THE UNIVERSITY OF CHICAGO

DETERMINANTS OF WELL-BEING ACROSS SOCIO-DEMOGRAPHIC GROUPS

A DISSERTATION SUBMITTED TO

THE FACULTY OF THE DIVISION OF THE SOCIAL SCIENCES

IN CANDIDACY FOR THE DEGREE OF

DOCTOR OF PHILOSOPHY

DEPARTMENT OF SOCIOLOGY

BY

CHRISTOPHER LINCOLN SUKHU

CHICAGO, ILLINOIS

DECEMBER 2016

For the original fun family

TABLE OF CONTENTS

	Page
LIST OF FIGURES	iv
LIST OF TABLES	v
ACKNOWLEDGEMENTS	vi
ABSTRACT	vii
CHAPTER 1. INTRODUCTION	1
CHAPTER 2. RACIAL DIFFERENCES IN DETERMINANTS OF HAPPINESS	14
CHAPTER 3. DETERMINANTS OF HAPPINESS AND HEALTH IN OLDER ADULTS	40
CHAPTER 4. THE ROLE OF SOCIAL NETWORKS IN WELL-BEING FOR OLDER ADULTS	69
APPENDIX 4.A. SUPPLEMENTAL TABLES	97
CHAPTER 5. CONCLUSION	100
REFERENCES	112

LIST OF FIGURES

	Page
Figure 2.1 Expected Relationships for Racial Differences in Effects of Education, Marital Status and Church Attendance	26
Figure 2.2 Average Happiness by Years of Education: Racial Differences	29
Figure 3.1 A Model of Factors that Affect Happiness	46

LIST OF TABLES

	Page
Table 2.1 Reported Happiness by Race in GSS	28
Table 2.2 Reported Happiness by Education in GSS	28
Table 2.3 Reported Happiness by Church Attendance in GSS	30
Table 2.4 Reported Happiness by Marital Status in GSS	30
Table 2.5 Logistic Regression Predicting Happiness Overall and for Different Racial Groups	33
Table 3.1 Listing of Variables Included in Regression Models	57
Table 3.2 Logistic Regression Predicting Self-Rated Happiness	59
Table 3.3 Logistic Regression Predicting Self-Rated Health	63
Table 4.1 Listing of Network Measures	81
Table 4.2 Logistic Regression Predicting Wave 2 Self-Reported Happiness from Network Characteristics	83
Table 4.3 Logistic Regression Predicting Wave 2 Self-Reported Health from Network Characteristics	85
Table 4.4 Regression Predicting Changes in Happiness and Health between Waves 1 and 2	87
Table 4.5 Logistic Regression Predicting Wave 2 Self-Reported Happiness from Network Characteristics Stratified by Race	89
Table 4.A1 Replication of Logistic Regression Predicting Wave 2 Self-Reported Happiness from Network Characteristics using Ordered Logistic Regression	97
Table 4.A2 Replication of Logistic Regression Predicting Wave 2 Self-Reported Health from Network Characteristics using Ordered Logistic Regression	98

ACKNOWLEDGEMENTS

This dissertation would not have been possible without incredible support from too many people to name here. Of course, I would be remiss if I did not thank my committee members Kate Cagney, Linda Waite and Cheol-Sung Lee. Their comments on drafts were invaluable. They also pushed me to dig deeper and think harder and I am grateful for their guidance and wisdom.

My family has always been a source of encouragement. Without the tireless encouragement and assistance of my parents, Lincoln and Jeanette Sukhu, and my sister, Becky Sukhu, I certainly would not be where I am today. I am also grateful for the support of my extended family who offered writing spaces and getaway places. Friends are important, too. Elizabeth Jefferis poked, prodded and gave excellent advice. My oldest friend in the world, Todd McGee, was also a source of humor and support through some difficult times. For their friendship I feel truly blessed. Thank you all for coming on this journey with me.

ABSTRACT

How do social processes affect wellbeing? This dissertation explores the relationships between social factors and happiness and health across different life stages and for different groups of people. In recent years, the subject of happiness has been relatively understudied in sociology and the field of happiness studies may benefit from a sociological approach. In part, this approach can take into account differences in everyday experiences and cultures that have previously been mostly ignored. The first part of the study focuses on differences in determinants of happiness for different racial groups. Using data from the General Social Survey of the United States, I first identify common determinants of happiness including marital status, education and church attendance. I then seek a better understanding of how determinants change for different racial groups. A main finding of the section is that while increasing education is associated positively with happiness for whites, increasing education has a negative association with happiness for blacks. The next section of the study focuses on determinants of health and happiness in older ages. Using data from 2 waves of the National Social Life, Health and Aging Project, I find that, unlike in younger ages, factors such as income do not matter as much for happiness. While social networks make a difference, the common measures of size and density matter less than emotional closeness and family-centric networks. The study of happiness can benefit from further sociological study. I conclude the dissertation with suggestions for future work to expand our understanding of how social processes and institutions can affect well-being for different populations.

CHAPTER 1: INTRODUCTION

This series of papers explores the social processes that lead to subjective well-being (happiness) at different stages in the life course and for different groups of individuals. Happiness as a topic has enjoyed attention in a number of fields as scholars grapple with what makes a good, satisfying life. From philosophy to psychology to economics and sociology, thinkers are attempting to untangle just what makes people happy. However, children, young adults or aged individuals may have different reactions to processes at work (and the processes themselves may be different at different ages). These differences in life course stage, racial and gender differences on the effects of commonly identified social factors on happiness have been largely ignored in the literature. The implicit assumption in much of the current work is that social structures and institutions affect different age and racial groups in the same way. That is, to the extent that income matters for reported happiness, it matters the same for blacks and whites or for young and old. Exploration of interactions between social factors and different groups may prove beneficial for a better understanding of what affects people's happiness and the next chapters begin this exploration. This study furthers our understanding about what factors influence reported happiness with evidence gathered in nationally-representative social surveys. It points out that assumptions around the benefits for happiness of common factors—such as education—should be the same for all people might be flawed and may obscure potentially important relationships. In particular, from a policy perspective, understanding that there are differences in what people cite as being important for happiness and that those things vary along demographic characteristics, can have far reaching consequences, especially for educational advancement for minority groups. This study also ties together literature on differences in

experiences of life events for racial groups and theorizes how these differences could have a significant effect on the importance of some factors for reported happiness.

DEFINITIONS OF HAPPINESS

Despite much writing on the topic, happiness is often ambiguously defined and appears to have different meanings for different thinkers (Bradburn 1969; Csikszentmihalyi 1990; Diener 2009). Broadly, happiness can be defined as either eudemonic or hedonic (Kahneman et al 2003). Eudemonic happiness originates within Aristotle's account of happiness as leading a good life. Feeling part of a greater society, or finding purpose in one's life is indicative of eudemonic happiness. This is contrasted by the hedonic view of happiness as an abundance of joyful feelings or sensations and the absence of pain. Hedonic happiness can also include satisfaction with one's life.

Perhaps the most prolific author on the topic in recent times, Ed Diener, with more than 300 publications, defines subjective well being as "encompass[ing] people's life satisfaction and their evaluation of important domains of life such as work, health and relationships…happiness is the name we put on thinking and feeling positively about one's life." (Diener and Diener-Biswas 2008:4). Diener's definition of subjective well being is based primarily in the tradition of psychology. Those in Diener's camp must take people at their word that they are indeed doing well, are optimistic about the outlook of their lives, and are happy. Diener's definition of happiness, while useful, is difficult to use when searching for determinants of happiness, especially using survey instruments. Because Diener allows every individual to define happiness for themselves, it appears that a person's response to a typical questionnaire about subjective well-being cannot reasonably be compared with any other responses. It is unclear even whether

responses by the same person over time can be compared since a person could conceivably change how they choose to define happiness in the interim period.

Alternatively, Helliwell quotes Aristotle's definition of happiness;

> "'We may define happiness as prosperity combined with excellence; or as independence of life, or as the secure enjoyment of the maximum of pleasure; or as a good condition for property and body, together with the power of guarding one's property and body and making use of them. That happiness is one or more of these things, pretty well everyone agrees. From this definition of happiness it follows that its constituent parts are: good birth, plenty of friends, good friends, wealth, good children, plenty of children, a happy old age, and also such bodily excellences as health, beauty, strength, large stature, athletic powers, together with fame, honour, good luck and excellence (Aristotle, Rhetoric, 1360b, 14–23)'" (Helliwell 2003: 332).

The definition above from Aristotle seems at first glance to be more observable than Diener's definition. Aristotle (and Helliwell) looks to markers of happiness such as good health or wealth. They make the assumption that having more of either and the power to keep both, will induce people to be happier. What is not clear from Aristotle/Helliwell's definition is whether everyone should be expected to experience these observable determinants of happiness in the same way. That is, does the same amount of wealth make every individual equally happy? It is rather hard to fathom that this would be the case all the time.

Other authors see a difference between satisfaction and happiness (Csikszentmihalyi 1990). Csikszentmihalyi argues that there is a difference between being satisfied with and enjoyment of life. He believes that enjoyment can only come with being fully engaged. The theory of "flow" is yet another way to define engagement or happiness, though it is closer to the eudemonic view. Flow is a state of being in which an actor is so completely and utterly engaged in some action that time seems to stand still. Individuals who enjoy the task at hand can find stores of energy and be unfazed by outside events. They are completely absorbed. For proponents of the theory of flow, it is this state that defines happiness. Csikszentmihalyi shares

the story of an old Italian shepherd living high in the Alps who, when asked what she would do if she could do anything, answers that she would do nothing differently (1990: 155). Csikszentmihalyi takes her answer to mean that she is so engaged and so contented due to that engagement that she is supremely happy, though it is equally possible that she simply lacks imagination. Note that Csikszentmihalyi allows that one could be satisfied with their lives without ever reaching true happiness. Unfortunately, for happiness researchers, this state is difficult to observe. In part, Marx also advocates for Eudemonic happiness when he argues that work should be fulfilling and that man not be separated from the fruits of his labour (Marx 1867 in Tucker 1978). Other authors view happiness as interchangeable with psychological or subjective well-being (see Bradburn et al.). In the pages that follow here, happiness and subjective well-being will be used interchangeably.

Previous studies of happiness based on results of social surveys have focused on identifying common determinants of happiness, without paying much attention to whether or not those determinants should have the same effects for all types of people. While the finding that blacks and whites report different levels of happiness is well documented (Yang 2008; Hughes and Thomas 1998; Blanchflower and Oswald 2004), research on whether these groups have the same reactions to common determinants is scarce (differences between men and women in reported happiness face similar challenges).

Understanding the factors related to wellbeing in older ages becomes even more important as the population ages. Increasingly, people are living well into their "golden years" and are searching for not just continued physical health but emotional health as well. Thus, one chapter examines the relationship between theorized determinants and health; happiness; and cognitive abilities in older ages.

COMMON FRAMEWORKS

There are a few main theoretical frameworks that happiness studies utilize. All three have their beginnings in Easterlin's observation that average happiness is not changing over time and has no correlation with money (Easterlin 1974). The Easterlin paradox will be explored further in subsequent sections. The first framework is known as "set point" theory. In psychology set point theory holds that individuals experience a fixed level of happiness or satisfaction, based on their personality and environment (genetics may also play a role) (Lucas et al 2003). While some life events might temporarily increase or decrease satisfaction, everyone eventually regresses to their own personal average level of happiness. Scholars who employ set point theory argue that since all gains and losses to personal satisfaction are temporary, average societal happiness over time should not change (Lucas et al 2003; Lucas 2005; Silver 1982). The second theoretical viewpoint is the "relative position" theory. Scholars in this camp hold that life satisfaction is not based on total accumulation, but rather on how one believes they are doing in relation to a comparison group (DiTella and MacCulloch 2008). For example, if a respondent has neighbors with higher paying jobs and newer cars, that respondent might report lower satisfaction, regardless of how much money they themselves make or how nice their own car is. Given the relative position hypothesis, happiness will not change on average, because if someone is doing better, then someone must be doing worse in comparison and the gains and losses in satisfaction will balance out. This assumes that both the gains and losses will be equal, which in turn suggests that everyone will experience satisfaction in a similar way. The third theory is that of "aspirational adjustment" (Stutzer and Frey 2006; Kahneman and Deaton 2010). Aspirational adjustment argues that while material conditions may be getting better, people will update their goals and

their standards to reflect those changes. For example, a cathode ray tube television is no longer as satisfying since the introduction of LCD televisions. The Aspirational adjustment theory also suggests that people will necessarily update their preferences and therefore not change their overall satisfaction in the same quantity, similar to the relative position theory. Finally, a little talked about theoretical possibility is that happiness and satisfaction are indeed increasing, both relatively and absolutely. It is the survey instruments that are unable to detect such changes. For example, cultural differences between countries may lead to differences in reported happiness at a national level and can be difficult to interpret from survey questions alone (Kahneman and Deaton 2010). This last possibility will be difficult, if not impossible to address much less overcome.

Sociologists may be interested in measures of happiness as an alternative to traditional, objective measures of health and economic wellbeing and a meaningful supplement to other subjective measures such as self-rated health. Subjective well-being, by definition takes into account an individual's preferences and perceptions of the world around them. These perceptions may prove more important in the long term than objective measures of satisfaction and societal functioning. For example, while some studies find that people who report declines in objective health measures also report declines in happiness over the life course; remarkable recovery of subjective well-being has been found in patients who suffer losses in health (Subramanian et al 2005; Easterlin 2003; Argyle 1999; Kahneman and Diener and Schwartz 1999). Thus, objective measures may underestimate quality of life, an important measure. The World Health Organization identifies quality of life as a significant factor in not only research but also policy decisions and evaluations (WHO brief 2005). Economists, too, may do well to continue to consider subjective well-being. Easterlin notes that economic growth and health of the economy

are only a subset of well-being and researchers take for granted that the two are positively related (1974). By accounting for happiness, some of the "irrationality" found when using traditional measures of utility may be alleviated. Easterlin argued that economists should focus more on subjective well-being than on revealed preferences and other social sciences may do well to heed this advice as well. Still, it remains unclear whether subjective well-being, especially as measured in social surveys, is able to capture something closer to a true utility function better than revealed actions can.

MEASURES OF HAPPINESS

Measures of subjective well-being in large-scale surveys are not without problems. Single measures of happiness can be volatile and even change with the weather. In part, this may be due to the wording of the question. Volatility is particularly important when questions are specifically about how happy a respondent currently feels. However, as discussed below, many social surveys instead ask questions that are aimed at measuring subjective well-being, even if the question asks about happiness. In the aggregate these measures have been found to be quite robust according to some scholars (Dolan 2008). A number of scales have been developed aimed at measuring satisfaction or happiness, though these too may present challenges during analysis. For example, with Likert scale questions (the majority of subjective well-being survey questions) it is difficult to ensure that everyone rates "somewhat" or "4" in a similar manner. Still other questions are concerned with satisfaction in a particular area. For example, questions assess job, family, and friendship satisfaction separately. Despite potential measurement problems, subjective well-being measures are correlated with a number of factors at both the individual and societal level (Subramanian et al 2005). However, it is not always clear what, exactly these

measures are capturing. Happiness scholars argue that it is, of course, happiness but differences in societal norms, desirability bias, or misinterpretation of the question could all also play a role. Measures of subjective well-being are often single item questions, especially in large national surveys. However, there are also a number of scales that have been designed to measure both happiness and dissatisfaction as well. A third approach is measuring satisfaction in a particular area of life.

No matter the type of measurement, all indicators of subjective well-being are dependent upon a respondent's interpretation of not only the question but also their own level of happiness. Interpretation of the question is not unique to the study of subjective well-being, but the concern that respondents are interpreting the possible responses differently is an important point of contention. Diener et al, tend to get around this problem of measurement by defining happiness or subjective well-being broadly. While each individual evaluates her happiness differently, this does not make the measurement of happiness useless. Finding a difference in the average level of happiness between different groups, regardless of scale construction or consistency, is useful for understanding differences in perceived quality of life. Easterlin points out, "in opinion surveys on the relative merit, say, of presidential aspirants, the criteria used by respondents in forming their evaluations doubtless differ" (Easterlin 1974). Yet the perceived functioning of Congress and the President is widely reported in the popular press as well as the basis for a number of studies in Political Science (Easterlin 1974; Gallup Polls).

Some express concern that happiness is so subjective it might change even over very short timeframes. This concern should be at least somewhat eased by results from studies that take repeated measures of subjective well-being and find little change over time (Wilson 1967; Bradburn 1969). For example, in his study on the correlates of avowed happiness, Wilson found

that while individual judges differed on their accounts of a subject's happiness, taken together, their assessments lined up relatively well with personal reports (1967). Similarly, Easterlin shows results from surveys of the American Institute of Public Opinion that were taken weeks apart and show little change in levels of reported happiness (1974). Easterlin also notes that an upward bias may exist if people feel happiness is socially desired and report higher than actual levels. Another source of bias comes from sample selection, as the more unhappy an individual feels, the less likely they will be to participate in surveys and other civic responsibilities. This, to my knowledge, has yet to be addressed.

Another critique of studies of happiness in particular, is that it is all but impossible to measure happiness in an objective manner (Diener 2013). Veenhoven suggests that because happiness comes from the mind, "we must make do with questioning, that is, simply asking people how much they enjoy their lives as a whole" (in Land, Michalos and Sirgy 2012: 67).

Measures of happiness fluctuate over time, making any measure imprecise. Even in the course of an interview a respondent may change their answer to questions about happiness. It is rare that people change from very happy to unhappy, but changes from very happy to fairly happy are common (Veenhoven 2012). In part, this could be due to people using "snap judgments" or heuristics, which are susceptible to small changes in environment (Schwartz and Strack 1991; Veenhoven 2009, 2012). There also may well be a harmonic component to happiness, with cycles of differing length. In part, using measures of life satisfaction may temper the variance in happiness measures if overall satisfaction is interpreted as a longer-term measure of wellbeing rather than emotion.

Indeed, many large-scale surveys now include a question about general satisfaction. Single item questions are designed to gauge overall or life satisfaction, and take up relatively

little space and time. While single measures are less stable than scales or multiple questions, previous research has found them to be generally robust (Dolan 2008). Single subjective well-being questions are found in the General Social Survey (GSS) in the United States, the European Values Survey, the World Values Survey, and the Eurobarometer Surveys. Studies like the GSS present an opportunity to leverage longitudinal data about subjective well-being in current analysis thanks to repeated measures starting in the 1970s (GSS). Other surveys studying specific rather than general populations employ single questions as well (see for example the Health and Retirement Survey and ADD health).

As important as temporality is for subjective well-being, stage of life course and time horizons may be even more important for reporting subjective well-being. Young people could very well report satisfaction with the future in mind. That is, they may think they have good job prospects and a likelihood of high lifetime earnings and therefore report satisfaction. But as people age, it is thought that increasingly their satisfaction will be driven by past, rather than future events (Carstensen 1995). Those in their early and middle adult years may well base their opinions of their life satisfaction on future benefits and events that have yet to occur. This may not be the same in older age groups, who may tend to base their satisfaction on events that have already occurred, for example, a successful career, a happy marriage, or successful children. This presents a challenge for modeling subjective well-being and predicting future measures for older groups, especially since it remains unclear when the change in framing actually occurs. Further, there is no reason to believe that such a change would necessarily happen at the same time for every individual. In a study using GSS data, Easterlin explored the life cycle of happiness, showing that as people age, satisfaction in different areas of their lives influences overall happiness differently (Easterlin 2006). For example, in older ages declining satisfaction with

health is more than offset by increases in satisfaction with family and financial status. Over the life course, it appears that people change what they focus on as they respond to questions of subjective well-being (Easterlin 2006).

Another potential bias results from reporting error. People may be inclined to over-report their happiness. In-person interviews yield slightly higher rates of happiness than fill in surveys do, on average. However, if the interviewer is, for example, handicapped, ratings of happiness may be moderated (Veenhoven 2009). That is, characteristics of the person doing the interview and perceptions about the desirability of happiness can cause misreporting of true measures. However, it seems unlikely that outside factors would cause outright deception on the part of the interviewee and that measures of happiness can still be useful tools for social scientists and policy makers.

Some authors such as Bradburn view subjective well-being as a combination of positive and negative affect (Bradburn 1969). Scales measuring both types of affect have been created. While positive and negative affect are interdependent, the difference between them is highly predictive of reported happiness. By happiness here, Bradburn appears to mean psychological well being. Bradburn defines wellbeing thusly, "an individual will be high in psychological well-being in the degree to which he has an excess of positive over negative affect and will be low in well-being in the degree to which negative affect predominates over positive" (Bradburn 1969:9). By measuring both the positive and negative life events and reactions toward them, it is possible to tally both positive and negative items. The greater the difference between the two total tallies the more or less happy one is depending on whether positive or negative aspects have the larger number. This conception of happiness assumes that positive and negative aspects are at opposite ends of the same continuum.

More recently, Bradburn's conception of happiness has been challenged. Headey and colleagues, using the Quality of Life Panel survey argue for four dimensions, rather than two (Headey et al 1991). Also, Diener points out that combining positive and negative scales into a single measure may cause the loss of valuable information (Diener 2000).

CONCLUSION

While quite a bit has been written about happiness in the larger literature, in sociology it is a relatively understudied subject (Veehoven 2008). The lack of attention to happiness in sociology, in my opinion, is a shortcoming for the field. To be sure, happiness is dependent on personality (the realm of psychology) but there are undoubtedly social structures and institutions that play important roles as well. Understanding how factors such as employment, income, religious or political affiliations influence reported happiness for different groups may be beneficial as a focus for sociology as we seek to further understand what makes societies function at their best. Increasing people's enjoyment and satisfaction with life seems a worthy goal in and of itself, but if that is not enough a happy citizenry is more engaged—which is an essential component for societal functioning.

While there are numerous examples of multinational comparisons, within country comparisons of the happiness of different races, classes, and genders seems to be scarce. In the general case, happiness researchers have operated with the assumption that experiences are similar across groups. The chapters that follow suggest that this may not always be the case. Chapter 2 examines racial differences in reported happiness using data from the General Social Survey in the United States. It considers three commonly identified factors that lead to happiness—marital status, education and church attendance. The different lived experiences of

blacks and whites in the US leads to questions about whether these factors should influence everyone in the same way. The chapter presents evidence that, especially in terms of education, blacks and whites do not always have the same returns to happiness for these common factors.

Chapter 3 explores the role of social factors in happiness and health in older adults using data from the National Social Life, Health and Aging Project (NSHAP). It tests whether factors commonly associated with happiness and health in samples of working-age adults have similar effects for happiness in older ages. It finds evidence that religious attendance and social interaction matter for both happiness and health, while perceived income does not have a significant effect on happiness. These findings suggest that while there may be some continuity in the types of things that make people happy, as we age different factors may become more important for maintaining or finding happiness.

Chapter 4 focuses on the role of social networks in the happiness of older adults, again using data from NSHAP. It finds that in older ages being emotionally close to members of the social network is more important for happiness than the total size of the network. Because previous works show that network size is important at younger ages, this finding suggests that the role of social networks may change as people age. It also finds that the presence of family in social networks is markedly different for blacks and whites, providing further evidence for differences in lived experiences between groups. Chapter 5 summarizes and concludes the dissertation.

CHAPTER 2: RACIAL DIFFERENCES IN DETERMINANTS OF HAPPINESS

INTRODUCTION

Whites report higher levels of happiness than blacks and other races in the United States (Aldous and Ganey 1999; Yang 2008b; Williams and Collins 1995). While much work has been done around what makes people happy in general, to my knowledge, none has yet focused on whether these factors affect different racial groups in the same way. Some previous works suggest that happiness research in social sciences has tended to focus on white or majority cultures, with the implicit underlying assumption that other racial groups will have similar returns and reactions (see for example Clark, Fritters and Shields 2007; Kahneman and Deaton 2010; Easterlin 2006). However, we also know that those who identify (or are categorized) as minorities in the United States have markedly different experiences day in and day out (Williams, Jackson and Anderson 1997; Swim et al 2003; Sue et al 2007). This paper explores differences in determinants of happiness for different racial groups. In the general case, happiness researchers have assumed that experiences are similar across groups. This paper suggests that this may not always be the case.

Measuring happiness is an important step because happiness is related to a number of outcomes including physical health, community engagement and having good interpersonal relationships. Overall, having happier, healthier people seems like an important and worthy goal. Happier people may enjoy life more, be more likely to be socially engaged, and even be healthier—all of which are positive for societies. How people come to be happy is sometimes unclear. Previous research has shown that being part of a loving family, interacting with social groups, being educated and employed may all lead to individuals being happier. Marriage has

been shown to have a number of benefits including companionship and protections against illness or access to caregivers if one does become sick, which may increase happiness as an additional benefit of being in a loving relationship (Waite and Gallagher 2002; Kim and McKenry 2002). Being part of a social group may increase happiness with a sense of belonging to something larger than oneself and by providing access to a network of like-minded individuals. Education is thought to not only make people more likely to be happily employed but also to increase the likelihood of stable marriage and increase the breadth of social networks (Musick, Brand and Davis 2012; Armstrong 2013). Employment provides monetary capital to take care of basic needs as well as leisure activities and can provide a sense of purpose, both of which may increase happiness (Kahneman and Krueger 2006; Dolan et al 2008).

Commonly identified determinants of personal happiness and satisfaction include income, education, marital status and religiosity, political party affiliation, education and health (Wilson 1967; Kahneman and and Krueger 2006; McBride 2010; Diener 2013; Angner et al 2009; Waite and Gallagher 2002). Income is correlated with happiness, up to a point after which there are diminishing returns (Dolan et al 2008; Kahneman and Deaton 2010). Married people report higher levels of happiness than those of any other status including never married, divorced, widowed and separated (Kim and McKenry 2002; Waite 1995). Those who frequently attend church or religious services are more likely to report being happy than those who do not attend (Veenhoven 1994; Lewis and Cruise 2006; Snope 2008). Education is thought to increase happiness, both because of its direct effects and because of indirect effects such as better employment options, which may increase income and satisfaction (DiTella et al 2003; Layard 2011). Similarly, being in better health is thought to lead to more happiness (but see Lucas et al 2003). While previous studies control for race, they do not consider the possibility that

determinants are not the same for different groups of people and assume that different groups are impacted in the same, uniform way.

This paper seeks to begin to fill the need for an understanding of how different racial groups react to commonly recognized determinants of happiness. Using data from the General Social Survey of the United States, it finds evidence that blacks and whites do not share the same returns for some important correlates including education and church attendance. Below, previous literature is discussed, a conceptual framework is developed and a model of determinants of happiness is tested on different racial groups.

BACKGROUND

Happiness as a topic of study can be traced back to early philosophers such as Aristotle (Helliwell 2003). Philosophers in particular have been concerned with identifying the aspects of "the good life" (Bradburn 1969). More recently, questions about happiness have been asked in large social surveys across a number of decades and geographies (see for example the Eurobarometer or the World Values Survey). Marriage has been associated with higher reported happiness and many objective health measures, particularly for men (Gove et al. 1983; Harring-Hidore et al. 1985; Acock and Hurlbert 1993; Kim and McKenry 2002; Waite 1995; Waite and Gallagher 2002). In a study of the benefits of marriage, Fowers finds that those who are married enjoy significant emotional, financial, and physical benefits, with the effect greater for men than women (1991). Using data from the National Survey of Families and Households, Kim and McKenry find that marriage had a strong effect on emotional well being (2002). Waite and Gallagher also present evidence showing that marriage matters for both physical and mental health (Waite and Gallagher 2002).

Attending religious services is also linked to higher levels of happiness. Religious attendance involves norms, rituals and a group identity, which is thought to lead to feelings of belonging and support (Van Cappellen et al. 2016; Koenig 2012). For example, in a study of more than 350 undergraduates, a strong positive correlation between religious beliefs and happiness was reported (Robbins and Francis 1996). Francis found further significant associations in a study of Hebrew speaking males as well (Francis et al. 2004). Using data from the General Social Survey, Ellison and colleagues find that both the private and the public aspect of religious participation have positive associations with life satisfaction (Ellison, Gay and Glass 1989). The private aspects of religion may influence happiness as people find prayer or meditation to be emotionally calming. Further, feelings of connection with a "greater power" can serve to inject meaning in life and feelings of purpose may provide more satisfaction and happiness. The public aspect of religious life allows people to be part of a community and embedded in a social support network. Feelings of inclusion and belonging to a group may well serve to increase happiness of those group members.

Education has also been linked to higher reported happiness. Cuñado and de Gracia, using a sample from the European Social Survey, find that education has effects on happiness through higher income and status as well as through what they call increased "self-confidence" (Cuñado and de Gracia 2012). Having an education may make people more self-assured in social and work situations because they can be confident that they have the tools necessary to interact or problem solve. Increased education also often results in higher social status, which can increase access to opportunities and resources. Even when controlling for other variables such as income, education may still provide boosts to happiness by itself. Education can increase networks and connections with others and can increase happiness above and beyond the

increased monetary gains. In a study of East Asian respondents, Chen finds that education contributes to happiness through increasing not just income but also personal networks and increased interaction (Chen 2012).

Income and employment play a role in reported happiness, with Dolan and colleagues finding that real income is positively correlated with happiness, though the returns do diminish (Dolan et al. 2008). An individual's perception of wealth is also important. In the case of happiness, perceived differences in wealth may well be more important than actual differences for outcomes, at least in more developed countries (Clark, Fritters and Shields 2008). For example, in his study of the US population's happiness and wellbeing in different life categories (family, financial, health), Easterlin finds that people who felt they were better off financially than others reported higher levels of satisfaction (Easterlin 2006).

CONCEPTUAL FRAMEWORK

Previous studies of happiness based on results of social surveys have focused on identifying common determinants of happiness, without paying much attention to whether those determinants have the same effects for all types of people. While the finding that blacks and whites report different levels of happiness is well documented (Yang 2008a; Hughes and Thomas 1998; Blanchflower and Oswald 2004), research on whether these groups have the same reactions to common determinants is relatively scarce (differences between men and women in reported happiness face similar challenges). Previous work on how minorities and majority groups differ in their everyday experiences leads to the question of whether these common factors should be expected to have the same effects for different groups (Lee 2000; Harris, Henderson and Williams 2005; Moya 2002).

Education, marriage and religious attendance are three examples of areas where blacks and whites may have different experiences in the United States. In modeling terms, previous research has accounted for different intercepts for different races but has not considered different slopes. Education, church and marriage are discussed in depth below as I develop a framework to help develop a deeper understanding of these social factors may affect happiness for different racial groups in the United States.

College Experience and Educational Attainment

Education is seen as a universal good (Dewey 2004; Espenshade and Radford 2009; Bruns and Rakotomalala 2003). Commonly, we think of education as a universal good and with increasing happiness (Castriota 2006; Michalos 2008; Powdthavee et al 2013). In a study of the effects of education on health, Mirowsky and Ross argue that education provides skills and habits that help people exercise some measure of control over life events (Mirowsky and Ross 2003). That is, the authors see education as a form of human capital that can be leveraged in any number of different situations. While Mirowsky and Ross focus on health, the skills learned as a part of schooling can be expected to have similar, positive effects on happiness. Education is thought to increase job opportunities as well as having some modest effects all by itself (Bertrand and Mullianathan 2004; Riach and Rich 1991). What remains to be seen is whether the increases in opportunity and capital from education are equal across racial groups. With differences in quality of primary schooling and preparedness for college and professional degrees, there could be systematic differences in how many returns to education are enjoyed by different racial groups (Raudenbush 2009; Ready 2010; Chiswick 1988; Jencks 1972).

In the literature on college education, differences in the experiences of blacks and whites are well documented. Discrepancies in grades and outcomes for minority and white students have been discussed at length (Espenshade and Radford 2009; Small and Winship 2007; Bowen and Bok 1998). One explanation is that minority students may not feel as though they belong at a certain institution and adjust their effort accordingly (Steele 1992). Some claim minority students believe that others do not expect them to be as prepared or to do as well as their white counterparts and therefore they do not live up to their potential, but rather are constrained by their beliefs about how others think they should perform. Massey and colleagues, using data from the National Longitudinal Survey of Freshmen (NLSF), have tested this idea of "stereotype threat". They find ample evidence stating, "as black and Latino students display a stronger internalization of negative stereotypes about themselves and their group they systematically reduce their effort" (Charles et al. 2009: 180). For minority students, added pressure and stress from external expectations (both high and low) may mitigate any potential satisfaction gains from education.

The costs (broadly) of obtaining education are not equally distributed. For minority groups, the potential disruption of social networks, the increased pressure to provide for friends and family-- in short the sacrifices needed to obtain education-- are often greater than for whites or majority racial groups (Bowen and Bock 1998; Espenshade and Radford 2009; Small and Winship 2007). In a study of low-income blacks in Chicago, Pattillo shows that parents encounter a number of barriers when attempting to enroll their children in quality high schools (Pattillo 2015). Indeed, underprivileged and minority communities often struggle with access to high-quality schooling (Ogbu and Simmons 1998; Raudenbush 2009; Bowen and Bok 1998). The difficulties in enrolling in good, structured high schools increases the likelihood of having to

travel farther for schooling and being underprepared when arriving at college. The lack of preparedness for college in turn may lead to worse grades or even dropping out. For those who do stay, opportunities for employment and wages may not be equal to those of their white or majority group peers. In a study of differences in employment prospects, researchers found that a resume with a white sounding name got 50 percent more calls for interviews than the same resume with a black sounding name (Bertrand and Mullainathan 2004). Increased education and opportunity may also increase the likelihood of perceived (or actual) discrimination, offsetting the potential increases from getting more education in the first place.

Networks may also play an important role in the educational context. A study on effective relationships found that students not only "wanted to develop networks, friendships and to work with each other" but that the students who did enjoyed better learning experiences (Anderson and Carta-Falsa 2002: 137). When thinking about minority students and their battles with stereotype threat, under-preparedness in high school, and occasionally outright racism, the social environment becomes that much more daunting. In a qualitative study of students at a large state-school, Armstrong shows that students from lower class backgrounds are less able to fully partake in quintessential college activities such as fraternities and sororities, parties and other social events because they lack financial resources and time necessary to do so (Armstrong and Hamilton 2013). Armstrong further documents that those students from underprivileged backgrounds struggle to find adequate support from the school, often are unaware of programs designed to provide help with things like choosing classes or financial aid and are more likely to drop out. Those students who did graduate were less likely to be fully employed than their better-off counterparts (Armstrong 2013). Similarly, Musick and colleagues found that college education was negatively associated with marriage for those from less advantaged backgrounds

(Musick, Brand and Davis 2012). The findings suggest that college may not provide the same social advantages to underrepresented groups. As minority students often fall into the disadvantaged category, similar struggles may be expected. The dearth of other minority students at these institutions also has a number of consequences. Feelings of isolation and the lack of intraracial dating opportunities can be very difficult (Espenshade and Radford 2009). The documented differences in the experience of higher education for blacks and whites raises the question of whether those experiences provide similar returns in happiness and overall life satisfaction.

Hypothesis: Education will have different returns to happiness for blacks, whites and other races.

The Role of Church

Church or religious service attendance is a large part of community life for many people. However, the relationships with the church often differ by race (Lincoln and Mamiya 1990; Pattillo-McCoy 1998; Cavendish 2000). In a review of the history of the black church in America, Lincoln and Mamiya argue that the modern black church is a result of the complex history of oppression and slavery in the US. The Black Church became central to the community because it was in the church where members were able to exercise some level of control, whereas in other areas laws, the threat of violence and lack of education severely hampered equality (Lincoln and Mamiya 1990). They claim that because other institutions were closely controlled, "as the only significant social institution other than the black family, the Black Church took on multiple roles and burdens that differed from its white counterpart" (Lincoln and Mamiya 1990: 201). Similarly, Battle sees the Black Church as based heavily in slavery and its

defining characteristic as communal spirituality. By communal spirituality, Battle suggests that the church helps people define themselves though a "communal being or relationality" (Battle 2006: xv).

The Black Church has long been a place of not only worship but also community action and support (Pattillo-McCoy 1998; but see McRoberts 2005). In a large survey of Black Churches, Barnes finds evidence of activities such as prayer groups affecting community action (Barnes 2005). Similarly, Pattillo-McCoy provides ethnographic evidence that the Church provides a "cultural blueprint for civic life" and shows that much of the community in question has religious overtones—including the singing of gospel songs at a public elementary school (Pattillo-McCoy 1998). The community aspect of the Black Church is not limited to protestants. Using a national survey of catholic parishes, Cavendish finds that black churches are more likely to engage in community service and social actions than white churches. In a study of Florida churches, Losh and colleagues find that black churches are more likely to be involved in political causes than white churches in the same area (Losh et al. 1994). Thus, previous research suggests the Black Church focuses on more than just spiritual worship. It is embedded in the community in a way that is fundamentally different than main line, white churches (Pattillo-McCoy 1998; Cavendish 2000; Battle 2006). The differences in the community involvement between black and white churches, give rise to the question of whether we should expect that religious service attendance will have the same effect on happiness for blacks and whites.

Hypothesis: Differences in church experience will lead to differences in happiness outcomes for blacks and whites.

Marital Status

Similar to education and church attendance, differences in marital status have clear implication for happiness. However, racial differences in terms of marital status exist in the United States, with whites marrying at higher rates that their minority counterparts (Stevenson and Wolfers 2007; Aughinbaugh, Robles and Sun 2013). For example, Mare and Winship show that in the 1980s only 32% of black women between 25 and 29 years old were married compared with 62% of white women in the same age category and that black women were more likely to remain single over the course of their lives (Mare and Winship 1991).

The reasons for the discrepancy in marital rates could be many and are undoubtedly complex. One theory is that in black and other minority settings there is a lack of marriageable men (Lichter et al 1992; Wood 1995; Raley 1996). Wilson argues that as the economic status of black men declined along with their labor market participation, there were fewer attractive partners for women to marry (Wilson 2012). Another theory is that as black women increased their labor market participation, marriage became less necessary and less attractive (Espenshade 1985; Oppenheimer 1997). Some also point to the higher rates of incarceration of young black men, which removes potential partners from the community and the marriage markets (Western and Wildeman 2009).

The lower rates of marriage in the black community leads to a question of whether marriage will have the same effects for blacks and whites. Specifically, to be in a marriage may increase happiness more than for whites, given the lack of marriageable partners—especially for black women. And since there are fewer married people, the never married status may not mean the same to blacks and whites, in that marriage may be less import for happiness in communities where marriage rates are low.

Hypothesis: Marital status will affect black happiness more than white happiness.

Other Common Determinants

A number of other factors may also influence happiness including income, gender, age and even political party affiliation. Indeed, in the international context political party affiliation has been shown to have an influence on reported happiness (Di Tella and MacCulloch 2005; Appleton and Long 2008). Perhaps unsurprisingly, Di Tella and MacCulloch find that people report higher levels of happiness when their party is in power and that people who identify on the left report more happiness when unemployment is low, while people who identify on the right are more concerned with inflation (2005). Income also has a long history of being tied to happiness and age has been shown to have a U-shaped relationship with happiness (Blanchflower and Oswald 2008. These other determinants will be explored in the models below, but the primary focus of the paper remains on differences in the effects of education, church attendance and marital status for blacks and whites.

Figure 2.1 presents theorized mechanisms and expected relationships at play for selected determinants' relationships to overall happiness for blacks and whites. Briefly, I hypothesize that education will not have the same effect on happiness for blacks and other races as it does for whites, due in part to differences in increased opportunity, the expansion of networks and quality of education. In some cases, education may negatively affect happiness for minority groups for reasons discussed above. Similarly, given differences in the role of church in black and white communities, I expect that church will play a different role in happiness. Finally, I expect that marriage will have different effect on blacks and whites given differences in marriage rates and cultural norms.

Figure 2.1 Expected Relationships for Racial Differences in effects of Education, Marital Status and Church Attendance

	Education			Marital Status			Church Attendance		
Race	Increased Opporutnities	Networks	**Overall**	Economic Returns	Quality of Optons	**Overall**	Community	Spiritual	**Overall**
White	++	+	**+++**	++	+	**+++**	+	+	**+**
Black	+ or -	-	**-**	+	-	**+**	++	+	**++**
Other	+ or -	-	**-**	+	+ or -	**+**	+	+	**+**

DATA AND METHODS

Data for this paper come from the GSS. The GSS has been administered in the United States since 1972 and data are freely available for public use. It is a repeated cross-sectional survey that asks questions about beliefs, aspirations and goals. For this paper the ten most recent GSS years are utilized, giving a sample collected at two-year intervals from 1996 to 2014. These data can be used to illustrate the determinants of happiness in a sample that is representative of the US population. The GSS asks respondents about their general as well as subject-specific (such as work or marriage) happiness. The survey also provides relevant demographic information about age, gender, and race. Additionally, the GSS includes questions about subjects that are considered in the literature to be determinants of happiness. Self-rated health, marital status, educational attainment, religious affiliation and income are all available for analysis.

The GSS is an appropriate data source to explore the question of whether the relationship among determinants of happiness is the same for different socio-demographic groups. Given its questions of perceptions of society and life in general, it can also be used to explore some theories around why determinants should be expected to differ by racial group.

The dependent variable in this paper is self-reported happiness. The GSS asks respondents, “Taken all together, how would you say things are these days--would you say that you are very happy, pretty happy, or not too happy?” For the logistic regression models in this paper, the variable has been recoded to happy/unhappy for ease of interpretation, with those

reporting "very happy" becoming the happy group[1]. The decision to recode is consistent with previous literature on the topic (Ferrer-i-Carbonell and Frijters 2004; Guven and Sørensen 2007; Carl and Billari 2014). One common critique of questions surrounding subjective states, such as happiness, is that because the answer is subjective measurement is difficult. Previous research has shown, however, that measures of happiness are robust (Dolan et al 2008; Veenhoven in Land, Michalos and Sirgy 2012; Schwarz and Strack 1999).

The independent variables in the paper are informed by previous happiness research and include commonly found determinants. Given the hypotheses above, education, marital status and church attendance are of particular interest here. The models presented in the paper utilize years of schooling as the education measure, entered as a continuous variable ranging from 0 years to 20 or more years. Other specifications of education including highest degree were considered and did not change the outcome of the models. Marital status is entered as a series of dummy variables with married being the reference category. Church attendance is entered similarly, with attending 2-3 times a month as the reference group.

Other independent variables in the models include political affiliation, employment status, perceived income, age, gender and survey year. Political party affiliation has moderate as the reference group, employment has not employed as the reference, and "far below average" is the reference group for the perceived income variables.

[1] I recognize that happiness is not truly a dichotomous variable. However, choosing to use a dichotomous allows for easier interpretation. Ordered Logistic regression models were also tested. The results did not differ enough to warrant the increased complexity. The models presented in the paper group the two lowest groups (not too happy and pretty happy) together to compare against people who reported "very happy". Combining "pretty happy" with "very happy" was also considered, but due to a relatively small percentage of people reporting "not too happy" the division discussed above is used.

RESULTS

Table 2.1 below, using data from the General Social Survey (GSS) documents the difference in reporting of happiness for blacks and whites. In the sample, 25% of blacks report being 'happy' compared to 32% of whites (Table 2.1). Other research has shown that blacks and white have different rates of marriage (Bumpas and Lu 2000). These groups also have different levels of educational achievement (Espenshade and Radford 2009).

Table 2.1 Reported Happiness by Race in GSS

	Not Too Happy	Pretty Happy	Very Happy	Total
White	11.47%	56.68%	31.86%	100%
Black	19.99%	55.38%	24.62%	100%
Other	16.21%	56.07%	27.72%	100%

Note: chi2= 221.42, p=0.000. Data comes from GSS files between 1996-2014.

Table 2.2 shows reported happiness by educational attainment, again using data from the GSS. Those with a graduate degree report being 'very happy' 38% of the time compared to those with less than a high school education reporting being 'very happy' just 26% of the time.

Table 2.2 Reported Happiness by Education in GSS

	Not Too Happy	Pretty Happy	Very Happy	Total
< High School	22.22%	51.61%	26.17%	100%
High School	13.26%	58.46%	28.29%	100%
Junior College	11.65%	57.25%	31.10%	100%
Bachelor's	7.87%	55.86%	36.27%	100%
Graduate	8.54%	53.18%	38.28%	100%

Note: chi2= 477.22, p=0.000. Data come from the GSS between 1996-2014.

Taken at face value, Table 2.2 suggests that increasing education does increase happiness. However, the relationship is less clear when looking at reporting by race. Figure 2.2 shows levels of reported happiness by years of education for blacks and whites, net of age, using data from the GSS. It is clear that for whites, increasing years of education are positively correlated with reported happiness. However, for blacks this is not necessarily the case.

Figure 2.2 Average Happiness by Years of Education: Racial Differences

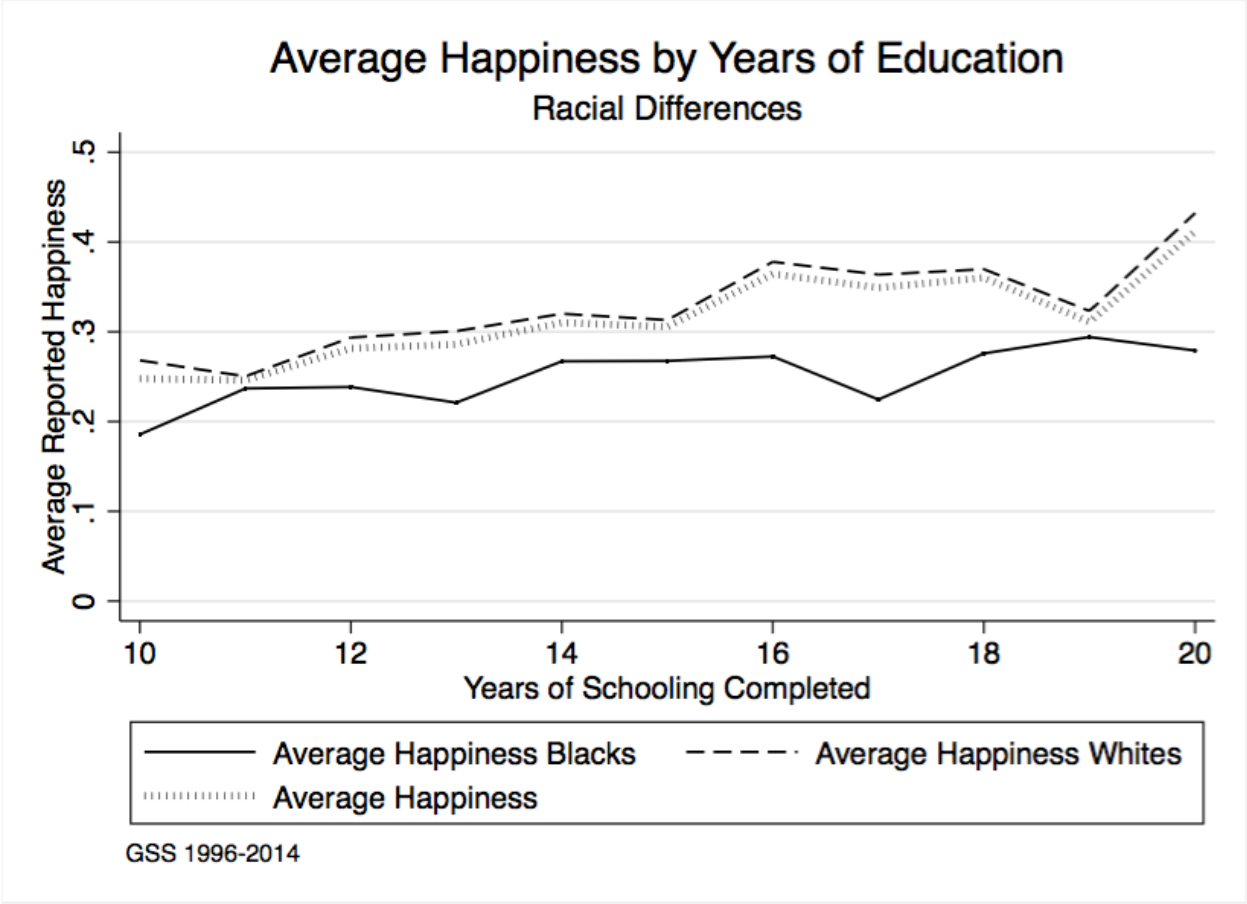


Table 2.3 shows the distribution of happiness by frequency of religious attendance, net of age. Similar to education, there is a clear relationship shown in the table, with 45% of those who attend church reporting being very happy while 23% of those who never attend report the same.

Table 2.3 Reported Happiness by Church Attendance in GSS

	Not Too Happy	Pretty Happy	Very Happy	Total
Never	16.86%	59.20%	23.94%	100%
< Once a Year	14.65%	61.01%	24.34%	100%
Once a Year	12.80%	60.41%	26.79%	100%
Several Times a Year	13.51%	58.37%	28.12%	100%
Once a Month	13.16%	58.37%	29.44%	100%
2-3 Times a Month	12.14%	55.86%	32.00%	100%
Nearly Every Week	10.81%	56.00%	33.19%	100%
Every Week	9.66%	52.52%	37.82%	100%
Several Times a Week	11.63%	43.16%	45.21%	100%

Note: chi2= 487.53, p=0.000. Data come from the GSS between 1996-2014.

Table 2.4 shows happiness distribution by current marital status. As expected, married people have the highest proportion of those reporting being very happy (Kim and McKenry 2002).

Table 2.4 Reported Happiness by Marital Status in GSS

	Not Too Happy	Pretty Happy	Very Happy	Total
Married	6.81%	51.38%	41.81%	100%
Widowed	19.53%	56.60%	23.88%	100%
Divorced	18.41%	61.94%	19.64%	100%
Separated	28.41%	56.95%	14.64%	100%
Never Married	16.96%	62.29%	20.75%	100%

Note: chi2= 1.6e3, p=0.000. Data come from the GSS between 1996-2014.

Table 2.5 shows results of logistic regression predicting the reporting of happiness. Column 1 has results from an overall model with all races pooled together. In this model, race is statistically significant, with blacks being about 35% less likely to report happiness than whites. Other races are also less likely to report being happy—16.6%--than whites are. Females in the sample are 22% more likely to report being happy than their male counterparts. Education is statistically significant, with each additional year increasing the odds of reporting happiness by 1.8%. Attending religious services regularly every week or more frequently made people more

likely to report happiness as well, with attending more than once a week increasing the odds of happiness by 105%. Conversely, not attending services made it statistically significantly less likely that a respondent reported happiness, with those who report going to church once a year being 21% less likely to report happiness. Marital status was also a statistically significant predictor of happiness. Those who are married are more likely to report happiness than those with any other marital status. For example, married individuals are 50% and 60% more likely to report happiness than those who are never married or are divorced, respectively.

In the overall model age was statistically significant, with the likelihood of reporting happiness decreasing by 1% per year. Being extremely liberal or conservative or extremely conservative make a respondent more likely to report happiness than those who identify as moderate. Having income perceived as average or better made respondents happier, though current work status did not achieve statistical significance. Perception of childhood family income was also not statistically significant. Survey year was statistically significant, thought the effect size was a negligible 0.4% per year.

Column 2 of Table 2.5 shows the results of the model run for whites only. Similar to the overall model, females are more likely to report happiness. Marital status also matters, with those being married more likely to report happiness than any other situation. For whites, religious attendance closely resembles the results from the overall model. Going to church more than once a week doubles the odds of reporting happiness, while going once a year decreases the odd by about 29%. Education is also similar to the overall model with each year of education increasing the likelihood of reporting happiness by almost 3%.

For whites, age is statistically significant with each additional year decreasing the likelihood of reporting happiness by about 1%, similar to the overall model. Again, having

average or better perceived income is beneficial for happiness when compared to far below average. Being conservative or extremely conservative was significant for whites increasing the odds of happiness by 20% and 40%, respectively. Identifying as liberal was not statistically significantly different that moderate in this model. Current employment status, childhood income and survey year did not achieve statistical significance in the model with the white only sample.

Column 3 of Table 2.5 presents the results for the model run only with blacks in the sample. Unlike the white and the overall models, females in this model are not statistically significant from males. Again, marital status is important for happiness with being divorced making a respondent 65% less likely to report happiness. Similarly, those who are never married were 50% less likely to report happiness than those who were married. For blacks, church attendance matters for happiness, but attending church infrequently is not statistically significantly different from attending 2-3 times a month. Those who attend church more than once a week increase their odds of reporting happiness by 137%. Contrary to the white only and the overall model, in the model with only blacks, education was negatively related to happiness. For each additional year of schooling the likelihood of reporting happiness decreased by almost 5%.

In the black only model age was not statistically significant. Further, for blacks, having income that was perceived as above or far above average was significant for happiness with those reporting income far above average being about 2.5 times more likely to report happiness. In terms of political views, blacks who identified either as extreme liberals or extreme conservatives were more likely to report being happy than those who identified as more moderate. Neither current employment status nor childhood income was statistically significant.

In this model, survey year was statistically significant, suggesting that blacks became happier about 2% per survey year on average.

Finally, column 4 shows the results of the model for other races. Few variables were statistically significant; however marital status did follow the patter found in the other models. Attending church or religious services once a week made those in this group more likely to report happiness compared with those who attend 2-3 times per month. Years of education was not statistically significant, though the coefficient was in line with the results from the overall and the whites only models. The only other statistically significant result for the other race group was political party affiliation, with being either conservative or extremely conservative increasing the likelihood of reporting happiness by 62% and 175%, respectively.

Table 2.5 Logistic Regression Predicting Happiness Overall and For Different Racial Groups

	Total	Whites	Blacks	Other Races
	Odds Ratio/se	Odds Ratio/se	Odds Ratio/se	Odds Ratio/se
Female	1.221***	1.236***	1.171	1.128
	(0.040)	(0.044)	(0.120)	(0.187)
Race (Whites Ref)				
Blacks	0.648***			
	(0.036)			
Other Races	0.834*			
	(0.063)			
Marital Status (Married Ref)				
Widowed	0.471***	0.511***	0.272**	1.198
	(0.079)	(0.099)	(0.116)	(0.812)
Divorced	0.414***	0.422***	0.350***	0.455**
	(0.027)	(0.029)	(0.065)	(0.127)
Separated	0.370***	0.313***	0.456***	0.691
	(0.040)	(0.044)	(0.094)	(0.219)
Never Married	0.506***	0.508***	0.501***	0.459***
	(0.022)	(0.023)	(0.061)	(0.101)
Religious Attendance (2-3 Times a Month Ref)				
Never	0.877*	0.847*	0.838	1.389
	(0.055)	(0.057)	(0.194)	(0.434)
<Once a Year	0.792**	0.729***	1.028	1.528
	(0.060)	(0.060)	(0.271)	(0.545)

Table 2.5 Continued

	Total	White	Blacks	Other Races
	Odds Ratio/se	Odds Ratio/se	Odds Ratio/se	Odds Ratio/se
Once a Year	0.853*	0.836*	0.788	0.949
	(0.058)	(0.060)	(0.167)	(0.311)
Several Times a Year	0.960	0.919	0.958	1.451
	(0.072)	(0.073)	(0.180)	(0.531)
Once a Month	1.066	1.000	1.228	1.772
	(0.084)	(0.084)	(0.258)	(0.690)
Nearly Every Week	1.155	1.000	1.933**	1.823
	(0.107)	(0.099)	(0.399)	(0.788)
Every Week	1.277***	1.210**	1.368	1.914*
	(0.081)	(0.084)	(0.240)	(0.622)
More than Once a Week	2.059***	2.009***	2.370***	1.805
	(0.146)	(0.158)	(0.475)	(0.653)
Political Views (Moderate Ref)				
Extremely Liberal	1.419***	1.239	1.909***	2.231
	(0.133)	(0.137)	(0.371)	(0.937)
Liberal	1.012	0.977	1.193	1.143
	(0.051)	(0.059)	(0.153)	(0.217)
Slightly Liberal	0.998	0.988	1.030	1.009
	(0.048)	(0.052)	(0.138)	(0.215)
Slightly Conservative	1.045	1.042	1.080	0.951
	(0.050)	(0.054)	(0.167)	(0.193)
Conservative	1.223***	1.203***	1.231	1.632*
	(0.058)	(0.064)	(0.221)	(0.399)
Extremely Conservative	1.628***	1.419**	2.213**	2.746*
	(0.170)	(0.164)	(0.559)	(1.103)
Education	1.018**	1.028***	0.954*	1.015
	(0.007)	(0.007)	(0.021)	(0.021)
Age	0.990***	0.988***	0.998	1.002
	(0.002)	(0.002)	(0.007)	(0.011)
Employment Status (Not Working Ref)				
Working	1.044	1.038	1.118	1.036
	(0.038)	(0.042)	(0.132)	(0.168)
Retired	1.207	1.171	1.595	1.000
	(0.308)	(0.323)	(1.182)	(.)
Perceived Income (Far Below Ref)				
Below	0.990	1.092	0.712	0.837
	(0.078)	(0.112)	(0.144)	(0.248)
Average	1.650***	1.777***	1.451	1.320
	(0.124)	(0.166)	(0.284)	(0.383)
Above	2.210***	2.350***	2.085**	1.701
	(0.175)	(0.233)	(0.485)	(0.607)

Table 2.5 Continued

	Total	Whites	Blacks	Other Races
	Odds Ratio/se	Odds Ratio/se	Odds Ratio/se	Odds Ratio/se
Far Above	2.493***	2.671***	3.410***	0.875
	(0.326)	(0.403)	(1.260)	(0.511)
Childhood Family Income (Far Below Ref)				
Below	0.840*	0.762**	1.152	1.007
	(0.062)	(0.072)	(0.197)	(0.235)
Average	0.929	0.862	1.253	0.946
	(0.064)	(0.075)	(0.204)	(0.202)
Above	1.004	0.954	1.185	0.611
	(0.077)	(0.087)	(0.273)	(0.169)
Far Above	0.945	0.861	1.305	0.875
	(0.109)	(0.119)	(0.488)	(0.433)
Year	1.004*	1.002	1.021***	0.999
	(0.002)	(0.002)	(0.004)	(0.007)
Constant	0.000**	0.010	0.000***	0.676
	(0.001)	(0.032)	(0.000)	(9.566)
N	23654	19136	3382	1395

* p<0.05, ** p<0.01, *** p<0.001

Note: Data from the GSS are included and weighted using GSS Weights. The sample is restricted to people under the age of 50. The model is run separately for Whites, Blacks and Other Races.

DISCUSSION

In the models presented above, education was statistically significant and positively associated with happiness for whites. For blacks, education was statistically significant and negatively associated with happiness. While there are undoubtedly positive effects of education including greater access to a variety of jobs and higher pay, it could well be that these positive effects do not outweigh the costs for minorities (Hout 2012; Altonji and Blank 1999). In the US blacks and other minority groups are underrepresented in higher education and so the social costs—the leaving of primary networks, the exposure to both overt and latent racism, the knowledge to recognize said racism, etc.—can be quite high. Thus, recognizing these sorts of challenges may be important if we want to better understand and address the challenges that

minority groups face when pursuing advanced education. Further, being able to account for these types of challenges may lead to a fruitful exploration how these differences could have long-term consequences. The negative association between education and happiness in the black-only model provides evidence in support of the first hypothesis. It also suggests that researchers in the happiness space may benefit from taking note of some of the assumptions they make about people's everyday experiences.

Another finding is the difference in the role of church for blacks and whites. Whites who never go to church are statistically significantly less likely to report happiness than those who go more frequently, but this isn't the case for blacks. Indeed, it isn't until you begin to attend church every week that we find a statistical difference in the black or in the other race sample. This suggests that churches do indeed play a different role in white and minority communities, as previous literature has suggested (Pittillo-McCoy 1998, Lincoln and Mamiya 1990). In order to reap the benefits of church attendance, it appears that blacks must be much more involved in the church than their white counterparts. The Black Church is often a pillar of the community and as such may play more of a role in everyday life (Cavendish 2000; Battle 2006). In the black community attending church only 2-3 times a month may be considered less than good attendance; which may differ considerably from attendance patterns in white churches. The second hypothesis was not fully supported. However, there is evidence that the experience of church is different for blacks and whites and should be further explored.

Marital status appeared to operate similarly for blacks and whites. The third hypothesis that blacks might have greater returns to marriage because of the relative infrequency of marriages was not supported. Indeed, the coefficients acted similarly for all racial groups, providing further evidence that marriage has positive effects on happiness, net of other factors.

One shortcoming of the martial status question is that it does not take marital quality into account. It could still be the case that martial quality differs by racial group but more research is needed. Still, the finding that marriage appears to have similar returns lends support to the theorists who believe in the benefits of the institution.

That both extremes of the political spectrum report higher levels of happiness in the models suggests that it could be more important to have a stance or identify with a party, regardless of which party that is. The relationship becomes clearer when the single-race models are taken into account. For example, whites who report being conservative are generally happier, while blacks who report being extremely liberal are happier. Extremely liberal whites do not appear to be different than those who identify as political moderates.

In the models age was negatively related to happiness, which is in line with previous research given that the sample in between 18 and 50 years of age. Previous research has shown a U-shaped relation with age, and the age cutoff for the current sample is generally thought to be at the bottom of the U (Blanchflower and Oswald 2008). Note, however, that in the models for blacks and other racial groups age was not statistically significant, suggesting that aging may not have the same meaning in minority settings as it does in the white community.

The model for other races had little that was of statistical significance. In part, this may be due to the categorization of other races, which in the GSS is a catch-all for those who do not identify as either black or white. Thus, the experience of Asians and Hispanics and other groups are all pooled together. The pooling may obscure results that would otherwise be present and future research should seek to explore the relationship of these determinants to happiness for other racial groups. Still, the lack of significance in the other race groups is a cautionary lesson about the assumption that all others are similar in important ways. As seen in the overall

regression and the differences uncovered when the samples were restricted to only white and only blacks, this assumption is often wrong.

The models above are concerned with racial differences in determinants of happiness. While they control for gender, more work needs to consider its role in experience and outcomes such as happiness. Similarly to race, different genders do experience the world differently (Carstensen et al 2000; Macintyre, Hunt and Sweeting 1996). Women were more likely to report being happy in the overall and the white-only model, suggesting there may be important differences. Being female was not statistically significant in the stratified model for blacks, but this may mask differences, similarly to how the overall model of happiness masked differences in the effects of education for blacks and whites.

CONCLUSION

This paper shows that whites and minorities in the United States react differently to commonly identified determinants of happiness. While more education is beneficial to whites, the same is not always the case for blacks. The difference in the effects of education between blacks and whites is particularly striking because education is often lauded as a pathway to a better, happier life. Without recognizing the increased, though not always visible costs, for minority students the pursuit of education may leave them isolated and less satisfied with their lives. Even factors such as church attendance appear to operate differently for these different groups, as should be expected given cultural differences. The Black Church, as a pillar of the community permeates much more of everyday life than more traditional white churches tend to do. To be sure, the everyday experience of blacks and whites is different in the U.S.—even the

same situation can be viewed quite differently. Both the role of education and church show that even the same actions may not have the same outcomes for different groups.

In the general case, happiness researchers have assumed that experiences are similar for everyone and that will reap the same benefits from common determinants of happiness. This paper suggests that may not always be the case. Especially in the case of education, recognizing and capturing the challenges faced by minority students may be important if we want to further understand the role of educational advancement in minority communities. While this paper has considered the role of race, gender may also play an important role for daily experiences and happiness. Future research may benefit by addressing the important differences in the experiences of not only blacks (and other racial and ethnic minorities) and whites but also males and females, especially as the composition of the population shifts away from a white majority.

CHAPTER 3: DETERMINANTS OF HAPPINESS AND HEALTH IN OLDER ADULTS

INTRODUCTION

Wellbeing, or happiness, is influenced by many aspects and, as the population in the United States ages, it is becoming more important to understand the factors that contribute to happiness in older adults. One way to do this is to measure the quality of life—that is, not just how much longer people are living but also how healthy and able to enjoy life they are as well (Nussbaum and Sen 1993). Measuring quality of life has arguably become as important as measuring the gains in years of life (Torrance and Feeny 1989; Braithwaite et al 2008). Factors such as robust social interactions, income, marital status and past histories have implications for how people view their own happiness and health, especially as they age. While much research explores the determinants of happiness, most of the focus is on international comparisons or person-level determinants in samples made up primarily of adults between 18 and 54 (Easterlin 2003; Subramanian et al 2005; Veenhoven 2015). There is relatively little research focused on how determinants of happiness might change as people age.

To contribute to a better understanding of determinants for healthier and happier lives in older ages, this paper explores the factors associated with both health and happiness in a sample of older American adults. Since happiness can be influenced by a myriad of factors, it considers four types of self-reported attributes: socio-demographics, current life status, happiness systems of origin and social networks. Much research has identified racial, gender and socio-economic class differences in access to resources, prevalence of illness and chronic diseases as well as happiness (Williams and Collins 1995; Harris 2001; Stafford et al. 2005; Iyer, Sen and George 2007; Aldous and Ganey 1999). In this sample, socio-demographic factors appear to be more important for reported health than for happiness. Similarly, there is a large body of work that

links social networks and health (Smith and Christakis 2008; Moren-Cross and Lin 2006). Previous research linking social networks to health or happiness have primarily focused on common ego-centric network measures such as size and density of ties, though some argue that the interactions are important (Lin 2001; Litwin and Linadau 2000; Litwin 2001). The current paper also finds that social interaction is important for both health and happiness, but that social network size and density are relatively unimportant for reported happiness in older adults.

Some previous research has suggested that both real and perceived income can be important for happiness (Clark, Fritters and Shields 2008; Kahneman and Krueger 2006). With too little income it is impossible to obtain the resources necessary for survival and there is a certain level of real income required before the stress of providing diminishes. Coupled with the real income, is the perception of income that people have. Even if you have low (high) income you may be more (less) satisfied if you believe those around you are worse (better) off. In this sample of older adults, the paper finds scant evidence for relative deprivation theories of income, concluding that perceived relative income has no statistically significant effect on reported happiness. Life course scholars recognize that past events can have long lasting effects, especially on health (Moen et al 1992; Braveman and Barclay 2009; Poulton et al. 2002). To help tease out the long-term effects of past events, the paper considers childhood conditions that may have an effect on adult health and happiness. Results suggest that childhood characteristics such as coming from a happy home do have an influence on reported happiness later in life. Below, previous literature is reviewed and models for determinants of both health and happiness are presented and discussed.

BACKGROUND

Happiness as a topic of study can be traced back to early philosophers such as Aristotle (Helliwell 2003). More recently, questions about happiness have been asked in large social surveys across a number of decades and geographies (see for example the Eurobarometer or the World Values Survey). Measuring happiness is an important step because happiness is related to a number of outcomes and increasing happiness is generally seen as a socially desirable goal.

To date, happiness studies utilize a few main theoretical frameworks. The first is called "set point" theory and posits that individuals experience a fixed level of happiness or satisfaction, based on their personality and environment (genetics may also play a role) (Lucas et al 2003). While some life events might temporarily increase or decrease satisfaction, everyone will return to their own average level of happiness (Lucas et al 2003; Lucas 2005; Silver 1982). The second theoretical viewpoint is the "relative position" theory, which argues that life satisfaction is not based on total accumulation, but rather on how one believes they are doing in relation to a comparison group (DiTella and MacCulloch 2008). For example, if a respondent has neighbors with higher paying jobs and newer cars, that respondent might report lower satisfaction, regardless of how much money they themselves make or how nice their own car is. The third theory is that of "aspirational adjustment" (Stutzer and Frey 2006; Kahneman and Deaton 2010). Aspirational adjustment argues that while material conditions may be getting better, people will update their goals and their standards to reflect those changes. For example, a cathode ray tube television is no longer as satisfying since the introduction of LCD televisions.

Health and Happiness

Health and well-being are thought to be closely related (Cohen et al 2003; Diener and Biswas-Diener 2008; Subramanian et al. 2005). Physical health researchers commonly

distinguish between three categories of physical health: Morbidity, or the presence of disease; Survival, or the ability to overcome serious illness; and longevity, or the total length of life (Diener 2013; but see Bradburn 1969). Subjective well-being has been linked with all three categories of health, though it is thought that the interactions vary (sometimes significantly) between them. When health fails, it is often hard for many to remain upbeat and optimistic.

People who are generally upbeat and have a positive view of life, in other words those with high scores on subjective well-being measures, have been found to both be less likely to contract illness and if they do, be more likely to make a swift recovery. In a controlled study researchers sequestered a group of individuals in a hotel and infected them with a cold virus. They then observed the participants over the next several days. The research revealed that people who had reported higher levels of subjective well-being prior to being infected were less likely to report cold symptoms and their bodies produced less mucus and other cold by-products (Cohen et al 2003). In the study cited above, higher levels of subjective well-being were correlated with both lower levels of morbidity and higher survival rates (the authors find a correlation of 0.45 between positive emotional style and no cold development). In contrast, some believe that people who report higher subjective well-being are less likely to suffer from severe illness, but when they do suffer from disease they are less likely to recover (Diener 2013; Diener and Biswas-Diener 2008). The theory is that people who are happier are less likely to complain of symptoms and less likely to become aware of and get treatment for disease at early stages, on average. The lag time between the appearance of symptoms and the beginning of treatment can indeed be a reason for the observation that happier people are less adept at surviving serious conditions, such as cancer (Diener and Biswas-Diener 2008). Much of the research above highlights the role of the individual and factors such as personality. Not going to the doctor because you are too busy

enjoying life certainly falls into the individual category. The question remains how more structural components affect both health and happiness.

Using data from a multilevel social capital survey in the United States, Subramanian et al. found high correlation (0.65) between low levels of happiness and low levels of self-reported health (Subramanian et al. 2005). The study also found that the effect was present for communities, with communities in poorer health tending to be less happy than communities in which self-rated health was higher on average. It should be noted that self-rated health might be different from objective health as measured through medical tests or screenings. Self-rated health falls prey to some of the same critiques that self-rated happiness does (see introduction chapter) and one should be cognizant of this situation. However, Angner and colleagues, using data on older, community-dwelling adults found that subjective health measures are generally better at predicting reported happiness than objective measures are (Angner et al 2009). The finding is perhaps unsurprising. One's beliefs about their health would have more of an impact on their perceived happiness or quality of life than their actual physical condition. People who report higher levels of subjective well-being are also more likely to live longer lives than those who report less satisfaction. Danner and colleagues found that nuns who were happier lived longer on average than nuns who were not (Danner, Snowden and Friesen 2001). The authors conducted a content analysis of the journals that each member of a cohort of nuns kept as they entered the sisterhood. They were able to determine which nuns were more and less satisfied based only the language they used in the diaries. Years later, it turned out that about a quarter more of the nuns who wrote with positive language were still alive at age 85 compared to their counterparts who were less happy (Danner, Snowden and Friesen 2001). Similarly, Pitkala and others found that in a study following a group of 75 year old individuals satisfaction was positively correlated with

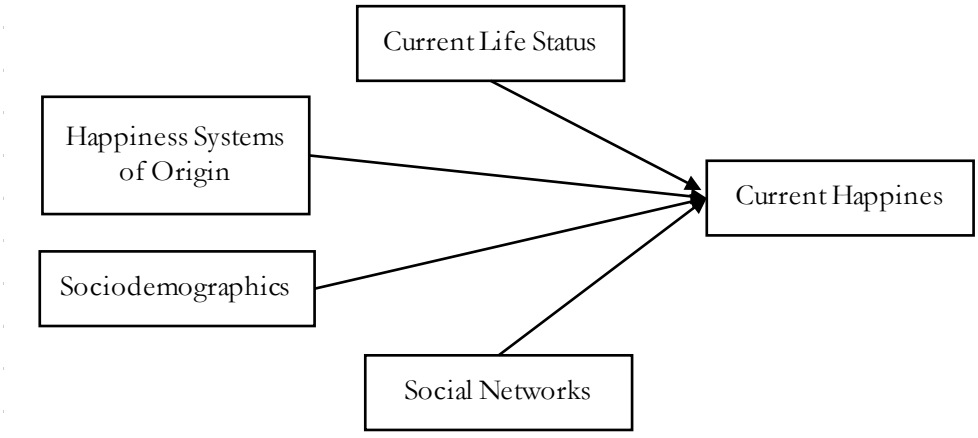
surviving for 10 years (Pitkala et al. 2004). After 10 years, almost 15% more of the people who reported positive orientations were alive than those who did not.

In a study of just over one thousand Dutch residents, Koopmans and colleagues found that over the course of 15 years, higher levels of happiness were predictive of lower mortality (2010). They note that while happiness seems to lead to lower mortality in their study, the results lose statistical significance once physical activity and morbidity are taken into account. They thus argue that physical activity, with its high correlation with lower morbidity and mortality, is a mediating factor in the relationship between happiness and longevity (Koopmans, Geleijnse, Zitman, and Giltay 2010). This is not to say that health and happiness are not connected, but rather that happiness may play an indirect role when it comes to mortality. The idea that many studies of subjective well-being and its relationship to health do not include many controls is, on its face, a significant shortcoming. However, upon further consideration the lack of controls may not be as big a problem as previously thought. Subjective well-being has been correlated with physical activities, with higher levels of subjective well-being predicting higher levels of activity, which in turn is recognized as a predictor of mortality (Kawotoma 2002; Schnor et al 2005; Matthews et al. 2007). Perhaps physical activity is the mediator through which the feelings of well-being interact with physical health. To be sure, the relationship between subjective beliefs, such as well-being, and their physical consequences is complicated and will always be difficult to pinpoint. Given their close relationship, both well-being and health may be influenced by similar social factors.

CONCEPTUAL FRAMEWORK

Many factors can influence reported happiness, and it is not always clear in which direction the relationship runs. In this chapter variables are grouped into four categories, to help clarify and identify determinants of happiness and health. Figure 3.1 shows the conceptual framework for this chapter. As discussed below, sociodemographics such as race and gender or marital status may play a role in health and happiness, no matter the life stage. Demographics are joined by current life status variables including income, which also should be expected to be relevant for health and happiness. Social networks are another grouping of variables that have effects on reported happiness and health. The final category, called happiness systems of origin, concerns variables that attempt to define past experiences and how they might have long term effects for both and health and happiness.

Figure 3.1 A Model of Factors that Affect Happiness



Social networks

Social networks are the structured patterns of interaction and relations that make up social groups and society (Wasserman and Faust 1994; Lin et al 2001; Burt 2000). Social networks allow people to gain access to information and resources (Coleman 1988; Bourdieu

1986; Lin 2001). C. Wright Mills writes of the "Power Elite" and Mosca of the "Ruling Class" both of which are interconnected networks of powerful people (Mills 1956; Mosca 1939). What makes these people so powerful is their access to social capital. Unlike physical capital, social capital is embedded within relationships between people. Coleman defines social capital thusly: "Social capital is defined by its function. It is not a single entity but a variety of different entities, with two elements in common: they all consist of some aspect of social structures, and they facilitate certain actions of actors within the structure" (Coleman 1988: S98).

Therefore, according to Coleman, social capital allows people to gain access to information or resources by utilizing their network connections (Coleman 1988; Bourdieu 1986; Lin 2001). Others, such as Lin and Bourdieu, may have slightly different definitions, but all agree that social capital is heavily dependent upon an observed social structure. The social structure itself is the "multidimensional space of different social positions among which a population is distributed" (Blau, Blum and Schwartz 1982). Depending on where one is within a social network, one will have access to more or less social capital, and it is thought that people will seek to invest in their social capital similarly to investments made in other forms (Fernandez and Castilla 2001; Lin 2001; Burt 1992).

A large body of literature has shown that social networks and structure affect health and happiness as well as other outcomes such as job placement (Smith and Christakis 2008; Moren-Cross and Lin 2006; Granovetter 1973; Fowler and Christakis 2009). Networks provide both emotional and informational support (House et al 1988; House, Landis and Umberson 1985). Christakis and Fowler, using data from the Framingham Heart Study conclude that happiness can be spread throughout large social networks (Christakis and Fowler 2008). Networks also influence health as they provide not only support and engagement but also social norms

(smoking, diet) and exposure to others (transmission of germs and disease) (Berkman and Glass 2000; Smith and Christakis 2008). Thus, differences in network composition could have significant effects on reported levels of happiness and health.

While structure of networks is thought to be important, the actual interactions that take place are also recognized has having effects for health and happiness (Cohen 2004; Berkman and Glass 2000; Berkman et al 2014). For example, using the Health and Lifestyle Survey, Jones finds that social interactions are an important determinant for smoking cessation (Jones 1994). Cohen argues that increased social interactions can affect both physical and social well-being because these interactions help to regulate responses and reactions through social norms as well as influencing behaviors and decreasing (or sometimes increasing) the risks of illness (Cohen 2004; Cohen et al. 2000). That is, interacting with others can help people process emotions, gather information, and understand social cues. Loneliness can also have an effect on health and happiness, especially at older ages (Hawkley and Cacioppo 2013; Luo et al. 2012). In a study of those over 55, Lee and Ishii-Kuntz found that those who reported higher levels of loneliness were more likely to have lower morale and worse health outcomes and conclude that loneliness and well-being are linked (Lee and Ishii-Kuntz 1987). Similarly, Hawkley and Cacioppo report studies showing loneliness is linked to increased blood pressure, cholesterol levels, and even mortality (Hawkley and Cacioppo 2010).

Socio-demographics and happiness:

Most previous studies find the effects on happiness of demographic variables such as gender and age to be modest, at best (Eid and Larsen 2008). Using data from the Chicago Health, Aging and Social Relations Study, Cacioppo et al found no statistically significant impact of age,

gender, or marital status on reported happiness (Cacioppo et al 2008). However, race has been cited as a factor in the US, with blacks and other minorities reporting lower levels of happiness than their white counterparts in other studies (Yang 2008).

Age and happiness tends to have a U shaped relationship with people reporting being happiest in their 20s and then again after their mid-fifties (Blanchflower and Oswald 2008; Frijters and Beatton 2012). In middle ages, people may have increased stressors from multiple domains including family and work, which may lead to less reported happiness overall. In younger ages people are looking to the future and focused on building skills and relationships and may base their happiness on their perceived trajectories. As time goes on, however, people may tend to become more reflective and begin to cultivate deeper, more meaningful relationships. Indeed, one theory as to why there is a U-shaped relationship is that in younger ages people are focused on the pursuing achievement and gaining new knowledge and in older ages (after achievements have been made) people shift their focus to shared emotional closeness, both of which are reported as high satisfaction (Carstensen, Isaacowitz and Charles 1999; Cacioppo et al 2006; Cacioppo et al 2008). In part, this theory speaks to the different factors that can affect happiness over the life course and how people reflect about their lives. However, much of the age effect may have already accrued by the time people reach retirement age—that is people may already be on the upward sides of relationship, after the middle age slump.

Marriage has been associated with higher reported well-being and many objective health measures, particularly for men (Gove 1983; Harring-Hidore et al 1985; Acock and Hurlbert 1993; Kim and McKenry 2002; Waite 1995; Waite and Gallagher 2002). In a study of the benefits of marriage, Fowers finds that those who are married enjoy significant emotional, financial, and physical benefits, with the effect greater for men than women (1991). Using data

from the National Survey of Families and Households, Kim and McKenry find that marriage had a strong effect on emotional well being (2002). Waite and Gallagher also present evidence showing that marriage matters for both physical and mental health (Waite and Gallagher 2002). However, some of the research on the effects of marriage on happiness suggests that marriage might only convey temporary increases in subjective well-being. Lucas and colleagues found evidence that after a "honeymoon" period people tend to revert to the levels of subjective well-being they enjoyed (or didn't) before marriage (Lucas, Clark, Georgellis, and Diener 2003; Zimmerman and Easterlin 2006). Still, the majority of the social and psychological literature finds marriage to be generally positive in terms of well-being.

The link between education and happiness is unclear in much of the literature. Some studies find both direct and indirect effects of education on happiness while others are less conclusive (DiTella et al 2001; Layard 2011; Veenhoven 1996; Blachflower and Oswald 2008). Cunado and de Gracia, using a sample from the European Social Survey, find that education has effects on happiness through higher income and status as well as through what they call increased "self-confidence" (Cunado and de Gracia 2012). Even when controlling for other variables such as income, education may still provide boosts to happiness by itself.

In terms of physical health, the evidence for education is much clearer. Higher education leading to better health outcomes is a consistent finding across the literature (Ross and Wu 1995; Cutler and Lleras-Muney 2006). Higher levels of education can affect health in a number of ways. Ross and Wu theorize that education leads to better working conditions, better access and knowledge of resources, and promotion of healthy lifestyles such as not smoking (Ross and Wu 1995).

Current Life Status

In large scale studies income is positively correlated with subjective well-being, up to a point. Initially as income rises subjective well-being increases as well (Kahneman and Krueger 2006; Clark, Fritters and Shields 2007; Dolan et al 2008). However, previous studies suggest that there may be diminishing returns to increasing income (Dolan et al 2008; Kahneman and Deaton 2010). At higher levels of income subjective well-being is seen to decrease (Clark, Fritters and Shields 2007). This could be due in part to changing individual values. At lower levels of income money may be seen as having exchange value, but as needs and wants are realized, money may begin to take on intrinsic value by itself. In other words, at high levels of wealth and/or income, simply having money may become an end in and of itself. Also, the hedonic expectations of ever increasingly expensive goods and services may threaten to undermine the utility of having more money, at least in terms of subjective well-being (Easterlin 2003). Thus, the stress from always needing more money ultimately could be detrimental to subjective well-being. By no means is this the only explanation. High income is correlated with high stress jobs and stress may reduce perceived happiness; as discussed above, people's perceptions of their own health and happiness are thought to be closely related (Kahneman and Krueger 2006; Dolan et al 2008).

An individual's perception of wealth is also important. In the case of subjective well-being, perceived differences in wealth may well be more important than actual differences for outcomes, at least in more developed countries (Clark, Fritters and Shields 2008). For example, in his study of the US population's happiness and wellbeing in different life categories (family, financial, health), Easterlin finds that people who felt they were better off financially than others, reported higher levels of satisfaction (Easterlin 2006). Similarly, McBride finds in an experimental study of happiness that not only do people tend to compare themselves to those

they perceive as similar, but also that expectations and comparisons significantly affect reports of satisfaction and happiness (McBride 2010). Those who view themselves as being in a favorable situation to those around them generally report higher levels of happiness and satisfaction than those who see themselves as having less than others.

Religion has long been believed to be positively linked with happiness (Veenhoven 1994; Lewis, Maltby and Burkinshaw 2000; Lewis and Cruise 2006; Snope 2008). Still, findings have been mixed, with some studies finding positive associations and others finding little or no evidence. Results may depend on the measurement of both happiness and religiosity. Lewis and Cruise find that studies using the Francis Scale of Attitude Toward Christianity and the Oxford Happiness Inventory have found consistently positive results while studies using the depression-happiness scale show no conclusive results (Lewis and Cruise 2006). In the United States, results from Waite and Lehrer suggest that religious affiliation, when compared to no affiliation, has similar effects to the association of marriage and wellbeing when compared to being single (Waite and Lehrer 2003).

Religion is also associated with physical health. In a meta analysis of more than 40 studies, McCullough and colleagues found that religious involvement was consistently associated with lower mortality rates (McCullough et al. 2000). For example, Hummer et al find a seven-year difference in life expectancy at age 20 between those who attend church weekly and those never attend; this gap was similar in size to the gender and racial gaps at the time (Hummer et al 1999). It appears that religion may offer protections for health as well as for happiness, perhaps in part due to the social networks and communities that organized religion can provide.

Happiness Systems of Origin

We know that formative experiences can have long-lasting effects (McLeod and Kaiser 2004; Currie 2008; Conti and Heckman 2010). For example, literature suggests that childhood health plays a large role in future labor market outcomes (Currie 2008; Salm and Schunk 2012). Childhood emotional status has also been linked to graduating high school and enrolling in college (McLeod and Kasier 2004).

Happiness in later life may well be influenced by childhood experiences. The happiness "ecosystem" in which one was raised may carry over. The idea of happiness systems of origin is narrower than a previous life history. The latter takes into account all previous experiences. Instead, happiness systems of origin are concerned with formative childhood years and what a child may have learned from their parents or other, older household members. Are children raised in a generally happy household more likely to report being happy later in life? How does childhood family financial status affect happiness in later life? Is childhood health related to future happiness? If you recall your childhood household as being unhappy, you may very well face a number of hurdles as you seek your own happiness. Similarly, family financial struggles may have effects on later life outcomes. In a longitudinal study of British citizens, Frijters, Johnson and Shields find that family financial status is not a good predictor of later life satisfaction, which suggests that many can overcome early life hurdles (Frijters et al. 2011). The same study also found, however, that childhood emotional problems where strong predictors of satisfaction later in life and these results were replicated with the 1970 British Panel Survey data (Shields et al 2011). While those with poor childhood health may not live long into older ages, those who do may have different experiences of both happiness and health as a result of these early struggles.

DATA AND METHODS

The data for this chapter comes from the second wave of the National Social Life, Health and Aging Project (NSHAP), a longitudinal survey of older, community dwelling adults in the United States (O'Muircheartaigh et al. 2009). NSHAP provides information about physical and emotional health, cognitive functioning, social connectedness, behaviors and relationships.

NSHAP includes a measure of self-reported happiness, recoded here to happy/unhappy. NSHAP also contains self-reported health as well as several, more objective measures. Histories are also collected, along with work status, religious activities, income and demographics. NSHAP also includes information about respondent's social networks.

Dependent Variables

Self-reported happiness and self-reported health are the two dependent variables of focus in this chapter. NSHAP asks respondents "If you were to consider your life in general these days, how happy or unhappy would you say you are, on the whole?". Responses vary from "Extremely Happy" to "Unhappy Usually." For the purposes of this chapter, happiness has been recoded to happy/unhappy, with "Extremely Happy" and "Very Happy" being recorded as "happy." The decision to recode is consistent with previous literature on the topic (Ferrer-i-Carbonell and Frijters 2004; Guven and Sørensen 2007; Carl and Billari 2014).

NSHAP also asks respondents to rate their physical health ("Would you say your health is excellent, very good, fair or poor?"). Similar to happiness above, physical health has been recoded to healthy/unhealthy as well, with "fair" and "poor" being recoded to "unhealthy." NSHAP also provides objective measures of health. However, the validity of self-reported health

is well documented and will be used here (Miilunpalo et al 1997; McGee et all 1999; Cella et al 2010).

Independent Variables

Sociodemographic variables

Age, race, gender, marital status, and education are all included in the models. Age is entered as a continuous variable. Race has been recoded to "white/nonwhite", with non-white being the reference group. Marital status has been reduced to married or unmarried (unmarried as the reference group), while education has been recoded to "high school or less", "college" and "master's or higher" with high school being the reference group.

Current Life Status

NSHAP offers measures for actual income as well as two measures of perceived income. The first perceived income question asks how the respondent believes their income compares to people they know. The second asks how their income compares to the average American. Following the theory that comparison to those around you is most important, perceived income relative to those you know is included in the models (Easterlin 2006; Clark, Fritters and Shields 2008; McBride 2010).

Religious service attendance is also included in models and has been recoded to frequent or infrequent attendance, with infrequent attendance being the reference group. Change in financial status is constructed using childhood family financial status and current perceived financial status. Those whose childhood family financial status was higher than their current financial status are coded as either "Big Decrease" or "Small Decrease." Similarly, those whose status increased are coded as either "Small Increase" or "Big Increase". For the change in

financial status "no change" is the reference group. Employment is also included, with "not working" being the reference group.

Happiness Systems of Origin

In this paper, happiness systems of origin are measured by recalled family happiness, family financial status, childhood health, and the experience of violence between the ages of 6-16. The reference group for family happiness is "pretty much agree" (the second most positive category). For family financial status the reference group is "about average", while for childhood health it is "good." Exposure to violence is binary with no exposure as the reference group.

Social Networks

Social network variables include network size, network density, frequency of social interaction and the UCLA loneliness scale to attempt to account for both network structure and interaction. Network density and size were computed from NSHAP's network roster file. NSHAP also asks questions about social interaction. In this paper, frequency of social interaction is defined as reported socializing with family and friends in the past year. The question asks "In the past 12 months, how often did you get together socially with friends or relatives?" In the models below "Every Week" is coded as the reference group. While this is not the only form of social interaction, religious attendance is also included as part of the current life status variables and together these responses should give a clear picture of respondents' social lives. Recognizing that the same level of social interactions may produce different feelings for different people, a measure of loneliness is also included. Here loneliness is considered a distinct predictor of happiness rather than a component of happiness (Ryan and Deci 2001; Demir and Weitekamp 2007; Argyle 1999). The UCLA loneliness scale was constructed from the three available questions in NSHAP.

Table 3.1 shows the independent variables used in the analysis.

Table 3.1: Listing of Variables Included in Regression Models

Variable	Minimum	Maximum	Mean
Female	0	1	0.545
White	0	1	0.772
Age	36	99	72.375
Married	0	1	0.677
Education	0	2	0.532
Perceived Income	1	5	2.802
Religious Attendance	0	1	0.561
Employment	0	1	0.230
Change in Financial Status	0	4	2.219
Childhood Family Happy	1	6	4.472
Childhood Family Finances	1	5	2.520
Childhood Health	1	5	4.030
Childhood Violence	0	1	0.094
Network Size	0	14	4.706
Network Density	0	1	0.716
Frequency of Interaction	0	6	4.263
UCLA Loneliness Scale	0	3	1.040

RESULTS

Regressions for Happiness:

Table 3.2 shows the results from logistic regression models with happiness as the dependent variable. Model one contains only socio-demographic factors. Being married increases the odds of reporting being happy by more than 95%, which is consistent with previous literature. When only sociodemographic factors are considered, education is also statistically significant. Having a Master's Degree or higher increases the odds of reporting happiness by 40% compared to those with a high school degree or less. No other demographic factors were statistically significant, and in subsequent models only marital status continued to have a significant impact on reported happiness.

Model 2 adds current life status variables. Compared with those who perceive their income as average, those who feel their income is far above average are 81% more likely to report being happy and those who believe their income is above average are 39% more likely to report happiness. Conversely, those who feel their income is far below average are 29% less likely to report happiness compared to those who think their income is average.

Frequent religious attendance is also statistically significant, with those who report frequently attending services being 40% more likely to report also being happy than those who don't go to services often. Those who are currently working are also 45% more likely to report being happy than those who are retired or no longer working. Changes in financial status from childhood were not statistically significant.

Model 3 introduces happiness systems of origin along with sociodemographic and current life status variables. Coming from a very happy family (Agree Very Much) increases the odds of reporting happiness by more than 73% compared to those who only agree pretty much. Agreeing a little decreases the odds by 31%, while disagreeing a little decreases the odds of reporting happiness by 40%. Respondents who felt their families were well off growing up where almost twice as likely to report being happy, while those who felt their families were not well off were 31% less likely to report being happy when compared to those who felt their families were of average financial status. Those who reported being in excellent health in their youth were about 60% more likely to report being happy compared to those who recalled being in good health.

Finally, Model 4 adds social network characteristics. Having a denser network increases the odds of reporting happiness. When all other variables are included, social network size is not statistically significant. Frequency of social interaction with friends and family is significant for happiness, with those who socialize once a month 30% less likely to report happiness compared

to those who socialize weekly. Those who socialize only a few times a year are even less likely to report being happy and socializing about once a year reduces the odds by more than 60%. The UCLA loneliness scale is also statistically significant, with those who report higher loneliness less likely to report being happy.

Table 3.2 Logistic Regression Predicting Self-Rated Happiness

	Happy 1	Happy 2	Happy 3	Happy 4
	Odds Ratio/se	Odds Ratio/se	Odds Ratio/se	Odds Ratio/se
Schooling:				
College	1.118	0.997	0.979	1.017
	(0.089)	(0.092)	(0.095)	(0.111)
MA or Higher	1.403***	1.050	0.956	1.002
	(0.171)	(0.147)	(0.140)	(0.162)
White	0.881	0.906	0.878	0.868
	(0.076)	(0.098)	(0.100)	(0.114)
Female	0.888	0.901	0.904	0.860
	(0.065)	(0.077)	(0.081)	(0.086)
Married	1.955***	1.942***	1.904***	1.390***
	(0.158)	(0.188)	(0.192)	(0.164)
Age	1.003	1.009	1.009	1.008
	(0.005)	(0.006)	(0.006)	(0.007)
Perceived Income:				
Far Below Avg		0.719*	0.908	1.070
		(0.125)	(0.181)	(0.243)
Below Avg		0.844	1.069	1.177
		(0.090)	(0.128)	(0.156)
Above Avg		1.388***	1.167	1.169
		(0.176)	(0.158)	(0.173)
Far Above Avg		1.815*	1.477	1.307
		(0.615)	(0.520)	(0.496)
Religious Attendance		1.406***	1.378***	1.267**
		(0.118)	(0.120)	(0.124)
Financial Status Change:				
Big Decrease		1.351	0.763	0.806
		(0.439)	(0.310)	(0.381)

Table 3.2 Continued

	Happy 1	Happy 2	Happy 3	Happy 4
	Odds Ratio/se	Odds Ratio/se	Odds Ratio/se	Odds Ratio/se
Small Decrease		0.955	0.762*	0.715**
		(0.113)	(0.108)	(0.114)
Small Increase		0.903	1.226	1.247
		(0.088)	(0.158)	(0.178)
Big Increase		0.800	1.472	1.614
		(0.213)	(0.473)	(0.578)
Currently Working		1.446***	1.442***	1.569***
		(0.153)	(0.158)	(0.190)
Childhood Family Happy:				
Disagree Very Much			1.054	1.057
			(0.223)	(0.249)
Disagree Pretty Much			0.744*	0.826
			(0.120)	(0.149)
Disagree a Little			0.599***	0.648***
			(0.083)	(0.100)
Agree a Little			0.689**	0.685**
			(0.100)	(0.110)
Agree Very Much			1.732***	1.459***
			(0.202)	(0.191)
Childhood Family Finances:				
Not Well Off at All			0.690**	0.744
			(0.120)	(0.145)
Not So Well Off			0.815*	0.897
			(0.101)	(0.123)
Fairly Well Off			0.926	1.093
			(0.154)	(0.203)
Very Well Off			1.994*	2.145**
			(0.703)	(0.812)
Childhood Health:				
Poor			0.850	0.751
			(0.363)	(0.355)
Fair			0.918	0.864
			(0.182)	(0.200)
Very Good			1.307**	1.170
			(0.152)	(0.152)
Excellent			1.589***	1.375**
			(0.187)	(0.181)

Table 3.2 Continued

	Happy 1	Happy 2	Happy 3	Happy 4
	Odds Ratio/se	Odds Ratio/se	Odds Ratio/se	Odds Ratio/se
Childhood Violence			0.789	0.835
			(0.119)	(0.139)
Network Size				0.996
				(0.032)
Network Density				1.573**
				(0.302)
Frequency of Social Interaction:				
Never				0.675
				(0.258)
< Once a Year				0.396**
				(0.179)
Once or Twice a Year				0.537***
				(0.122)
Several Times a Year				0.666***
				(0.094)
Once a Month				0.697***
				(0.088)
Several Times a Week				1.231
				(0.178)
UCLA Loneliness Scale				0.343***
				(0.024)
Constant	0.774	0.440*	0.352**	1.415
	(0.285)	(0.208)	(0.179)	(0.892)
N	3,355	2,600	2,551	2,397

* p<0.1, ** p<0.05, *** p<0.01

Note: Estimates are weighted using NSHAP Wave 2 weights.

Regressions for Health:

The models for health follow the same pattern as the models with happiness as the dependent variable. Table 3.3 shows the results for self-reported health as the outcome. The factors that are statistically significant in the health models differ from those in the happiness models. In the health models education continues to be an important predictor even with other variables added. Having a college degree more than doubles the likelihood of being in good

health and having a Master's degree or higher increases the likelihood by more than 167% compared with having a high school education or less when only sociodemographic factors are considered. When all other variables are included (model 4), having a college degree still increases the odds by 65% and having a Master's degree increases the odds by more than 99%. Similarly, being white is statistically significant across all 4 models with whites being 37% more likely to report good health when all other variables are included. In this sample, age, marital status, and gender do not have statistically significant impacts on reported health.

Perceived income does have an effect, especially for those who think they are below average. Reporting below average income decreases the odds of reporting being healthy by 33% and being far below average decreases the odds by more than 50%. Being above or far above average is not statistically significantly different from those who report average income. Attending religious services increases the likelihood of reporting good health by about 30% when all other variables are also considered. Changes in financial status are mostly insignificant, with the exception of big decreases from childhood status. Having current employment increases the odds of reporting good health by 142% compared to those who are no longer working.

Childhood family variables did not have an effect on reported health. Those who pretty much disagreed with having a happy family in their youth were 44% less likely to report good health in model 4. Family financial status had no significant effects in any of the health models. Those who reported being in very good childhood health were 42% more likely to be healthy currently and those who reported excellent health in childhood were 70% more likely to report being healthy compared to those who were in good health. Those who reported poor or fair childhood health were not statistically different from those in good health.

Similar to the childhood variables, the social network variables had little effect on reported health. Neither network size nor network density was statistically significant for reported health. Only those who reported never socializing were statistically less likely to report being healthy by 66%. Loneliness also had a significant coefficient for health, with those being lonely, less likely to report being healthy.

Table 3.3 Logistic Regression Predicting Self-Rated Health

	Health 1	Health 2	Health 3	Health 4
	Odds Ratio/se	Odds Ratio/se	Odds Ratio/se	Odds Ratio/se
Schooling:				
College	2.111***	1.821***	1.786***	1.651***
	(0.202)	(0.207)	(0.211)	(0.205)
MA or Higher	2.679***	2.349***	2.166***	1.995***
	(0.426)	(0.455)	(0.436)	(0.418)
White	1.553***	1.456***	1.443***	1.371**
	(0.143)	(0.175)	(0.181)	(0.187)
Female	1.141	1.189*	1.217*	1.097
	(0.095)	(0.121)	(0.128)	(0.123)
Married	1.173*	1.147	1.128	1.029
	(0.107)	(0.129)	(0.131)	(0.132)
Age	0.986***	0.998	1.000	1.001
	(0.005)	(0.007)	(0.007)	(0.007)
Perceived Income:				
Far Below Avg		0.375***	0.489***	0.497***
		(0.069)	(0.105)	(0.113)
Below Avg		0.564***	0.679***	0.673***
		(0.067)	(0.091)	(0.095)
Above Avg		1.176	1.015	1.038
		(0.193)	(0.175)	(0.189)
Far Above Avg		1.064	0.892	0.860
		(0.427)	(0.375)	(0.366)
Religious Attendance		1.326***	1.355***	1.295**
		(0.131)	(0.138)	(0.141)
Financial Status Change:				
Big Decrease		0.702	0.418**	0.466*
		(0.229)	(0.181)	(0.216)

Table 3.3 Continued

	Health 1	Health 2	Health 3	Health 4
	Odds Ratio/se	Odds Ratio/se	Odds Ratio/se	Odds Ratio/se
Small Decrease		1.087	0.977	0.993
		(0.150)	(0.162)	(0.173)
Small Increase		0.804*	1.036	1.022
		(0.094)	(0.158)	(0.165)
Big Increase		0.679	1.120	1.150
		(0.223)	(0.434)	(0.474)
Currently Working		2.356***	2.507***	2.420***
		(0.339)	(0.377)	(0.376)
Childhood Family Happy:				
Disagree Very Much			0.742	0.716
			(0.175)	(0.176)
Disagree Pretty Much			0.669**	0.665**
			(0.124)	(0.128)
Disagree a Little			0.766*	0.791
			(0.124)	(0.135)
Agree a Little			0.759	0.724*
			(0.129)	(0.129)
Agree Very Much			1.014	0.900
			(0.139)	(0.130)
Childhood Family Finances:				
Not Well Off at All			0.686*	0.759
			(0.139)	(0.163)
Not So Well Off			0.806	0.828
			(0.119)	(0.129)
Fairly Well Off			0.735	0.783
			(0.145)	(0.163)
Very Well Off			2.164*	2.119
			(1.011)	(1.016)
Childhood Health:				
Poor			0.961	0.845
			(0.432)	(0.384)
Fair			0.725	0.699
			(0.149)	(0.154)
Very Good			1.403***	1.424**
			(0.184)	(0.196)

Table 3.3 Continued

	Health 1	Health 2	Health 3	Health 4
	Odds Ratio/se	Odds Ratio/se	Odds Ratio/se	Odds Ratio/se
Excellent			1.694***	1.705***
			(0.230)	(0.244)
Childhood Violence			0.765	0.767
			(0.128)	(0.134)
Network Size				1.054
				(0.036)
Network Density				0.803
				(0.170)
Frequency of Social Interaction:				
Never				0.340***
				(0.125)
< Once a Year				1.490
				(0.642)
Once or Twice a Year				0.822
				(0.184)
Several Times a Year				0.943
				(0.145)
Once a Month				1.114
				(0.164)
Several Times a Week				1.036
				(0.166)
UCLA Loneliness Scale				0.787***
				(0.055)
Constant	3.635***	1.804	1.323	1.862
	(1.513)	(0.982)	(0.767)	(1.267)
N	3,359	2,601	2,552	2,398

* p<0.1, ** p<0.05, *** p<0.01

Note: Estimates are weighted using NSHAP Wave 2 weights.

DISCUSSION

While health and happiness are closely related, the models above show that common sociological factors interact with them in different ways. In the NSHAP sample race and gender

do not have significant effects on reported happiness, which is consistent with existing literature (Campbell et al 1976). While previous literature has found modest effects of age on happiness, it could be that any age effects had already accrued to the NSHAP sample (Carstensen et al 2000). Education's role also seems to be diminished once other variables are considered. In contrast, education had large and statistically significant effects for the reporting of health. Whites also reported being healthier than their non-white counterparts, again in line with previous literature. The only sociodemographic factor that retained its statistical significance across all happiness models was marital status. However, for the health models, marital status did not play a large role in this sample. Given previous literature on the effects of marriage, the lack of significance in the health models went against the hypothesis (Waite and Gallagher 2002; Waite, Luo and Lewin 2009).

Perceived income was not important for happiness but, having lower income was important for health. Based on previous research, it was expected that perceived income would play a large role in the happiness models (Clark, Fritters and Shields 2008). The finding that lower incomes makes it less likely to report good health may be consistent with the idea that upon reaching a threshold level of income to pay for necessities and medical care, there are rapidly diminishing returns in terms of health. In contrast to perceived income, current working status was statistically significant for both health and happiness. Those who report currently working are more likely to report being happy and healthy, though the causal direction is questionable. For health, it could very well be that those who are unhealthy are unable to work, even if they wish to do so. Or work could provide some benefits that increases people's health, such as increased social interactions. More research is needed to help establish the mechanism. In terms of happiness, work might provide intrinsic value for happiness (Csikszentmihalyi 1990).

Or those who are happy might be more likely to be working (Argyle 1999). Again, more research is needed to help identify the mechanisms at work. Similarly, religious attendance had effects for both health and happiness, with those who attend services frequently more likely to report both health and happiness. Religion's effects on both outcomes is consistent with previous literature and provides positive evidence for the expectation that religion is positively related to well-being (Lim and Putnam 2010).

Happiness systems of origin played a role in both health and happiness, though the role was much greater for happiness. Those who came from a happy family were more likely to report both being happy and healthy currently, lending support for the hypothesis. Perhaps unsurprisingly, childhood health had a bigger impact on current health than on happiness. However, it could be the case that those who experienced poor childhood health are less likely to make it into the sample at all (Smith and Kington 1997).

Social interactions were important for both health and happiness as well. Contrary to some previous findings, network size did not increase the likelihood of either happiness or health. Network Density was important for happiness but did not achieve statistical significance for health. The size and density of social networks has previously been found to have an effect on health (Fowler and Christakis 2008). However, in the models social interaction, or lack thereof, was important for both health and happiness. It would seem that interaction and lack of feelings of loneliness are more important for both health and happiness than network size or density. Previous research has shown that those who score highly on the UCLA loneliness scale are also more likely to also score on scales for depression (Hughes et al 2004). It appears that feelings of isolation and loneliness are important for physical, emotional and psychological health. Thus, understanding how perceptions of loneliness and the how social one feels is

important to increase well-being, especially in older ages. Hughes and colleagues also found that the "quantitative and qualitative aspects of social relationships are distinct" (Hughes et al 2004). The findings in this paper lend further support for that argument. Further, the results above suggest that, at least in older ages, network structure is less important for happiness and health and research may benefit from focusing more on social interactions and support. The finding that social interaction is more important than network structure provides some support for the idea that as people age they begin to focus on and find satisfaction from cultivating close, meaningful relationships.

CONCLUSION

This paper has modeled the role of key sociological variables for both health and happiness in older adults. It finds that while social interactions are important, network size and density take a backseat to frequency of interaction and loneliness. It found very little supporting evidence for relative deprivation theories in terms of perceived income (McBride 2010). The role of work was significant, though the mechanisms and causal direction of the relationship remain unclear. Future research should delve deeper into the role of work, especially in older age groups where the majority have retired, and consider longitudinal cases to address the mechanisms for both health and happiness. Further, the role of social networks and the effects of common network measures on health and happiness in older ages should be explored more in depth, particularly whether these relationships hold for different groups. The findings from this paper suggest that while some determinants of happiness are similar in older ages to previous findings, the role of social networks may be different. If social interaction is more important than network size or density, this could have effects for policy and the advice we give to those in older ages.

CHAPTER 4: THE ROLE OF SOCIAL NETWORKS IN WELL-BEING FOR OLDER ADULTS

INTRODUCTION

This paper explores the role of changing social networks in older adults' self-reported happiness and health. Social networks and the interactions they facilitate have far-reaching consequences in terms of both physical and emotional or mental health. Inadequate social connections can have a number of detrimental outcomes and loneliness, depression and illness can be especially difficult to overcome for older adults (Cacioppo et al 2006; Cacioppo et al 2008). Data from previous work show that social networks do tend to shrink with aging (Marsden 1987). However, whether these shrinking networks should be a cause for concern is still unclear. What is also unclear is the role of network characteristics for different racial groups, especially in older ages. Networks can spread information, disease, and even happiness (House, Landis and Umberson 1988; Berkman and Glass 2000; Christakis and Fowler 2009). Social networks are also a source of support, comfort and feelings of belonging, making them an important component of well-being and care for older adults. Thus, understanding the effects of social networks in older adults is important for understanding not just social connectedness but physical and emotional well-being too. While the effects of social networks on physical health are well documented, there is relatively little research with happiness as the focal outcome (Berkman and Glass 2000; Umberson et al 2010; Perkins et al 2015). Further, changes in network characteristics which occur at older ages are understudied, but will have increasing relevance as the population in the United States ages. Insights drawn from evidence about the

networks of older adults can have implications as we seek to ensure that people remain hale and happy as they grow older.

Another understudied aspect of network characteristics is the effect they have on different groups. In the United States, racial minorities have different everyday experiences compared to their majority white counterparts (Williams, Jackson and Anderson 1997; Swim et al 2003; Sue et al 2007). Differences in cultures between groups also suggest that we might question whether network characteristics affect these groups in the same way. Also, there are documented differences in the composition of networks between groups, with blacks having a higher proportion of family members early in the life course and other research showing people tending toward homophily (Ajrouch, Antonucci and Janevic 2001; McPherson, Smith-Lovin and Cook 2001). That is, people tend to have social networks composed of people who tend to look and think in similar ways. But the differences between groups such as blacks and whites and the possible different effects on health and happiness remain unclear. A better understanding of how network characteristics may influence these different groups is warranted.

This paper finds that common measures of social networks, including size and density, are less important in terms of happiness than under-collected measures such as perceived emotional closeness to alters in a sample of older adults, especially for self-reported happiness. It also finds little evidence of the effects of network characteristics on self-reported health, suggesting that networks may provide social, rather than physical benefits in older ages. However, another key finding presented in the paper is the difference in the effects of family members in networks between blacks and whites in the sample. This finding suggests that researchers may benefit from paying more attention to cultural and social differences between

groups as we seek to understand effects of social institutions on outcomes such as health and happiness.

BACKGROUND

The study of happiness has enjoyed a long history dating all the way back to early philosophers such as Aristotle, who lectured his followers on the "good life" (Helliwell 2003). More recently, social scientists have begun to collect information on how people are feeling in social surveys (Bradburn 1969). The more recent research from psychology and sociology has found that there are a number of factors that can influence a person's happiness. Marital status, level of income, education, gender and race can all play a role in how happy one feels (Stafford et al. 2005; Kahneman and Krueger 2006; Braveman and Barclay 2009). Social networks and interaction are also closely related to happiness. Married people are more likely to be happy than those who are not (Kin and McKenry 2002). Marriage has been associated with higher reported well-being and many objective health measures, particularly for men (Gove et al 1983; Harring-Hidore et al 1985; Acock and Hurlbert 1993; Kim and McKenry 2002; Waite 1995; Waite and Gallagher 2002). In a study of the benefits of marriage, Fowers finds that those who are married enjoy significant emotional, financial, and physical benefits, with the effect greater for men than women (1991). Using data from the National Survey of Families and Households, Kim and McKenry find that marriage had a strong effect on emotional well being (2002).

Education has also been linked with happiness. Some studies find both direct and indirect effects of education on happiness while others are less conclusive (DiTella et al 2003; Layard 2011; Veenhoven 1996; Blachflower and Oswald 2008). Cunado and de Gracia, using a sample from the European Social Survey, find that education has effects on happiness through higher

income and status as well as through what they call increased "self-confidence" (Cunado and de Gracia 2012).

Age and happiness tends to have a U shaped relationship with people reporting being happiest in their 20s and then again after their mid-fifties (Blanchflower and Oswald 2008; Frijters and Beatton 2012). In middle ages, people may have increased stressors from multiple domains including family and work, which may lead to less reported happiness overall. In younger ages people are looking to the future and focused on building skills and relationships and may base their happiness on their perceived trajectories. As time goes on, however, people may tend to become more reflective and begin to cultivate deeper, more meaningful relationships. Indeed, one theory as to why there is a U-shaped relationship is that in younger ages people are focused on the pursuing achievement and gaining new knowledge and in older ages (after achievements have been made) people shift their focus to shared emotional closeness, both of which are reported as being highly satisfactory (Carstensen, Isaacowitz and Charles 1999; Cacioppo et al 2006; Cacioppo et al 2008). That is, people may get satisfaction from achievements and successes early in life and may also feel satisfaction and happiness from developing and maintaining emotionally important relationships as they age. Still, the question of the role social networks play for happiness and health as people age could benefit from further exploration.

CONCEPTUAL FRAMEWORK

The role of social networks in health has received much scholarly attention (Smith and Christakis 2008; Moren-Cross and Lin 2006). Networks provide both emotional and informational support (House et al 1988; House, Landis and Umberson 1988). Christakis and

Fowler, using data from the Framingham Heart Study conclude that happiness can be spread throughout large social networks (Christakis and Fowler 2008). Networks also influence health as they provide not only support and engagement but also transmit social norms (smoking, diet) and provide exposure to others (transmission of germs and disease) (Berkman and Glass 2000; Smith and Christakis 2008).

The question remains: Does the role of social networks change over the life course? Social connections and relationships have effects on both physical and emotional health (Berkman et al 2000). As early as the 1970s it was posited that networks had effects for physical health (Cohen 1988). Berkman finds that people who are more isolated have higher risks of mortality and are less likely to survive a heart attack (Berkman 1995). It is unclear however, whether isolation causes poor health, poor health causes isolation, or both.

Some literature suggests that people utilize their networks differently, depending on their life stage (Carmichael et al 2015). It follows that some characteristics of networks would then be more or less significant at different times. In the context of older ages, network size may not be as important as it is in early adulthood. Since research shows that networks do tend to shrink as one ages, the diminished importance of network size may protect from adverse that one may have in earlier life stages (Marsden 1987; McPherson, Smith-Lovin and Brashears 2006). The reasons for smaller networks are undoubtedly complex, however many believe life transitions such as retirement play a role (Van Tilburg, Groenou and Broese 2002). As networks shrink, the proportion of alters who are kin tends to increase (Marsden 1987; McPherson, Smith-Lovin and Brashears 2006; Cornwell 2009). Carstensen argues that increased kin and density in networks of older adults is due to people shedding or losing touch with those who are not as close or with whom relationships are not as meaningful (Carstensen 1995; Frederickson and Carstensen 1990).

Another possibility is that networks become more kin-oriented as people need more care due to chronic illness or declines in physical or mental functioning. Traditionally, family members are the primary care givers in these situations (Adelman et al 2014; Knodel et al 2013). The growing number of family members will have an effect on the density of networks, as discussed below.

Network Size

Network size is an oft reported measure. To be sure, increasing network size is thought to confer a number of benefits. More opportunities for socializing, a greater number of pathways for the transmission of knowledge and capital, and increased job opportunities are but a few examples (Stack 1974; Smith 2005; Granovetter 1973).

Robert Putnam famously argued that Americans are becoming more detached from one another and others find that network sizes are shrinking (Putnam 2001; McPherson et al 2006). McPherson and colleagues showed that between 1985 and 2004 the average network size reported in the General Social Survey shrank by almost a third (McPherson et al 2006). However, subsequent studies suggest that their findings are at least in part due to interviewer effects (Cornwell et al 2009; Fischer 2009; Hampton et al 2011). Paik and Sanchagrin show that interviewers have large influence on how respondents answer network questions. For example, if the interviewer appears bored or disinterested or if the interviewer does not follow up with probing questions for additional alters, respondents will not report their "true" networks (Paik and Sanchagrin 2013). Still, finding that networks are shrinking may be a cause for concern, since correlation between network size and health has been shown. For example, Pressman et al found that responses to flu vaccines were weakest for those with the smallest social networks and the highest reports of loneliness in a college age population (Pressman et al 2005). However, networks seem to constrict with aging (Fung et al 2006). It remains to be seen if shrinking

networks in older ages is detrimental for happiness. As people age and shed less meaningful relationships, it may not affect their happiness, as the people who are left could well be much more important to them.

Hypothesis 1: In older ages, network size will not affect reported happiness.

Network Density and Kinship

Dense networks make the transmission of information between alters more likely and more frequent. For many aspects related to challenges of aging, having a dense network provides protections. For example, if many alters communicate with each other, the likelihood that care gaps or lack of support will be identified and fixed is increased, especially if the alters are related to ego (Leach and Braithwaite 1996). Also, with aging, it has been shown that people's networks tend to become more kin oriented (Antonucci 2001; Fiori et al 2007). In a study of persons older than age 75, Litwin and Lindau identify four common network types (kin, family-intensive, friend-focused and diffuse ties) and find that those with the kin network type enjoy the greatest social support (2000). Litwin also finds that evidence of five types of networks in a study of older adults, with those who have diverse, friendship centered networks having higher reported levels of morale than those who had family centered networks (Litwin 2001). What the previously cited studies have not explored is whether these differences in network composition affect racial groups in the same way or whether different racial groups tend to have different types of network composition.

Cultural obligations of kin, for example caring for ego during illness, may explain in part the tendency to have more kin centric network in older ages and why that type of network provides the most support (Roberts et al 2009; Leach and Braithwaite 1996; Rosenthal 1985).

Increasing the proportion of kin in a network probably also increases the density, as kin can be expected to have ties to each other (Plickert et al 2007). Therefore, we should expect that the proportion of kin and network density should have an impact on both health and happiness. However, the effect of kin may not be the same for blacks and whites, given that blacks tend to have higher proportions of kin in their networks (Hofferth 1984; Hogan, Hao and Parish 1990; Taylor et al. 2013). That is, increases in proportion of kin in a network may be more predictive of health and happiness for whites, since whites may begin with more friend-dominated networks. In a study utilizing data from the National Survey of American Life, Taylor and colleagues find that African Americans are more likely to have daily interaction with family members, while whites are more likely to be involved in friendship networks (Taylor et al 2013). Because blacks tend to have more kin oriented networks at all stages of the life course, changes in proportion of kin may be much smaller for black respondents. For whites, whose networks at earlier adult stages tend to be more friend focused, a shift toward more kin in the network may signal greater network change than their black counterparts. Thus, as networks change to have higher proportions of kin as people age, it could be that the effect of these changes is particularly acute for whites, who generally list more non-kin friends in their networks than blacks do.

Hypothesis 2: In older ages, higher density, more kin-filled networks will lead to increased happiness and health.

Emotional Closeness

While network size and density are the most commonly collected and calculated measures of network characteristics in larger surveys, other network characteristics are important predictors as well. Emotional closeness is an important social factor. For example, there is some

evidence that shows the more family members that are present in a network, the more social support ego has (Leach and Braithwaite 1996; Rosenthal 1985). Further, family members may be more emotionally close due to the nature of the relationship (Roberts and Dunbar 2011). As proportion of kin increases in a network, we should expect that ego should feel more emotionally close to those alters. This increase in closeness may be due to several factors. First, people seem to report more emotional closeness to family members than other types of ties, throughout the life course and in old age in particular (Carstensen 1992; Lang and Carstensen 1994). The role of caregiving by family members when ego is battling illness or is incapacitated in some way may also serve to increase the perceived emotional closeness between these caregivers and ego.

Network size and emotional closeness are also related. In a study of the social networks of adults, Roberts finds that as network size increases emotional closeness decreases (Roberts et al 2009). It seems that the larger the network, the harder it is to maintain emotionally significant ties with alters. There are constraints that make the maintenance of large networks difficult. In order to feel emotionally close, significant time and effort must be made. The more people one has in his or her network, the harder it is to spend enough time and energy to cultivate strong, emotionally close relationships. One may simply lack the time or other resources necessary to keep many relationships going all at once. Also, larger networks may include greater diversity of types of ties, including friends, family, work colleagues, etc. that may inherently have different levels of emotional closeness. For aging individuals, battling health issues may also play a role in the inability to maintain large networks that are filled with emotionally close ties. As networks shrink emotional closeness should increase. And having meaningful, emotionally significant relationships should increase happiness and perceived well-being, other things being equal.

Hypothesis 3: In older ages, perceived emotional closeness to alters is an important predictor of happiness.

DATA AND METHODS

Several social surveys contain questions that allow researchers to create ego-centric networks. Network rosters, or name generators as they are known, require the respondent to think of people whom they consider to be close friends or confidants and provide a list of those people (Marsden 1990; Wasserman and Faust 1994). However, commonly only network size – and sometimes density—are presented in analyses. Of course, papers focused on social network analysis are exemptions. Most of those papers utilize different, more specialized data than traditionally found in large-scale, nationally representative surveys. Follow up questions may be asked to understand whether those people know each other, how old they are, what their gender is, and how they are related to ego. The National Social Life Health and Aging Project (NSHAP) presents the opportunity to explore the effects of network characteristics beyond size and density in a larger, nationally representative survey context. While much of the literature is on the effects of social networks and health, NSHAP provides information about subjective well-being as well, and thus allows the exploration of network effects on happiness. Network size and density as commonly measured may play a different role in the networks of older adults. NSHAP also provides the opportunity to examine the perceived emotional closeness to alters, which may prove even more important than the size or density of the network, at least in terms of happiness.

The data for this chapter comes from the first and second waves of the National Social Life, Health and Aging Project (NSHAP), a longitudinal survey of older, community dwelling adults in the United States (O'Muircheartaigh et al. 2009). The first wave was collected between 2005 and 2006, while the second wave was collected between 2010 and 2011. Of the 3,005

people interviewed during wave 1, 2,261 returned and were interviewed in the second wave. This paper's focus on network changes limits the sample to those 2,261 who were interviewed in both waves. NSHAP provides information about health and social interactions as well as ego-centric networks. Because two waves of data are available, it is possible to calculate changes in network characteristics between waves.

The dependent variables in this paper are self-reported happiness and self-reported health as measured in the second wave of NSHAP. NSHAP asks respondents "If you were to consider your life in general these days, how happy or unhappy would you say you are, on the whole?" Responses vary from "Extremely Happy" to "Unhappy Usually." For the purposes of this paper happiness has been recoded to happy/unhappy, with "Extremely Happy" and "Very Happy" being recorded as "happy." The decision to recode is consistent with previous literature on the topic (Ferrer-i-Carbonell and Frijters 2004; Guven and Sørensen 2007; Carl and Billari 2014). Similarly, NSHAP asks, "Would you say your health is excellent, very good, good, fair or poor?" Like happiness above, physical health has been recoded to healthy/unhealthy as well, with "fair" and "poor" being recoded to "unhealthy." As discussed below, models utilizing the entire scale were also considered.

Network Variables

At both waves of NSHAP ego-centric networks are constructed by asking respondents a series of questions about important people in their lives. Alters were divided into 4 rosters: A,B,C,D. Roster A is the focus of this paper and includes up to five people who were named when the respondent was asked "From time to time, most people discuss things that are important to them with others. For example, these may include good or bad things that happen to you, problems you are having, or important concerns you may have. Looking back over the last

12 months, who are the people with whom you most often discussed things that were important to you?" The alters listed in roster A are considered "confidants" of ego and are thought to be important people in the respondents' life (Marsden 20011; Cornwell et all 2009; Bearman and Parigi 2004).

Once these people are recorded, additional questions about ego's relationship with each alter are asked. These questions include how emotionally close ego feels to each alter, the relationship to each alter (friend, child, spouse, minister, etc.), how frequently alters interact with one another, whether the ego is willing to confide about health problems with an alter and how frequently ego interacts with each alter. Frequency of interaction, both between alters and between ego and alter, is asked on an eight-point scale between less than once a year and every day. On average, respondents report frequent contact with alters, somewhere between once and several times a week.

Density is constructed by calculating the ratio of actual and possible number of connections between alters for a given ego. In the sample, density of networks is high, consistent with previous studies (Cornwell 2009; Chaichanawirote and Higgins 2008). Proportion of network who are kin is also constructed based on the number of alters whose relationship is considered to be kin. For this paper, ex-spouses and current non-married romantic partners are not considered kin.

Willingness to discuss a health matter is considered to be important for a network's impact on well-being (Perry and Pescosolido 2010; Cornwell et al 2014). NSHAP asks how willing respondents are to talk about a health matter with option choices ranging from 1 (not likely) to 3 (very likely). In this paper responses are standardized across all alters in a network, creating a measure of how open the ego is with his or her health in relation to the entire network.

How close a respondent felt to an alter was measured on a four-point scale ranging from "not very close" to "extremely close". Like discussions of health, perceived emotional closeness to alters has also been standardized across each respondents' network.

Since the network module was asked at both waves, it is possible to calculate differences in these variables between waves. How the initial wave 1 reports and the changes between waves in the network variables are related to health and happiness at the later time are the subject of this paper, building on previous work by Cornwell and Laumann (Cornwell and Laumann 2015). Table 4.1 presents network characteristics and changes between waves 1 and 2 of NSHAP.

Table 4.1: Listing of Network Measures [a]

Measure	Wave 1	Wave 2	Change
Network Size [b]	3.599 (0.053)	3.800 (0.039)	0.202 (0.037)
Network Density	0.712 (0.009)	0.705 (.009)	-0.007 (0.008)
Proportion Kin	0.670 (0.010)	0.648 (0.010)	-0.023 (0.008)
Emotional Closeness to Alters [c]	79.01 (0.323)	77.080 (0.340)	-1.933 (0.341)
Discuss Health with Alter [c]	86.680 (0.376)	85.270 (0.376)	-1.410 (0.418)
Frequency of Contact	6.852 (0.030)	6.756 (0.029)	-0.096 (0.024)

Note a: Estimates are calculated for all respondents with non-missing data for the variable in question. The number of respondents varies from 2,261 to 2,209. All variables are weighted using NSHAP Wave 1 weights.

Note b: Estimates refer to responses from Roster A only (confidants).

Note c: These variables have been standardized to make comparison more meaningful.

The main models presented in this paper are logistic regression models, with happiness at wave 2 recoded to happy/unhappy and self-reported health recoded to not healthy/healthy. Ordered logistic regressions and generalized ordered logistic regressions were also considered (though there was little evidence of violations of the proportional odds assumption). Between models the outcomes do not vary significantly; I present the simplest of the option here for ease of interpretation. While logistic regression models are easier to interpret and thus can reach a wider audience for discussion, their use does necessitate loss of some data. Thresholds between

levels of the original variables cannot be explored using logistic regression. However, findings from logistic regression (an admittedly blunt tool) are still significant. Results from ordered logistic models are presented in Appendix 4.A, and are similar to the models presented in the body of the paper. In order to explore the effects of changes in network characteristics on changes in happiness and health between waves, OLS regression models are presented. In part, these models speak to some of the lost data from the logistic regression models, because they consider changes from (and to) all available levels of happiness and health.

RESULTS

Table 4.2 shows the results from logistic regression models predicting reported happiness at wave 2. The first model contains reported happiness at wave 1 as well as wave 1 network characteristics including network size, network density, proportion of kin and emotional closeness. With no controls, reported happiness and emotional closeness at wave 1 are both statistically significant and have large positive coefficients. Respondents who report higher levels of emotional closeness to alters in their networks increase the odds of reporting happiness at wave 2 by 12%. Even more impressive, reporting being happy at wave 1 increases the odds of reporting happiness at wave 2 by more than 368%, which may suggest that happiness is relatively stable in the aging population. Neither network size nor density is statistically significant in model 1. Proportion of kin in the network is similarly insignificant.

Model 2 adds changes in network characteristics between the two waves. Network size and proportion of kin, both at wave one and their changes, are not statistically significant. Network density is statistically significant, as is the change in density between waves. Increasing network density increases the odds of reporting happiness by 97%, while having high network density at wave one increases the odds by about 127%. However, the effects of both emotional

closeness and changes in emotional closeness dwarf the other variables in the model. Emotional closeness at wave one increases the odds of being happy by more than 27% and increasing emotional closeness between waves increases the chances of reporting happiness by almost 2%.

Controls for common demographics are added to model three. Adding these controls increases the effect of emotional closeness at wave one and the change in emotional closeness between waves. Network density and its changes are still significant as well. Being married increases the likelihood of reporting happiness at wave 2 by about 28%. Similarly, having a bachelor's degree also increases the odds of reporting being happy by just over 76%. Females were less likely to report being happy, all else held equal. Network size and portion kin were not found to be statistically significant across any of the models.

Table 4.2 Logistic Regression Predicting Wave 2 Self-Reported Happiness from Network Characteristics

	Model 1	Model 2	Model 3
	Odds Ratio/se	Odds Ratio/se	Odds Ratio/se
Happy at W1	4.684***	4.684***	4.252***
	(0.598)	(0.608)	(0.539)
Network Size W1			
2	1.067	1.076	1.201
	(0.230)	(0.233)	(0.258)
3	1.168	1.168	1.230
	(0.247)	(0.261)	(0.274)
4	1.344	1.363	1.449
	(0.292)	(0.282)	(0.299)
5	1.359	1.411	1.428
	(0.227)	(0.252)	(0.274)
Network Density W1	1.587	2.265*	2.084*
	(0.433)	(0.697)	(0.684)
Emotional Closeness to Alters W1	1.012**	1.027***	1.032***
	(0.004)	(0.006)	(0.007)
Proportion of Kin W1	0.775	0.608*	0.583*
	(0.124)	(0.136)	(0.138)

Table 4.2 Continued

	Model 1	Model 2	Model 3
	Odds Ratio/se	Odds Ratio/se	Odds Ratio/se
Network Size Change		1.068	1.062
		(0.048)	(0.047)
Network Density Change		1.975**	1.899*
		(0.498)	(0.496)
Emotional Closeness Change		1.019**	1.023***
		(0.006)	(0.006)
Proportion Kin Change		0.766	0.745
		(0.169)	(0.168)
White			1.029
			(0.142)
Female			0.761*
			(0.094)
Age			1.010
			(0.007)
Education Level			
High School or Equivalent			1.178
			(0.220)
Some College			1.354
			(0.225)
Bachelor's or Higher			1.762**
			(0.321)
Married			1.279*
			(0.153)
Constant	0.142***	0.042***	0.011***
	(0.051)	(0.020)	(0.009)
N	2,118	2,043	2,034

* p<0.05, ** p<0.01, *** p<0.001

Note: Estimates are weighted using NSHAP Wave 1 weights. Models including frequency of contact with alters at wave 1, willingness to talk about health at wave 1, the change in frequency of contact and the change in willingness to talk about health were also conducted, however these variables were not statistically significant in any model. These models are available upon request.

Table 4.3 contains results for the models focused on health. Like the happiness models

above, the first model contains wave 1 network characteristics and wave 1 health. In this model, health at wave 1 is the only statistically significant variable, with very large odds ratios. Respondents who were healthy at wave 1 were overwhelmingly more likely to also be healthy at wave 2 than those who reported ill health.

Model 2 adds changes in network characteristics. Still, health at wave 1 is the only statistically significant variable. Model 3 adds common controls including age, gender, education and marital status. Health at wave 1 remains significant with a large odds ratio. Education is also statistically significant, with having a high school degree increasing the chances of reporting good health by 86% when compared to not having a degree. Similarly, having a bachelor's degree or more increases the likelihood of reporting good health by almost 180% compared to not having a high school diploma. While it does not achieve statistical significance, age appears to have a small impact, with those who are older slightly more likely to report poor health. In the health models, network density and proportion kin were not found to be statistically significant in any model.

Table 4.3 Logistic Regression Predicting Wave 2 Self-Reported Health from Network Characteristics

	Model 1	Model 2	Model 3
	Odds Ratio/se	Odds Ratio/se	Odds Ratio/se
Healthy at W1	11.157***	11.186***	10.041***
	(1.282)	(1.280)	(1.256)
Network Size W1			
2	1.458	1.388	1.402
	(0.553)	(0.569)	(0.567)
3	1.328	1.402	1.250
	(0.424)	(0.494)	(0.425)
4	1.505	1.656	1.530
	(0.574)	(0.709)	(0.646)
5	1.403	1.664	1.403
	(0.429)	(0.616)	(0.522)

Table 4.3 Continued

	Model 1	Model 2	Model 3
	Odds Ratio/se	Odds Ratio/se	Odds Ratio/se
Network Density W1	1.009	1.176	1.434
	(0.297)	(0.447)	(0.633)
Emotional Closeness to Alters W1	1.002	1.001	1.000
	(0.006)	(0.008)	(0.008)
Proportion of Kin W1	0.877	0.767	0.820
	(0.191)	(0.204)	(0.211)
Network Size Change		1.114	1.092
		(0.062)	(0.061)
Network Density Change		1.186	1.300
		(0.300)	(0.367)
Emotional Closeness Change		1.001	1.001
		(0.006)	(0.006)
Proportion Kin Change		0.859	0.898
		(0.227)	(0.231)
White			0.886
			(0.163)
Female			1.032
			(0.167)
Age			0.985
			(0.009)
Education Level			
High School or Equivalent			1.861**
			(0.428)
Some College			2.369**
			(0.640)
Bachelor's or Higher			2.793***
			(0.702)
Married			1.031
			(0.181)
Constant	0.394	0.374	0.607
	(0.208)	(0.225)	(0.531)
N	2,120	2,045	2,036

* p<0.05, ** p<0.01, *** p<0.001

Note: Estimates are weighted using NSHAP Wave 1 weights. Models including frequency of contact with alters at wave 1, willingness to talk about health at wave 1, the change in frequency of contact and the change in willingness to talk about health were also conducted, however these variables were not statistically significant in any model. These models are available upon request.

The above tables show results for predicting happiness and health at wave 2. However, changes in network characteristics may also be predictive for changes in happiness or health between waves. Table 4.4 column 1 presents results from OLS regression predicting changes in happiness. For happiness, increasing perceived emotional closeness between waves was positively associated with increased reported happiness. Neither changes in size nor density were statistically significant. Table 4.4 column 2 presents the results for changes in health. For health, both changes in size and perceived closeness to alters were positively and statistically significantly related to better health. Changes in network density were not significant.

Table 4.4 Regression Predicting Changes in Happiness and Health between Waves 1 and 2

	Happy Model Coef./se	Healthy Model Coef./se
Network Size Change	0.021	0.049**
	(0.013)	(0.016)
Network Density Change	0.065	0.046
	(0.085)	(0.077)
Emotional Closeness Change	0.006**	0.006**
	(0.002)	(0.002)
Proportion Kin Change	0.049	-0.068
	(0.074)	(0.112)
White	0.068	-0.136
	(0.047)	(0.082)
Female	-0.005	0.025
	(0.042)	(0.049)
Age	0.000	-0.005
	(0.003)	(0.004)
Education Level	0.021	-0.084
High School or Equivalent	(0.073)	(0.087)
	0.011	0.020
Some College	(0.061)	(0.093)
	-0.012	0.020

Table 4.4 Continued

	Happy Model Coef./se	Healthy Model Coef./se
Bachelor's or Higher	(0.068)	(0.100)
	-0.095	-0.062
Married	(0.050)	(0.060)
	-0.041	0.377
Constant	(0.199)	(0.297)
N	2,034	2,036

* p<0.05, ** p<0.01, *** p<0.001

The models presented above simply control for race. Table 4.5 presents results from the final happiness model (Model 3), run separately for black and white sub-samples. Column 1 reproduces the result from table 4.2. Column 2 shows the results when the sample is restricted to white respondents only. In this case, changes in network density are no longer statistically significant, though network density at wave 1 remains so. Emotional closeness to alters also remains statistically significant and positively related to happiness. Similarly, the proportion of kin remains negatively related and statistically significant. While not statistically significant, the change in proportion of kin remains negative as well. For whites, having some college becomes statistically significant, when compared to having no high school degree.

Column 3 of table 4.5 presents the results for the model when restricted to black respondents only. For blacks, neither network size nor density is statistically significant, though the coefficients remain in the same direction as the overall model. Emotional closeness also remains significant and positive, similar to the white and overall models, though changes in emotional closeness no longer achieve statistical significance. In the model for blacks, the proportion of kin in the network is not statistically significant, however the coefficient is positive, suggesting that family dense networks may not mean the same thing for blacks as they do for other racial groups such as whites. Similarly, the change in proportion of kin is not

statistically significant but it is positively related to reported happiness, again suggesting that increasing interactions with family members is having a different effect on the happiness of blacks and whites. In the black model, education is also not statistically significant, contrary to the significant coefficients found in the whites only model.

Table 4.5 Logistic Regression Predicting Wave 2 Self-Reported Happiness from Network Characteristics Stratified by Race

	Overall Odds Ratio/se	Whites Odds Ratio/se	Blacks Odds Ratio/se
Happy at W1	4.252***	4.020***	5.486***
	(0.539)	(0.619)	(2.035)
Network Size W1			
2	1.201	1.148	2.826
	(0.258)	(0.353)	(1.492)
3	1.230	1.298	1.259
	(0.274)	(0.390)	(0.861)
4	1.449	1.644	1.771
	(0.299)	(0.475)	(1.153)
5	1.428	1.529	1.411
	(0.274)	(0.385)	(0.969)
Network Density W1	2.084*	2.419*	1.092
	(0.684)	(0.985)	(0.850)
Emotional Closeness to Alters W1	1.032***	1.029***	1.047**
	(0.007)	(0.008)	(0.018)
Proportion of Kin W1	0.583*	0.529*	1.164
	(0.138)	(0.147)	(0.831)
Network Size Change	1.062	1.052	1.053
	(0.047)	(0.063)	(0.084)
Network Density Change	1.899*	1.932	2.785
	(0.496)	(0.654)	(1.981)
Emotional Closeness Change	1.023***	1.022**	1.026
	(0.006)	(0.008)	(0.014)
Proportion Kin Change	0.745	0.640	1.604
	(0.168)	(0.165)	(0.887)
White	1.029		
	(0.142)		

Table 4.5 Continued

	Overall Odds Ratio/se	Whites Odds Ratio/se	Blacks Odds Ratio/se
Female	0.761*	0.777	0.654
	(0.094)	(0.121)	(0.258)
Age	1.010	1.011	0.985
	(0.007)	(0.008)	(0.015)
Education Level			
High School or Equivalent	1.178	1.492	1.067
	(0.220)	(0.309)	(0.407)
Some College	1.354	1.772**	0.457
	(0.225)	(0.357)	(0.245)
Bachelor's or Higher	1.762**	2.291***	1.432
	(0.321)	(0.505)	(0.712)
Married	1.279*	1.330*	1.038
	(0.153)	(0.181)	(0.409)
Constant	0.011***	0.010***	0.022*
	(0.009)	(0.009)	(0.033)
N	2,034	1,459	330

* p<0.05, ** p<0.01, *** p<0.001

Note: Estimates are weighted using NSHAP Wave 1 weights. Models were also run for Hispanics and Other races, but the sample for these groups was too small for any meaningful statistical comparison. Models were also run for whites compared to all others and the results were similar to those presented above. These models are available upon request.

DISCUSSION

The results above suggest that common measures of ego-centric social networks may not appropriately identify network effects on well-being. The most common measure of social networks in large surveys, network size, was found to have no statistically significant effects on respondents' reported happiness in this sample. Nor were changes in network size between waves one and two of NSHAP found to have significant effects on happiness. In part, this finding suggests that shrinking networks may not be as large a cause for concern as once believed, at least in terms of reported happiness levels (see Putnam 2001). It seems that for

happiness the quality of the ties as measured by perceived emotional closeness matters more than the number of ties. That is, a person can report being happy even if they report having only one tie, as long as they find strong emotional support from that tie. The idea that quality of ties matters more than quantity may have implications for how we think of networks for older adults. Rather than encouraging people to meet new friends, it may be more beneficial to cultivate existing relationships and build fewer, but emotionally closer, ties if happiness is the desired outcome. While network size did not achieve statistical significance in any of the health models, changes in network size did approach significance. In the models predicting changes in health, changes in network size were statistically significantly related to health, with increased network size correlated with better health. This was contrary to the models for happiness.

If an increase in network size is related to reporting better health, then expanding networks may well still be an important goal for seniors. It remains unclear the causal direction, however. That is, increased network size could lead to better health, but continuing to be in good health could well provide more opportunities for expanding one's network. In the NSHAP sample, networks did grow between waves, on average. Another possibility is that networks in the sample have increased because respondents need more care. However, the proportion of kin in networks also decreased between waves. If network size increased due to more caretakers, it would be expected that those caretakers would primarily be kin. This is not supported in the data.

Network density was statistically significant in two of the happiness models, consistent with previous literature (Cornwell 2009). Having dense networks could lead to better communication between ties and therefore help with coordination of care and sharing of information among alters. In terms of older adults and their health and well-being, increased sharing of caretaking and knowledge can be quite beneficial, though no statistical significance

was achieved in any of the health models. Increasing network density between waves was correlated with reporting being happy as well, suggesting that increasing the ties between alters is beneficial for some older adults. Coupled with the finding that network size is not particularly important for reported happiness, denser smaller networks may increase happiness in older adults. However, in the NSHAP sample, density of networks decreased between waves, on average. Decreasing density is consistent with the increase in network size also observed between waves (Roberts et al 2009). And changes in density between waves were not statistically significant for either health or happiness in the initial models or in the models run separately for blacks and whites.

Emotional closeness also proved to be an important predictor of happiness at wave 2, though this is not a measure usually collected in general surveys. The more emotionally close a respondent felt to their networks on average, the more likely it was that they also reported being happy. As network density was also important for happiness, while network size was not, aiming to increase emotional closeness of just a few ties may be more beneficial for happiness in older adults than creating new ties. Some scholars think of old age as a time of reflection and a return to focus on family and close friends (Frederickson and Carstensen 1990; Carstensen 1995). For example, in a longitudinal study beginning with people in their early 20's, Carmichael finds that at younger ages quantity of friendship matters for well-being but that as people age, quality of relationship becomes more important (Carmichael et al 2015). The significance of both density and emotional closeness in this sample lend further evidence for this view of what is socially important in older ages. However, along with density, perceived emotional closeness did tend to decrease between waves. The proportion of kin was mostly unchanged, however. The reasons for

the observed decrease in emotional closeness remain unclear, but could partly be due to replacing lost ties with new ties of similar types (Cornwell and Laumann 2015).

In the happiness models being married was related to higher levels of happiness, while being female decreased the likelihood of reporting happiness. Both findings are consistent with previous studies (Kim and McKenry 2002; Waite 1995). In the models for health, neither gender nor marital status was related to reporting better health, which is somewhat surprising given previous research on the protective benefits of marriage (Waite and Gallagher 2002). Education was important in both models of health and happiness, with those with more education enjoying both better health and happiness.

Proportion of kin in the network was negatively related to happiness in the overall models and for the white sub-sample. However, for the black subsample the coefficient for proportion of kin as positive, though not statistically significant. While the change in the proportion of kin did not reach statistical significance in any of the models, the coefficient for whites was negative while for blacks it was positive. Previous literature suggests that as people age and perhaps begin to battle illness, their networks will become more family-centric, especially if they need increased care (Antonucci 2001). This seems to fit the evidence found in the overall model and the model for whites. However, given that the coefficient for blacks was positive, something else may be at play. Since blacks tend to have more family interaction in their networks at all stages of the life course, having many family members may not signal the same declines in physical or mental health that it does for whites. More research on the effects of kin in elderly networks for different racial groups is needed to help understand what factors may be at play.

While network size was not significant in the happiness models, whether this extends to younger age groups remains in question. Previous research suggests that at young ages large

networks are important for happiness (Pressman et al 2005; Carmichael et al 2015). Because of its focus on older populations, the NSHAP sample does not contain young respondents. It remains unclear when network size becomes less important for happiness. Future research may benefit from considering if and when network size becomes less important for health and development. This paper also does not consider network turnover. That is, respondent's social networks do change between waves; Cornwell and Laumann find that most people have at least one new alter between waves (Cornwell and Laumann 2015). Network turnover could at least in part explain the small decrease in emotional closeness between waves. And if network changes in network members were indeed common, it could also help explain the slight decrease in average happiness between waves as well.

In both the logistic and OLS models for happiness and health there were relatively few statistically significant coefficients. The lack of significant factors, however, may be due to temporal differences in the outcomes. This is somewhat supported because there were more significant findings for happiness than for health. Existing research provides evidence that health is cumulative over much longer periods, perhaps even the entire life course (Ross and Wu 1996; Dannefer 2003). Happiness, on the other hand can be much easier to influence in the short term. Thus, the effects of changing networks may be easier to see in the models for happiness. The OLS regressions predicting change were an attempt to isolate changes and they did find that both network size and emotional closeness were significant predictors for changes in health. As more waves of data become available it will be important to incorporate additional time points to help understand the role of network characteristics for health over longer time periods within an older cohort. Note that he time between NSHAP waves is five years, which makes it difficult to pinpoint when changes in network characteristics occur. Future studies should consider the

timing between changes in characteristic and measurement to see if initial effects fade or increase over time.

CONCLUSION

This paper suggests that traditionally reported network characteristics may underestimate the relationship between networks and happiness for older adults. It began an exploration of the relationships between social network characteristics and happiness. In previously collected surveys, a common measure of networks is network size. However, as a predictor of both happiness and changes in happiness in this sample of older adults, social network size was not significant. Instead, perceived emotional closeness to alters seems to be important for happiness. Feeling emotionally close to alters remained significant in the logistic regressions predicting wave 2 happiness, in the OLS regressions predicting changes in happiness and in the models for blacks and whites. Given that social networks and interaction form a large and important part of the human condition, having people one can rely on for emotional support –to share joy and sadness—may be expected to be essential for satisfaction and well-being at all ages. While emotionally close, smaller, denser networks might increase the likelihood of happiness in older adults, some evidence suggests that the same may not hold true for other age groups (Carmichael et al 2015). Still, if future research is able to continue to collect more in-depth network characteristics, we might find even more support that size is not as important a measure as previously believed. More research into the effects of network characteristics on subjective well-being in other age groups is needed, but for older adults, small, close-knit groups may be an important component for enjoying happy golden years.

This paper also sought to further our understanding of how social network characteristics are related to health. While predicting health at wave 2, network size was not a significant predictor. Given the cumulative nature of health, changes between waves in characteristics (including network size) are not significant in the models either. However, in the OLS models predicting changes in health between waves based on network characteristics, both changes in network size and emotional closeness to alters were statistically significant. The causal direction of the relationship is unclear; it could be that being in better health allows for larger networks. Another possibility is that larger networks, while insignificant for happiness, may offer protections for health. The importance of emotional closeness to alters for both health and happiness suggests that researchers may benefit from a greater focus on the quality of relationships between people in the future.

APPENDIX 4.A: Supplemental Tables

Appendix Table 4.A1 Replication of Logistic Regression Predicting Wave 2 Self-Reported Happiness from Network Characteristics using Ordered Logistic Regression

	Model 1 Odds Ratio/se	Model 2 Odds Ratio/se	Model 3 Odds Ratio/se
Happy at W1	4.678***	4.660***	4.283***
	(0.511)	(0.508)	(0.459)
Network Size W1			
2	1.318	1.233	1.333
	(0.236)	(0.260)	(0.295)
3	1.351	1.248	1.285
	(0.265)	(0.293)	(0.320)
4	1.761**	1.618*	1.647*
	(0.334)	(0.338)	(0.373)
5	1.755***	1.659*	1.599
	(0.256)	(0.352)	(0.385)
Network Density W1	1.805*	2.351**	2.240**
	(0.404)	(0.614)	(0.605)
Emotional Closeness to Alters W1	1.013***	1.030***	1.035***
	(0.003)	(0.005)	(0.005)
Proportion of Kin W1	0.749	0.617*	0.600*
	(0.109)	(0.122)	(0.125)
Network Size Change		1.060	1.053
		(0.033)	(0.032)
Network Density Change		1.681*	1.649*
		(0.399)	(0.383)
Emotional Closeness Change		1.024***	1.026***
		(0.005)	(0.006)
Proportion Kin Change		0.849	0.838
		(0.154)	(0.158)
White			1.214
			(0.152)
Female			0.819
			(0.086)

Appendix Table 4.A1 Continued

	Model 1 Odds Ratio/se	Model 2 Odds Ratio/se	Model 3 Odds Ratio/se
Age			1.012*
			(0.006)
Education Level			
High School or Equivalent			1.183
			(0.215)
Some College			1.312
			(0.213)
Bachelor's or Higher			1.617**
			(0.272)
Married			1.287*
			(0.138)
N	2,118	2,043	2,034

* p<0.05, ** p<0.01, *** p<0.001

Note: Estimates are weighted using NSHAP Wave 1 weights. Models including frequency of contact with alters at wave 1, willingness to talk about health at wave 1, the change in frequency of contact and the change in willingness to talk about health were also conducted, however these variables were not statistically significant in any model. These models are available upon request.

Appendix Table 4.A2 Replication of Logistic Regression Predicting Wave 2 Self-Reported Health from Network Characteristics using Ordered Logistic Regression

	Model 1 Odds Ratio/se	Model 2 Odds Ratio/se	Model 3 Odds Ratio/se
Health at W1	11.066***	11.050***	9.432***
	(1.375)	(1.407)	(1.325)
Network Size W1			
2	1.034	1.034	1.028
	(0.272)	(0.280)	(0.278)
3	1.158	1.204	1.045
	(0.271)	(0.285)	(0.243)
4	1.401	1.483	1.298
	(0.377)	(0.417)	(0.347)
5	1.206	1.402	1.090
	(0.298)	(0.393)	(0.295)

Appendix Table 4.A2 Continued

	Model 1 Odds Ratio/se	Model 2 Odds Ratio/se	Model 3 Odds Ratio/se
Network Density W1	0.974	0.923	1.140
	(0.193)	(0.226)	(0.314)
Emotional Closeness to Alters W1	1.005	1.013**	1.012*
	(0.003)	(0.005)	(0.005)
Proportion of Kin W1	0.673*	0.553**	0.576*
	(0.122)	(0.121)	(0.132)
Network Size Change		1.108*	1.082
		(0.049)	(0.047)
Network Density Change		0.961	1.073
		(0.209)	(0.225)
Emotional Closeness Change		1.012**	1.012**
		(0.004)	(0.003)
Proportion Kin Change		0.694	0.710
		(0.172)	(0.167)
White			1.198
			(0.167)
Female			1.102
			(0.119)
Age			0.989
			(0.006)
Education Level			
High School or Equivalent			1.223
			(0.212)
Some College			1.698**
			(0.293)
Bachelor's or Higher			2.667***
			(0.560)
Married			1.119
			(0.137)
N	2,120	2,045	2,036

* p<0.05, ** p<0.01, *** p<0.001

Note: Estimates are weighted using NSHAP Wave 1 weights. Models including frequency of contact with alters at wave 1, willingness to talk about health at wave 1, the change in frequency of contact and the change in willingness to talk about health were also conducted, however these variables were not statistically significant in any model. These models are available upon request.

CHAPTER 5: CONCLUSION

This dissertation has explored social processes that lead to happiness for different sociodemographic groups, specifically racial groups and older individuals in the United States. The aim of the preceding chapters has been to show that, while there are a number of processes thought to increase happiness, those processes may not always have the same effects for different groups of people. What is more, these processes might not even occur at the same rate for different groups (such as marriage rates for blacks and whites). This dissertation has sought to give evidence that the study of happiness is relevant for sociology and that the happiness literature will be richer for a renewed interest within sociology. It is important to understand how commonly identified institutions and factors may influence the happiness of different groups in ways that are previously underexplored and I have utilized not only happiness literature but also works from other subfields and disciplines to argue for a more careful exploration of what makes people happy. I believe that drawing on literature around the differences in everyday experiences for different groups, especially in the United States, provides strong evidence for the necessity of considering that different social factors or institutions may have markedly different effects for different groups and that sociology as a discipline has a great deal to offer the current state of happiness studies.

The current happiness literature tends to be dominated by psychologists, like Ed Diener and behavioral economists such as Daniel Kahneman (Diener 2009; Kahneman et al 2013). These authors and their peers have defined happiness a number of ways, but many gravitate to happiness being synonymous with subjective well-being. Diener defines happiness as feelings of life satisfaction and having positive feelings about life (Diener and Diener-Biswas 2008). This

definition allows researchers to measure happiness in surveys simply by asking people how happy or satisfied they are with their current situations. While some have criticized using this method on the ground that because everyone may define happiness differently, the results of previous studies have been robust (Dolan 2008; Veenhoven 2012). Indeed, there have been a number of social processes and institutions that have been found to affect happiness for individuals including marriage, education and aging (Wilson 1967; Kahneman and Krueger 2006; McBride 2010).

Much of the previous literature has assumed that these processes will have the same effect for all types and groups of people. However, sociology has shown that there a differences in the ways that groups such as blacks and whites or young and old experience the world (Williams, Jackson and Anderson 1997; Swim et al 2003). The sociological lens allows us to consider the possibility that the same institutions such as education may not result in the same happiness outcomes for different groups of people. The consideration of the determinants of happiness for different racial groups contributes to our understanding of reactions to institutions such as schooling and may prove useful for developing strategies aimed at increasing the benefits of education for minorities in the future. The examination of determinants and social networks' effects on happiness in older adults may also be important for understanding how to maximize well-being as the population continues to age. Below, I review the major findings from the previous chapters, discuss implications and limitations of the current study and conclude with future directions for the sociological study of happiness.

REVIEW OF FINDINGS AND IMPLICATIONS

The study of happiness has enjoyed a long history in the scholarly works ranging from philosophy to psychology, sociology and economics (Helliwell 2003; Bradburn 1969; Diener 2013). This literature has highlighted a number of social factors that are believed to contribute to happiness. For example, being employed in a good, high-paying job, being married, being in good health, having good social relationships, being involved in the community and religious attendance are all thought to increase happiness, all else equal (Kahneman and Krueger 2006; McBride 2010; Diener 2013; Angner et al 2009; Waite and Gallagher 2002). As people age, a u-shaped relationship has been found, with people reporting their lowest levels of happiness during middle ages, presumably when stress from family and careers are at their peaks (Blanchflower and Oswald 2008; Deaton 2007). However, the majority of the literature on happiness to date appears to implicitly assume that blacks and whites, young and old, males and females will have similar relationships with the things that are thought to cause happiness. Work in other areas about the differences in daily experience for these groups motivates us to understand whether common factors will affect happiness similarly for everyone. The findings from the previous chapters suggest that different racial and age groups may react differently to common social factors of happiness such as marriage, education and social network size.

Chapter 2 explored racial differences in happiness using a sample from the General Social Survey. Specifically, it examined the role of education, marriage and church attendance for the overall population and individual racial groups. Marriage operated similarly for both blacks and whites. Church attendance was also significant for both blacks and whites, though less frequent church attendance for whites was statistically significant. This may suggest that church attendance may serve different cultural purposes for different groups. The literature on

differences between black and white churches suggests that churches in the black community are places of not only worship but also activities and support in ways that white churches are not (Lincoln and Mamiya 1990).

The role of education and happiness for blacks and whites is an important finding because it sheds light not only on differences in educational attainment but also on racial differences in returns to education such as employment and wages. In the sample from the GSS years of education (and highest degree achieved) were negatively associated with happiness for blacks but positively associated for whites. The negative association between education and happiness for blacks suggests that the literature may benefit from a careful consideration of the mechanisms at play for minority groups, especially while thinking about the returns to educational attainment. For example, in an audit study where identical resumes were submitted with black and white sounding names, Bertrand and Mullainathan found that the resumes with traditionally black names were 50% less likely to receive a call for interview than those with white sounding names (Bertrand and Mullainathan 2004). The challenges minority and disadvantaged students face—from being underprepared to falling victim to stereotype threat—may dampen the emotional returns to education as well (Pattillo 2015; Armstrong and Hamilton 2013; Bowen and Bok 1998). Coupled with dampened job opportunities and lower pay than whites of similar education, differences in educational experiences may filter into differences in the workplace or job market and these processes may have long lasting effects on happiness for minority groups.

The NSHAP data did not find differences in the effects of education for the older age group sample. There could be a number of reasons for the lack of finding. First, the cohorts contained in NSHAP do not show much educational variation, with only 364 people having

graduate degrees. Second, the relatively small number of blacks in the sample may make statistical significance hard to achieve, especially given the low number of graduate degrees, not just for minorities but for whites as well. In the cohorts covered by NSHAP, higher education was less common than in some of the younger cohorts included in the GSS. Still, the findings from this chapter suggest that future research would do well to consider cultural and experiential differences when considering factor that may have an effect on happiness.

Chapter 3 focused on determinants of happiness in older ages utilizing data from the National Social Life, Health and Aging Project. It tested whether factors commonly associated with happiness and health in samples of working-age adults have similar affects for happiness in older ages. The chapter found very little supporting evidence for relative deprivation theories in terms of perceived income (McBride 2010). The role of work was significant, though the mechanisms and causal direction of the relationship remain unclear. It finds evidence that religious attendance and social interaction matter for both happiness and health, while perceived income does not have a significant effect for happiness. These findings suggest that while there may be some continuity of the types of things that makes people happy, as we age different factors may become more important for maintaining or finding happiness. Perception of income is a prime example. In younger samples, previous research has found evidence that incomes (up to a point) are important for happiness (Di Tella and MacCulloch 2005). The finding that perceived income is not important for happiness in older ages, lends support to the idea that happiness researchers would do well to consider differences in experience as they consider what makes people happy.

In the models social interaction, or lack thereof, was important for both health and happiness. For example, it would seem that interaction and lack of feelings of loneliness are

more important for both health and happiness than network size or density. This suggests that, at least in older ages, network structure is less important for happiness and health and research may benefit from focusing more on social interactions and support. The finding that social interaction is more important than network structure provides some support for the idea that as people age they begin to focus on and find satisfaction from cultivating close, meaningful relationships (Carstensen, Isaacowitz and Charles 1999).

Chapter 4 explored the role of social networks in the happiness of older adults, again using NSHAP as the data source. It finds that in older ages being emotionally close to members of the social network is more important for happiness than the total size of the network. Because previous works show that network size is important at younger ages, this finding suggests that the role of social networks may change as people age (Berkman et al 2000; Carmichael et al 2015). Changes in social networks between waves were also predictive of changes in health and happiness. Happiness is less cumulative than health, so changes between waves were more striking than for health. Still, the finding that increases in feeling emotionally close to network members predicted increased reported health could be important as we seek to understand how networks and health are related. This finding provides evidence that while health may dictate network formation, changes in network may have effects for health as well.

The findings also suggest that commonly reported ego-centric social network measures such as size and density may not fully capture the relationship between networks and happiness. It also finds that the presence of family in social networks is markedly different for blacks and whites, providing further evidence for differences in lived experiences between groups. Throughout the life course whites tend to have networks with more non-relatives than blacks do (Ajrouch, Antonucci and Janevic 2001; Hogan, Lao and Parish 1990). However, as aging occurs,

networks for whites tend to become more family oriented, possibly due to family members becoming primary care givers (George and Gwyther 1986; Neal and Hammer 2007).

LIMITATIONS

One of the limitations of this dissertation stems from its use of survey data to assess subjective views. The GSS is conducted every two years and does not have the data to capture racial minorities other than blacks in a meaningful way. The question regarding race in the GSS originated in the initial 1972 questionnaire and had only white, black or other as the possible response options. For continuity the question has not changed over the years. While there is a question about Hispanic or Latino origin, it is not possible to distinguish between blacks, whites, and Latinos. The analysis also utilized pooled GSS data and controlled for year. However, there is still the question of whether the role of education, marriage and other institutions for happiness is changing over time. The chapter did test models with interaction terms for year and education and other independent variables, however they were not found to be statistically significant. Still, because the GSS is not true longitudinal panel data the effects of education for racial or gender groups may indeed be changing over time.

The other dataset considered in this series of papers was NSHAP. NSHAP focuses on older adults and even with the oversampling for minorities, there simply are not enough blacks in the sample to be confident in racial comparisons. Still, in chapter 4 the models did show differences in the role of network characteristics between blacks and whites. However, in chapter 3 there were no differences found while exploring the determinants of happiness in older ages. Perhaps with a larger sampling of non-majority racial groups some differences would have been evident.

In addition, as discussed above, some authors have been critical of measurements of feelings such as happiness or satisfaction, arguing that it is not possible to be sure that each individual thinks of these concepts in the same way (Subramanian et al 2005; Easterlin 1974). However, others have argued that measures of happiness are robust and are relatively stable within individuals over time (Hadinezhad and Zareei 2009; Dolan 2008; Veenhoven 2012; Wilson 1967). Still, some may question the appropriateness of using survey questions to assess people's feelings. Further, interpretation of the question itself may differ between groups. Or differences in cultural norms might suggest that there are acceptable and appropriate answers that one must give, no matters one's true state. This could lead to over- or under-reporting of happiness. If there are indeed group differences in how the question is answered, it may be difficult to disentangle the measurement and the "true" feelings of respondents. However, this critique applies not just to questions of happiness but all questions of a subjective nature. This includes political preference, self-rated health, and a number of other opinion-based responses.

Another limitation is that this dissertation focuses only on populations within the United States. Because both the GSS and NSHAP are US samples, I am unable to speak to international differences in the role of social factors in minority happiness. Also, the primary racial differences examined are between blacks and whites, primarily due to the availability of information in the datasets. Latino and Asian groups are sadly unrepresented in chapter 2; other works suggest that the everyday experiences of these groups differ from blacks and whites and further exploration is warranted (Williams, Jackson and Anderson 1997; Swim et al 2003; Sue et al 2007). Research on cultural differences between countries and parts of the world might suggest that the things that make people happy in the United States might differ significantly from factors that make people happy in other places (Schyns 1998; Diener and Suh 2000).

Another potential concern is around the concept of happiness more generally. Throughout the literature the term happiness is often interchanged with well-being or satisfaction. However, it remains unclear whether these concepts should be defined and thought of as separate phenomena. Many of the survey questions conflate life satisfaction and happiness, though we may think of happiness as being a more fleeting and variable feeling, with satisfaction being longer term. For example, feelings of happiness may fluctuate from moment to moment or day to day but if one has more happy feelings than sad over time, they may be more likely to feel satisfied with their lives. I see happiness as being closely intertwined with well-being and satisfaction. I think what appears to differ between the them is the temporal aspect. In terms of survey data, life satisfaction and well-being are probably what are actually being measured. Future research may do well to work harder at distinguishing between the three.

FUTURE DIRECTIONS

As the population continues to age and minority racial groups grow in size, understanding how and why different groups are happy becomes even more important. Without a good understanding of how institutions such as education or marriage affect blacks and whites, we run the risk of assuming that everyone will be affected the same way and lose the opportunity to better tailor programs aimed at increasing well-being for everyone. If we do not explore the role of networks and religious attendance for older citizens, we could inadvertently promote inappropriate goals and recommendations. For example, given the findings in chapters 3 and 4, it appears that the size of one's social network matters less in older ages. Instead, creating and maintaining emotionally close, meaningful relationships matters much more for overall happiness.

Happiness research has seen a recent resurgence in economics and psychology, but in sociology it remains outside of the main scope. However, sociology might do well to consider happiness more often; sociological tools and perspective will undoubtedly enrich the literature and bring new understanding and depth to happiness research. While happiness may be a product of the mind (and body) and so thought of as outside of the scope of sociology, minds and bodies do not exist in a vacuum. Sociology has the opportunity to explore the social processes and factors which surround us all. Undoubtedly these processes have a profound effect on people's views of themselves and the world. Indeed, the social structures that make up societies are the very things that shape our beliefs and guide our actions. Understanding factors such as education or the institutions of marriage and religion or the experiences of minority groups has a long and proud history in sociology. I believe that the knowledge about these processes and experiences within the discipline can serve as an excellent starting point to help understand why determinants of happiness may have varied effects for different types of people. As discussed in the limitations section, Latinos were left out of the current analysis. While the finding that education affects blacks and whites in different ways is start, future research must consider the Latino experience as we seek understand differences in happiness among racial groups. Further exploration of differences between racial groups is needed in general. The role of education is particularly interesting. If becoming more educated does not lead to the same happiness output for racial groups more study is needed on other areas closely related to education such as work. It could well be that part of the reason blacks gain less happiness from education than whites is that the returns in terms of employment opportunities are not the same (Bertrand and Mullainathan 2004). Differences in wages may also play a role, with blacks earning less than whites in similar jobs (Heywood and Parent 2012). These questions may not be appropriate for survey or

quantitative research but rather may benefit from exploration of qualitative variety. Structured interviews may shed light on the reasons for differences in happiness above and beyond what can be culled from survey data.

More research is also needed around the role of networks in subjective well-being in older ages. Chapter 4 has provided evidence that emotional closeness matters more than network size or density for happiness. Networks also appear to be related to health, though the causal direction remains unclear. Because health is more cumulative over time than happiness tends to be, changes in networks later in life should not be expected to affect health very much. However, happiness can be changed over shorter time periods, so it is more plausible that changes in networks—the loss of a friend or companion, the addition of new contacts—may have an effect on people's satisfaction and happiness. The finding that network changes can predict health opens an avenue for further exploration. More research is necessary to understand how changes in network size or perceived emotional closeness can be predictive of better health.

Future research may also do well to consider geographic variation. Here, I have considered different racial and age categories, but neighborhood effects may also be at play. How urban or rural environments may affect the determinants of happiness remains understudied, but is a place in the literature where sociology, with a rich history of neighborhood studies can have a significant and positive impact. Regional variation, for example between the US north and south may also make a difference for happiness. The exploration different cultural norms and variations in experiences between areas of the US is something may benefit future research.

While this dissertation has focused on how what makes people happy differs by age and race, gender is another component that has received little attention here. Future projects might do

well to consider how the life experiences of men and women differ and how those differences might affect the happiness these groups derive from common social factors. Cross-national comparisons of minority groups is another area ripe for exploration. While I have presented some evidence suggesting that factors may not have similar returns for groups within the United States, an examination of minority groups in other countries may be informative.

Happy citizens can be a good measure of how well a community is doing and ensuring that people are as happy as they can be seems to be an important goal for all of us. However, without a good understanding of the types of things that make people happy (or unhappy) it may be difficult to achieve this goal in a systematic and well thought-out way. While happiness and well-being research has an extensive academic history, it is only recently that social science researchers have begun to approach the question by utilizing social surveys and much work remains to be done. Sociology has an important role to play and lens to provide for helping to understand the processes leading to well-being for different groups and at different times in the life course.

REFERENCES

Acock, Alan C, & Jeanne S Hurlbert. (1993). Social networks, marital status, and well-being. *Social Networks* 15(3):309-34.

Adelman, R. D., Tmanova, L. L., Delgado, D., Dion, S., & Lachs, M. S. (2014). Caregiver burden: a clinical review. *JAMA*, 311(10), 1052-1060.

Ajrouch, K. J., Antonucci, T. C., & Janevic, M. R. (2001). Social networks among blacks and whites the interaction between race and age. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, *56*(2), S112-S118.

Aldous, J., & Ganey, R. F. (1999). Family life and the pursuit of happiness the influence of gender and race. *Journal of Family Issues*, 20(2), 155-180.

Altonji, J. G., & Blank, R. M. (1999). Race and gender in the labor market. *Handbook of Labor Economics*, 3, 3143-3259.

Anderson, L. E., & Carta-Falsa, J. (2002). Factors that make faculty and student relationships effective. *College Teaching*, 50, 134–138.

Angner, E., Ray, M. N., Saag, K. G., & Allison, J. J. (2009). Health and Happiness among Older Adults A Community-based Study. *Journal of Health Psychology*, *14*(4), 503-512.

Angner, Erik. (2010). Subjective well-being. *Journal of Socio-Economics* 39(3):361-68.

Antonucci, T. C. (2001). Social Relations an Examination of Social Networks, Social Support. *Handbook of the Psychology of Aging*, *3*, 427.

Appleton, S., & Song, L. (2008). Life satisfaction in urban China: Components and determinants. *World Development*, *36*(11), 2325-2340.

Argyle, M. (1999). 18 Causes and Correlates of Happiness. *Well-Being: Foundations of Hedonic Psychology: Foundations of Hedonic Psychology*, 353. New York, NY. Russell Sage Foundation.

Armstrong, E. A., & Hamilton, L. T. (2013). *Paying for the Party*. Cambridge, MA. Harvard University Press.

Aughinbaugh, A., Robles, O., & Sun, H. (2013). Marriage and divorce: patterns by gender, race, and educational attainment. *Monthly Lab. Rev*.,136, 1.

Banks, K. H., Kohn-Wood, L. P., & Spencer, M. (2006). An examination of the African American experience of everyday discrimination and symptoms of psychological distress. *Community Mental Health Journal*, *42*(6), 555-570.

Barnes, S. L. (2005). Black church culture and community action. *Social Forces*, 84(2), 967-994.

Battle, M. (2006). *The Black Church in America: African American Christian Spirtuality*. Malden, MA. Wiley-Blackwell.

Berkman, L. F. (1995). The role of Social Relations in Health Promotion. *Psychosomatic Medicine*, 57(3), 245-254.

Berkman, L. F., & Glass, T. (2000). Social integration, social networks, social support, and health. *Social Epidemiology*, 1, 137-173.

Berkman, L. F., Glass, T., Brissette, I., & Seeman, T. E. (2000). From social integration to health: Durkheim in the new millennium. *Social Science & Medicine*, 51(6), 843-857.

Berkman, L. F., Kawachi, I., & Glymour, M. M. (Eds.). (2014). *Social Epidemiology*. Oxford, UK. Oxford University Press.

Bertrand, M., & Mullainathan, S. (2004). Are Emily and Greg More Employable than Lakisha and Jamal? A Field Experiment on Labor Market Discrimination. *The American Economic Review*, *94*(4), 991-1013.

Bjørnskov, Christian. (2008). Healthy and happy in Europe? On the association between happiness and life expectancy over time. *Social Science & Medicine* 66(8):1750-59.

Blanchflower, D. G., & Oswald, A. J. (2004). Well-Being Over Time in Britain and the USA. *Journal of Public Economics*, 88(7), 1359-1386.

Blanchflower, D. G., & Oswald, A. J. (2008). Is Well-Being U-shaped Over the Life Cycle?. *Social Science & Medicine*, *66*(8), 1733-1749.

Booth, Alan, & David R Johnson. (1994). Declining Health and Marital Quality. *Journal of Marriage and the Family* 56(1): 218-23.

Bourdieu, P. (2002; 2008). The Forms of Capital. *Readings in Economic Sociology* (pp. 280-291). Oxford, UK. Blackwell Publishers Ltd.

Bourguignon, François, and Christian Morrisson. (2002). Inequality Among World Citizens: 1820-1992. *American Economic Review* 92(4):727-44.

Bowen, W. G., & Bok, D. C. (1998). *The shape of the river: Long-term consequences of considering race in college and university admissions*. Princeton, N.J.: Princeton University Press.

Bradburn, N. M. (1969). The structure of psychological well-being. *NORC; monographs in social research. National opinion research center.* Chicago, IL. Aldine Pub. Co.

Braithwaite, R. S., Meltzer, D. O., King Jr, J. T., Leslie, D., & Roberts, M. S. (2008). What does the value of modern medicine say about the $50,000 per quality-adjusted life-year decision rule?. *Medical care*, 46(4), 349-356.

Braveman, P., & Barclay, C. (2009). Health disparities beginning in childhood: a life-course perspective. *Pediatrics*, 124(Supplement 3), S163-S175.

Bruns, B., & Rakotomalala, R. (2003). Achieving universal primary education by 2015: A chance for every child (Vol. 1). Washington, DC. World Bank Publications.

Bumpass, L., & Lu, H. H. (2000). Trends in cohabitation and implications for children s family contexts in the United States. *Population Studies*, *54*(1), 29-41.

Burt, R. S. (2000). The network structure of social capital. *Research in Organizational Behavior*, 22, 345-423.

Cacioppo, J. T., Hawkley, L. C., Kalil, A., Hughes, M. E., Waite, L., & Thisted, R. A. (2008). Happiness and the invisible threads of social connection. *The science of subjective well-being*, 195-219. New York, NY. Guilford Press.

Cacioppo, J. T., Hughes, M. E., Waite, L. J., Hawkley, L. C., & Thisted, R. A. (2006). Loneliness as a specific risk factor for depressive symptoms: cross-sectional and longitudinal analyses. *Psychology and Aging*, *21*(1), 140.

Campbell, A., Converse, P. E., & Rodgers, W. L. (1976). *The Quality of American Life: Perceptions, Evaluations, and Satisfactions: Perceptions, Evaluations, and Satisfactions*. New York, NY. Russell Sage Foundation.

Carl, N., and Billari, F. C. (2014). Generalized trust and intelligence in the United States. *PloS one*, *9*(3), e91786.

Carmichael, C. L., Reis, H. T., & Duberstein, P. R. (2015). In your 20s it's quantity, in your 30s it's quality: The prognostic value of social activity across 30 years of adulthood. *Psychology and Aging*, 30(1), 95.

Carstensen, L. L. (1992). Social and emotional patterns in adulthood: support for socioemotional selectivity theory. *Psychology and Aging*, *7*(3), 331.

Carstensen, L. L. (1995). Evidence for a life-span theory of socioemotional selectivity. *Current Directions in Psychological Science*, *4*(5), 151-156.

Carstensen, L. L., Isaacowitz, D. M., & Charles, S. T. (1999). Taking time seriously: A theory of socioemotional selectivity. *American Psychologist*, *54*(3), 165.

Carstensen, L. L., Pasupathi, M., Mayr, U., & Nesselroade, J. R. (2000). Emotional experience in everyday life across the adult life span. *Journal of Personality and Social Psychology*, *79*(4), 644.

Castriota, S. (2006). Education and happiness: A further explanation to the Easterlin Paradox. Unpublished paper.

Cavendish, J. C. (2000). Church-based Community Activism: A Comparison of Black and White Catholic Congregations. *Journal for the Scientific Study of Religion*, *39*(1), 64-77.

Cella, D., Riley, W., Stone, A., Rothrock, N., Reeve, B., Yount, S., and Cook, K. (2010). The Patient-Reported Outcomes Measurement Information System (PROMIS) developed and tested its first wave of adult self-reported health outcome item banks: 2005–2008. *Journal of Clinical Epidemiology*,63(11), 1179-1194.

Chaichanawirote, U., & Higgins, P. A. (2013). The Complexity of Older Adults' Social Support Networks. *Research in Gerontological Nursing*, *6*(4), 275-282.

Charles, C. Z. (2009). *Taming the River: Negotiating the Academic, Financial, and Social Currents in Selective Colleges and Universities*. Princeton, NJ: Princeton University Press.

Chen, W. C. (2012). How education enhances happiness: Comparison of mediating factors in four East Asian countries. *Social Indicators Research*,106(1), 117-131.

Chiswick, B. R. (1988). Differences in education and earnings across racial and ethnic groups: Tastes, discrimination, and investments in child quality. *The Quarterly Journal of Economics* 103(3), 571-597.

Chiteji, Ngina. (2010). Time Preference, Noncognitive Skills and Well Being across the Life Course: Do Noncognitive Skills Encourage Healthy Behavior? *American Economic Review* 100(2), 200-04.

Christakis, N. A., & Fowler, J. H. (2009). *Connected: The Surprising Power of Our Social Networks and How They Shape Our Lives*. New York, NY. Little, Brown.

Clark, Andrew E., Paul Frijters, and Michael A. Shields. (2008). Relative Income, Happiness, and Utility: An Explanation for the Easterlin Paradox and Other Puzzles. *Journal of Economic Literature* 46(1), 95-144.

Cohen, S. (1988). Psychosocial models of the role of social support in the etiology of physical disease. *Health Psychology* 7(3), 269.

Cohen, S. (2004). Social relationships and health. *American Psychologist* 59(8), 676.

Cohen, S., Doyle, W. J., Turner, R., Alper, C. M., & Skoner, D. P. (2003). Sociability and susceptibility to the common cold. *Psychological Science* 14(5), 389-395.

Cohen, S., Gottlieb, B., & Underwood, L. (2000). Social relationships and health. In S. Cohen, L. Underwood, & B. Gottlieb (Eds.), *Measuring and Intervening in Social Support* (pp. 3–25). New York, NY. Oxford University Press.

Coleman, J. S. (1988). Social capital in the creation of human capital. *American Journal of Sociology*, 94 (Supplement: Organizations and Institutions: Sociological and Economic Approaches to the Analysis of Social Structure), S95-S120.

Conti, G., & Heckman, J. J. (2010). Understanding the early origins of the education–health gradient a framework that can also be applied to analyze gene–environment interactions. *Perspectives on Psychological Science*, *5*(5), 585-605.

Cornwell, B. (2009). Network bridging potential in later life life-course experiences and social network position. *Journal of Aging and Health*, *21*(1), 129-154.

Cornwell, B., & Laumann, E. O. (2015). The health benefits of network growth: New evidence from a national survey of older adults. *Social Science & Medicine*, *125*, 94-106.

Cornwell, B., Laumann, E. O., & Schumm, L. P. (2008). The social connectedness of older adults: A national profile. *American Sociological Review*, *73*(2), 185-203.

Cornwell, B., Schumm, L. P., Laumann, E. O., & Graber, J. (2009). Social Networks in the NSHAP Study: rationale, measurement, and preliminary findings. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, *64*(suppl 1), i47-i55.

Cornwell, B., Schumm, L. P., Laumann, E. O., Kim, J., & Kim, Y. J. (2014). Assessment of social network change in a National Longitudinal Survey. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, *69*(Suppl 2), S75-S82.

Csikszentmihalyi, M. (1990). *Flow: The Psychology of Optimal Experience*. New York, NY Harper Collins.

Cuñado, J., & de Gracia, F. P. (2012). Does education affect happiness? Evidence for Spain. *Social Indicators Research*, 108(1), 185-196.

Currie, J. (2008). *Healthy, wealthy, and wise: Socioeconomic status, poor health in childhood, and human capital development* (No. w13987). Washington, DC. National Bureau of Economic Research.

Cutler, D. M., & Lleras-Muney, A. (2006). *Education and health: evaluating theories and evidence* (No. w12352). Washington, DC. National Bureau of Economic Research.

Dannefer, D. (2003). Cumulative advantage/disadvantage and the life course: Cross-fertilizing age and social science theory. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, *58*(6), S327-S337.

Danner, D. D., Snowdon, D. A., & Friesen, W. V. (2001). Positive emotions in early life and longevity: findings from the nun study. *Journal of Personality and Social Psychology*, 80(5), 804.

Demır, M., & Weitekamp, L. A. (2007). I am so happy 'cause today I found my friend: Friendship and personality as predictors of happiness. *Journal of Happiness Studies*, *8*(2), 181-211.

DeNeve, Kristina M, and Harris Cooper. (1998). The happy personality: a meta-analysis of 137 personality traits and subjective well-being. *Psychological Bulletin* 124(2):197.

Dewey, J. (2004). *Democracy and Education*. New York, NY. The Free Press.

Di Tella, R., & MacCulloch, R. (2005). Partisan social happiness. *The Review of Economic Studies*, *72*(2), 367-393.

Di Tella, R., & MacCulloch, R. (2008). Gross national happiness as an answer to the Easterlin Paradox?. *Journal of Development Economics*, *86*(1), 22-42.

Di Tella, Rafael, Robert J MacCulloch, & Andrew J Oswald. (2003). The macroeconomics of happiness. *Review of Economics and Statistics* 85(4):809-27.

Diener, E., & Biswas-Diener, R. (2008). *Happiness: Unlocking the mysteries of psychological wealth*. New York, NY. John Wiley & Sons.

Diener, Ed. (1994). Assessing subjective well-being: Progress and opportunities. *Social Indicators Research* 31(2):103-57.

Diener, Ed. (2000). Subjective well-being: The science of happiness and a proposal for a national index. *American Psychologist* 55(1):34.

Diener, Ed. (2006). Guidelines for national indicators of subjective well-being and ill-being. *Applied Research in Quality of Life* 1(2):151-57.

Diener, Ed. (2009). Subjective well-being. Pp. 11-58 in *The Science of Well-Being*: New York, NY. Springer.

Diener, Ed. (2013). The remarkable changes in the science of subjective well-being. *Perspectives on Psychological Science* 8(6):663-66.

Diener, Ed, & Eunkook M Suh. (2000). *Culture and subjective well-being*. Cambridge, MA. The MIT press.

Dolan, Paul, Tessa Peasgood, & Mathew White. (2008). Do we really know what makes us happy? A review of the economic literature on the factors associated with subjective well-being. *Journal of Economic Psychology* 29(1):94-122.

Easterlin, R. A., McVey, L. A., Switek, M., Sawangfa, O., & Zweig, J. S. (2010). The happiness–income paradox revisited. *Proceedings of the National Academy of Sciences*, *107*(52), 22463-22468.

Easterlin, Richard A. (1974). Does economic growth improve the human lot? Some empirical evidence. *Nations and Households in Economic Growth* 89.

Easterlin, Richard A. (1995). Will raising the incomes of all increase the happiness of all?. *Journal of Economic Behavior & Organization* 27(1):35-47.

Easterlin, Richard A. (2003). Explaining happiness. *Proceedings of the National Academy of Sciences* 100(19):11176-83.

Easterlin, Richard A. (2006). Life cycle happiness and its sources: Intersections of psychology, economics, and demography. *Journal of Economic Psychology*, *27*(4), 463-482.

Eid, M., & Larsen, R. J. (Eds.). (2008). *The science of subjective well-being*. New York, NY. Guilford Press.

Ellison, C. G., Gay, D. A., & Glass, T. A. (1989). Does religious commitment contribute to individual life satisfaction?. *Social Forces*, 68(1), 100-123.

Ellison, Christopher G. (1991). Religious involvement and subjective well-being. *Journal of Health and Social Behavior*, 32(1), 80-99.

Espenshade, T. J. (1985). Marriage trends in America: Estimates, implications, and underlying causes. *Population and Development Review*, 11(2), 193-245.

Espenshade, T. J., Radford, A. W., & Chung, C. Y. (2009). *No Longer Separate, Not Yet Equal: Race and Class in Elite College Admission and Campus Life*. Princeton, NJ. Princeton University Press.

Fernandez, R. M., & Fernandez-Mateo, I. (2006). Networks, race, and hiring. *American Sociological Review*, *71*(1), 42-71.

Ferrer-i-Carbonell, A., & Frijters, P. (2004). How Important is Methodology for the estimates of the determinants of Happiness?*. *The Economic Journal*,*114*(497), 641-659.

Fiori, K. L., Smith, J., & Antonucci, T. C. (2007). Social network types among older adults: A multidimensional approach. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, *62*(6), P322-P330.

Fischer, C. S. (2009). The 2004 GSS finding of shrunken social networks: An artifact?. *American Sociological Review*, *74*(4), 657-669.

Fowers, Blaine J. 1991. His and her marriage: A multivariate study of gender and marital satisfaction. *Sex Roles* 24(3-4):209-21.

Fowler, J. H., & Christakis, N. A. (2008). Dynamic spread of happiness in a large social network: longitudinal analysis over 20 years in the Framingham Heart Study. *BMJ*, *337*, a2338.

Francis, L. J., Katz, Y. J., Yablon, Y., & Robbins, M. (2004). Religiosity, personality, and happiness: A study among Israeli male undergraduates. *Journal of Happiness Studies*, 5(4), 315-333.

Fredrickson, B. L., & Carstensen, L. L. (1990). Choosing social partners: how old age and anticipated endings make people more selective. *Psychology and Aging*, *5*(3), 335.

Frijters, P., & Beatton, T. (2012). The mystery of the U-shaped relationship between happiness and age. *Journal of Economic Behavior & Organization*,*82*(2), 525-542.

Frijters, P., Johnston, D. W., & Shields, M. A. (2011). Destined for (un) happiness: does childhood predict adult life satisfaction?. Working Paper.

Fung, H. H., Carstensen, L. L., & Lang, F. R. (2001). Age-related patterns in social networks among European Americans and African Americans: Implications for socioemotional selectivity across the life span. *The International Journal of Aging and Human Development*, *52*(3), 185-206.

George, Linda K. (2010). Still happy after all these years: Research frontiers on subjective well-being in later life. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences* 65(3):331-39.

Gove, Walter R, Michael Hughes, & Carolyn Briggs Style. 1983. Does marriage have positive effects on the psychological well-being of the individual?. *Journal of Health and Social Behavior*, 24(2), 122-31.

Granovetter, Mark S. (1973). The Strength of Weak Ties. *American Journal of Sociology* 78(6): 1360-1380.

Guven, C., & Sørensen, B. E. (2007). Subjective Well-Being: Keeping up with the Joneses. Real or Perceived?. *Social Indicators Research, 109(3)*. 439-469.

Hagerty, Michael R, Robert A Cummins, Abbott L Ferriss, Kenneth Land, Alex C Michalos, Mark Peterson, Andrew Sharpe, Joseph Sirgy, & Joachim Vogel. (2001). Quality of life indexes for national policy: Review and agenda for research. *Social Indicators Research* 55(1):1-96.

Haller, Max, & Markus Hadler. (2006). How social relations and structures can produce happiness and unhappiness: An international comparative analysis. *Social Indicators Research* 75(2):169-216.

Hampton, K. N., Sessions, L. F., & Her, E. J. (2011). Core networks, social isolation, and new media: How Internet and mobile phone use is related to network size and diversity. *Information, Communication & Society*, *14*(1), 130-155.

Haring-Hidore, Marilyn, William A Stock, Morris A Okun, & Robert A Witter. (1985). Marital status and subjective well-being: A research synthesis. *Journal of Marriage and the Family*: 47(4), 947-53.

Harris, A. M. G., Henderson, G. R., & Williams, J. D. (2005). Courting customers: Assessing consumer racial profiling and other marketplace discrimination. *Journal of Public Policy & Marketing*, 24(1), 163-171.

Harris, M. I. (2001). Racial and ethnic differences in health care access and health outcomes for adults with type 2 diabetes. *Diabetes Care*, 24(3), 454-459.

Hawkley, L. C., & Cacioppo, J. T. (2013). Loneliness and Health. In *Encyclopedia of Behavioral Medicine* (pp. 1172-1176). New York, NY. Springer New York.

Hayes, Natalie, and Stephen Joseph. (2003). Big 5 correlates of three measures of subjective well-being. *Personality and Individual Differences* 34(4):723-27.

Headey, B., Kelley, J., & Wearing, A. (1993). Dimensions of mental health: life satisfaction, positive affect, anxiety and depression. *Social Indicators Research*, 29(1), 63-82.

Helliwell, John F, & Robert D Putnam. (2004). The social context of well-being. *Philosophical Transactions-Royal Society of London Series B Biological Sciences*:1435-46.

Helliwell, John F. (2003). How's life? Combining individual and national variables to explain subjective well-being. *Economic Modelling* 20(2):331-60.

Heywood, J. S., & Parent, D. (2012). Performance pay and the white-black wage gap. *Journal of Labor Economics*, *30*(2), 249-290.

Hofferth, S. L. (1984). Kin networks, race, and family structure. *Journal of Marriage and the Family*, 46(4). 791-806.

Hogan, D. P., Hao, L. X., & Parish, W. L. (1990). Race, kin networks, and assistance to mother-headed families. *Social Forces*, 68(3), 797-812.

House, J. S., Kahn, R. L., McLeod, J. D., & Williams, D. (1985). *Measures and concepts of social support*. San Diego, CA. Academic Press.

House, J. S., Landis, K. R., & Umberson, D. (1988). Social relationships and health. *Science*, *241*(4865), 540-545.

Hout, M. (2012). Social and economic returns to college education in the United States. *Annual Review of Sociology*, 38(1), 379-400.

Hughes, M. E., Waite, L. J., Hawkley, L. C., & Cacioppo, J. T. (2004). A short scale for measuring loneliness in large surveys results from two population-based studies. *Research on Aging*, *26*(6), 655-672.

Hughes, M., & Thomas, M. E. (1998). The continuing significance of race revisited: A study of race, class, and quality of life in America, 1972 to 1996. *American Sociological Review*, 785-795.

Hughes, Michael. (2006). Affect, meaning and quality of life. *Social Forces* 85(2):611-29.

Hummer, R. A., Rogers, R. G., Nam, C. B., & Ellison, C. G. (1999). Religious involvement and US adult mortality. *Demography*, *36*(2), 273-285.

Iyer, A., Sen, G., & George, A. (2007). The dynamics of gender and class in access to health care: Evidence from rural Karnataka, India. *International Journal of Health Services*, 37(3), 537-554.

Jagger, Carol, and Jean-Marie Robine. (2011). Healthy life expectancy. Pp. 551-68 in *International Handbook of Adult Mortality*. London, UK. Springer.

Jencks, C. (1972). *Inequality: A reassessment of the effect of family and schooling in America*. Basic Books.

Jones, A. M. (1994). Health, addiction, social interaction and the decision to quit smoking. *Journal of Health Economics*, 13(1), 93-110.

Kahneman, D., & Deaton, A. (2010). High income improves evaluation of life but not emotional well-being. *Proceedings of the National Academy of Sciences*, 107(38), 16489-16493.

Kahneman, Daniel, and Alan B Krueger. (2006). Developments in the measurement of subjective well-being. *The Journal of Economic Perspectives* 20(1):3-24.

Kahneman, Daniel, Edward Diener, and Norbert Schwarz. (2003). *Well-being: Foundations of hedonic psychology*: New York, NY. Russell Sage Foundation.

Kawamoto, Ryuichi. (2002) Self-reported functional ability predicts three-year mobility and mortality in community-dwelling older persons. *Geriatrics & Gerontology International 2*, no. 2 (2002): 68-74.

Kim, Hyoun K, & Patrick C McKenry. (2002). The Relationship Between Marriage and Psychological Well-being A Longitudinal Analysis. *Journal of Family Issues* 23(8):885-911.

Knight, John, Lina Song, & Ramani Gunatilaka. (2009). Subjective well-being and its determinants in rural China. *China Economic Review* 20(4):635-49.

Knodel, J., Kespichayawattana, J., Wiwatwanich, S., & Saengtienchai, C. (2013). The future of family support for Thai elderly: Views of the populace.Journal of population and social studies, 21(2), 110-132.

Koenig, H. G. (2012). Religion, spirituality, and health: The research and clinical implications. *ISRN Psychiatry*, 2012.

Koopmans, Teije A., Johanna M. Geleijnse, Frans G. Zitman, & Erik J. Giltay. (2010). Effects of happiness on all-cause mortality during 15 years of follow-up: The Arnhem Elderly Study. *Journal of Happiness Studies* 11, no. 1 (2010): 113-124.

Land, Kenneth C, Alex Charles Michalos, & M Joseph Sirgy. (2012). *Handbook of Social Indicators and Quality-of-Life Research*: New York, NY. Springer.

Land, Kenneth C. (2001). Models and indicators. *Social Forces* 80(2):381-410.

Lang, F. R., & Carstensen, L. L. (1994). Close emotional relationships in late life: further support for proactive aging in the social domain. *Psychology and Aging*, 9(2), 315.

Layard, P. R., & Layard, R. (2011). *Happiness: Lessons From a New Science*. London, UK. Penguin UK.

Leach, M. S., & Braithwaite, D. O. (1996). A binding tie: Supportive communication of family kinkeepers. *Journal of Applied Communication Research* (3). 200-216.

Lee, G. R., & Ishii-Kuntz, M. (1987). Social interaction, loneliness, and emotional well-being among the elderly. *Research on Aging*, 9(4), 459-482.

Lee, J. (2000). The Salience of Race in Everyday Life Black Customers' Shopping Experiences in Black and White Neighborhoods. *Work and Occupations*, 27(3), 353-376.

Lehrer, E. L. (2004). Religion as a determinant of economic and demographic behavior in the United States. *Population and Development Review*, *30*(4), 707-726.

Lewis, C. A., & Cruise, S. M. (2006). Religion and happiness: Consensus, contradictions, comments and concerns. *Mental Health, Religion and Culture*,*9*(03), 213-225.

Lewis, C. A., Maltby, J., & Burkinshaw, S. (2000). Religion and happiness: Still no association. *Journal of Beliefs and Values*, *21*(2), 233-236.

Lichter, D. T., McLaughlin, D. K., Kephart, G., & Landry, D. J. (1992). Race and the retreat from marriage: A shortage of marriageable men?. *American Sociological Review*, 781-799.

Lim, C., & Putnam, R. D. (2010). Religion, social networks, and life satisfaction. *American Sociological Review*, *75*(6), 914-933.

Lin, N. (2000). Inequality in social capital. *Contemporary Sociology*, 29(6), pp. 785-795.

Lin, N. (2001). *Social Capital: A Theory of Social Structure and Action*. New York, NY. Cambridge University Press.

Lin, N., Cook, K. S., & Burt, R. S. (Eds.). (2001). *Social Capital: Theory and Research*. Transaction Publishers.

Lincoln, C. E., & Mamiya, L. H. (1990). *The Black Church in the African American Experience*. Duke University Press.

Litwin, H. (2001). Social network type and morale in old age. *The Gerontologist*, 41(4), 516-524.

Litwin, H., & Landau, R. (2000). Social network type and social support among the old-old. *Journal of Aging Studies*, 14(2), 213-228.

Losh, S., Fobes, C., & Gould, M. (1994). Ballots, Marches and Good Works: Religious Congregations, Community Participation and Political Activism. In A paper delivered at the annual convention of the *Association for the Sociology of Religion*, Los Angeles, California.

Lucas, Richard E, Andrew E Clark, Yannis Georgellis, and Ed Diener. 2003. Reexamining adaptation and the set point model of happiness: reactions to changes in marital status. *Journal of Personality and Social Psychology* 84(3):527.

Lucas, Richard E. (2005). Time does not heal all wounds a longitudinal study of reaction and adaptation to divorce. *Psychological Science* 16(12):945-50.

Luo, Y., Hawkley, L. C., Waite, L. J., & Cacioppo, J. T. (2012). Loneliness, health, and mortality in old age: A national longitudinal study. *Social Science & Medicine*, 74(6), 907-914.

Macintyre, S., Hunt, K., & Sweeting, H. (1996). Gender differences in health: are things really as simple as they seem?. *Social Science & Medicine*, *42*(4), 617-624.

Mare, R. D., & Winship, C. (1991). Socioeconomic change and the decline of marriage for blacks and whites. *The Urban Underclass*, 175, 175. Brookings Institution Press.

Marsden, P. V. (1987). Core discussion networks of Americans. *American Sociological Review*, 122-131.

Marsden, P. V. (1990). Network data and measurement. *Annual Review of Sociology*, 435-463.

Marx, Karl. (1978). *The Marx-Engels Reader, 2d ed*. Edited by Robert C. Tucker. New York, NY. W.W. Norton and Company.

Mastekaasa, Arne. (1992). Marriage and psychological well-being: Some evidence on selection into marriage. *Journal of Marriage and the Family*:901-11.

Mastekaasa, Arne. (1993). Marital status and subjective well-being: A changing relationship? *Social Indicators Research* 29(3):249-76.

Matthews, Charles E., Adriana L. Jurj, Xiao-ou Shu, Hong-Lan Li, Gong Yang, Qi Li, Yu-Tang Gao, & Wei Zheng. (2007). Influence of exercise, walking, cycling, and overall nonexercise physical activity on mortality in Chinese women. *American Journal of Epidemiology* 165, no. 12 (2007): 1343-1350.

McBride, M. (2010). Money, happiness, and aspirations: An experimental study. *Journal of Economic Behavior & Organization*, *74*(3), 262-276.

McCullough, M. E., Hoyt, W. T., Larson, D. B., Koenig, H. G., & Thoresen, C. (2000). Religious involvement and mortality: a meta-analytic review. *Health Psychology*, *19*(3), 211.

McGee, D. L., Liao, Y., Cao, G., & Cooper, R. S. (1999). Self-reported health status and mortality in a multiethnic US cohort. *American Journal of Epidemiology*, *149*(1), 41-46.

McLeod, J. D., & Kaiser, K. (2004). Childhood emotional and behavioral problems and educational attainment. *American Sociological Review*, *69*(5), 636-658.

McPherson, M., Smith-Lovin, L., & Brashears, M. E. (2006). Social isolation in America: Changes in core discussion networks over two decades. *American Sociological Review*, *71*(3), 353-375.

McPherson, M., Smith-Lovin, L., & Cook, J. M. (2001). Birds of a feather: Homophily in social networks. *Annual Review of Sociology*, 415-444.

McRoberts, O. M. (2005). *Streets of Glory: Church and Community in a Black Urban Neighborhood*. Chicago, IL. University of Chicago Press.

Michalos, A. C. (2008). Education, happiness and wellbeing. *Social Indicators Research*, 87(3), 347-366.

Miilunpalo, S., Vuori, I., Oja, P., Pasanen, M., & Urponen, H. (1997). Self-rated health status as a health measure: the predictive value of self-reported health status on the use of physician services and on mortality in the working-age population. *Journal of Clinical Epidemiology*, *50*(5), 517-528.

Mills, C. W. (1956). *The Power Elite*. New York, NY: Oxford University Press.

Mirowsky, J., & Ross, C. E. (2003). *Education, Social Status, and Health*. Edison, NJ. Transaction Publishers.

Moen, P., Dempster-McClain, D., & Williams Jr, R. M. (1992). Successful aging: A life-course perspective on women's multiple roles and health. *American Journal of Sociology*, 1612-1638.

Moren-Cross, J. L., & Lin, N. (2006). Social networks and health. *Handbook of Aging and the Social Sciences*, 6, 111-126.

Mosca, G., Kahn, H. D., & Livingston, A. (1939). *The ruling class: (elementi di scienze politica)* (1st ed.). New York and London: McGraw-Hill Book Company.

Moya, P. M. (2002). *Learning from Experience: Minority Identities, Multicultural Struggles*. Berkeley and Los Angeles, CA. University of California Press.

Musick, K., Brand, J. E., & Davis, D. (2012). Variation in the relationship between education and marriage: Marriage market mismatch?. *Journal of Marriage and Family*, *74*(1), 53-69.

Myers, David G., & Ed Diener. Who is happy?. *Psychological science* 6, no. 1 (1995): 10-19.

Noll, Heinz-Herbert. (2002). Social indicators and quality of life research: Background, achievements and current trends. *Advances in Sociological Knowledge over Half a Century.–Paris*. New York, NY. Springer.

Nussbaum, M., & Sen, A. (1993). *The Quality of Life*. London, UK. Oxford University Press.

O'Muircheartaigh, C., Eckman, S., & Smith, S. (2009). Statistical Design and Estimation for the National Social Life, Health, and Aging Project. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, *64*(Suppl 1), i12.

Ogbu, J. U., & Simons, H. D. (1998). Voluntary and involuntary minorities: a cultural-ecological theory of school performance with some implications for education. *Anthropology & Education Quarterly*, *29*(2), 155-188.

Oppenheimer, V. K. (1997). Women's employment and the gain to marriage: The specialization and trading model. *Annual Review of Sociology*, 431-453.

Paik, A., & Sanchagrin, K. (2013). Social Isolation in America An Artifact. *American Sociological Review*,78(3), 339-360.

Pampel, F. C. (Ed.). (2000). *Logistic regression: A primer* (Vol. 132). New York, NY. Sage.

Pattillo-McCoy, M. (1998). Church culture as a strategy of action in the black community. *American Sociological Review*, 767-784.

Pattillo, M. (2015). Everyday Politics of School Choice in the Black Community. *Du Bois Review: Social Science Research on Race*, *12*(01), 41-71.

Perenboom, RJM, LM Van Herten, HC Boshuizen, & GAM Van den Bos. (2004). Trends in life expectancy in wellbeing. *Social Indicators Research* 65(2):227-44.

Perkins, J. M., Subramanian, S. V., & Christakis, N. A. (2015). Social networks and health: a systematic review of sociocentric network studies in low-and middle-income countries. *Social Science & Medicine*, *125*, 60-78.

Perry, B. L., & Pescosolido, B. A. (2010). Functional specificity in discussion networks: The influence of general and problem-specific networks on health outcomes. *Social Networks*, *32*(4), 345-357.

Pinquart, Martin, & Silvia Sörensen. (2000). Influences of socioeconomic status, social network, and competence on subjective well-being in later life: a meta-analysis. *Psychology and Aging* 15(2):187.

Pitkala, K. H., Marja-Liisa Laakkonen, Timo E. Strandberg, & Reijo S. Tilvis. (2004). Positive life orientation as a predictor of 10-year outcome in an aged population. *Journal of Clinical Epidemiology* 57, no. 4 (2004): 409-414.

Plickert, G., Cote, R. R., & Wellman, B. (2007). It's not who you know, it's how you know them: Who exchanges what with whom?. *Social Networks*,*29*(3), 405-429.

Poulton, R., Caspi, A., Milne, B. J., Thomson, W. M., Taylor, A., Sears, M. R., & Moffitt, T. E. (2002). Association between children's experience of socioeconomic disadvantage and adult health: a life-course study. *The Lancet*, 360(9346), 1640-1645.

Powdthavee, N., Lekfuangfu, W. N., & Wooden, M. (2013). The marginal income effect of education on happiness: Estimating the direct and indirect effects of compulsory schooling on well-being in Australia. *Melbourne Institute Working Paper*; 13/16. 1328-4991.

Pressman, S. D., Cohen, S., Miller, G. E., Barkin, A., Rabin, B. S., & Treanor, J. J. (2005). Loneliness, social network size, and immune response to influenza vaccination in college freshmen. *Health Psychology*, *24*(3), 297.

Putnam, R. D. (2001). *Bowling alone: The collapse and revival of American community*. New York, NY. Simon and Schuster.

Raley, R. K. (1996). A shortage of marriageable men? A note on the role of cohabitation in black-white differences in marriage rates. *American Sociological Review*, 973-983.

Raudenbush, S. W. (2009). The Brown legacy and the O'Connor challenge: Transforming schools in the images of children's potential. *Educational Researcher*, *38*(3), 169-180.

Ready, D. D. (2010). Socioeconomic disadvantage, school attendance, and early cognitive development the differential effects of school exposure. *Sociology of Education*, *83*(4), 271-286.

Riach, P. A., & Rich, J. (1991). Testing for racial discrimination in the labour market. *Cambridge Journal of Economics*, 239-256.

Robbins, M., & Francis, L. J. (1996). Are religious people happier? A study among undergraduates. *Research in Religious Education*, 207-217.

Roberts, S. G., & Dunbar, R. I. (2011). Communication in social networks: Effects of kinship, network size, and emotional closeness. *Personal Relationships*, *18*(3), 439-452.

Roberts, S. G., Dunbar, R. I., Pollet, T. V., & Kuppens, T. (2009). Exploring variation in active network size: Constraints and ego characteristics. *Social Networks*, *31*(2), 138-146.

Robine, Jean-Marie, Yasuhiko Saito, & Carol Jagger. (2009). The relationship between longevity and healthy life expectancy. *Quality in Ageing and Older Adults* 10(2):5-14.

Rosenthal, C. J. (1985). Kinkeeping in the familial division of labor. *Journal of Marriage and the Family*, 965-974.

Ross, C. E., & Wu, C. L. (1995). The links between education and health. *American Sociological Review*, 719-745.

Ross, C. E., & Wu, C. L. (1996). Education, age, and the cumulative advantage in health. *Journal of Health and Social Behavior*, 104-120.

Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology*, *52*(1), 141-166.

Salm, M., & Schunk, D. (2012). The relationship between child health, developmental gaps, and parental education: Evidence from administrative data. *Journal of the European Economic Association*, *10*(6), 1425-1449.

Sandvik, Ed, Ed Diener, & Larry Seidlitz. (1993). Subjective well-being: The convergence and stability of self-report and non-self-report measures. *Journal of Personality* 61(3):317-42.

Schnohr, P., T. S. Kristensen, E. Prescott, & H. Scharling. (2005). Stress and life dissatisfaction are inversely associated with jogging and other types of physical activity in leisure time—the Copenhagen City Heart Study. *Scandinavian Journal of Medicine & Science in Sports* 15, no. 2 (2005): 107-112.

Schuessler, Karl F, & Gene A Fisher. (1985). Quality of life research and sociology. *Annual Review of Sociology*:129-49.

Schwarz, N., & Strack, F. (1999). Reports of subjective well-being: Judgmental processes and their methodological implications. *Well-being: The Foundations of Hedonic Psychology*, *7*, 61-84.

Silver, R. L. (1982). Coping with an undesirable life event: A study of early reactions to physical disability (Doctoral dissertation, Northwestern University).

Sirgy, M Joseph, Alex C Michalos, Abbott L Ferriss, Richard A Easterlin, Donald Patrick, & William Pavot. (2006). The Qualityity-of-Life (QOL) Research Movement: Past, Present, and Future. *Social Indicators Research* 76(3):343-466.

Small, M. L., & Winship, C. (2007). Black students' graduation from elite colleges: Institutional characteristics and between-institution differences. *Social Science Research, 36*(3), 1257-1275.

Smith, J. P., & Kington, R. (1997). Demographic and economic correlates of health in old age. *Demography*, 34(1), 159-170.

Smith, Jacqui, Markus Borchelt, Heiner Maier, & Daniela Jopp. (2002). Health and Well–Being in the Young Old and Oldest Old. *Journal of Social Issues* 58(4):715-32.

Smith, K. P., & Christakis, N. A. (2008). Social networks and health. *Annu. Rev. Sociol*, *34*, 405-429

Smith, Sandra. (2005). ' Don't Put My Name On It : Social Capital Activation and Job-Finding Assistance Among the Black Urban Poor'. *American Journal of Sociology* 111(1): 1-57.

Snope, L. (2008). Religiousness and happiness in three nations: A research note. *Journal of Happiness Studies*, *9*(2), 207-211.

Stack, Carol B. (1974). *All Our Kin: Strategies for Survival in A Black Community*. New York: Basic Books.

Stafford, M., Cummins, S., Macintyre, S., Ellaway, A., & Marmot, M. (2005). Gender differences in the associations between health and neighbourhood environment. *Social Science & Medicine*, 60(8), 1681-1692.

Steele, C. M. (1992, Race and the schooling of black Americans. *The Atlantic Monthly, 269*, 67.

Stevenson, B., & Wolfers, J. (2007). Marriage and divorce: Changes and their driving forces. *The Journal of Economic Perspectives*, 21(2), 27-52.

Stutzer, Alois, & Bruno S Frey. (2006). Does marriage make people happy, or do happy people get married? *The Journal of Socio-Economics* 35(2):326-47.

Subramanian, SV, Daniel Kim, & Ichiro Kawachi. (2005). Covariation in the socioeconomic determinants of self rated health and happiness: a multivariate multilevel analysis of individuals and communities in the USA. *Journal of Epidemiology and Community Health* 59(8):664-69.

Sue, D. W., Capodilupo, C. M., Torino, G. C., Bucceri, J. M., Holder, A., Nadal, K. L., & Esquilin, M. (2007). Racial microaggressions in everyday life: implications for clinical practice. *American Psychologist*, *62*(4), 271.

Swim, J. K., Hyers, L. L., Cohen, L. L., Fitzgerald, D. C., & Bylsma, W. H. (2003). African American college students' experiences with everyday racism: Characteristics of and responses to these incidents. *Journal of Black Psychology*, *29*(1), 38-67.

Taylor, Paul, Cary Funk, &Peyton Craighill. (2006) Are we happy yet? *Pew Social Indicator Research. 02,13.*

Taylor, R. J., Chatters, L. M., Jayakody, R., & Levin, J. S. (1996). Black and white differences in religious participation: A multisample comparison. *Journal for the Scientific Study of Religion*, 403-410.

Taylor, R. J., Chatters, L. M., Woodward, A. T., & Brown, E. (2013). Racial and ethnic differences in extended family, friendship, fictive kin, and congregational informal support networks. *Family Relations*, 62(4), 609-624.

Torrance, G. W., & Feeny, D. (1989). Utilities and quality-adjusted life years. *International Journal of Technology Assessment in Health Care*, *5*(04), 559-575.

Umberson, D., Crosnoe, R., & Reczek, C. (2010). Social relationships and health behavior across life course. *Annual Review of Sociology*, *36*, 139.

Umberson, Debra. (1992). Gender, marital status and the social control of health behavior. *Social Science & Medicine* 34(8):907-17.

Van Cappellen, P., Toth-Gauthier, M., Saroglou, V., & Fredrickson, B. L. (2016). Religion and well-being: The mediating role of positive emotions. *Journal of Happiness Studies*, 17(2), 485-505.

Van Praag, B. M., & Ferrer-i-Carbonell, A. (2008). *Happiness Quantified: A Satisfaction Calculus Approach*. Oxford University Press.

Van Tilburg, T., Groenou, V., & Broese, M. (2002). Network and health changes among older Dutch adults. *Journal of Social Issues*, *58*(4), 697-713.

Veenhoven, R. (2008). Sociological theories of subjective well-being. *The Science of Subjective Well-Being*, 44-61.

Veenhoven, Ruut. (1996). Happy life-expectancy. *Social Indicators Research* 39(1):1-58.

Veenhoven, Ruut. (2005). *Apparent quality-of-life in nations: How long and happy people live*. New York, NY. Springer.

Veenhoven, Ruut. (2015). Social conditions for human happiness: A review of research. *International Journal of Psychology* 50, no. 5 (2015): 379-391.

Waite, L. J., & Lehrer, E. L. (2003). The benefits from marriage and religion in the United States: A comparative analysis. *Population and Development Review*, *29*(2), 255-275.

Waite, L. J., Luo, Y., & Lewin, A. C. (2009). Marital happiness and marital stability: Consequences for psychological well-being. *Social Science Research*,38(1), 201-212.

Waite, Linda J. (1995). Does marriage matter? *Demography* 32(4):483-507.

Waite, Linda, & Maggie Gallagher. (2002). *The Case for Marriage: Why Married People Are Happier, Healthier and Better Off Financially*. Random House Digital, Inc.

Wasserman, S., & Faust, K. (1994). *Social Network Analysis: Methods and Applications (Vol. 8)*. Cambridge University Press.

Wellman, Barry, & Scott Wortley. (1989). Brothers' Keepers: Situating Kinship Relations in Broader Networks of Social Support. *Sociological Perspectives* 32(3): 273-306.

Wellman, Barry, & Scott Wortley. (1990). Different Strokes From Different Folks: Community Ties and Social Support. *American Journal of Sociology* 96(3): 558-588.

Western, B., & Wildeman, C. (2009). The black family and mass incarceration. *The ANNALS of the American Academy of Political and Social Science*, 621(1), 221-242.

Williams, D. R., & Collins, C. (1995). US socioeconomic and racial differences in health: patterns and explanations. *Annual Review of Sociology*, 349-386.

Williams, D. R., Yu, Y., Jackson, J. S., & Anderson, N. B. (1997). Racial differences in physical and mental health socio-economic status, stress and discrimination. *Journal of Health Psychology*, *2*(3), 335-351.

Wilson, W. J. (2012). *The Truly Disadvantaged: The Inner City, the Underclass, and Public Policy*. Chicago, IL. University of Chicago Press.

Wilson, Warner R. (1967). Correlates of avowed happiness. *Psychological Bulletin* 67(4):294.

Wood, R. G. (1995). Marriage rates and marriageable men: A test of the Wilson hypothesis. *Journal of Human Resources*, 163-193.

Wood, Wendy, Nancy Rhodes, & Melanie Whelan. (1989). Sex differences in positive well-being: A consideration of emotional style and marital status. *Psychological Bulletin* 106(2):249.

Yang, Yang, & Muhammad Waliji. (2010). Increment–Decrement Life Table Estimates of Happy Life Expectancy for the US Population. *Population Research and Policy Review* 29(6):775-95.

Yang, Y. (2008). Social inequalities in happiness in the United States, 1972 to 2004: An age-period-cohort analysis. *American Sociological Review*, 73(2), 204-226.

Yang, Yang. (2008). Long and happy living: Trends and patterns of happy life expectancy in the US, 1970–2000. *Social Science Research* 37(4):1235-52.

Yang, Yang. (2008a). Long and happy living: Trends and patterns of happy life expectancy in the US, 1970–2000. *Social Science Research* 37(4):1235-52.

Yang, Y. (2008b). Social inequalities in happiness in the United States, 1972 to 2004: An age-period-cohort analysis. *American Sociological Review*, 73(2), 204-226.