

# Material Wealth and Subjective Well-Being

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Author's note: In the current dissertation I use the terms "happiness" and "subjective well-being" interchangeably as well as the terms "money" and "income." Although an argument can be made for the distinctiveness of these concepts I have used this linguistic convention to increase the ease with which this manuscript may be read. In all other cases I distinguish between specific variables such as positive affect and life satisfaction.

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#### 2. Abstract

People have long argued over the relation of income and material well-being to happiness. A variety of studies have examined the happiness of those living at the lowest economic levels as well as those living in relatively affluent nations. Taken together, this body of research suggests that income is correlated with subjective well-being (SWB), but is neither the most important factor in happiness, nor is this relationship unmediated or context free. The studies in the current dissertation outline a new approach to material wealth and SWB that proposes that there is much to learn about the money-happiness relationship by looking at the emotional lives of the very poor and the relatively affluent. Studies from the poor suggest that a lack of economic stability creates psychological risk factors for people, but that surprisingly high levels of emotional flourishing can still be found in impoverished communities. This latter finding suggests we need further research to determine how "basic" are basic needs. By contrast, research with people from relatively affluent nations suggests that income beyond the basic needs level can provide additional SWB, and that specific cultural context and personal aspirations mediate this relationship. Implications for policy and intervention are discussed.

- 3. List of papers included in this dissertation
- 3.1 (Paper 1) Diener, E. & **Biswas-Diener**, **R.** (2002). Will money increase subjective well-being? A literature review and guide to needed research. *Social Indicators Research*, 57, 119-169.
- 3.2 (Paper 2) **Biswas-Diener, R.**, Vitterso, J., & Diener, E. (2005). Most people are pretty happy, but there is cultural variation: The Inughuit, the Amish, and the Maasai. *Journal of Happiness Studies*, 6, 205-226.
- 3.3 (Paper 3) **Biswas-Diener, R.**, & Diener, E. (2001). Making the best of a bad situation: Satisfaction in the slums of Calcutta. *Social Indicators Research*, 55, 329-352.
- 3.4 (Paper 4) Biswas-Diener, R., & Diener, E. (2006). Subjective well-being of the homeless, and related lessons for happiness. Social Indicators Research, .76, 185-205.
- 3.5 (Paper 5) **Biswas-Diener, R.** (2007). Material wealth and subjective well-being. In Eid, M., & Larsen, R. (Eds.), *The science of subjective well-being* (307-322). New York: Guilford press.
- 3.6 (Paper 6) **Biswas-Diener, R.**, Vitterso, J., & Diener, E. (2008). The Danish Effect: beginning to explain the high happiness of Denmark. *Manuscript submitted for publication*.

#### 4 Introduction

### 4.1 General Overview

The question of whether money buys happiness has long been important to people. Throughout history some people have argued in favor of income as an important factor in happiness while others have argued against this position. Aristotle, for instance, believed that achieving the "good life" was, in part, dependent on having adequate material provisions. Similarly, major western religions such as Christianity and Judaism have also taught that there is a relationship between material wealth and happiness. Jesus, for example, preached that it would be easier for a "camel to go through the eye of a needle than for a rich man to enter into the kingdom of God" (King James Bible, p.869). In everyday life, there are those who hold to the notion that getting rich is a sure way to happiness, and those who argue that the very wealthy could never be happy. Over the last few decades, a number of scholarly and popular books have been written warning of the possible ill-effects of pursuing happiness through money. Wachtel (1989) wrote that income has been replacing traditional values such as community and family. These sentiments are echoed in other popular books such as The Overspent American (Schor, 1999) and The High Price of Materialism (Kasser, 2002). The issue of whether money does, indeed, buy happiness is an important one, in part because there are now more people with their basic needs met and with discretionary income than at any time in history. Understanding the link between money and happiness also has implications for public policy (Diener et al., 2006) and environmental policy (Marks et al., 2006).

Fortunately, research from the science of subjective well-being has begun to provide answers to this age-old question.

Although the relation between income and subjective well-being is a complex one, it is safe to say that there seems to be a significant positive relationship between these two variables. A variety of studies ranging from international comparisons (Diener & Diener, 1995) to isolated samples (Diener et al., 1985) to longitudinal designs (Lyubomirsky, King & Diener 2005) have shown a modest but significant relation between income and happiness. Indeed, the trend of results from research on this topic is that correlations between income and subjective well-being variables such as satisfaction and positive affect are relatively small but significant, ranging from about .12 (e.g. Diener et al., 1993) to .24 (e.g. Conner et al., 1985). This general conclusion—that income is modestly and positively correlated with SWB—have emerged in replications across samples and methods (Biswas-Diener & Diener, 2006; Diener & Biswas-Diener, 2002; Diener & Diener, 1995). To the extent that money does buy some amount of happiness, it is possible that additional income translates to increased psychological security, the provision of basic needs such as health care, and allows individuals to better pursue personally relevant goals. Theoretical explanations of the relation between income and SWB will be presented in section 4.2.

Although there is much evidence that points to a link between income and SWB at both the individual and national levels, this conclusion is still debated in academic circles. There exists, for instance, an on-going debate about "relative utility." Relative

utility is the idea that happiness—as it relates to income—is, in part, a function of looking at one's past income or the income of other people. Easterlin (1995) analyzed time series data from 11 countries and found that, despite large gains in income (as measured by GDP), there was virtually no associated gain in average national happiness. This so-called "Easterlin Paradox" has gained widespread acceptance and has reinforced—at least implicitly—the notion that between country differences in happiness at the highest economic levels are not a worthwhile topic of study. In fact, a number of researchers have suggested that economic growth above the basic needs level may not lead to increased well-being and may, in some cases, actually lead to decreases in average well-being (e.g.s Lane, 2000; Marks, Simms, Thompson & Abdallah, 2006).

Despite the traditional interpretations of the relation between income and happiness there is new research suggesting that both the Easterlin Paradox and the curvilinear relationship of income and SWB might need to be re-examined. For example, Diener and Oishi (2000) found significant differences in life satisfaction between people in the top two income levels in an international college student survey as well as in the World Values Survey. In an analysis of 21 countries Hagerty and Veenhoven (2003) found that a third of the nations showed significant, positive correlations between income growth and happiness. More recently, an analysis of Gallup World Poll data by Diener and colleagues (2008) reveals that GDP per capita is significantly correlated with the "Cantril ladder" (effectively a measure of current life satisfaction; .82), with the regression line being far straighter than it is curved. Diener and colleagues also found significant correlations across nations between income and domain satisfaction (.65),

positive feelings (.42), and negative feelings (-.38). In fact, the authors also found significant differences in national happiness, even among the wealthiest nations. In a different analysis using the Layard (2005) cut-off of \$15,000 annual income per person Stevenson and Wolfers (2008) find little evidence for a point beyond which the correlations between income and happiness diminish. They state:

Strikingly, we find that the relationship between SWB and log GDP is stronger, rather than weaker in the rich country sample. Indeed, across the Gallup, World Values and Pew datasets, the coefficient on log income tends to be nearly three times larger for rich countries than for poor countries.... As such, we find no evidence of a satiation point

These new data suggest that there may be important differences in the happiness of people living in the richest nations, and that some of this variability is attributable to economic variables. Thus, it is important to look at these differences because little is known about how societal differences at that top end of the income spectrum affect happiness.

Despite the apparent modest link between money and happiness the true relation between these two important variables may be embedded within more complex issues. For example, the relation between income and SWB appears to change depending on the type of SWB studied. Lane (1991) reported a decrease in negative affect (NA) as an individual rose through the lowest economic levels, but not thereafter, although positive

affect (PA) rose across the entire spectrum of income. Similarly, Suh and colleagues (1998) found different correlations between income and PA and NA. These findings serve as a cautionary tale that researchers must employ multiple measures of SWB to elicit the best information. Another complicating factor in the income-SWB connection is income change. Do dramatic changes in individual income such as those associated with retirement or winning the lottery affect income-SWB correlations? The evidence, it turns out, is mixed. Schyns (2000) and Bradburn (1969) found no effect of income change, while Diener and colleagues (1993) found, surprisingly, that individuals whose income had declined the most reports the greatest levels of happiness while those whose income went up reported the lowest well-being. Further complicating the picture, quasiexperimental studies with lottery winners show that, although many winners report higher happiness (e.g. Gardner & Oswald, 2001) their new material circumstances frequently led to negative costs at work and in relationships (Smith & Razzall, 1975). Finally, it is probable that moderator variables play an important role in the income-SWB relationship. Schyns (2000), for example, performed a mediational analysis for samples from two countries, looking at both direct and indirect paths of income influence on satisfaction. Her findings suggest that income can affect life satisfaction either through financial satisfaction or by directly affecting life circumstances. In a broad review of the literature on money and SWB Diener and Biswas-Diener (2002) summed up this complex body of research by concluding:

It appears that a higher income might help if we are very poor. Living in a wealthy society appears to be beneficial. On the other hand, strongly desiring

large amounts of money appears likely to hinder our chances for high SWB. Gaining more income if we are middle-class or upper-class and are living in a wealthy nation is unlikely to substantially bolster our SWB on a long-term basis. Thus: our advice is to avoid poverty, live in a rich country, and focus on goals other than material wealth. (p. 161)

Given the large body of research on this topic, including the many studies examining the more complex angles of the income-SWB relation, two major findings are immediately clear. First, income does, indeed, appear to affect happiness. Maslow (1954) is best known for his "hierarchy of needs" theory of personal growth, in which a person must first satisfy basic material needs such as health food and shelter before she is able to flourish socially and psychologically. The research findings showing a relation between income and well-being may, in fact, support this popular theory. From a commonsense point of view, additional income translates to improvements in health care, sense of security, and can be used for basic provisions such as food and shelter. If this is the case, if Maslow's hierarchy is an accurate description of the developmental arc of human potential, then we would expect to see lower rates of SWB and higher rates of depression or other psychological maladies among poor people, and the opposite trend in more affluent individuals. In sections 4.4 and 4.5, below, I propose the usefulness of examining the subjective well-being of the very poor and the relatively affluent as a reasonable way of better articulating the conceptual edges of income-happiness question. The second major conclusion from the scientific corpus of work linking income with SWB is that, although there appears to be a relation between these two variables, income and material

wealth in general, appear to contribute only modestly to the overall happiness equation. Other factors, such as social relationships (Diener & Seligman, 2004) and genetic factors (Nes et al. 2006; Røysamb et al., 2003; Lykken, 1999), intentional activities and attitudes (Sheldon & Lyubomirsky, 2006; Lyubomirsky, Kasri, Chang, & Chung, 2006) more heavily influence individual happiness.

In the end, income, insofar as it translates to physical health, psychological and social security, and the opportunity to pursue personal goals and values, appears to be an important contributor to subjective well-being. It is, however, not the largest factor in happiness, nor is the relation between these two variables simple. A variety of possible mediating factors, different aspects of subjective well-being, various methodologies, and income change all complicate the conceptual picture somewhat. The current dissertation is written with the aim of reviewing broad findings on income and subjective well-being, presenting a new conceptual framework (the simple life and abundance scenarios) for understanding the relationship between these two variables, and offering new insights into the topic from previously overlooked cultural samples.

# 4.2 Theoretical explanations of the income-happiness relationship

Given the frequent finding that income is mildly, positively, and significantly correlated with subjective well-being, it makes sense to present theoretical explanations. There are a variety of such explanations and, rather than looking for a single accurate reason, it is likely that each offers important insights into the income-happiness

relationship. In particular, it is probable that these competing theoretical explanations speak directly to different aspects of this relationship, such as income and happiness at the national versus individual level. As such, my purpose is less to arrive at the best single explanation than it is to present those theories that have received empirical support and show where they best explain the relation between money and happiness.

First, there is the sociological explanation of the psychological benefits of income. This position is rooted in the idea of basic needs that must be identified and met in order to promote psychological health (Diener & Lucas, 2000). The sociological approach to the income-happiness relationship is best summarized by "livability theories" that have been advanced by Veenhoven (1993), and suggest that income at the society wide level translates to better health care, infrastructure, education, and lower rates of violent crime and civil strife. Indeed, this position has received support from a variety of studies that show higher reported levels of subjective well-being by people living in affluent nations compared with those living in poorer countries (e.g.s Inglehart & Klingemann, 2000; Veenhoven, 1993). In particular, Diener and Diener (1995) found that national wealth correlated with 26 of 32 quality of life indicators including homicide rates, Nobel prizes per capita, longevity, social justice, and happiness. This theoretical explanation of the income-happiness relationship and has not received support at the individual level of analysis. For instance, Argyle (1999) reports that objective circumstances account for only a small percentage of the overall variance (about 15%) of happiness at the individual level. Thus, income may promote subjective well-being to the extent that it helps societies meet the basic needs of their citizens. As will be discussed in section 4.4, more information is needed before we can adequately identify "basic needs" and determine how "basic" are their thresholds.

Another possible explanation of the link between money and happiness are "relative standards" (Diener & Lucas, 2000). Relative standards theory states that objective life circumstances affect subjective well-being through psychological comparisons. Relative standards theories are highly applicable to the individual unit of analysis. Campbell and colleagues (1976) first proposed that personal satisfaction was dependent on evaluating one's standing relevant to others. This was further articulated by Michalos (1985) in his "discrepancy theory." Michalos expanded traditional social comparison to include a wider array of standards including comparisons with one's past stature, one's future aspirations, and emphasized the importance of directional comparisons (upward, downward, and lateral). Despite the fact that there is some research evidence to support relative standards (e.g.s Clark & Oswald, 1996; Parducci, 1995), there are also studies that have found few or no such comparisons (e.g. Diener & Fujita, 1997). It appears that relative standards, because they can be made socially, temporally, or against imaginary targets (aspirational), are complex. Further research is needed before we will fully understand how and when individuals employ such comparisons and, in turn, their effects on individual subjective well-being.

The last major empirically-supported theory that offers insight into the relation between income and happiness is personal aspirations in the form of goals. Research by Emmons (1992) shows that goals are predictors of psychological well-being and it

follows, therefore, that an individual's ability to pursue and/or meet his or her needs would facilitate happiness. Insofar as income acts as a resource for individuals to pursue personally relevant goals then money could potentially enhance happiness. Research by Diener and Fujita (1995) shows that having goals-relevant resources is a predictor of happiness. Money, as a highly fungible resource, has the potential to be construed as relevant to a wide range of personal goals. There are, of course, some crucial caveats that need to be discussed. First, goals have been shown to differ across cultures (Oishi & Diener, 2001). Oishi and colleagues (1999) found that financial satisfaction is more strongly associated with overall life satisfaction in poorer nations, and that meeting basic material needs may be more important to people living in poorer nations. This suggests that culture might act as a moderator between income and subjective well-being. Second, it is possible that not all goals promote subjective well-being. Research by Kasser and Ryan (1993) shows that extrinsic goals are not as strongly related to happiness as intrinsic goals. Further, research on goal theme by Emmons (1999) shows that certain goals, such as those related to seeking power, can actually be toxic to happiness. Taken together, these lines of research offer an important cautionary note about materialism, as it relates to the income-subjective well-being relationship. In the following section, I will discuss materialism as an important caveat in the relation of income and well-being.

#### 4.3 Materialism

Despite the general trend linking material goods such as income with subjective wellbeing, money is not universally a psychological tonic. Although-- at the societal level-- it appears that citizens living in richer nations benefit from their economic advantage, at the individual level an emphasis on materialism can be psychologically problematic. An emerging body of research suggests that placing a heavy emphasis on the accumulation of income or other material items—an attitude referred to as "materialism"—can actually be toxic to subjective well-being. For example, in a study of college students from 41 countries by Diener and Oishi (2000) shows that those who place a high value on money and actively devalue the importance of love are significantly less satisfied with their lives than their counterparts with just the opposite values. Similarly, Kasser and Ryan (1993) found that people who valued financial success over self-acceptance showed significantly higher rates of depression and anxiety than their peers who placed a premium on self-acceptance. These authors suggest that overvaluing money does not fulfill basic intrinsic human needs and may distract individuals from other important concerns such as their relationships.

A heavily materialistic attitude, both at the individual and societal levels, may also have toxic effects for environmental management. In one study, Sheldon and McGregor (2000) had hi- and lo-materialist students play a forest management game. The highly materialistic students ended up making less profit and showing poorer long-term conservation strategies than their low materialism peers. In a real world context, Marks and colleagues (2006) have computed an income-environmental footprint quotient, based on the assumption that—at the national level—increased use of material resources also carry potential environmental costs. Kasser (2002) concludes, "materialistic values not

only undermine the well-being of those who strongly hold them, but also negatively affect the health and happiness of many others" (p. 95).

One limitation of the research on materialism is its origins in relatively affluent, industrialized nations. It is, as yet, less clear how material aspirations affect those at the lower economic levels. One message that often emerges from research on income and subjective well-being is that there might be some threshold beyond which additional income produces little additional happiness. Some support for this notion comes from economic trends showing rapid economic increases without accompanying rises in life satisfaction (Blanchflower & Oswald, 1999). In one such study, it was found that Japan enjoyed unprecedented growth in Gross Domestic Product from 1958 to 1987, with almost no discernable change in the life satisfaction of its citizens (Diener & Oishi, 2000; see Stevens & Wolfers for a counterpoint). It is, therefore, important to look at the emotional quality of life of the world's poorest citizens so that we can better define how basic are basic needs, and how income may differentially matter to people at the lowest economic levels. I discuss this approach, which I call the "simple life scenario" in the following section.

### 4.4 Simple life

Maslow (1954) is famous for his hierarchy of needs theory, in which he suggests that material needs are the most basic and fundamental to human flourishing. Indeed, a wide range of evidence points to the conclusion that poverty is associated with a variety of ills

including exposure to trauma (Hien & Bukszpan, 1999), increased anger and depression (Marshall et al., 1996), and strained family relationships (Vostanis et al., 1996). Despite, or perhaps because of, these well-documented problems there is very little research on the happiness of extremely low income individuals. The emotional lives of the very poor can be instructive in that they offer us a glimpse into the ways in which material deprivation can affect happiness, and insight into where the actual threshold for basic needs is.

Perhaps the most visible poor people in the world are homeless people (Biswas-Diener, 2007). There are very few studies of the happiness of the homeless. In an early study on the topic Biswas-Diener and Diener (2001) examined the subjective well-being of extremely poor people in Calcutta, India, including sex workers, slum dwellers, and pavement dwellers. This research supported the importance of material wealth by showing that these impoverished groups suffered from relatively high negative affect and only neutral levels of life satisfaction. Interestingly, despite their material circumstances, people in these samples reported, on average, surprisingly high (positive) amounts of satisfaction in specific life domains. These findings were replicated with another sample from Calcutta and two additional homeless samples in the United States (Biswas-Diener & Diener, 2006). In this more recent study, participants reported relatively low satisfaction with material resources such as housing and income, but positive satisfaction with food. In addition, members of all three samples reported, on average, positive levels of satisfaction with self-related domains such as morality, physical appearance, and intelligence. Taken together, these two studies suggest that material deprivation affects subjective well-being by lower satisfaction in select domains and raising negative affect.

Despite these toxic effects of poverty, the poor people in these studies showed satisfaction in many domains and also reported relatively high levels of joy. Giving the dire conditions in which these people live, these research results suggest that the threshold for "meeting basic needs" might be very low. It is also possible successes in other domains, such as high quality social relationships, serve to buffer people from the harsh consequences of poverty. Finally, Amartya Sen's concept of "adaptive preferences" suggests that poor people adapt too easily to their low-class status, and that their self-reported life satisfaction is based on unreasonably low standards of comparisons (Sen, 1993).

Another way to get at the question of basic needs and the role of material wealth in happiness is to examine the lives of people living in a voluntarily simple way. These are people who, for a variety of reasons, live a lifestyle that emphasizes the conservation of resources, reusing and repairing resources, and often are devoid of luxury goods. Brown and Kasser (2005) evaluated hundreds of such people living in the United States against a matched sample of non-simplicity Americans. Compared to the target group, the voluntary simplicity participants showed higher life satisfaction, suggesting that luxuries and material acquisition are not necessary for happiness. One limitation to this study is that the emotional benefits reported by the voluntary simplicity sample could come from a sense of living a values-congruent life rather than being the direct result of their material circumstances. In another study, Biswas-Diener and colleagues (2005) looked at the happiness of people from three materially simple societies: Inuit in Greenland,

Maasai in Kenya, and Amish people in the United States. Average subjective well-being scores for people in all three groups were positive, even across measures and methods.

Studies of the simple life are important because they can shed additional light on the relationship between material wealth and well-being. The results of these studies suggest that luxury items are not necessary for subjective well-being. The crucial issue, where the simple life scenario is concerned, is the degree of material simplicity. At some as-yet-undetermined point a threshold is reached at which material simplicity is better described as deprivation, and this point may mean the difference between psychological flourishing and ill-health.

### 4.5 Abundance

It is equally interesting and instructive to examine the emotional quality of lives of those living at the other end of the material spectrum. I term this approach to understanding the link between material wealth and happiness "the abundance scenario." It is important to understand whether increasing income or other material goods continue to contribute to subjective well-being above the basic needs level and—in fact—to determine whether they contribute even at the upper luxury levels. Past research has supported the notion that income carries many advantages, even for rich individuals and for people living in more affluent nations. Higher income, for example, has been shown to be related to a variety of widely-valued variables including increased longevity

(Wilkinson, 1996), better health (Salovey et. al., 2000), and greater life satisfaction (Diener, Horowitz, & Emmons, 1985).

Research shows that individuals living a material wealthy life appear to enjoy psychological benefits of their objective circumstances. In a unique study, Diener and colleagues (1985) assessed the happiness of the very wealthy. In this study, the researchers received reports of happiness from 49 individuals from the Forbes' list of the wealthiest Americans (those with a net worth of 125 million US dollars or more), and compared these scores against a matched sample from the same geographic areas. The rich respondents in the study reported significantly higher life satisfaction, being happier a greater percentage of the time, and lower feelings of negative affect. This finding is supported by studies showing that there are within nation differences in happiness between middle class and upper class participants (Diener & Biswas-Diener, 2002; Diener & Oishi, 2000). Additional support can be found in data from international surveys of happiness in which people living in rich countries report higher levels of well-being than those living in poor countries (e.g. Schyns, 2002; Diener & Biswas-Diener, 2002; Diener, Diener & Diener 1995; Veenhoven, 1995).

Findings from the abundance scenario further develop our understanding by suggesting that fulfilling basic material needs is, taken alone, inadequate to explain the link between money and happiness. The relatively high levels of happiness of rich people and those from wealthy nations suggest that there is need to better define the upper limit of the psychologically tonic effects of income.

#### 4.5 What is not known

For as much research attention as has been given to the money-happiness question, there is still much that is not known about the topic. First, income—the most common proxy used in research on material wealth and subjective well-being—is, itself, a dynamic variable. It is unclear how changes in income, direction of income change, pace of income change, and expectations about income might mediate the relation between income and happiness. Second, little is known about the lower and upper bounds of income as it affects levels of happiness. Although there is initial data to support the idea that material deprivation can take a psychological toll, the threshold for deprivation has not been well defined. In addition, it is possible that establishing this threshold might be difficult because other personal resources such as social relationships or morality might buffer against the dire effects of poverty. Similarly, little is known about the upper threshold for the psychological benefits of income. Although some researchers have reported on a diminishing marginal utility of income on happiness (e.g. Layard, 2006) there is ample evidence showing that additional income continues to produce psychological benefits. To date, no study has adequately established the upper boundary of "how much is enough?" Third, little is known about the psychological effects of material aspirations of people living in poor economic conditions or in economically developing countries. It is possible that an emphasis on materialism, for these individuals, may carry very different psychological consequences than for those living in more affluent conditions. Finally, a better understanding is needed about the cultural contexts

that affect the income-happiness relationship. There is an existing body of literature suggesting that values, goals, and emotional norms differ from culture to culture and that these, in turn, affect subjective well-being (Oishi & Diener, 2001; Oishi et al., 1999). This research, however, has tended to focus on differences between affluent and poor countries. Additional research is needed to examine cultural contexts that may help to explain differences in happiness between affluent societies.

# 4.6 Objectives of the study

The current line of research examined a number of aspects of the material wealth-subjective well-being relationship. First, this dissertation includes two broad literature reviews (Papers 1 and 5) that were written with the aim of summarizing a wide research literature, while highlighting major findings, interesting caveats, and making suggestions for future research. The Biswas-Diener (2007; Paper 5) review, extends the conclusions of the first review by presenting a conceptual framework (the simple life and abundance scenarios) for addressing as-yet poorly defined thresholds for income's tonic or toxic effects on happiness.

Two of the empirical articles in this dissertation (Papers 3 and 4) were undertaken with the goal of filling a hole in the subjective well-being research literature. Namely, examining the happiness of the very poor, a demographic group traditionally overlooked by well-being researchers. A third study (Paper 2) was undertaken for many reasons. First, it was intended to replicate and extend the findings of Diener and Diener (1996)

that most people are happy by examining the subjective well-being of people from non-westernized, non-industrialized cultures. Second, it was meant to investigate the simple life scenario by evaluating the happiness of people in cultures who live without material luxuries. This study introduces the construct of culture as an interesting variable that could bear on the relationship between wealth and happiness.

Finally, Paper 6 is designed to address another gap in the extent well-being research literature: the issue of why there are differences in happiness, at the national level, between very affluent countries. This study advances the abundance scenario approach to understanding the upper threshold for needs while looking at possible social and cultural factors that could account for national differences in well-being. In sum, the primary objectives of this course of research are:

- 1. to provide an overview of the existing research on material wealth and subjective well-being
- 2. to provide additional insights into the relation between income and well-being by employing samples traditionally overlooked by psychologists
- 3. to present a new conceptual approach to defining and investigating upper and lower threshold in which income affects happiness

4. to present original research on the possible reasons for differences in subjective well-being, at the national level, between affluent nations

#### 5 Methods

# 5.1 Samples

As Papers 1 and 5 were literature reviews, no samples were employed.

Paper 2 was aimed at understanding patterns of well-being across cultural groups.

There were 3 distinct cultural samples included in the study:

A) The Maasai: The Maasai who participated in this study belong to a traditional Bantu tribe in Western Kenya. Care was taken to contact only individuals who retained elements of their traditional culture, such as speaking *Maa*, practicing circumcision, entering a period of warrior hood, living without modern conveniences, little or no contact with tourists, and living largely outside the modern world economy. The Maasai have historically resisted European colonization and retain their pastoralist lifestyle to this day. Maasai were recruited by word of mouth and villages were given a small monetary contribution for participation in the research. The Maasai sample included 127 people from 10 villages in four geographic locations. 52 per cent of the respondents were female, and the average age was 32 years. All measures were presented in interview format, in Maa, by same sex translators. No one refused to participate in the study.

B) The Amish: The Amish are a group of Anabaptist Christians who live in small, tight-knit communities, and generally eschew the use of modern technologies such as automobiles, telephones, and televisions. Amish children are educated only through the 8<sup>th</sup> grade in Christian curriculum schools, and adults are encouraged to limit contact with non-Amish. Amish participants were recruited both by word-of-mouth and through classroom presentations at Amish schools. The Amish sample consisted of 52 Amish adults (mean age 42.2) of which 44 per cent were women. All measures were presented in English, in written form. 3 people who were contacted for the research refused to participate in the study.

C) The Inughuit: The Inughuit are an Inuit group living in Northern Greenland. The Inughuit are one of the few Inuit groups whose lifestyles are still heavily anchored in traditional methods of hunting such as kayaks (rather than motorized boats) and harpoons (rather than rifles). There are approximately 620 Inughuit living in Qaanaaq municipality, and our sample included 179 adults, with a mean age of 39 and of which 59 per cent were women. Inughuit in this study were recruited by word-of-mouth, bulletin board advertisements, and a radio ad. The response rate in settlements was close to 100%, but was 80% in the hunting and fishing camps where respondents were actively engaged in time-consuming traditional activities.

Paper 3 was designed to assess the relative levels of subjective well-being among people living in extreme poverty. 83 people representing 3 distinct aspects of the poverty

stratum in Calcutta were included in this study. All measures were presented in interview format in Bengali or Hindi, by a trained interviewer:

A) Slum dwellers: Slum dwellers are those people who live in poverty stricken neighborhoods. Slums range in quality from officially recognized *bustees* made of concrete to illegal settlements constructed from temporary materials. In all cases, slums are overcrowded, polluted, and present health hazards such as rats, roaming livestock, open sewers, and inadequate toilet and fresh water facilities. 31 slum dwellers participated in the study, including 12 men and 19 women aged 18-70. Although these individuals were not directly compensated for participation in the study, a monetary contribution was made to a local charity that provided services in the area in which they lived.

B) Sex workers: The *Sonagachi* area of Calcutta has as many as 10,000 prostitutes working in a small geographic area. Sex workers are classified by their attractiveness and desirability, with "A" category workers earning the most money (approximately 2.5 US dollars per customer). A category workers often hail from a matrilineal tradition of sex work, and enjoy the best material conditions. Many of these women own land and send their children to private schools. Despite these financial advantages A category sex workers often live together in crowded conditions, do not enjoy personal freedom, and suffer the social stigma related to their profession. Workers from the B and C categories make considerably less money and live in slum conditions. The study included 32 sex workers, ranging in age from 18-50. This constricted range is an accurate reflection of the

ages of women in the profession. 31 participants were women. Sex workers were recruited with the help of social workers for a sex-work related charity who, themselves, were former sex workers.

C) Pavement dwellers: Pavement dwellers is the local term for what Westerners would usually consider "homeless." Pavement dwellers illegally occupy public spaces such as railway platforms, street medians, sidewalks, and vacant land. Many are displaced immigrants, or have moved to Calcutta I the hopes of finding work. Most own a small collection of blankets, tarpaulins, and cookware. Pavement dwellers face police harassment and arrest, and often have to beg or forage for food. Pavement dwellers in this study were approached at their living quarters. 20 people participated in the study, of which 16 were men and 4 were women, ranging in age from 18 to 75.

Paper 4 was designed to extend the findings of Study 3. Once again, a homeless sample was contacted in Calcutta, and the subjective well-being of the Indians was compared with two homeless samples in the United States:

A) Calcutta pavement dwellers: This sample lived in the same conditions as those described in Study 2 (above) but constituted different individuals from different locations in the city. All participants were recruited by word-of-mouth at the *Dum Dum* railway platform or on a footpath near the *Marwari* Hospital. 12 people refused to participate, citing concerns about how the research might be used against them (their living settlements are illegal) or an inability to adequately understand the research. This sample

included 67 individuals (25 men and 42 women) ranging in age from 15 to 70. Al measures were presented in Bengali by a trained interviewer.

- B) Homeless people (Fresno, California): The homeless population of Fresno is a heterogeneous group representing a wide range of ethnicities, ages, and linguistic groups. Many homeless individuals suffer physical disability and many have criminal records. The homeless Fresno enjoy fairly good access to free food, shelter, dental care, blankets and coats, and other services. Even so, most suffer severe social stigma, are estranged from their families, and report low levels of trust of their peers on the street, All participants were recruited at Poverello House, a charity providing free food to the poor. Participants were offered a small monetary contribution for participation. All materials were presented in written form, in English or Spanish, or in interview form for people who were insufficiently literate. The sample included 78 adults, ranging in age from 21 to 62, and included 62 men and 16 women. Care was taken to recruit both men and women, people of various ethnicities and ages.
- C) Homeless people (Dignity Village: Portland, Oregon): The homeless people living at "Dignity Village" are unusual among the homeless in that they are organized and have formed a community. The residents of this community live in temporary structures made from found materials. The community as a whole, however, includes a communal garden, a meeting house, a power generating windmill, and toilet and shower facilities provided through an agreement with the city of Portland. The residents complain of frequent flooding, and of the distance to the urban center. The sample

included 41 individuals, including 29 men and 12 women ranging in age from 22 to 59. This sample, according to unpublished statistics kept by the Dignity Village governing council, is roughly representative of the overall population. All measures were presented in English, in written form.

Paper 6 was undertaken with the aim of examining differences in the well-being of people living in affluent countries. All samples were taken from the Gallup World Poll (2007). The Gallup World Poll was a large international project that utilized demographically representative samples in 131 countries (N = approx. 1,000 per country). This poll represents samples representing approximately 95% of the world's population (The Gallup Organization, 2007). Respondents were contacted either by random digit dialing or door-to-door recruitment. The refusal rate was approximately 75% for people in technologically modern societies who were contacted by telephone. Although these low rates are typical for this recruitment method they may lead to skepticism about how generalizeable the results are. Fortunately, the refusal rate was similar for people from across all of the nations analyzed in the current study, indicating that each country's data will generalize about as well as the others. For a more detailed description of sampling issues please refer to section 6.6

## 5.2 Measures

Because of the cross-cultural nature of much of the research presented in this dissertation, it should be noted that standard translation protocols were followed, where

appropriate. These included translation of primary instruments by native speakers, and back-translation to English by an independent translator. Where there was a discrepancy between the two translations a discussion was held with both translators and the primary investigator. During the conversation, careful attention was paid to equivalency of concepts and idiomatic and regional variations in language use. A final wording was established once all three parties agreed on a word and rationale for using it.

Further, because subjective well-being is, by definition, a subjective phenomenon, most studies on the topic rely heavily on self-report measures. Unfortunately, these types of measures are susceptible to response biases (Schwartz & Strack, 1999). To help overcome this problem we used, where possible, the mult-method approach advocated by Diener (1999).

The Satisfaction With Life Scale (SWLS). The SWLS (Diener et al., 1985) is a frequently used measure of general life satisfaction. It is a 5 item measure found to have good psychometric properties (Pavot & Diener, 1993). A 1-7 Likert scale is used to indicate agreement with each item. For illiterate groups the response format was adapted so that participants were presented with a graphic showing segmented rectangles. The rectangles grew larger, and contained more segments, to indicate greater quantity. The modified version was pre-tested for comprehension with each participant using dummy items prior to the beginning of the research. The SWLS was used in papers 1, 2, and 3. The reliability (Cronbach's alpha) for this instrument was satisfactory for all groups (>.70) in all studies presented in this dissertation. For example, the Cronbach's Alpha for both the Dignity Village and Calcutta samples in Paper 3 was .78, and was .84 for the

Fresno sample. Note: In paper 2 some participants had a difficult time using the 1-7 answering scale and were presented with a simpler 1-3 format. All scores were transformed to reflect this smaller scale for analytic purposes.

Domain satisfaction. Participants responded to a measure of satisfaction with specific life domains such as food, housing, and morality. This measure requires participants to use a 1-7 Likert scale to indicate the degree of satisfaction or dissatisfaction they feel with each life domain. Domain measures augment general life satisfaction measures such as the SWLS because they are tied to more concrete daily experiences (Schwartz & Strack, 1999). Identical measures have been used in previous research (e.g. Napa-Scollon et al., 2004). Paper 2 employed 12 domains while papers 1 and 3 employed 14 (the same twelve plus an additional two). Domain satisfaction measures were used in papers 1, 2, and 3. The response format was modified and pretested as with the SWLS (above) for use with illiterate groups.

Positive and Negative Affect measures: participants in papers 1, 2, and 3 answered questions about the frequency with which they felt both positive and negative affect.

Respondents used a 1-7 Likert scale (or modified graphical version for illiterate participants) to indicate how frequently they felt various affective states. These answer were used to provide insight into specific emotions as well as to compute an overall "affect balance" score. It should be noted that past research has identified cultural variation in which emotions are considered pleasant and unpleasant (Kim-Prieto & Eid,

2004). Due to these cultural differences the emotion word "pride" which can be interpreted in a variety of ways, was not used in our final analyses in Paper 3.

*Memory measures*: Measures were taken in papers 1 and 2 to assess recall for positive and negative events. The underlying assumption is that these measures tap subjective well-being by assessing general positivity and negativity. Theoretically, positive individuals can more easily recall positive events while negative events tend to be more salient for dispositionally negative individuals. These types of measures have been used in previous cross-cultural research (e.g. Balatsky & Diener, 1993) and have been found to show convergent validity with other measures of subjective well-being (Sandvik et al. 1993). In Paper 1, respondents were asked to list as many positive or negative events as they could remember in a timed one minute session. Maasai participants were asked to do so orally while Amish participants were asked to do so in written form. A memory balance score was then computed by subtracting the total negative memory score from the total positive memory score. In Paper 2, participants were asked to recall as many positive and negative events as they could from the previous day, and during the past year. A memory balance score was computed for both daily and yearly memories. In both papers 1 and 2 the order of positive and negative recall was counter-balanced to control for possible order effects.

Informant reports: In Paper 1 respondents also provided a peer report of positive and negative affect. In this instance, close friends or family members were asked to rate a target participant on frequency of affect. The peer informers were reassured that their

answers would be kept confidential. Informant reports have been used to overcome problems associated with self-report measures (Napa-Scollon, et al., 2004).

Experience Sampling Method (ESM): ESM is a method of sampling affective states in the moment by having participants respond to mood surveys at random times. This method has been used effectively in cross cultural research employing a variety of different technologies ranging from random alarm wrist watches (Napa-Scollon et al., 2004) to palm top computers (Oishi et al., 2004). ESM data has the advantage of assessing on-line mood states and may overcome problems with mood recall measures. Robinson and Clore (2002) have found that people tend to use heuristic shortcuts rather than actual memory to report past moods. In Paper 3 in this dissertation ESM data was collected from 22 Inughuit participants by approaching them at random times as they were engaged in daily activities. Although 55 participants originally agreed to participate in this phase of the study we could not find many of the participants on 12 separate occasions. We elected to retain the 22 respondents who had 8 or more reports as this number seemed adequate to obtain stable and representative affect scores.

Gallup World Poll measures: Gallup World Poll measures comprise the entirety of the variables analyzed in Paper 6. The Gallup World Poll presented items that sampled from a wide range of life concerns including Law & Order, Food & Shelter, Economics, Work, and Health. (The Gallup Organization, 2007). A number of items related to well-being were also included in the survey, such as those related to life and domain specific satisfaction, optimism, affect, and auto-telic measures of meaning and purpose. The life

satisfaction items, which are commonly used in the current study were measured using the Self-Anchoring Striving Scale, also known as the "Cantril ladder" (Cantril, 1965). The Cantril ladder asks participants to estimate the quality of their own lives where 0 indicates the worst possible life and 10 indicates the best possible life. Variations on this basic well-being item include a similar evaluation of "life five years ago" and life "five years from now." Basic demographic information was also collected such as sex, age, educational status, household income, and nation of residence. For a more in-depth discussion of the measures used in Paper 6 please refer to section 6.6.

5.3 Analyses

Because papers 1 and 5 are literature reviews they do not appear in the table below.

Paper/Sample	Measures	Analyses
Paper 2: Three cultures	SWLS  Domain satisfaction  Affect frequency  Memory measure	Descriptive Statistics Bi-variate correlation
Depar 2: Homology (A)	Experience sampling SWLS	Descriptive statistics
Paper 2: Homeless (A)	Domain Satisfaction  Memory measure	Frequency distribution  ANOVA (with Bonferroni post hoc)  Bi-variate correlation
		Binary regression

Paper 3: Homeless (B)	SWLS	Descriptive Statistics
	Domain Satisfaction	Bi-variate correlations
	Affect Frequency	ANOVA (with Bonferroni post hoc)
		MANOVA (with Bonferroni
Paper 6: Scandinavia and	Gallup World Poll items:	Descriptive statistics
USA	Cantril ladder,	T-test
	Affect items	Confirmatory Factor
	demographic variables,	Analysis (CFA)
	variables related to law,	Regression
( C	social capital,	(IRT) Item response theory

### 6 Summary of Studies

# 6.1 Paper 1: Will money increase subjective well-being? A literature review and guide to needed research

This literature review was written with the aim of summarizing a large and important research literature on income and subjective well-being. Not only is the income-well-being relationship of interest to lay people, it has important implications for public policy. This review reveals several replicable findings in the income-happiness literature. First, income and subjective well-being are correlated, especially at the national level, although these correlations tend to be modest. Second, with-in country correlations between income and happiness appear larger in poorer nations, suggesting that material deprivation may be a psychological risk factor. Third, economic growth has not been accompanied by corresponding gains in happiness. Finally, materialistic attitudes that emphasize the acquisition of money and luxury items appear to be toxic to happiness. Several theories, such as basic needs, individual aspirations, and societal

norms were discussed. The review concludes with a cautionary note that for middle and upper class individuals additional income might not translate to additional happiness.

# 6.2 Paper 2: Most people are pretty happy, but there is cultural variation: The Inughuit, the Amish, and the Maasai

This study was undertaken with multiple aims. First, it was designed to replicate and extend the Diener and Diener (1996) finding that "most people are happy." One limitation was that Diener and Diener used student samples and therefore their results might have been affected by global culture. This study overcame that limitation by employing samples from three cultures far removed from western or global influence: The Maasai, Inughuit, and Amish. The study also provided preliminary evidence for using a diverse sample of people living a materially simple lifestyle to better understand the lower threshold at which material wealth affects happiness. The study confirmed Diener and Diener's conclusion: respondents from all three cultural groups reported above neutral levels of well-being on a variety of measures of happiness including affect, satisfaction, memory measures, experience sampling, and peer report. In fact, participants scored above neutral on 53 out of the 54 measures of happiness we used. There were, however, cultural differences in happiness, with the Amish reporting relatively lower scores on global measures (general life satisfaction and affect balance) and the Maasai scoring higher on multiple measures.

Conclusions: The current study uses widely different culture groups to make the case that, indeed, most people are happy. It has been suggested that predisposition to positivity is an evolutionary advantage (Fredrickson, 2001). To say that most people are happy, however, is not to make the claim that all people are happy, nor are most people perfectly happy. No individual scored at the top of all measures of happiness. Further, cultural variation in happiness was found.

## 6.3 Paper 3: Making the best of a bad situation: Satisfaction in the slums of Calcutta.

The purpose of this study was to address a gap in the subjective well-being literature. Although the many psychological ills of poverty are well-documented, little research has examined possible positive factors in the lives of the homeless. Some of the poorest people in the world, including homeless people and sex workers, responded to measures of positive and negative affect, positive and negative memories, and life satisfaction. It was found that, on average, the participants in this study tended to suffer from lower than neutral levels of life satisfaction, with the exception of people living in established slum communities. Life satisfaction was strongly, inversely, correlated with income. Further, while, on average, respondents in this study were, in some ways, unhappy, they also seemed to enjoy surprisingly high levels of satisfaction with many life domains including those related to the self (e.g. intelligence) and social relationships (e.g. family). When looking at satisfaction with variables specifically associated with basic physical needs, a

surprising pattern emerged. Respondents reported being satisfied with their food—although it remains unclear on what dimension (e.g.s quantity, quality, variety) that might be evaluated it—and that satisfaction with housing and income were mildly positive, although close to the neutral point.

Conclusion: Although this study confirms common sense notions that income deprivation lowers emotional quality of life, the current findings also suggest the picture is more complex. Despite their material poverty, people in the present study enjoyed satisfaction in many areas of life. It is possible that success in some domains, such as having high quality social relationships, helps to buffer people against the dire psychological consequences of poverty.

# 6.4 Paper 4: Subjective well-being of the homeless, and related lessons for happiness.

This study was designed to replicate and extend the findings in Biswas-Diener and Diener (2001), in which it was found that extremely poor and homeless people can enjoy relatively high levels of subjective well-being in life domains. In particular, we were interested in testing the hypothesis that social factors, such as high quality social relationships, help buffer people against the deleterious effects of poverty. Homeless participants representing various degrees of social isolation participated in the study. First, homeless people in Calcutta were employed to help replicate the earlier findings. These people tend to live in intact family and community units. Second, people from

Dignity Village, a communal "tent-camp", were asked to participate. Many of these individuals are estranged from their families but have developed social ties within their current community. Finally, people from the streets of Fresno participated in the study. People in this group suffer from high levels of alienation, stigma, and distrust of their peers. Results showed that the Indian sample enjoyed the highest levels (above neutral) of life satisfaction, followed by those in Dignity Village (below neutral) and Fresno (far below neutral). Despite this trend, respondents in all three groups reported relatively high (above neutral) levels of satisfaction with specific life domains, especially those related to "social" and "self." Members of all three groups reported negative satisfaction with material related domains, with the exception of "food." Further, despite the fact that members of all three groups reported experiencing positive affect such as joy, they also reported fairly frequent negative affect such as sadness and worry.

Conclusions: Common stereotypes of the emotional lives of people living in poverty are bleak. The current findings support the idea that extremely low income is associated with high levels of negative affect, low life satisfaction, and dissatisfaction with some life domains (especially material). On the other hand, the emotional lives of the very poor may not be as bad as is imagined. The current findings show that members of 3 impoverished samples reported high levels of satisfaction with self and social related domains. Perhaps the most interesting finding from the current study is the relatively high happiness scores of the sample from India compared to the two American samples, despite the worse physical conditions in which the Indians live. Once again, it appears that social factors—whether in the form of societal norms, system of government, or

personal relationships—may play an important role as a protective factors against the psychological problems associated with poverty.

### 6.5 Paper 5: Material wealth and subjective well-being

The second literature review presented in this dissertation focuses on basic needs theories as a common explanation of the relationship between material wealth and happiness. In particular, it presents the idea that, although correlations have been found between income and subjective well-being, little is known about the lower and upper thresholds for this relationship. The manuscript reviews research showing that people living in impoverished conditions are at risk for psychological problems but also enjoy some areas of psychological health. It is, therefore, unclear, how basic "basic needs" need to be before the add or detract from well-being. It is suggested that more research be conducted with people living at the lowest economic levels to better determine where material wealth might make the largest psychological impact. Similarly, the manuscript discusses the "abundance scenario," in which people who live relatively affluent lives appear to benefit from their economic standing. It is suggested that further research is needed to determine why there might be differences in happiness among those who live affluent lives. Finally, the manuscript concludes by stating that basic needs theory, alone, is inadequate to explain the material wealth-happiness relationship.

## 6.6 Paper 6: The Danish Effect: Happiness in English speaking and Scandinavian countries.

This study was designed to address a conspicuous hole in the research linking income and happiness; notably, an investigation of differences in well-being between relatively affluent nations. Although past international surveys have often examined differences in well-being between rich and poor countries none—to the best of our knowledge—have focused exclusively on differences between rich nations. Denmark and the United States were chosen because both represent socially interesting case studies: Denmark frequently ranks as the "happiest country in the world" in international surveys and the United States is the wealthiest country in the world. Our sample consisted of approximately 1000 demographically representative respondents, per nation. Instead of relying on a single item measure of life satisfaction, as many surveys do, we relied on multiple measures of well-being including assessments of positive and negative affect, perceptions of law and order, and evaluations of overall life in the past, present and future. In addition, we used item response theory to evaluate and address possible response biases across the two cultures.

Conclusions: We found, as expected, that average ratings for respondents in both countries were relatively high. Upon closer examination, however, we discovered a number of intriguing differences. First, we found that although Danish respondents, on average, reported more positive evaluations of life as a whole American respondents, on average, reported more positive and negative affect. In addition, we found that the overall

differences in well-being between these two countries is most noticeable in the differences in well-being between low-income respondents. The poorer respondents in the United States, in particular, reported lower positive affect and life satisfaction, and higher negative affect, than all other respondents including their low-income counterparts in Denmark. Thus, it appears that the differences in well-being between Denmark and the US can best be understood by the unique experiences of the poorer citizens of each nation.

#### 7 General Discussion

#### 7.1 Discussion of findings

Taken together, the current studies and literature review address many of the most interesting and pressing issues in the study of material wealth and happiness. For decades, lay people, policy makers, and researchers have devoted exceptional attention to the question of whether money buys happiness. Unfortunately, so many studies have been conducted on the topic, using different samples and measures of happiness, that it is difficult to draw firm conclusions about the trends in research results. With respect to the first aim of this dissertation—to provide an overview of the existing research on material wealth and subjective well-being—there is much to be learned through the literature reviews presented here.

First, replicable trends in results have been identified. Consistent with commonsense views, modest but significant correlations have been found between wealth

and happiness at the national level and income and subjective well-being at the individual level. This pattern of findings lends some support to basic needs theories popularized by Maslow (1954), and modernized by Veenhoven (1993;1995). International studies of happiness show that people living in less economically developed societies report lower subjective well-being. Further evidence for this position comes from studies of people living in poverty, who typically report lower levels of satisfaction and higher levels of negative affect. An important caveat about the relationship between money and happiness has also been identified in the research literature. Namely, materialistic attitudes appear to be toxic to personal well-being, perhaps because they cause individuals to overlook other important aspects of life such as their social relationships.

These studies also provide additional insights into the relation between income and well-being by employing samples traditionally overlooked by psychologists. While many studies, including many cross-cultural studies, employ student samples, the current course of research relied on non-traditional samples, including many difficult to access groups. We were successful in an initial assessment of the well-being of tribal Kenyans living a traditional lifestyle, Inuit living in remote regions of Greenland, Amish agriculturists, sex workers, homeless people in India and the United States and demographically representative adult samples in Denmark and the United States. Use of these samples allows researchers to generalize knowledge of the happiness-income link beyond the confines of the research laboratory and better understand the well-being of a wider range of people.

Perhaps the most important contribution of the current research is in presenting a new conceptual approach to defining and investigating the upper and lower thresholds in which income affects happiness. Researchers have long discussed the curvilinear nature of the relationship between income and happiness but, as yet, very little research has been conducted on how "basic" basic needs really need to be. The current research provides new insights by examining the domains in which the very poor are and are not satisfied as well as by examining their positive and negative affect. In addition, the current research presents original research on the possible reasons for differences in subjective well-being, at the national level, between affluent nations. By establishing initial parameters for understanding the experience of happiness among the worlds poorest and richest citizens we are able begin to re-evaluate Maslow's famous "hierarchy of needs" at both the individual and national levels of analysis.

#### 7.2 Main conclusions

Income is a consistent, but moderate, predictor of happiness, and this extends across groups and methods. Although other researchers have repeatedly arrived at this conclusion (see Diener & Biswas-Diener, 2002) most research on this topic has been conducted with members of relatively affluent, Western societies or are relatively affluent members of poorer or non-western societies. The current research replicates this pattern of findings and extends them to groups traditionally overlooked in mainstream psychological science.

Another important conclusion from the current course of research is the findings that suggest that social relationships and social satisfaction play an important role in the

happiness of the very poor. While it is commonsense to assume that poverty takes a toll on individual health and happiness, the current research suggests that those impoverished individuals who have better social relationships are somewhat buffered against the toxic psychological effects of poverty. The results of Study 4, in particular, demonstrate that better social relationships and sense of community are associated with significantly higher levels of happiness, even at the lowest economic levels. These findings indicate a need to re-evaluate Maslow's classic hierarchy of needs, with renewed attention on the ways that social and physical benefits affect one another.

Finally, researchers have consistently found that people in Scandinavian countries—most notably Denmark—report unusually high levels of happiness and satisfaction (see Inglehart & Klingemann, 2000; Diener & Biswas-Diener, 2002). Despite this trend, few or no studies have attempted to investigate this phenomenon further and directly explain the unusually high well-being of the Danish. When cross-cultural comparisons have been made, they nearly always emphasis contrasts between rich and poor nations. Our study of the happiness levels of Denmark and the USA revealed that it is the psychological experience of the poorest citizens that explains this national difference in happiness. In particular, the poorest Danish respondents reported much higher levels of life satisfaction and positive affect, and much lower levels of negative affect than their low-income counterparts in the USA. By contrast, the richest citizens of these two countries were relatively alike in their levels of happiness (even where significant differences were found the absolute differences were relatively small). Thus, it appears that the "Danish Effect" (the unusually high happiness of Denmark) does not

represent a nationwide phenomenon as it does a relatively psychologically equal and healthy citizenry, regardless of income.

### 7.3 Applications, limitations, and future directions

The current set of studies contained in this dissertation is instructive to public policy and intervention programs for the poor, in both economically developing and relatively affluent countries. By better understanding the psychological quality of life of people living in poverty, or of those living a materially simple lifestyle, policy makers can create and adopt programs that capitalize on psychological fulfillment and address psychological needs. For instance, the studies employing samples of homeless individuals seem to suggest that these people, on average, tend to be satisfied with themselves and dissatisfied with their social relationships. Intervention programs with homeless people might be improved, then, to the extent they avoid outcomes such as improved self-esteem and focus, instead, on community building and the development of social capital.

As with any research there are a variety of limitations to the current studies, individually and collectively. First, because of the unusual nature of the samples, the respondents tend to be drawn from convenience rather than representative sampling. In each case, care was taken to ensure that people of all ages, and both sexes were included in the research, but perfectly representative sampling was impossible. As such, care must be taken when generalizing conclusions from the current studies. Second, all happiness research is plagued by methodological difficulties related to accurate measurement. In all cases we used widely-used assessments with satisfactory or better psychometric properties. In addition, we attempted to employ multiple measurement techniques, where

possible. Unfortunately, the standardized self-report format was difficult to employ with non-educated Maasai and we were not able to use experience sampling method as much as we would have liked. Taken together, we are reasonably confident in the accuracy of these measures but concede that there may be dimensions of happiness that are not assessed using these methods. Finally, it must be noted that the populations of interest in these studies represent a "special" set of people (e.g. homeless, tribal people living a traditional lifestyle) and the findings from these studies may be limited to these populations and not generalizeable to mainstream society.

There are a variety of worthwhile directions for future research on this topic. With regards to re-evaluating Maslow's classic hierarchy of needs, the current studies found that social needs may be more "basic" than originally thought and that the threshold for "meeting" physical needs is not well understood. Future research should evaluate how physical and social needs relate to one another as well as attempt to establish clear definitions for "basic needs." In our studies among the homeless, in particular, further research is needed to identify the specific social mechanisms that appear to buffer individuals from the toxic effects of poverty. Among the most interesting findings in the current research is our results related to the relatively high happiness of Denmark. Our data suggest that the high reports of happiness from that country are, at least in part, explained by the ways in which Danish society provides for the psychological well-being of its poorest citizens. Unfortunately, more research is needed to fully understand the types of cultural, governmental, economic, and social forces that lead to the well-being of Denmark's poorest citizens.

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