{black} = the coefficient for a black respondent; β_{sex} = the coefficient for sex; and, ε = the sum of the error terms.

Diagnostic testing revealed that the assumptions for OLS were met. The Durbin-Watson test (D=2.024) did not indicate correlation in the residual error terms, a scatterplot of the residuals revealed homoskedasticity, and correlations between the independent variables did not indicate multicollinearity. Additionally, autocorrelation between the independent variables and the error terms did not emerge in correlation matrices.

Table 19 informs on the model findings. As seen, this model explains 51.3% of the variance in predicting SWLS scores when the scores of the independent variables are known and this model is statistically significant (F=27.523, p = .000). This finding will be discussed further in Chapter 5; however, the reader is reminded that the positive

psychological literature holds that there are three components to global life satisfaction. Only one of these three, subjective well-being (SWB), is measured by Ramm's core values and is referred to primarily as life satisfaction throughout this project. The literature is not clear on the estimated effect each of these components plays into overall happiness. However, if subjective well-being, positive affect and negative affect each exert equal influence on happiness, we would have expected the variance explained by any one of them, including subjective well-being, to be no greater than 34%. On the other hand, most researchers only attempt to assess one of these components of happiness in one instrument. Such is the case with SWB as assessed through Diener et al's (1985) SWLS (Baumgardner & Crothers, 2009). As such, the SWLS is believed to account only for SWB. Therefore, the results of the present study are interpreted under the belief that the SWLS assesses only SWB as it relates to life satisfaction.

Although the model is significant, only three core value satisfaction estimates significantly influenced SWLS scores. In descending order of influence these were the CVSEs for *Health* (beta = .329, p = .000), *Meaningful Material Objects* (beta = .157, p = .001) and *Money* (beta = .106, p = .024). As can also be seen in the table, being a black person in this sample also significantly predicted a decrease in happiness (beta = -.154, p = .003) over identifying with the *other* races, while being white had no impact on happiness when compared with the *other* races. Therefore, the results of this model testing reveal that, while the included variables account for 51.3% of the variance, only three of Ramm's conceptualized core values significantly influence life satisfaction ratings. Based on this last result, this project does not support the contentions Ramm makes that life satisfaction is contingent upon acquiring most or all ten of his core values.

Table 19: Model Summary, Hypothesis 1- SWLS

	Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
Variable	B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
Constant	1.472	3.937		.374	.709	-6.269	9.214
Affirmation	.119	.234	.037	.510	.611	-.341	.580
Companion	.239	.267	.070	.896	.371	-.286	.765
Freedom	.287	.164	.090	1.753	.080	-.035	.610
Health	**.867**	**.126**	**.329**	**6.859**	**.000**	**.619**	**1.116**
Intimacy	.018	.164	.007	.112	.911	-.304	.341
MMO	**.559**	**.167**	**.157**	**3.353**	**.001**	**.231**	**.887**
Money	**.258**	**.114**	**.106**	**2.260**	**.024**	**.034**	**.483**
Rew Occ	.044	.073	.022	.595	.552	-.100	.188
Renew Rec	.240	.163	.063	1.475	.141	-.080	.560
Security	.288	.204	.071	1.415	.158	-.112	.689
Age	.030	.169	.007	.179	.858	-.301	.362
Sex	-.767	.451	-.065	-1.702	.090	-1.653	.119
Black	**-3.637**	**1.229**	**-.154**	**-2.958**	**.003**	**-6.055**	**-1.219**
White	-.562	.921	-.032	-.610	.542	-2.374	1.250
R^2=.513	**F=27.523**	**p=.000**					

Note: Std. Error= standard error; Sig.= significance; Significant predictors bolded

Still, Ramm's core values, as captured by the GILS items, did account for nearly one-half of respondents' SWLS scores. As revealed in the reliability and validity section above, interpretation of the principal components factor analysis suggested that the GILS items did cluster together, but in a different pattern than Ramm offers and much closer to the domains noted in the positive psychology literature. The author of the present project suggested reformulated life domains based on these clusters (cf. Table 14). As an additional test of Hypothesis 1, these reformulated domains served as the independent

variables in a second OLS model based on Equation #4, but substituting the reformulated domain coefficients for the old CVSE coefficients.

These reformulated variables were created by adding the raw scores of all items in the sub-scale together. For the same reasons outlined earlier when discussing the CVSEs, these sub-scales were considered interval level scores. Included in reformulations was the transfer of the item MMOtrans to the category of RFext (Factor 1 in Table 14) where it seems to make more logical sense than to be included with pets (Factor 8 in Table 14). The reformulated domains (RFs) and their possible score ranges were: *External* (0-48); *Health & Security* (0-60); *Money* (0-44); *Home & Family* (0-36); *Paramour* (0-16); *Work* (0-20); *God* (0-16); *Pet* (0-12); *Relationship with kids* (0-12); and, *Leisure* (0-8). If life satisfaction is a function of the domains discussed in the literature, it is expected that more of these reformulated domains to emerge as significant predictors of life satisfaction than had the domains conceptualized by Ramm. Again, if Ramm is accurate, it is expected that a significant amount of the variance in life satisfaction explained by these predictors.

Diagnostic testing revealed the OLS assumptions appeared to have been met. The results of the regression model are displayed in Table 20. As is apparent in the table, the equation resulted in a significant model ($F = 24.702$, $p = .000$) that explains slightly less variance ($R^2=.486$) than did the model using Ramm's domains ($R^2=.513$). However, there were seven domains, instead of three, that significantly predict life satisfaction scores. In descending order of importance, these are; *Health & Security* (beta = .379, p = .000), *External* (beta = .199, p = .000), *Money* (beta = .129, p = .005), *Home & Family* (beta = .109, p = .026), *Work* (beta = -.088, p = .032), *Pet* (beta = -.087, p = .027), and

God (beta = .081, p = .044). As in Table 18, when race was black, a respondent's happiness was significantly predicted to decrease (beta = -.147, p = .007) over *others*.

Table 20: Model Summary, Modified Hypothesis 1- SWLS

	Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
Variable	B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
Constant	-4.857	3.998		-1.215	.225	-12.717	3.004
External	**.173**	**.046**	**.199**	**3.756**	**.000**	**.082**	**.263**
God	**.084**	**.042**	**.081**	**2.024**	**.044**	**.002**	**.166**
Home/fam	**.106**	**.047**	**.109**	**2.241**	**.026**	**.013**	**.198**
Health/sec	**.312**	**.042**	**.379**	**7.389**	**.000**	**.229**	**.395**
Kids	.045	.079	.022	.575	.565	-.109	.200
Leisure	.005	.174	.001	.026	.979	-.338	.347
Money	**.094**	**.033**	**.129**	**2.855**	**.005**	**.029**	**.159**
Paramour	.051	.031	.063	1.634	.103	-.010	.113
Pet	**-.149**	**.067**	**-.087**	**-2.224**	**.027**	**-.280**	**-.017**
Work	**-.111**	**.051**	**-.088**	**-2.150**	**.032**	**-.212**	**-.009**
Age	.091	.172	.021	.528	.598	-.248	.430
Sex	-.889	.460	-.075	-1.934	.054	-1.792	.015
Black	**-3.467**	**1.274**	**-.147**	**-2.721**	**.007**	**-5.972**	**-.961**
White	-.589	.952	-.033	-.619	.537	-2.462	1.284
R^2=.486	**F=24.702**	**p=.000**					

Note: Std. Error= standard error; Sig.= significance; Significant predictors bolded

Speaking to the two domains that reduce life satisfaction, it is logically understandable that *Work* would decrease life satisfaction for college students, but is it somewhat perplexing that *Pets* would act in the same manner. However, the students' responses to the pet items may be a reflection of sadness brought on by being away from their furry companions.

Summary of H_1 Findings

In the OLS model, the independent variables were significant predictors of life satisfaction and accounted for just over half of the variance in SWLS scores. However, when examined individually, only three of Ramm's core value conceptualizations achieved a level of significance that could be counted as influencing happiness. When the core values were replaced with the ten domains that emerged during reliability and validity testing, The resulting model more than double the number of domains that significantly influenced life satisfaction (reformulated, 7; Ramm, 3) but only slightly decreased the ability to reduce error when predicting life satisfaction (reformulated, R^2=.486; Ramm R^2=.513). Thus, the findings partially support Ramm's contentions. There appears to be a set of domains that predict life satisfaction, but their formulation and impact are likely to be different than Ramm envisioned.

H_2: Increased Life Satisfaction Reduces Engagement in Deviance

The Satisfaction With Life Scores (SWLS) served as the independent variable for the models in testing Hypothesis 2. Control variables were again age, race, and sex. Additionally, since strain is discussed and analyzed under the sections on Hypotheses 3 and 4 below, a measure for strain was included in a secondary regression model here.

The dependent variable employed in the ordinary least squares (OLS) regression models was the frequency count of self-reported deviant or illegal acts, *newfreq*, with the removal of outliers as noted in the descriptives section above. An OLS regression equation was estimated using the basic equation:

$$Y^*_{newfreq} = a + \beta_{ls} + \beta_{age} + \beta_{white} + \beta_{black} + \beta_{sex} + \varepsilon \qquad \text{(eq 5)}$$

where: $Y^*_{newfreq}$ = estimated offending as coded in the variable *newfreq*; *a* = the intercept of the slope; β_{ls} = the coefficient of life satisfaction; β_{age} = the coefficient for age; β_{white} = the coefficient for a white respondent; β_{black} = the coefficient for a black respondent; β_{sex} = the coefficient for sex; and, ε = the sum of the error terms. As in H_1, the race variable *other* was left out of the equation as a control. A second regression model was then estimated using the above equation with the addition of β_{strain} as a control variable.

If the theory is supported, reported life satisfaction will negatively influence commission of deviance and illegal acts as represented by *newfreq*. In other words, as life satisfaction ratings increase, participation in the deviant/illegal behaviors will decrease. Again, according to Ramm, there is no anticipated influence of control variables in any of the models.

Diagnostic testing for all OLS regression models of deviance revealed some level of heteroskedasticity in the error terms. This means that the error terms were not evenly distributed across all deviance scores. Therefore, the coefficients that emerged may underestimate the effects of SWLS on deviance for this sample, yet the overall significance of the models should remain unaffected (Berry, 1993). All other diagnostic testing indicated that the OLS assumptions appeared to have been met. Thus, the results of all OLS models should be read with the knowledge that the coefficients may underestimate the influence of SWLS on deviance.

The results of OLS regression for deviance are presented in Table 21. The model here is significant ($F=2.252$, $p<.049$) and there is only one significant predictor of deviant acts, *SWLS*, in the predicted direction of influence (beta = -.164, p = .003). Even though increased SWLS scores reduced the number of deviant acts respondents engaged in, very

little of the variance in deviant acts can be accounted for when SWLS scores are known (3.2%).

Table 21: Model Summary, Hypothesis 2- Deviance

	Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
Variable	B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
Constant	33.767	13.563		2.490	.013	7.088	60.445
SWLS	**-.461**	**.154**	**-.164**	**-3.000**	**.003**	-.764	-.159
Age	-.667	.664	-.054	-1.005	.316	-1.974	.639
Sex	.788	1.799	.024	.438	.662	-2.751	4.328
White	-.502	3.697	-.010	-.136	.892	-7.774	6.771
Black	1.051	4.911	.017	.214	.831	-8.610	10.711
R^2=.032	**F=2.252**	**p=.049**					

Note: Std. Error = standard error; sig.= significance; Significant predictors bolded

OLS regression findings for the model including strain as a control variable appear in Table 22. Here, the model is significant (F=2.123, p = .050) and, again, only SWLS (beta = -.135, p = .024) significantly influences the reported number of acts. The impact is in the expected direction and knowing the SWLS score improves our ability to predict commission of offenses by about the same small percentage (3.6%) when *strain* is also accounted for.

Table 22: Model Summary, Hypothesis 2 Deviance with Strain

	Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
Variable	B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
Constant	26.549	14.808		1.793	.074	-2.579	55.677
SWLS	**-.379**	**.168**	**-.135**	**-2.259**	**.024**	**-.710**	-.049
Strain	.134	.110	.073	1.210	.227	-.084	.351
Age	-.661	.664	-.054	-.996	.320	-1.967	.644
Sex	1.536	1.901	.047	.808	.420	-2.204	5.276
White	-.772	3.701	-.016	-.208	.835	-8.052	6.509
Black	1.279	4.912	.020	.260	.795	-8.382	10.941
R^2 = .036	**F = 2.123**	**p = .050**					

Note: Std. Error = standard error; sig.= significance; Significant predictors bolded

Before leaving H_2, one last analysis was conducted. As noted in the section above on construct validity, Ramm's (1996, 2001; Ramm & Czetli, 2004) measurement of happiness is strongly related to, but not entirely consistent with, the most widely accepted measure of life satisfaction, the SWLS of Diener (Diener, et al., 1985; Pavot & Diener, 2008). Therefore, a final model was run using equation 5. In this last model, the coefficients for life satisfaction scores were determined using Ramm's GELS scores rather than the SWLS scores.

The results of the model for predicting deviance via the GELS are not consistent with expectations. Rather, the model is not significant (F = .834, p = .526) and no variable reached significance. The results of the OLS regression are displayed in Table 23.

Table 23: Model Summary: Deviance by GELS

	Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
Variable	B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
Constant	30.096	14.572		2.065	.040	1.433	58.759
GELS	-.097	.070	-.077	-1.399	.163	-.234	.040
Age	-.679	.672	-.055	-1.010	.313	-2.001	.643
Sex	1.092	1.822	.033	.599	.549	-2.491	4.675
White	-.227	3.735	-.005	-.061	.952	-7.573	7.119
Black	2.990	4.907	.047	.609	.543	-6.662	12.641
R^2 = .012	**F = .834**	**p = .526**					

Note: Std. Error = standard error; sig.= significance

The final equation to be tested was deviance by GELS, including *strain* as a control variable. Evidenced by the results shown in Table 24, the model is not significant ($F = 1.314$, $p = .250$). Here, *strain* is the only measure that nears, but does not reach, significance ($p = .056$).

Table 24: Model Summary, Deviance by GELS with Strain

	Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
Variable	B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
Constant	17.350	15.962		1.087	.278	-14.048	48.747
Age	-.650	.670	-.053	-.971	.332	-1.967	.667
Sex	2.273	1.916	.069	1.187	.236	-1.495	6.042
White	-.675	3.727	-.014	-.181	.856	-8.006	6.656
Black	2.926	4.888	.046	.599	.550	-6.688	12.540
Strain	.210	.109	.115	1.919	.056	-.005	.425
GELS	-.045	.075	-.035	-.598	.550	-.191	.102
R^2 = .023	**F = 1.314**	**p = .250**					

Note: Std. Error = standard error; sig.= significance

Summary of H_2 Findings

Although the main regression model for this hypothesis (Table 21) is statistically significant, practical examination of both *strain*-less OLS models used in testing Hypothesis 2 does not support Ramm's belief that increased life satisfaction decreases engagement in deviance. In the tests employing SWLS scores as predictors, the models were significant and life satisfaction emerged as a significant predictor of deviance. However, we could only reduce prediction error for deviance by 3.2% when SWLS scores were known, and only by 3.6% when strain was included in the analysis. Further, when utilizing scores from Ramm's own life satisfaction instrument, the resulting model lost statistical significance, whether or not strain was included. Results of these analyses do not improve or degrade when strain is known.

It is noteworthy here that, in part, Ramm (2003; Ramm, et al., 2009) contends that the curriculum of his Facts of Life Program teaches offenders that their happiness is tied

to attaining the core values and that any deviance offenders engage in results in a threat to or loss of the core values. Whether or not the curriculum teaches this effectively or not is a matter for future outcomes evaluations; however, at least for college students, the present project found no evidence that strong linear relationships between increased happiness and reduced deviance exist outside the Facts of Life curriculum.

Hypotheses 3 and 4: A Bit of Strain

Contemporary Strain

For the current project to support the strain hypotheses, respondents who report emotional reactions equivalent to strain would also report higher levels of deviance. Because the strain scales discussed earlier (IV) can be considered an interval level measure and the deviance frequency measure (DV) can be considered a ratio level measure, OLS is again appropriate for this test. We control again for Age, Race and Sex. Here, the regression equation tested was:

$$Y^*_{newfreq} = \alpha + \beta_{strain} + \beta_{age} + \beta_{white} + \beta_{black} + \beta_{sex} + \varepsilon \qquad \text{(Eq 6)}$$

Where: $Y^*_{newfreq}$ = the predicted values for offending; α = the insect of the slope; β_{strain} = the coefficient for strain; β_{age} = the coefficient for age; β_{white} = the coefficient for a white respondent; β_{black} = the coefficient for a black respondent; β_{sex} = the coefficient for sex; and ε = the sum of error terms.

Diagnostic testing indicated heteroskedasticity of the error terms, so again these results may underestimate the coefficients. With this caution in mind, the data in Table 25 reveal that the OLS model for a short-term strain to crime model is not significant (F = 1.508, p = .187). Interestingly, *strain* did breach significance (beta = .234, p = .022). Yet

without a significant relationship emerging in the ANOVA model, this result is statistically meaningless to the hypothesis at hand.

Table 25: Model Summary, Hypothesis 3 Strain to Present Deviance

	Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
Variable	B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
Constant	12.238	13.466		.909	.364	-14.250	38.725
Strain	**.234**	**.102**	**.129**	**2.304**	**.022**	**.034**	**.434**
Age	-.623	.667	-.051	-.934	.351	-1.936	.690
Sex	2.546	1.859	.077	1.369	.172	-1.111	6.203
Black	3.096	4.875	.049	.635	.526	-6.492	12.684
White	-.647	3.723	-.013	-.174	.862	-7.970	6.677
R^2 = .022	**F = 1.508**	**p = .187**					

Note: Std. Error = standard error; Sig. = significance; Significant predictors bolded

A Future in Offending

The other strain hypothesis tested herein was that strain would be predictive of deviance in the longer-term. It was expected that strained reactions to negative events or blocked goals would lead to self-reported prediction of future deviance. Here, strain served as the independent variable and the respondents' scaled predictions of their future deviance served as the dependent variable. Again, OLS regression is appropriate and the equation to be tested was:

$$Y^*_{future} = \alpha + \beta_{strain} + \beta_{age} + \beta_{white} + \beta_{black} + \beta_{sex} + \varepsilon \qquad \text{(Eq 7)}$$

Where: Y^*_{future} = the predicted values for the respondents' self-predicted future offending; α = the insect of the slope; β_{strain} = the coefficient for strain; β_{age} = the coefficient for age;

β_{white} = the coefficient for a white respondent; β_{black} = the coefficient for a black respondent; β_{sex} = the coefficient for sex; and ε = the sum of error terms.

Table 26 shows the results of the OLS regression. With a final caution for heteroskedasticity, it can be seen that this model yielded results consistent with expectations. The model is significant (F = 7.624, p = .000). This model yields the greatest predictive ability of any model tested herein. Knowing the independent variables in advance- including the two significant predictors of future deviance, *sex* (beta = .279, p = .000) and *strain* (beta = .178, p = .001) reduces future deviance prediction error by 9.2%.

Table 26: Model Summary, Hypothesis 4 Strain to Future Deviance

	Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
Variable	B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
Constant	3.989	1.638		2.435	.015	.768	7.210
Strain	**.043**	**.012**	**.178**	**3.475**	**.001**	**.019**	**.067**
Age	.025	.080	.016	.318	.750	-.131	.182
Sex	**1.211**	**.224**	**.279**	**5.400**	**.000**	**.770**	**1.651**
Black	-1.022	.604	-.118	-1.692	.091	-2.210	.165
White	-.814	.456	-.125	-1.786	.075	-1.710	.082
R^2 = .092	**F = 7.624**	**p = .000**					

Note: Std. Error = standard error; Sig. = significance; Significant predictors bolded

As Hypothesis 2 testing included a model employing strain as a control, one final model was run with anticipated future deviance as a dependent variable. The OLS equation for this final model included the coefficient for the respondents SWLS score as a control variable. Results of the OLS regression appear in Table 27. As the reader can

see there, the model is significant (F = 8.440, p = .000) and the independent variables explain 11.9% of the variance in anticipated future deviance. Three predictors bore significant influence on future deviance. These were *sex* (beta = .240, p = .000), *SWLS* (beta = -.183), and *black* (beta = -.152). While SWLS acted significantly and in the expected direction on respondents' anticipated future deviance, the control variables for sex and race also impacted anticipated future deviance. Since being male increased and being black decreased the likelihood (at least more so than *others*) that a respondent thought he would engage in future deviance and since these findings are consistent with literature, this could be troubling for Ramm's contentions that his curriculum will apply to everyone equally.

Table 27: Model Summary, Hypothesis 4 Strain to Future Deviance with SWLS

	Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
Variable	B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
Constant	6.774	1.813		3.736	.000	3.209	10.340
SWLS	**-.067**	**.020**	**-.183**	**-3.385**	**.001**	**-.106**	**-.028**
Strain	.025	.013	.104	1.891	.059	-.001	.051
Age	.004	.079	.003	.056	.956	-.151	.159
Sex	**1.043**	**.227**	**.240**	**4.603**	**.000**	**.597**	**1.488**
White	-.828	.450	-.127	-1.842	.066	-1.712	.056
Black	**-1.315**	**.602**	**-.152**	**-2.184**	**.030**	**-2.498**	**-.131**
R^2 = .119 F = 8.440 p = .000							

Note: Std. Error = standard error; Sig. = significance

Summary of Strain

The results of regression testing did not support the idea that experiencing strain leads to contemporaneous deviance, but there is evidence that indicated that experiencing strain leads respondents to believe that they will engage in deviance in the future. In the future- strain only- model, emotional reaction to strain offered 9.2% reduction in error when predicting future deviance if the independent variables were known. The model including SWLS as a control variable for future deviance revealed the most robust findings related to happiness and deviance in this project; the model was significant and reduced the same prediction error by greater than 10%; at the same time, strain itself lost significance as a predictor variable. All told, it appears that strain may have an effect on anticipated future deviance when happiness is not considered, but that strain itself does not lead to an immediate deviant response.

Summary of Key Statistical Findings

The results of this study are based on 381 Smiling at Risk surveys. These completed surveys accounted for a 96.95% response rate. Generally, the sample was representative of college students enrolled at both of the sampled universities and enough variability existed in responses to permit inferential tests. The sample's representativeness removed the need to employ academic major as a control variable.

After testing, the data obtained by our survey administration were considered reliable and valid enough for hypothesis testing. During the course of this testing, two especially noteworthy findings emerged. The first was that the 68 items on the General Inventory of Life Satisfaction (GILS) loaded better onto domains more consistent with the wider literature than onto domains formulated by Ramm. This set of reformulated

life domains was then included in hypothesis testing. The second noteworthy finding was that because the GILS items correlated strongly with the generally accepted Satisfaction With Life Scale, this project offered the first scientific validation of Ramm's positive psychological instrument as an assessment tool.

Findings derived from the hypotheses testing were somewhat troubling. This project offered only mixed support for Hypothesis 1, that attainment of Ramm's core values leads to increased life satisfaction. It was found that more than twice as many of the reformulated life domains (7) significantly predicted life satisfaction than did Ramm's core values (3). Still, regardless of which domain conceptualization was used, the predictors accounted for about one-half of the respondents' life satisfaction ratings.

Hypothesis 2, that increased life satisfaction would reduce engagement in deviance, was not supported in any test. Neither of the models predicting deviance with the SWLS provided better than 3.6% explanation of deviance variance, even though both models were significant. Further, when predicting deviance via Ramm's own GELS, neither the strain-less nor the strain-included model achieved significance.

Two hypothesis tests adapted from Agnew's General Strain Theory (GST), the criminological theory that would appear to be most closely associated with Ramm's Formula for Happiness, were mixed. The results for deviance when conceptualized as a short-term, contemporary phenomena were not statistically significant. When deviance was a seen as a self-predicted, longer-term consequence of experiencing negative emotions statistical significance was attained, but predictive ability was low. Interestingly, when SWLS was included in the model, strain was not significant while

SWLS both achieved statistical significance and allowed for the first model examining the happiness-crime link in this project to breach 10% predictive ability.

When all four hypotheses are considered together, the project appears to refute that the propositions made within the theory underlying the Formula for Happiness and upon which the intervention The Facts of Life is founded exist outside of Ramm's curriculum. At the same time, there does appear to be evidence that, when students take a moment to weigh their positions in life against the consequences of future offending, they are less likely to engage in illegal or deviant acts. This latter contention offers some support for Ramm's belief in the effectiveness of an educational program emphasizing decreased happiness brought on by deviance and criminal offending. At-length discussions of several additional considerations are offered in the next chapter.

CHAPTER 5

DISCUSSION

The present project sought to empirically validate the propositions offered in the positive psychological theory called the Formula for Happiness (Ramm, 2003; Ramm & Czetli, 2004). The theory basically posits that a person's subjective perceptions of happiness are a function of acquiring a set of *things*, *conditions*, and *relationships* known as core values. This theory is salient to criminology as it has been used as the basis for a juvenile delinquency intervention program, which posits that increased happiness (through the acquisition of the core values) will reduce deviance/juvenile delinquent conduct. In order to empirically assess this theory several steps were undertaken, beginning with a thorough review of both the positive psychological and criminological literature was conducted. From this literature, a total of four testable hypotheses were developed, two related to the Formula for Happiness and two related to and adapted from the seemingly closest criminological theory- Agnew's General Strain Theory. A psychometric instrument was created by incorporating items created by the author with existing assessment tools. A sample was randomly chosen from two local universities and the psychometric was administered to this sample. The analyses of the survey revealed mixed support for the hypotheses.

This final chapter will discuss the findings of the present project, along with their relevance to the greater criminological and psychological literature. Included in the discussion will be strengths and limitations of the study; and, at least one unique contribution of this project to the assessment and clinical practice of positive psychology. Some recommendations will be made for the direction of future research into the Formula

for Happiness, as well as for the marriage of criminology and positive psychology. The discussion opens the findings from the present project that are most relevant to Ramm's theory.

The Formula for Happiness

According to the Formula for Happiness, acquisition of most or all of a set of core values is necessary for people to perceive happiness in their lives. The theory further posits that increased happiness will reduce the incidence of deviant behavior because people will realize that attainment/maintenance of the core values that support happiness is threatened by engagement in deviance (2003; Ramm & Czetli, 2004; Ramm, et al., 2009). The present project tested both portions of this theory. The findings did not support, strongly or fully, either of the contentions of the theory. The results for happiness are discussed first.

Domains: The Road to Happiness

The first hypothesis to be tested herein was that a person's subjective well-being, or happiness, is dependent on the acquisition of ten core values. These core values were formulated and proposed by Ramm (1996, 1998, 2003; Ramm & Czetli, 2004) to comprehensively include important life domains. Items purported to measure these core values were taken directly from an instrument created by Ramm (2001) and applied to the sample.

As reported in the previous chapter, the data obtained were scored according to calculations provided by Ramm (2001) to create Core Value Satisfaction Estimates (CVSEs). These CVSEs were regressed against another popular scale for assessing happiness, the Satisfaction With Life Scale [SWLS] (Diener, et al., 1985). The resulting

model was significant and accounted for slightly more than one-half (51.3%) of reported SWLS scores in this sample. However, the key finding here is that only three of Ramm's core values were found to be significant predictors of life satisfaction. Ramm (1996, 2003; Ramm & Czetli, 2004) does allow that the influence of the core values may change over the course of one's life or one's individual circumstances; however, he is rather emphatic that all or most of these core values must be acquired in order for an individual to rate satisfaction with his or her life as high (Ramm & Czetli, 2004). Thus, even though the OLS model does account for about half of the variance in happiness, since only three of Ramm's core values emerged as significant predictors of life satisfaction in this project, the results do not fully support his contentions.

At the same time, the three core values that did emerge as being statistically significant, *Health*, *Money* and *Meaningful Material Objects*, are logically connected to very real concerns of college students. Knowing that these domains are relevant to the lives of the respondents is important because, as noted in the wider literature, culture (Martikainen, 2009; Schwartz, 1992), life circumstances (Diener, 1984; Pavot & Diener, 2008), and access to a reference group to weigh oneself against (Argyle, 1987; Baumeister, 1991) are all factors one can use to assess how his or her life is going. It is conceivable that college students and other adolescents may not see some of the core values, such as *freedom,* as quite necessary to their overall happiness given their stage in life. Yet, as evidenced both by frequent comparison of assignment scores against classmates and by the flurry of grade activity at the end of any semester, it would seem that *affirmation* is as highly a sought after core value for this group as it is for others (Kasser, 2002; Reis, et al., 2000; Sheldon, et al., 2001). If this is true, this core value

would be expected to show significant predictive influence on life satisfaction in the present project.

In addition to this, Campbell, Converse, and Rodgers (1976) have reported that the differential influence of any single life domain on happiness does not negate the overall need for attainment of satisfaction in other important domains. In simpler terms, even if *money* is far more important to happiness for college students, we could not expect that *affirmation*, *freedom* or *renewing recreation* would have no place at all, but by the same token, we may not be able to expect them to play equally important roles with other factors and each other in all points across one's lifespan. When tracking happiness across the life course, at least one other researcher has supported this idea (Sears, 1977). Thus, rather than discounting Ramm's contentions all-together, it seemed more appropriate to re-consider his conceptualization of the domains that have important effects of life satisfaction.

Given this information, a factor analysis of the 68 General Inventory of Life Satisfaction (GILS) items offered by Ramm (2001) was conducted. From this process emerged ten domains that appeared to be more logically consistent with the greater literature on happiness than did Ramm's core values. When these domains were used in place of Ramm's in the OLS equations the number of significant predictors more than doubled (to 7) without loss of much predictive ability. Five of these new domains had a positive influence on respondents' happiness ratings: *External*; *Health & Security*; *Money*; *God*; and, *Home & Family*. At the same time, two additional domains exerted a negative influence on happiness; *Work* and *Pets*. Reflecting on the life circumstances of most adolescents/college students, these domains make sense; healthy students who have

financial support from a caring family, share some camaraderie with their peers, and are secure in their faith are likely to be happier than those who do not enjoy such resources. Likewise, it is highly likely that happiness will decrease for adolescents or students who are working with greater academic course loads while physically away from their furry, four-legged companions.

When assessed alongside the earlier findings, these new domains more closely resemble the domains that have emerged in the wider happiness literature, they have about the same aggregate influence on happiness as do Ramm's three significant core values, and their influence on happiness seems to make more intuitive sense than do Ramm's core values. One interesting difference between the literature and the results from both of the present models, however, is that race did emerge as a significant predictor of happiness; in this study identifying with the black race significantly decreased happiness. Both universities polled for this research are overwhelmingly white, which may have some impact on the happiness of black students enrolled at each university.

All told, it seems that Ramm has correctly conceptualized that there are domains important for life satisfaction. But, he seems to have organized the domains in a way that cannot be supported by either the wider literature or the findings in the present project. Thus, this study offered mixed support for this portion of Ramm's theory.

Before leaving this part of the Formula for Happiness, some further discussion about how happiness has been conceptualized seems necessary. Ramm (1998, 2003; Ramm & Czetli, 2004; Ramm, et al., 2009) suggests that in order for one to be happy, most, or all, of the core values are to be attained. The core values are a combination of

important extrinsic, tangible needs and or internal, intangible conditions of life. He notes that the relative influence of any one core value may be different for any individual. The language he uses to structure his conceptualizations leaves the reader with the understanding that items or factors making up these core values are to be actively sought and obtained. But, once obtained, life satisfaction is relatively stable as long as these core values can be maintained.

This conceptualization of happiness seems to combine the ideas of hedonic and eudaimonic happiness [a state of self-fulfilled contentment, somewhat equivalent to what Maslow (1965, 1971) referred to as self-actualization]; yet, it seems to be incomplete. Hedonic happiness is likened to the pursuit of happiness for happiness sake, the more the better; while, eudaimonic happiness is likened to seeking happiness as an extension or fulfillment of self (Albanese, 2012; Baumgardner & Crothers, 2009; Csikszentmihalyi, 2008; Diener, Lucas, & Scollon, 2006; Waterman, 2007). Some conflict arises when comparing what the literature suggest about the maintenance of either of these forms of happiness and what Ramm suggests about the maintenance of happiness.

As to hedonic happiness, a concept discussed in the literature is the "hedonic treadmill." The thinking behind this concept is that the more tangible, extrinsic happiness giving things a person has, the less each means to happiness and the more she wants to add to her happiness collection (Diener, et al., 2006; Kasser, 2002; Waterman, 2007). This leads to a never-ending pursuit of happiness. Opposed to this is the idea of the "eudaimonic staircase." Here, the happiness that is pursued is that which results from taxing and challenging a person's full potentials (Albanese, 2012; Diener, et al., 2006; Waterman, 2007). Rather than a feeling of pleasure or exhilaration, successful pursuit

and acquisition of eudaimonia leaves a person feeling exhausted, but in a good way (Csikszentmihalyi, 1999, 2008; Waterman, 2007). Later, this state is again pursued for the peak experience and substantial personal growth it offers. Therefore, whether hedonic or eudaimonic, happiness is actively pursued, but once acquired, decreases if simply maintained and not continuously attended to. This is a point where Ramm's conceptualization and the literature depart.

Ramm appears to contend that some homeostatic level of happiness exists for each individual. His approach to increasing happiness entails identifying areas of one's life where core values may be lacking and then developing "a course of action which renders greater access to one or more of the core values…(and then)…ensuring that a potential course of action is not some sort of self-defeating behavior…" (Ramm & Czetli, 2004, p xxxi). So, according to Ramm, when core values are attained and then maintained and when future actions do not threaten the core values, happiness remains the same. Yet, according to the larger literature, once people reach a plateau in happiness, they begin to seek more. Thus, Ramm and the literature depart on their conceptualizations of whether happiness is a "get it-keep it" or a "get it-want more" phenomenon.

Inspection of the GILS reveals that it appears to measure both the homeostatic and the treadmill/staircase conceptualizations of how people pursue happiness. For example, item #17 assesses whether a respondent feels a sense of accomplishment when completing required work tasks, this questions could be tapping some level of eudaimonia. As for hedonic happiness, item #21 asks a respondent to assess whether or not she has enough money to obtain the material objects necessary for life satisfaction. If

the GILS measures both of these happiness conceptualizations, it cannot be determined if and how this conceptual disjuncture impacts the current results; but, whether happiness perceptions change or remain the same after their assessment is something that will likely have to be considered in future research. Of pressing concern to the present study are the relationships Ramm asserts for life satisfaction and crime. They are discussed now.

Happiness and Deviance: Pothole Repair or Major Construction?

In fundamental statistical terms, this project offered mixed and weak support for the second hypothesis developed from Ramm's theory. The models regressing deviance against SWLS scores were significant, but offered little predictive ability for deviance when the independent variables were known. When deviance was regressed against Ramm's own happiness measure, statistical significance disappeared all-together. Strain did not seem to impact happiness in either model of H_2.

At first glance, these findings are troubling for the Formula for Happiness. Based solely on the results obtained here, it simply does not appear that happiness exerts any useful social scientific impact on deviance. Taking into account that the second model tested employed Ramm's GELS score for happiness and failed to find any statistical significance, the reader could infer fatal testimony for the propositions offered by Ramm. But, to do so would be premature.

The present study conceptualized an inverse, linear relationship between happiness and deviance; it was expected that as one reported being more dissatisfied with life, one would also report engaging in more deviant acts. Previous researchers have discussed just such an organic relationship between life satisfaction and deviance. For example, in examining the effects of life satisfaction (and negative life events) on

behavior, Suldo and Huebner (2004) suggested that the results of their study indicated that decreased life satisfaction would have a greater longitudinal effect on externalizing behaviors, such as illegal acts. In part, these authors thought that, over time, less happy people would engage in more deviant acts. Additionally, MacDonald and his co-authors (2005) designed methodology based on their belief that "individuals who are dissatisfied with their lives also tend to be involved in many risk-taking behaviors that may help them overcome their sense of dissatisfaction" (p. 1510).

Linear may not be an accurate conceptualization of the happiness-crime relationship. Drawing again on strain theory, Agnew suggests that negative life events could lead to crime and delinquency when social resources to overcome these obstacles are not present (Agnew, 1992, 2005, 2006; Agnew & White, 1992; Broidy, 2001; MacDonald, et al., 2005). For instance, a youth who receives what she perceives as an unfair grounding from the Friday night school dance would not be expected to sneak out of the house that night to meet her boyfriend if her parents were present and instilled some level of discipline in her during her earlier years. Similarly, youths who are unhappy with life will not be as likely to buy and use marijuana, steal cars, and/or force sexual acts onto others if their families are a consistent presence in the youths' lives. Social resources may then mediate or moderate deviance. If there are such helping or hindering variables in the relationship between happiness and deviance, a linear relationship does not exist.

Agnew (1992) suggested that engagement in deviance (at least deviance due to strain) may be a function of a plateau of sorts. If strain works to motivate deviance in this way, prior to a certain level of strain being perceived by the youth, there would be no

engagement in deviance. However, Agnew held, it is possible that after a breaking point of strain is reached, deviance begins. Quite possibly, the height of this plateau would be adjusted for each youth depending in part on these mediating and moderating variables. In this event, regression results may under-predict the impacts of emotionality on deviance.

Still, the models testing Hypothesis 2 by regressing deviance against SWLS scores did breach significance. Additionally, the model regressing self-perceived future deviance against strain was also significant. Heteroskedasticity was present in these models, indicating that the results may underestimate the influence of the predictor variables on deviance. When considering the present findings in combination with the results of previous happiness-crime research (MacDonald, et al., 2005; Suldo & Huebner, 2004; Valois, et al., 2006; Valois, et al., 2001), it is increasingly possible that some mediating and/or moderating variables, such as social resources, interact with each other in some meaningful way to influence deviance.

Because society can clearly benefit from reducing deviance, it is appropriate to continue to attempt to understand the happiness-crime link and to assess existing programs based on positive psychology. Ethnographical studies have indicated that youths themselves reported a desire for effective programming at the earlier stages of their deviancy, when they are likely to be more motivated to corrective behavior and are also surrounded by a supportive network and other important social resources (Inderbitzin, 2005; Lane, et al., 2002; Naylor, Lincoln, & Goddard, 2008; Smyth, 2006; Veneziano, Veneziano, & Gill, 2001). Of course, these interventions would have to be based on a real, organic connection between happiness and deviance, and the youths

would then have to follow through with weighing the consequences of deviance for their happiness when anti-social opportunities arise. The latter idea has already received some empirical support.

As discussed in Chapter 2, Paternoster and Pogarsky (2009) offered support for the idea that youths' attend to the process of hedonic calculus, what these authors termed Thoughtfully Reflective Decision Making (TRDM), and that decisions are effected when the consequences are weighed. The authors reported that the more information youths considered when deciding whether or not to engage in deviance, the less likely they were to engage in the deviance.

This contention was also borne out, somewhat, in this project. When future deviance was predicted by respondents, their belief that they would engage in future illegal or deviant acts diminished as they reported being happier today. This finding held regardless of how the respondent emotionally reacted to strain-inducing events. It would appear that when students stop and consider how they are doing today and then, assumedly, weigh how what they do down the road may change their happiness, they tend to act on longer-term life satisfaction feelings than on more immediate emotionality. If this cognitive pattern can be reinforced, we may be able to decrease deviance even more substantially.

In part, Ramm's (2003) curriculum has students do just this. After students learn that happiness is tied to core values, they are asked to consider how these core values are threatened by engaging in deviance and crime. Quite possibly, any residual information about the happiness-crime link these youths would still have access to after attending

positive psychology-based intervention programs would enter into their TRDM-like processes. If so, recidivism by engaging in deviance would be reduced.

Further scientific investigation into all of these areas is reasonable.

Strain: Reverse Happiness?

Hypotheses 3 and 4 tested whether negative emotionality resulting from strain led to deviance in the short term or in the self-perceived belief that one would engage in deviance in the future. According to strain theory, when bad events happen to a person or when her goals are unfairly blocked, negative emotions arise. When these negative emotions are present and social supports are absent, crime and deviance are more likely (Agnew, 1992, 2005; Broidy, 2001; Cohen, 1955; Farnworth & Leiber, 1989).

It was argued that the parallels between these propositions and those of Ramm (1996, 2003; Ramm & Czetli, 2004; Ramm, et al., 2009) are that negative emotionality can be equated with reduced happiness, and that a lack of social supports can be equated with not having attained the core values. It was also noted that Agnew (1992) suggested that there is minimal criminological attention to a potential type of strain induced by the perceived failure of an individual to acquire socially comparable goals. Either of these events should increase the feeling of strain and individual feels. The presence of negative emotionality should then lead to deviance, at least in some instances, in about the same manner that not having achieved life satisfaction should lead to deviance, at least in some instances. Finding support for these hypotheses would, then, parallel support for the main hypotheses and add to the criminological literature.

However, the results did not add clarity. When concerned with recent past behavior, the model regressing deviance against strain was not significant. When

predicting respondents' beliefs that they would engage in deviance down the road, strain was a significant but weak indicator of behavior.

It would seem that all the arguments above regarding linearity apply here, but more directly. As noted, strain is thought to increase the potential for deviance when social resources are lacking. Since the present project addressed only a general influence of strain on deviance, no moderation or mediation of social resources was entered into the methodology. As such a test of the full strain model could not be conducted here and the results should be considered tentative.

Still, strain has received a fair degree of research interest from criminology since its introduction (Bernard, et al., 2010; Kubrin, et al., 2009; Tibbetts & Hemmens, 2010). This theory would seem to most closely resemble what positive psychology has to offer about emotionality's possible impact on deviant and criminal behavior. The most recent direction of strain theory, individual storylines (Agnew, 2006), are beginning to discover events at the individual level that very well could add understanding to the happiness-crime link.

Again, further scientific investigation into this area is reasonable. Researchers in the areas of positive psychology and strain theories are encouraged to both communicate and collaborate with each other as efforts unfold.

Meaning of the Present Project for the Formula and the Facts

With all statistical and practical considerations in mind, the present project offers mixed and weak, but hopeful, support to the theory behind the Formula for Happiness and the Facts of Life. It seems that attaining certain life domains increases happiness and that increasing happiness, at least minimally, decreases deviance. Based on the results of

this initial theory test, it also appears that youths with some level of established social support who are offered a reformulated version of the core values early in their offending histories and who then remember and consider this curriculum later when weighing deviance could very well be statistically and meaningfully deterred from engaging in the anti-social acts. And then, almost anyone who wants can be at least a little happier.

Estimating Happiness

For the most part, life satisfaction is generally assessed by asking a respondent to rate overall happiness to one global item or to ask her the five items on the Satisfaction With Life Scale (Diener, et al., 1985). Neither of these approaches is conducive to clinical practice where a positive psychologist would need to identity and target the areas in a client's life where satisfaction has waned. Nor are these items helpful in assessing growth from treatment or to understanding when maximum benefit of therapy has been attained. The General Inventory of Life Satisfaction (GILS) may bridge these gaps.

The GILS (Ramm, 2001) is a more complete, 68-item scale which assesses a client's satisfaction in several areas his life. Because it had not been subjected to reliability and validity testing, the present project undertook such testing before employing this psychometric in hypothesis testing. Factor analysis revealed that, under Ramm's calculations, the ten core value satisfaction estimates (CVSEs) loaded well onto one factor that appeared to be life satisfaction. When the 68 items were permitted to load freely onto ten factors, the resulting domains were different than Ramm (2001, 2003; Ramm & Czetli, 2004) envisioned, but remained close to the life domains described by many other researchers in positive psychology and happiness (Baumgardner & Crothers, 2009; Campbell, et al., 1976; Diener, et al., 1999; Huebner, 2004; King & Napa, 1998; D.

G. Myers, 2000; Sears, 1977). Additionally, with some consideration to the potential confounding of intimacy, affirmation and companionship, internal consistency tests via Crohnbach's alpha revealed that the GILS items were reliable. Thus, the GILS itself seems to yield consistent responses and the items seemed to load onto a factor that could be life satisfaction.

An attempt to further determine if that factor was life satisfaction was undertaken by correlating GILS scores to the scores obtained in the SWLS. It was noted that the SWLS has achieved a level of general acceptability as a measure of life satisfaction. These two psychometrics correlated with each other (r = .660). Within the social sciences, this level of correlation is can be considered a rather strong relationship (Salkind, 2011). As such, the present study offers initial validation of the GILS as a measure of life satisfaction. Because of this offering and because the GILS seeks responses to a wider variety of items than does either a single-item global measure or the SWLS, it would seem that the GILS can be accepted into clinical use while also undergoing additional reliability and validity testing with more divergent populations.

Statistical Limitations of the Present Study

No scientific exploration stands without some limitations. In addition to the methodological limitations noted in Chapter 3, a few statistical limitations are highlighted here. In retrospect, the most obvious of these was the use of OLS regression to seek initial confirmation of the happiness-crime link when testing Hypothesis 2. At the outset of this project, it was hypothesized that life satisfaction would have a linear impact on deviance. Because this project was concerned with uncovering this linear influence without regard for moderating or mediating variables OLS was (and in such cases, is) the

best statistic to employ. However, as the analyses progressed, it became obvious that the relationship between emotionality and crime is not nearly as direct as first thought, further evidenced by heteroskedasticity of the error terms in the models assessing Hypothesis 2 and strain. Because moderating and mediating items were not included in the psychometric, analyses could not be adjusted to include these as explanatory variables into the equations as controls. Because of this, the regression equations likely did not accurately assess the existence of a domain-happiness-crime link.

Uncovering organic domain-happiness-deviance links is seen as important to the early theoretical validation for the Formula for Happiness simply because if they do not exist, it cannot be believed that any efforts to teach that they do would be successful. Evidence of their associations with or influences on each other have emerged, albeit slightly, in the present project and they also have been seen in a few previous investigations (MacDonald, et al., 2005; Suldo & Huebner, 2004; Valois, et al., 2006; Valois, et al., 2001). However, the previous efforts do not indicate how strong such associations and influences may be nor do they assess a variety of crime and deviance. Future research efforts should attempt to clarify these issues.

Another limitation herein was the use of a variable predicting future deviance. It is very difficult to predict behavior, both for others and for self. Still, if there is any truth in the respondents' beliefs that they would or would not engage in future deviance, this test seems to support the remainder of the findings. And, at minimum, utilization of this variable here did not seem to detract from other findings.

Also, Ramm (2003; Ramm & Czetli, 2004; Ramm, et al., 2009) contends that the Formula for Happiness is applicable to everyone, everywhere. This project tested the

Formula for Happiness propositions against one demographic population- college students. Even though it was noted in Chapter 3 that this population is deemed an appropriate substitute for the target audience of this study- youthful offenders- it remains a test in one demographic population. The statistical tests applied to the survey responses from this population were regression analyses, which themselves are known for yielding sample specific results (Babyak, 2004; Gordon, 1968). The important point here is that the results of the present study cannot give credence to the application of Ramm's theory elsewhere, especially outside the population of college students.

Finally, it must be acknowledged that neither the main hypotheses nor the strain hypotheses are complete tests of the full models to be built from either the Formula for Happiness or General Strain Theory. In a perfect statistical world, researchers would easily be able to specify their conceptualizations into the 50 minimum variables Blalock (1979) recommended and the procedures used to first mathematically and then logically understand the resulting relationships would not be confounded by the many and ever-present potential errors, known and unknown (O'Grady, 1982).

Despite these limitations, as an initial validation of Ramm's theory (Ramm & Czetli, 2004) and the intervention program it spawned (Ramm, 2003) the methods employed here, combined with the literature reviewed, offer enough evidence or at least leave enough questions unanswered to proceed into the next stages of domain-happiness-crime investigation.

Recommendations for the Future of Happiness and Crime

As repeatedly noted, this project stood primarily as an initial test of the previously un-validated Formula for Happiness theory (Ramm, 1996, 1998; Ramm & Czetli, 2004)

and, to a lesser extent, as an assessment of the viability of a delinquency intervention program arising from this theory, known as the Facts of Life (Ramm, 2003; Ramm, et al., 2009). Such a theory test is the second step of the criminal justice policy evaluation hierarchy as identified by Mears (2010). As tested, Ramm's theoretical contentions were supported, but the support was mixed and sometimes weak. Additional testing to understand the domain-happiness-crime link is called for employing samples from the population of interest- delinquent and at-risk youths.

Parallel to this testing, because the intervention program developed from the Formula for Happiness is already underway in juvenile justice, two recommendations relative to Mears' (2010) hierarchy are offered. One recommendation is to undertake implementation evaluations when juvenile justice agencies decide to initiate the Fact of Life program for the first time. Such evaluations would focus assuring the program is enacted as developed by its founder and on seeking feedback from participants (youths and practitioners) and stakeholders as to their perceptions of the curriculum. Findings here could lead to highlighting the strengths and uncovering areas for improvement of the Facts of Life curriculum.

The other recommendation is to locate agencies that are currently offering the curriculum. Once identified, outcomes evaluations can be undertaken within these agencies to determine if the program is successful in reaching its goals. These goals would include program youths' acquiring the knowledge of the core values, actively seeking attainment of the core values in their lives, increasing their self-perceived happiness upon attainment of the core values, and reducing their participation in recidivism (because of a fear of losing their core values).

As noted by Mears (2010), both implementation and outcomes evaluations are necessary when assessing the quality of any criminal justice program or policy (cf. Fink, 2008; Hanley, et al., 2009; Hopson & Steiker, 2008; D. L. Myers & Spraitz, 2011; Sherman, et al., 2006 for further discussion of such evidence based practices). To increase their usefulness, any future evaluations would span agencies, clientele, and locations, and would include comparable control groups against which to compare results. In order to assess whether youths are learning the domain-happiness-deviance link, any impact evaluations should also include a process evaluation (perhaps using path analysis or ANOVA mediation techniques) with pre- and post-testing for knowledge and application of Ramm's curriculum.

Adjacent to these evaluations and on a broader level, researchers should continue to explore the potential deviance reducing effects brought about through the marriage of positive psychology and criminology. Both national level secondary data, such as the National Survey on Drug Use and Health (United States Department of Health and Human Services, 2008) or the Monitoring the Future initiative (U.S. Department of Health and Human Services, 2008), and primary data collected through experimental and cross-sectional designs should be utilized in gaining a better understanding of how people achieve happiness and on how happiness may be able to reduce crime.

Specific to positive psychology, clinicians are encouraged to consider implementing the General Inventory of Life Satisfaction into their practice. Researchers are encouraged to further validate both the propositions of the Formula for Happiness theory and the abilities of the GILS to assess life satisfaction across demographics and

treatment/intervention modalities. Perhaps collaboration with juvenile and criminal justice agencies can also help uncover criminological uses of this assessment tool.

Conclusion

Smiling at Risk set out to assess if acquisition of a set of life domains is important to happiness and if happiness, when attained, can decrease deviance. Multiple literatures were reviewed, an instrument was created, and data was collected. Analysis of those data and review of additional literature led to support for the idea that people need a sense of fulfillment in certain areas of their lives to consider themselves happy; or, at least, people need to believe that they are equal to or better off than some reference group to consider that they themselves are happy. Analysis and review also led to support for the belief that happier people will engage in less deviance than unhappy people. This last contention may multiply when those people are young offenders who are caught early in their deviance and who have the support of social network. What does all this mean for the positive psychology-criminology marriage? While it may be too early to size out the dress, researchers and practitioners can certainly develop a guest list and look for a chapel. Forward progress is warranted.

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APPENDIX A: PERMISSION FOR USE OF GILS
July 13, 2011

Douglas R. Ramm, Ph.D.
Douglas R. Ramm Psychological Services, Inc
225 Humphrey Road
Pineview Plaza Suite 4
Greensburg PA 15601

Dear Dr. Ramm:

As you are aware, I am completing a doctoral dissertation at Indiana University of Pennsylvania. The dissertation will be microfilmed by UMI Dissertation Publishing (ProQuest Information and Learning) and copies will be sold on demand. I would like to confirm your permission to duplicate the following for research use.

Title:	The General Inventory of Life Satisfaction (GILS)
Copyright:	Douglas R. Ramm Psychological Services, Inc. 2001
Author:	Douglas R. Ramm, Ph.D.
Material to be Duplicated:	Entirety of the GILS
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Please call me at (724) 552-4325 when this permission has been executed and I will make arrangements to pick it up at your office. Please also secure a copy of the completed permission for your records.

Thank you for your support and permission in this project.

Respectfully,

/s/ Jeremy Olson
Jeremy Olson
Doctoral Candidate- Criminology Department

Permission granted: __/s/ Douglas R. Ramm, Ph.D.____ ____(original on file)
Signature Date

Conditions, if any: _____NA_____

APPENDIX B: SURVEY INSTRUMENT

Thank you for agreeing to participate in this research project. I want to assure you again that your responses are completely anonymous and cannot be traced to you in any way. By answering the items in this booklet openly, honestly and accurately, you can help us better understand the role that happiness plays in a range of behaviors.

This first section asks a few questions about you. Please read each item and then either write your response on the line provided or place an "X" on the line next to the response that best reflects your answer.

1. What is your age?

_____ years old

2. What is your major?

_____

3. Which racial or ethnic group do you most identify with?

_____ African American/black

_____ Asian

_____ Caucasian/white

_____ Other _____

4. What is your sex?

_____ Female

_____ Male

The next section asks a few questions about how satisfied you are with several general areas of your life. Please read each item and then circle the number that best reflects your level of agreement with the statement. The scale used for the statements in this section will be:

1 2 3 4 5 6 7

Where,

1 = "Strongly Disagree"

2 = "Disagree"

3 = "Slightly Disagree"

4 = "Neither Agree nor Disagree"

5 = "Slightly Agree"

6 = "Agree"

7 = "Strongly Agree"

5. In most ways, my life is close to my ideal.

1 2 3 4 5 6 7

6. The conditions of my life are excellent.

1 2 3 4 5 6 7

7. I am completely satisfied with my life.

1 2 3 4 5 6 7

8. So far, I have gotten the important things I want in life.

1 2 3 4 5 6 7

9. If I could live my life over, I would change nothing.

1 2 3 4 5 6 7

This few sections ask about your perceived satisfaction with specific areas of your life. There are a few sections and each has a definition at the beginning to help you along the way. For the items in this section, please read each statement and then place an "X" in the matrix under the number that best reflects your level of agreement with the statement. The scale used for the items in this section will be:

1 2 3 4 NA

Where,

1 = "Disagree"

2 = "Somewhat Disagree"

3 = "Somewhat Agree"

4 = "Agree"

NA = "Not Applicable"

<u>Health</u>: A sense of physical and emotional well-being accompanied by confidence in continuing to feel well.

	1	2	3	4	NA
10. I have a general sense of physical well being.					
11. I rarely feel physical pain or discomfort					
12. I rarely feel depressed.					
13. I rarely feel anxious or worried.					
14. I am confident that I will continue to experience physical and emotional well being.					

1=Disagree 2= Somewhat Disagree 3=Somewhat agree 4=Agree NA=Not Applicable

Rewarding Occupation: Competence at, and the ability to enjoy vocational tasks accompanied by a sense of accomplishment at a job well done. May include non-paid work such as being a student or homemaker.

	1	2	3	4	NA
15. I have mastered the skills required to successfully complete the tasks of my occupation.					
16. I enjoy performing the tasks required by my occupation.					
17. Completing the tasks required by my occupation gives me a sense of accomplishment.					

Renewing Recreation: A sense of renewal gained from participation in activity that is intended for the mere joy or pleasure the behavior provides.

	1	2	3	4	NA
18. I have sufficient opportunity to engage in activities which have the primary purpose of pleasing me in some way.					
19. The recreational activities I choose send me back to the tasks of living with a sense of being refreshed and renewed.					
20. I look forward to my recreational activities when I am involved in the tasks of living.					

1=Disagree 2= Somewhat Disagree 3=Somewhat agree 4=Agree NA=Not Applicable

Money: Cash, credit or any other asset which can be used as a medium of exchange.

	1	2	3	4	NA
21. I have sufficient money to acquire and maintain those material objects that make my life satisfying.					
22. My level of income and/or assets are sufficient to secure the respect and perhaps admiration of those people who are important to me.					
23. I have enough money to engage in the interpersonal activities that interest me.					
24. Money does not block me from participating in close and revealing interpersonal interactions.					
25. I can afford to participate in activities that enhance my health and prevent illness.					
26. I have sufficient money to obtain quality healthcare when I need it.					
27. My level of compensation is fair and reasonable for the work I do.					
28. I can afford to participate in a sufficient variety of renewing recreational activities.					
29. My income and/or assets are sufficient to provide me with an adequate number of options in everyday living.					
30. My income or assets are sufficiently reliable to make me feel safe.					

1=Disagree 2= Somewhat Disagree 3=Somewhat agree 4=Agree NA=Not Applicable

Meaningful Material Objects: Necessities of life and the other things required for a sense of happiness and contentment in living.

I am satisfied with:	1	2	3	4	NA
31. my current housing situation					
32. the furnishings in my home					
33. my wardrobe					
34. my access to reliable transportation					
35. the electronic devices which provide entertainment or save time and effort					
36. my access to stores where I can find an adequate variety of reasonably priced products which I consider essential to my quality of life					

1=Disagree 2= Somewhat Disagree 3=Somewhat agree 4=Agree NA=Not Applicable

<u>Companionship</u>: The experience of sharing concerns, interests, and activities with people whose company you enjoy.

I am satisfied with the level of companionship I receive from:

	1	2	3	4	NA
37. the people in my community					
38. my classmates/coworkers					
39. my friends					
40. my children					
41. my parents					
42. my romantic partner					
43. my extended family					
44. my pet					
45. my relationship with God					

1=Disagree 2= Somewhat Disagree 3=Somewhat agree 4=Agree NA=Not Applicable

Intimacy: The sharing of your most private thoughts, emotions, and experiences with another person.

I am satisfied with the intimacy I have with:

	1	2	3	4	NA
46. my friends					
47. my children					
48. my parents					
49. my extended family					
50. my romantic partner					
51. a professional relationship, such as a pastor, rabbi or mental health practitioner					
52. my relationship with God					

1=Disagree 2= Somewhat Disagree 3=Somewhat agree 4=Agree NA=Not Applicable

<u>Affirmation</u>: The experience of being recognized as an adequate, competent, acceptable and/or lovable human being.

I am satisfied with the affirmation I get from:

	1	2	3	4	NA
53. the people in my community					
54. my classmates/coworkers					
55. my superiors					
56. my friends					
57. my children					
58. my parents					
59. my romantic partner					
60. my extended family					
61. my pet					
62. my relationship with God					

1=Disagree 2= Somewhat Disagree 3=Somewhat agree 4=Agree NA=Not Applicable

<u>Freedom</u>: The ability to do what you want when you want, without having to worry about getting into trouble for doing it.

	1	2	3	4	NA
63. Any constraints that restrict my actions are reasonable, appropriate and acceptable.					
64. I can express my thoughts and feelings without fearing I will be rejected, ridiculed or punished in some way by people in my community.					
65. At work, constraints on my actions and the expression of my thoughts and feelings are reasonable, appropriate and acceptable.					
66. Among friends, I can express my thoughts and feelings without fear I will jeopardize the relationship in some way.					
67. With my parents, I can express my thoughts and feelings without fear I will jeopardize the relationship in some way.					
68. With my romantic partner, I can express my thoughts and feelings without fear I will jeopardize the relationship in some way.					

1=Disagree 2= Somewhat Disagree 3=Somewhat agree 4=Agree NA=Not Applicable

<u>Security</u>: feelings of physical safety as well as the confidence that you can maintain those things, relationships, and conditions which make life worth living.

	1	2	3	4	NA
69. In the future I will be able to maintain possession of or access to those material objects which I currently enjoy.					
70. In the future I will have enough money to maintain a reasonably satisfying quality of life.					
71. I will be able to maintain those interpersonal relationships which provide affirmation.					
72. I will be able to maintain those interpersonal relationships which provide companionship.					
73. I will be able to maintain those interpersonal relationships which provide intimacy.					
74. I am confident I will continue to have the degree of health and emotional well-being I currently enjoy.					
75. In the future I will continue to experience at least the degree of occupational satisfaction I currently enjoy.					
76. In the future I will be able to continue at least the degree of enjoyment that my recreational activities currently provide.					
77. I am confident future constraints on my actions will be reasonable and appropriate and I will be able to express my thoughts and feelings with others without fear of jeopardizing those relationships as a result.					

This section asks you to report the number of times in the past year you have engaged in various behaviors. I know it may be hard to remember exact numbers of any behaviors in the past year, but do the best you can. For each item, please read the description of the act and try your best to remember how many times, if any, you have done each act in the last 12 months. If none, enter "0."

How many times in the past 12 months have you:

78. _____ **lied to your parents about a grade.**

79. _____ **cheated on an exam.**

80. _____ **plagiarized work for a class.**

81. _____ **intentionally "bounced" a check.**

82. _____ **stolen (or tried to steal) anything.**

83. _____ **knowingly bought, sold or held stolen goods (or tried to do any of these things).**

84. _____ **carried a hidden weapon other than a plain pocket knife.**

85. _____ **been in a physical fight with another person.**

86. _____ **had (or tried to have) sexual relations with someone against their will.**

87. _____ **driven a vehicle while intoxicated**

88. _____ **smoked or used marijuana or hashish ("pot," "grass," "hash").**

89. _____ **ingested over-the-counter or prescription medication to "get high."**

90. _____ **injected, smoked or used hard drugs such as heroin, cocaine, or LSD.**

91. _____ **sold marijuana or hashish ("pot," "grass," "hash").**

92. _____ **sold prescription medication to another person**

93. _____ **sold hard drugs such as heroin, cocaine, or LSD.**

We're getting there! These next questions ask about how you feel when things just don't go your way. For the items in this section, please read each statement and then place an "X" in the matrix under the number that best reflects your level of agreement with the statement. The scale used for the items in this section will be:

1 2 3 4

Where,

1 = "Never"

2 = "Rarely"

3 = "Sometimes"

4 = "Always"

When I am unable to reach my goals, I feel:

	1	2	3	4
94. angry				
95. cranky				
96. depressed				
97. insecure				
98. resentful				
99. stressed				
100. worthless				

1 = "Never" 2 = "Rarely" 3 = "Sometimes" 4 = "Always"

When bad things happen to me, I feel:

	1	2	3	4
101. angry				
102. cranky				
103. depressed				
104. insecure				
105. resentful				
106. stressed				
107. worthless				

Here are the last four questions. These ask about things you might do in the near future. For the items in this section, please read each statement and then place an "X" in the matrix under the number that best reflects your level of agreement with the statement. The scale used for the items in this section will be:

1 2 3 4

Where,

1 = "Not at all likely"

2 = "Probably not likely"

3 = "Probably likely"

4 = "Very likely"

Given how your life is going right now, how likely are you in the future to:

	1	2	3	4
108. lie to your parents about a grade				
109. cheat on an exam				
110. plagiarize work for a class				
111. drive a vehicle while intoxicated				

That is the last question! Again, THANK YOU for taking the time to answer these questions. You have really helped us understand happiness a little better. I hope the experience leaves you a little happier too!! ☺ ☺ ☺ ☺

APPENDIX C: INFORMED CONSENT LETTER

(PLACED IN SURVEY BOOKLET)

My name is Jeremy Olson and I am conducting a study on the potential for happiness and life satisfaction to reduce crime for my doctoral dissertation at Indiana University of Pennsylvania. Your help with this research project would be greatly appreciated.

The survey should only take about 20 to 25 minutes to complete. If you choose to participate, please do NOT place your name or any identifying marks anywhere in this booklet so that I can be sure that your answers are completely anonymous. The survey questions ask you to consider how satisfied you feel with your life, both in general terms and as related to more specific areas. You will also be asked if you have engaged in a variety of behaviors and also a few other questions about you. There are no personal benefits for your participation, nor are there any penalties for choosing not to participate. The overall findings of this study may be published in academic journals or presented at national conferences. However, the data will only be presented in aggregate form. In other words no individual survey results will be reported, and again, your survey answers can never be linked to you.

Your participation in this survey is completely voluntary. If you choose not to participate, please sit quietly until everyone has finished and then turn in the blank booklet. If you start to participate and then change your mind, you may choose to withdraw at anytime by writing withdraw on the cover of the booklet and then turn it in when they are collected. No data from any survey that is turned in with withdraw on the cover will be used and that survey will be destroyed.

If you agree to participate, please complete the survey items and return the survey when I collect the others in this class. When you have finished the survey, please sit quietly until everyone is finished and I have collected the surveys. Thank you in advance for your help with this project; it is very much appreciated.

This project has been approved by both the Indiana University of Pennsylvania and Seton Hill University Institutional Review Boards for the Protection of Human Subjects (Phone: (IUP) 724-357-7730; (SHU) 724-834-2200). If you have any questions about the survey you should direct them to either Mr. Olson or Dr. Martin.

Thank you,

/s/ Jeremy Olson

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