

Happiness, Flow and the Bottom Line¹

J. Malcolm Dowling, Singapore Management University, Singapore
Li-Choy Chong, University of St. Gallen, Switzerland
Anna Wozniak, University of St. Gallen, Switzerland

Abstract.

This paper relates a series of current development in the literature of economics and psychology as they relate to decision making by households and business firms. The first part of the paper reviews recent literature dealing with happiness and subjective well-being. In the second part of the paper recent developments in management science that make use of intuition and mental focus are related to firm profitability and improved economic efficiency.

Both of these recent developments can provide critical insights into improving the “bottom line” performance of policy makers, managers and society as a whole at both the macroeconomic and microeconomic levels. These ideas are then used to design to and develop a series of policy suggestions that refocus attention on the concept of subjective well being or happiness as opposed to economic utility maximization as well as the role of intuition and the concept of “flow” in the decision making process. of top managers.

We can summarize these ideas succinctly by focusing on two sets of variables relating to decision making and decision outcome in a two by two matrix summarized in the Table

Table Decision Making and Decision Outcomes

| Decision Making | Decision Outcomes | |
|-----------------------------------|---|---------------------------------------|
| | Objective (to maximize utility) | Subjective (to max well-being) |
| Objective decision making | Formal planning | Social goals/collective vision |
| Subjective decision making | Intuitive decision making (in business) | Personal/informal decisions |

¹ We wish to thank Yap Chin Fang, Victoria Junior College, Singapore for helpful comments.

Introduction

This paper relates a series of current development in the literature of economics and psychology designed to develop a series of policy suggestions that refocus attention on the concept of subjective well being or happiness as opposed to economic utility maximization. In the second part of the paper recent developments in management science that make use of intuition and mental focus are related to firm profitability and improved economic efficiency. Both of these recent developments can provide critical insights into improving the “bottom line” performance of policy makers, managers and society as a whole at both the macroeconomic and microeconomic levels.

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Table 1 Decision Making and Decision Outcomes

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Both parts of the paper focus on the importance of subjective decision making. The first part of the paper focuses on the concept of happiness or subjective well being as it relates to individuals and society as a whole while the second part explores the role of intuition and the concept of “flow” in the decision making process. The work reviewed pertains to the United States and Europe. The challenge for future work will be to apply these ideas to the situation in Singapore and the rest of Asia.

In the calculus of the standard economic model of the household, individuals maximize utility by allocating resources (income) in such a way that the marginal utility of all

goods and services is maximized. Allocations among goods shifts with prices and tastes are assumed to be constant. While this analysis is static to begin with comparative statics and dynamics can be introduced to show what happens when income increases or when prices change. Changes in tastes can also be introduced but the analysis is messy, as it requires shifting the utility mapping and the results are not as clean as when tastes are fixed. This model of utility maximization forms the cornerstone of microeconomic analysis of the consumers and also the choice between work and leisure. Consumers are assumed to be rational individuals who act in their own self-interest.

There are, however cases where individuals do not follow the self interest model that economists have developed as in the area of individual utility maximization. Lane (2000) explores various aspects of why this happens. Using the results of self-reporting surveys of happiness and subjective well-being he documents that, aside from very low levels of income, greater income and higher levels of consumption do not generally result in greater happiness. To the contrary he finds that in many situations the focus on materialism leads to a decline in happiness or subjective well being. A number of other researchers have come to similar conclusions in the past decade or so.

Over and above the lack of a close relationship between happiness and utility, as narrowly defined by economists, there is a wider interest in the subject of happiness. Research on happiness can aid in making better policy choices that will lift the level of general well being in the society. Better knowledge of the determinants of happiness will allow policy makers to evaluate the trade offs between different policies, in terms of their impact on utility and subjective well being.

The goal of public policy could be re-oriented towards ways to heighten the “well-being” of citizens and to make their lives more fulfilling, enjoyable and meaningful by using economic and other policies to achieve these goals, particularly so for advanced societies who have already attained relatively high per capita income levels. Sometimes a narrow focus on raising standards of living in the traditional sense of raising income per capita ignores broader policy questions that can be addressed by a broader focus on subjective

well being or happiness. For example, on the aggregate level it is important to understand the relative impact of changes in unemployment and inflation on the level of happiness and subjective well being. It is also important to understand the relationship between happiness and social capital and institutional conditions such as the quality of governance. This is important in evaluating the trade offs between macroeconomic objectives that have to be made in view of the impact of different policies on welfare and happiness. It is also important to understand the relationship between a gain in utility as measured by, for example, greater consumption, and the impact this has on perceived measures of happiness and subjective well being. This relationship involves the psychology of memory, the apparent disconnection between living standards and aggregate measures of happiness as well as the importance of being a valued member of society. There is, for example, evidence that there is a tendency toward higher incidence of depression and other forms of mental illness even as per capita income has been rising. Thus, a better understanding of happiness and the psychology and sociological framework within which people make economic decisions gives us a better insight into the bottom line performance of firms and economies, and will hopefully show us the way to improve upon them..

- **Some History**

Beginning with Thorstein Veblen, writing in the late 19th century and even earlier in the writing of Adam Smith, economists have been concerned about the broad issues of well being. In doing so they went beyond the narrow definition of utility that came to be used by the followers of Bentham and J.S. Mill. In recent times economists and other social scientists have begun to focus on how to measure “utility”. Some, such as Ng (2003), Lane (2000), Deiner and Seligman (2004), Easterlin (1996, 2001), Frank (1999) and Scitovsky (1976) to name a few, have shifted their concerns to other measures such as happiness and subjective well being.

These writers have also investigated the process of decision making and how consumers adopt decision rules that are not rational in the conventional sense that economists use

this term. To explain these seemingly “irrational” decisions they have examined the role of the emotions and other factors outside the usual realm of economics.

By exploring various aspects of sociology, psychology, biology and political science, these writers have expanded the scope of economic inquiry into many new areas. In what follows we focus on implications that flow from an analysis of happiness statistics that have been compiled and analyzed for a number of industrial and developing countries. We examine the issue of how to increase well being and welfare in a broader sense than per capital income. In addition to exploring the motivation for decision making and how these decisions relate to well being and happiness, we also look at the general macroeconomic policy framework and some proposals for addressing the allocation of resources and the improvement in well being that might arise if these proposals were implemented.

- **Are Happiness and Utility related?**

Economic theory has been dominated by the positive approach which puts great emphasis on the ability to observe behavior without making judgments about how other behavior besides choice are involved in economic decision making. Alternatively, many economists have approached microeconomic decision making using other approaches. Lane (2000) focuses on status and misallocation of resources as a result of conspicuous consumption, (Elster, 1998) on the role of the emotions, and (Kahneman et al (1999) on interdependent utility functions.

There are also a number of puzzles and anomalies that make it difficult to believe that utility can be understood by looking at observed choices alone. As an alternative we can adoptive a normative and subjective view of decision making which takes a broader view of decision making and focuses on subjective well being rather than utility. Many actions that people take are not “rational” in the narrow hedonistic definition of the term. This approach also allows us to see that many of the things we do and things we want, such as

job security, status, power, love and contentment as well as money are desired because they make us happy and not for their own sake (See Frey and Stutzer, 2002.)

- **An Alternative Measure to Utility**

Instead of looking at what people buy and their pattern of consumption and income, researchers on happiness rely on self assessment questionnaires to determine whether people think they are happy. A term often used as a substitute for happiness is subjective well being, This takes away some of the emotional content of happiness and allows people to evaluate their level of satisfaction relative to others, to their past levels of satisfaction and their expectations of the future. (Andrew and Robinson, 1991)

Because of the subjective nature of surveys, there are many different approaches to deciding whether someone is happy or not. Four prominent measures and the questions asked by Frye and Stutzer (2002) are displayed in Table 1

Table 2 Measures of well-being

| Survey | Questions asked of respondents |
|---|--|
| General social surveys ¹ | Taken all together, how would you say things are these days – would you say you are very happy, pretty happy or not too happy? |
| World Values survey ² | All things considered how satisfied are you with your life as a whole these days? |
| Euro barometer Surveys ³ | On the whole are you very satisfied, fairly satisfied, not very satisfied or not at all satisfied with the life you lead? |
| Satisfaction with Life Scale ⁴ | Five questions rated on a scale from one to seven.. |

1 Davis, Smith and Marsden (2001),

2 Inglehart et al (2000) World Value Surveys and Surveys and Surveys and European Values Surveys 1981-84, 1990-93, 1995-97 ICPSR version Ann Arbor Michigan, Institute for Social Research and Inter-university Consortium for Political and Social Research.

3. Eurobarometer Surveys,

4. Pavot and Diener (1993)

After delving into possible biases in responses, Frye and Stutzer (2002) conclude that there may be some systematic biases that reflect socioeconomic characteristics. For example people doing volunteer work seem to report higher life satisfaction. This could be because more extroverted people tend to volunteer and they may be happier people. Also, young people seem to record lower life satisfaction scores than older people. Are they really less happy or is it that older people have learned to respond to these questions in a particular way. Nevertheless, those economists who have been studying these surveys suggest that these problems are not a reason to dispute the conclusions from these surveys, many of which have been conducted over many years. “It is thus possible and worthwhile to study economic and institutional effects on happiness” Frey and Stutzer (2002, p. 10.)

The preponderance of evidence is that happiness and utility are very closely related at low levels of income but not at higher levels. Robert Lane (2000) argues that above a minimum level, income is irrelevant to one’s sense of well being. Companionship and social support increase well being. Shopping and consumption are solitary activities and watching TV is not genuinely sociable, the increasing time devoted to these activities could be the cause of rising levels of depression. Lane’s (2000) analysis focuses on developing activities that contribute to happiness. He argues that most of the responses to questionnaires about whether people are happy or what gives them pleasure revolved around congenial and pleasurable relationships with family, work mates and friends. Satisfaction with the experience of work – the environment, the challenge and other subjective characteristics also figured high on the list.

From this, Lane infers that subjective well-being (SWB) is not primarily a result of the utilitarian calculus of goods. It is more related to what Frank calls “inconspicuous” consumption – “freedom from traffic congestion, time with family and friends, vacation time and a variety of favorable job characteristics.” (1999, p. 90). One study found that the number of friends recorded on a questionnaire was the best indicator of SWB. Evidence from similar studies suggests that interactions with people, usually outside work provides the most satisfaction and increases SWB. He advocates that advanced

societies are more likely to increase utility if they maximize friendship rather than the acquisition and spending of wealth.

Ng (2003) argues that because welfare economics solely concentrates on the analysis of rational preferences, it disregards the consideration of happiness. Standard theory doesn't account for imperfect rationality, animal spirits and inadequate knowledge, all of which are amplified by a commercial/competitive society. He argues that spending on public goods like education, environment, and research could increase happiness and utility. He also notes that societies should promote freedom and democracy, which are both correlated with happiness. Imperfect rationality leads some people to consume harmful substances such as hard drugs, and commit harmful acts such as gambling, slavery and prostitution. The state protects us by enforcing laws that control these activities and restricts consumption of harmful substances. He further notes that the impact of unemployment on happiness is severe because of the psychological as well as monetary effects. He argues therefore, that it is better to keep unemployment down at the risk of some inflation. These trade offs have to be analyzed differently than if we were talking from a purely monetary point of view.

There are a number of conclusions that have been drawn from an analysis of happiness and other variables, some of which we have mentioned above. These conclusions are based on a vast amount of information that has been collected from individuals in many different countries (see the Appendix for further details). We turn to this analysis in what follows.

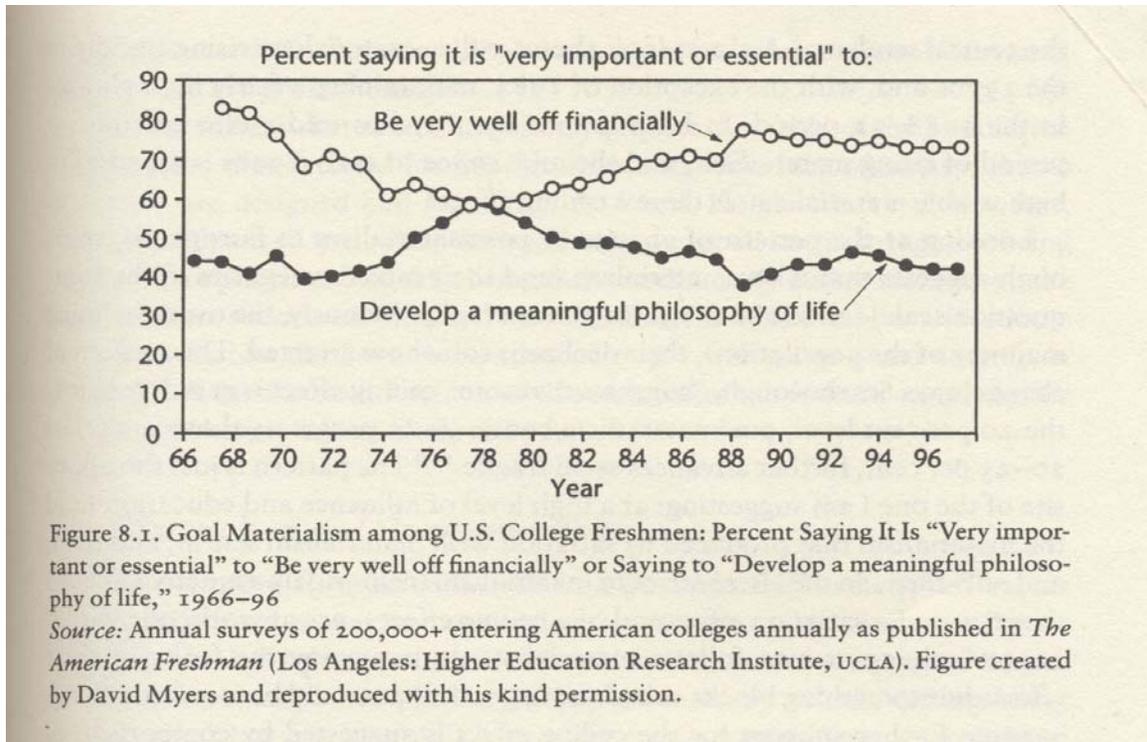
- **Perceptions of happiness**

Advertising in magazines, on the radio and TV, on billboards, on the internet and (subtly) in movies is designed to convince the consumer that he or she will be happier with a seemingly endless array of products and services. We are continuously bombarded with a stream of ads designed to convince us that the products and services are going to make us happier, more content and less stressed out. Advertisers try to convince us by the use of

this kind of advertising that those customers who have purchased these products are happier. Furthermore we observe people in our lives that have bought these products. Can we tell whether the ads are telling the truth or not? In most cases the answer is no, we cannot. Are the people that we know who bought these products happier? It's often hard to tell. Most people are no happier with a lot of money and possessions than with a modest income. There was a famous murder case in the United States where a couple won a very big lottery prize and bought a new house and car and lots of other goods. A few months later the husband murdered the wife. The story goes that that one of the reasons they were having difficulties was that they were having trouble meeting the payments on the new house they bought with their winnings!

An annual survey of 200,000 entering freshmen into American colleges over the period 1966 to 1996 shows only a slight dip in the response to the students' assertions that it is very important or essential to be very well off financially. The response went from over 85 % in the late 1960s to around 65 percent in the late 1970s and increasing to over 75 % by the end of the survey. Notice the phrase "very well off" in the statement. (see Figure 1). By contrast less than 50 percent and as low as forty percent said it was important or essential to develop a meaningful philosophy of life.

Figure 1 – Life philosophy and financial security



Source: Lane (2000, page 155) Figure 8.1

The results of materialist surveys in other industrial countries are similar. But numerous studies have demonstrated that the rich are no happier than the middle class and after a certain level or standard of living that more goods do not bring additional fulfillment, happiness or well being (Lane 2000).

Psychologists and sociologists have studied why materialism doesn't seem to have yielded the payoff suggested by the economist's model. They have developed a profile of highly materialistic people that shows them to be unusually preoccupied by themselves and their needs. Psychologists use the word “narcissism” to describe this kind of psychological profile. There is also an assertion by Lane that materialists are less effective in pursuing their goals in life and that they are more passive than others. They watch more TV and are more concerned about being treated fairly by others. One reason

why materialists may be more unhappy rather than happier is that their fulfillment comes from the outside rather than from a developed feeling of inner worth and well being.

- **Money, Income and Happiness**

The relationship between happiness or subjective well being and income is obviously quite complex (Lane (2000), Frey and Stutzer (2000,2002), Diener and Seligman (2004), and di Tella, MacCollock and Oswald (2001,2003). Research shows that up to a point, increasing income does result in a significant increase in happiness. This is particularly apparent at low or subsistence levels of income. There is also evidence that at a particular point in time those who are better off in a particular society may be marginally happier than those with lower income. These results are valid for the United States in Table 2 and Figure 2 and for an international panel of countries in Figure 3. ILO (2004) also shows that the lack of a reliable source of income creates insecurity and contributes to a reduction in well-being in many developing countries.

Table 2 Happiness and Income in the US – 1970s and 1990s

| HAPPINESS AND EQUIVALENCE INCOME IN THE USA | | | | | | |
|--|---------------------------------------|---------|----------------------------|---------|---------------------------|---------|
| Equivalence income ^a (1996 US \$) | Mean happiness rating ^b | | Mean equivalence income | | Number of observations | |
| | 1972-74 | 1994-96 | 1972-74 | 1994-96 | 1972-74 | 1994-96 |
| Full sample | 2.21 | 2.17 | 17434 | 20767 | 4214 | 5171 |
| Decile | | | | | | |
| 1 | 1.92 | 1.94 | 2522 | 2586 | 421 | 499 |
| 2 | 2.09 | 2.03 | 5777 | 5867 | 419 | 528 |
| 3 | 2.17 | 2.07 | 8694 | 8634 | 417 | 497 |
| 4 | 2.22 | 2.15 | 11114 | 11533 | 416 | 542 |
| 5 | 2.19 | 2.19 | 13517 | 14763 | 391 | 512 |
| 6 | 2.29 | 2.29 | 15979 | 17666 | 460 | 500 |
| 7 | 2.24 | 2.20 | 18713 | 21128 | 393 | 527 |
| 8 | 2.31 | 2.20 | 22343 | 25745 | 447 | 529 |
| 9 | 2.26 | 2.30 | 28473 | 34688 | 427 | 472 |
| 10 | 2.36 | 2.36 | 46338 | 61836 | 423 | 565 |

Source: General Social Survey, National Opinion Research Center. Variables 34, 157 and 1028. 'Don't know' and 'no answer' responses are omitted.

^a Total household income divided by the square root of the total number of household members.

^b Based on score of 'not too happy' = 1, 'pretty happy' = 2 and 'very happy' = 3.

Source: Frey and Stutzer (2002, p.53), Table 1.

There appear to be decreasing returns to happiness given a dollar increase in income. See Figure 2 which shows that there has been a slight decline in the happiness curve between 1972 -74 and 1994-96 in the United States. Furthermore the curve flattens out at higher levels of income. Another factor to note is that differences in income explain a small proportion of the variation in income. While this is not evident from Figure 3, other data reported by Easterlin (2001,p.468) show a low correlation coefficient of only 0.20 between subjective well being and income. Frank (1999, 112 and 114) also shows that the fit between these two variables is not particularly tight.

Figure 2 Happiness and Income in the US- Comparisons between the 1970s and 1990s

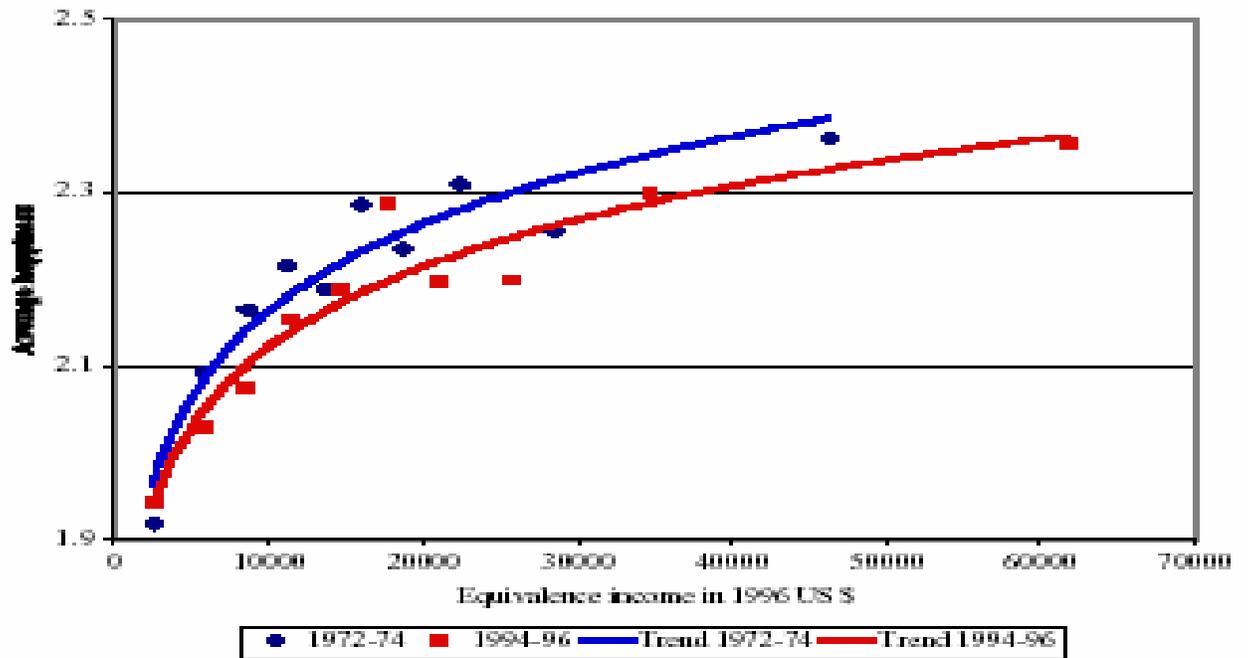
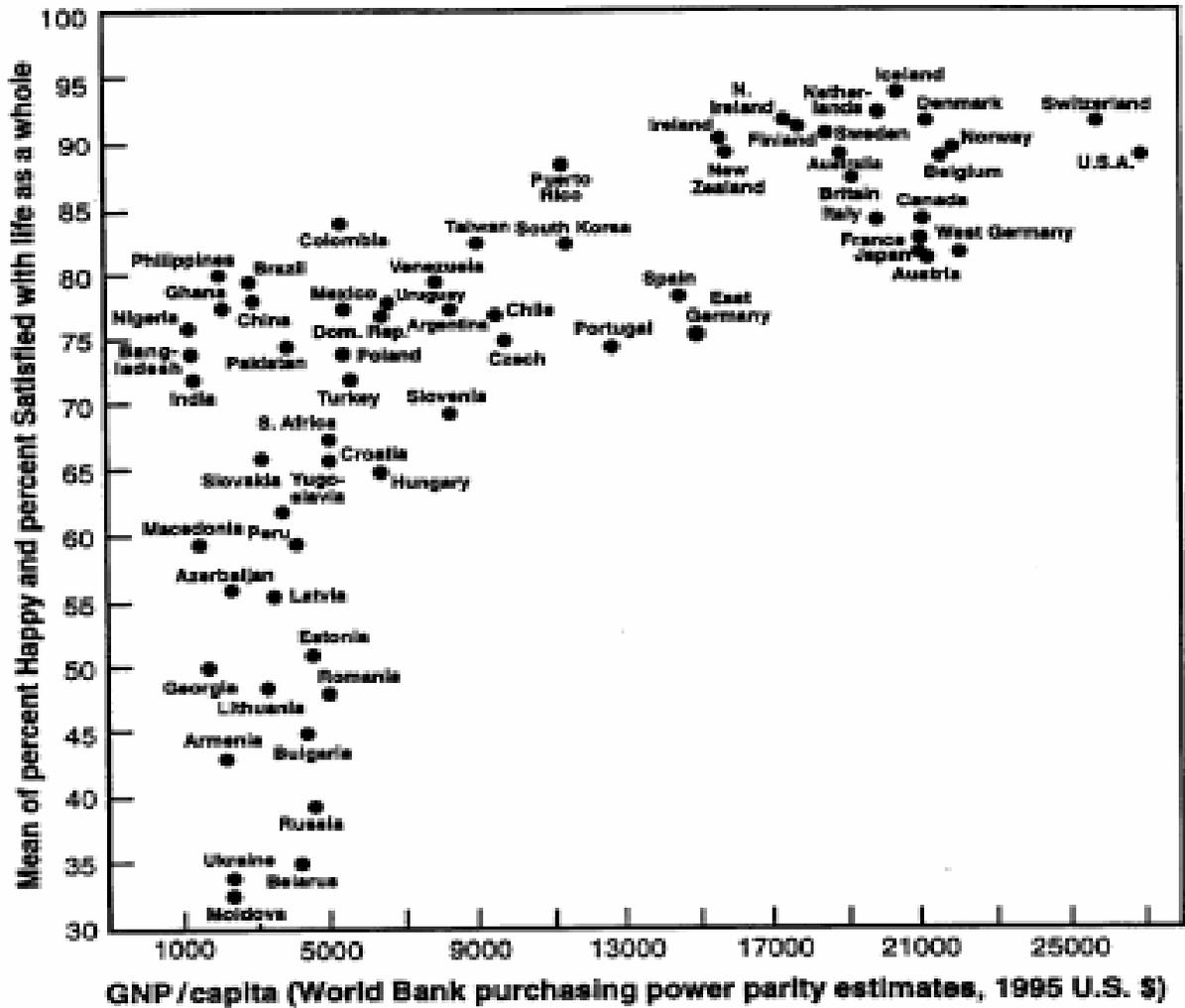


Figure 1. Happiness and Equivalence Income in the U.S.

Source: General Social Survey, National Opinion Research Center.

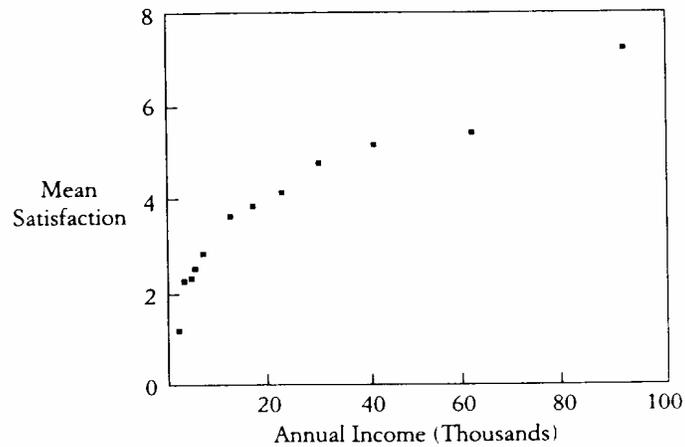
Source: Frey and Stutzer (2002, p.54), Figure 1.

Figure 3 Happiness and income for a cross-section of countries - 1995



Source: Inglehart and Klingemann (2000, p.168) Figure 7.2.

Figure 4 Income versus satisfaction in the US – 1981-84



INCOME VERSUS SATISFACTION IN THE UNITED STATES. 1981-84

Source: Diener, Sandvik, Seidlitz, and Diener. 1993

Source: Frank (1999, p.112)

However over time overall happiness in industrial countries has not increased much, if at all, despite a considerable increase in the level of disposable of income. Tables 3 and 4 show indices of income and happiness for the US and Japan over a long time span and also Figure 6 which shows the US GNP and mean life satisfaction during the period from the late 1940s to 2000.

These two seemingly contradictory results can be explained by the fact that people generally experience an increase in subjective well being (SWB) or happiness when their ranking in the income distribution improves.. More importantly it is obvious from this evidence that money is not telling us enough about well being.

Figure 5 Adjusted GNP and mean life satisfaction in the US – 1947-98

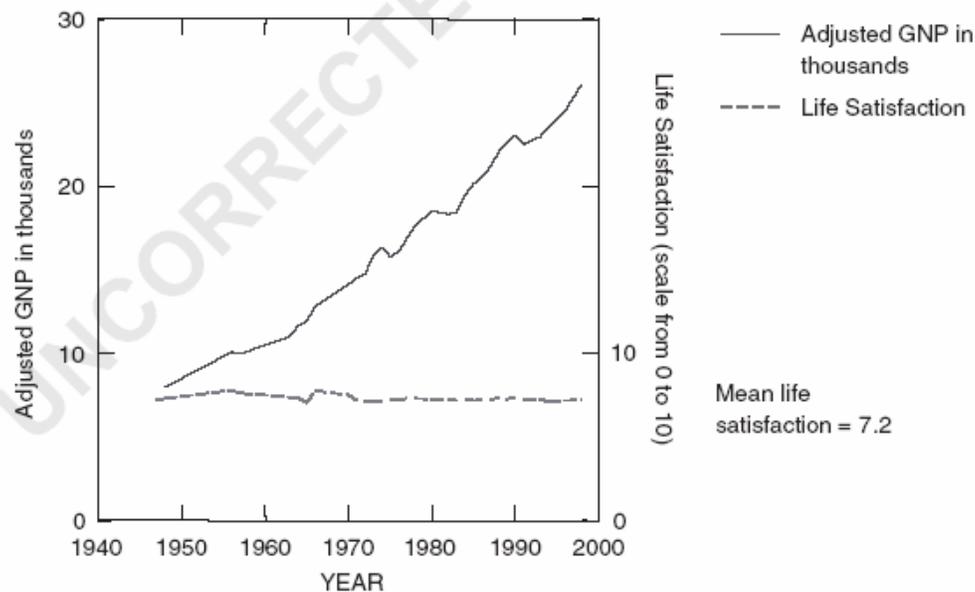


Fig. 1. U.S. gross national product (GNP) and mean life satisfaction from 1947 to 1998.

Source: Deiner and Seligman (2004, p.3) Figure 1

The evidence suggests that people are more interested in relative income and consumption than absolute income above a certain subsistence level. Economists have tried to explain this kind of behavior in another context by explaining consumption by income relative to some historical average (Duesenberry, 1949) or by habit persistence models. In any event this relationship succinctly says that the attainment of greater happiness with more material things “wears off” over time (see also Frey and Stutzer, 2002). Di Tella et al (2003) argue that people get used to higher income but not all of the benefits dissipate over time. These results are obtained using a multistage probit model with four alternatives. Because of this it could be that the significance of income in their analysis resulted from movements within the income distribution rather than changes in the level of income.

In any event it seems that satisfaction depends on change and mostly disappears with continued consumption. This process, or mechanism, that reduced the hedonic effects of a constant or repeated stimulus is called adaptation. And it is this process of hedonic

adaptation that makes people strive for even higher aspirations. Alternatively we could describe this process of relying on relative income rather than absolute income as incorporating interdependent preferences as part of individual's objective functions. Because these aspirations can never be fully satisfied we remain stuck, unable to realize a higher level of SWB no matter how many goods we accumulated. Also as the incomes for everyone go up the linkage between the absolute level of income and SWB is severed so long as there are no significant changes in the relative position of people in the income distribution. Frank (1999) argues that some goods, which Hirsch (1976) calls positional goods, are coveted only because they can't be purchased by most other people – yachts, hideaways on secluded islands, expensive jewelry. Also, Clark and Oswald (1996) conclude that the higher the income of the reference group used by workers in the UK, the less satisfied people were with their own jobs.

There is further evidence that materialism, defined as placing a high value on income and material possessions had a negative impact on well being across countries. (Kirkcaldy, Furnham and Martin 1998) also Swinyard et al (2001). Using a probability samples of adults in the US and Singapore Swinyard, et al (2001) find that adults in Singapore are less happy and more materialistic than those in the US.

Furthermore articles in the volume edited by Kasser and Kanner (2004) show that materialistic individuals experience lower self-esteem, higher levels of narcissism and less empathy and greater conflict in social relationships. This could be because materialists tend to play down the importance of social interactions and relationships which have been shown to be an important source of feelings of well being in other studies.

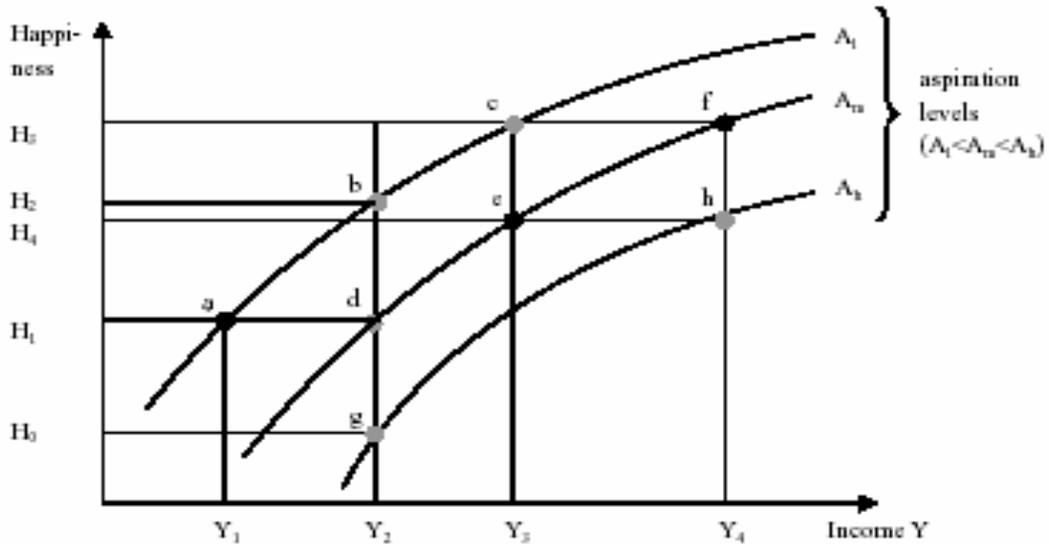
It is possible; however, that the flow of causation may run the other direction, i.e. that unhappiness forces people to focus on material goals. Srivastava, Locke and Bartol (2001) found that materialism was most damaging when it arose from a desire to gain power and influence as opposed to being secure and free to pursue different objectives.

Emphasis on material objects is reflected also in the finding that higher income communities in the US were less happy, other things equal, than middle class neighborhoods (Hagerty (2000) and Putnam (2001)). The negative impact of high levels of family income on happiness is also reflected in the work of Csikszentmihalyi and Schneider (2000) who found that adolescents in affluent suburbs were less happy and reported lower self-esteem than those from middle-class neighborhoods and urban slums in the US. Luthar (2003) suggested that this is because the wealthy kids were expected to achieve more and to compete at school and that there was a lower level of personal intimacy which could also lead to a lower level of self esteem.

- **The Importance of Aspirations**

The above discussion suggests that the search for SWB must move away from goods to something else. These arguments are reinforced by the work of Richard Layard (2003). In his first lecture, he summarizes research that shows that in developed countries people are not getting happier, despite rises in income. Individuals may express more happiness if their income rises up above the rest of society, that is their place in the income distribution increases but in aggregate there has not been an increase in happiness. The work of Robert Lane (2000) and Robert Frank (1999) supports this view and they are also echoed and amplified by Richard Easterlin (2001) who argues that since human aspirations grow income doesn't bring further happiness (see Figure 6). He argues that people continually project that they will be happier in the future as their income increases. Yet they are not. So, Easterlin argues, there is a consistent bias in expectations. He notes three facts relating to income and happiness as recorded from a variety of studies. First, as we have seen above, those with higher income are happier than those who have lower incomes. Second, people expect to be happier in the future than they are now. Third, happiness tends to be constant over the life cycle. These three facts are explained by the notion that material aspirations change in proportion to income and so people don't become happier over time despite the fact that they believe they will.

Figure 6 Happiness, Income and the Role of the Aspiration Level



Source: Frey and Stutzer (2002, p.56), Figure 3.

Easterlin's evidence points to the persistence of materialism. Expanding upon this idea, Cornish (1997) argues that needs may be limited but that greeds are not. He notes that teachers of philosophy have teased students with the conundrum < Is it better to be a happy pig or an unhappy Socrates ?> The point here is that mankind may be striving toward achieving a higher level of consciousness and people may generally be trying to lead virtuous lives. Sometimes this creates challenges and stress and these might not be conducive to greater happiness. Frey and Stutzer (2000) quantify this notion, suggesting that rising aspirations nullify up to 70 percent of the rise in income.

- **Productivity, Happiness and Well-Being**

There is a considerable amount of research that suggests job satisfaction and a positive attitude both contributed to raising worker productivity. Experiencing more positive emotions at work is also associated with higher levels of organizational citizenship as well as better performance. This positive attitude and job satisfaction also appear to be associated with lower labor turnover rates, lower rates of absenteeism, more punctual attendance and more cooperative behavior [(Spector (1997) and George (1990) and Miner (2001) and Diener and Seligman (2004)). This evidence suggests that not only are happy workers more productive, happy workers also contribute to raising productivity for others and the firm. Well-being of employees also results in higher levels of consumer satisfaction (Schmidt and Hayes (2002). This tended to result in higher levels of profits for the firm. On the other hand poor customer relations can cause large losses if customers are lost. Srinivasan and Pugliese (2000) estimated that lack of consumer loyalty cost a large bank chain \$44 million in a year because customers closed accounts. Greater involvement of workers in decision making also raises productivity (Black and Lynch (2004) and Hamilton, Nickerson and Owan (2003)). It is also likely that this involvement in decision making contributes to a greater feeling of well-being as workers become more involved in decision making and in group interaction.

It is well known that paying workers a higher salary than the norms in the industry – the so-called efficiency wage argument – can be a contributing factor in raising productivity (Campbell III, 1993). It is also possible that efficiency wages may also increase workers' feeling of well being as a result of workers feeling more appreciated and valued by the firm.

The above research does not consider the possibility that happy workers are simply happy and would be no matter what, so that workplace characteristics have nothing to do with their state of mind. However other studies suggest that there may be a two-way causality between worker well being and work place conditions. Most of the work does suggest that

“the positive effects of well being at work on performance go beyond the effects of personality. The well-being of workers results in positive organizational citizenship,

customer satisfaction and perhaps even greater productivity. Because specific workplace variables are known to enhance well-being at work, organizational policies can raise workers' well being and thereby enhance organizational citizenship and possibly profitability.” (Deiner and Seligman 2004, p. 12)

- **Physical Health, Happiness and Well-Being**

In general, positive physical states of well being are positively correlated with good health. People in poor health are generally not happy. This is an important result that has implications for health policy as it influences productivity and government initiatives. Another aspect of this relationship is that feelings of well-being are also positively correlated with longer life expectancy and people's subjective view of their own health. Happy people think they are healthy. Furthermore the intensity of physical pain can be magnified by feelings of unhappiness or low self image. In addition longevity is greater in nations where well-being is high, even after controlling statistically for the level of income and the size of infant mortality (Vazquez et al (2004)). Other research suggests that optimistic patients live longer than pessimistic patients, happy people recover faster and some diseases can be cured or treated more effectively when the patient has a happy and upbeat attitude (see Deiner and Seilegman, (2004) p. 14 for details). As a corollary to this a pleasant mood seems to lower blood pressure and that stress lowers the immune system.

The incidence of mental disease in industrial countries has been rising steadily over the past fifty or sixty years, even as per capita income has been increasing (Cross National Collaborative Group, 1992). In a sample of over 40,000 adults from several different countries results showed a dramatic increase in mental illness over the 20th century. The cost to society and to the individual is high. Depression and anxiety, two major forms of mental illness, lead to significant declines in well-being (Spitzer et al. (1995)) and Packer, Husted, Cohen and Tomlinson (1997)). On the other hand there is evidence that happy people show low signs of mental illness (Deiner and Seligman (2004)). Treatment of many kinds of mental illness is effective while many with psychological disorders fail

to seek or receive treatment. Sometimes these therapies are more effective when patients are encouraged and allowed to interact with others in social settings (Nelson (1991) on alcoholism is an example.) ILO (2004) documents widespread lack of protection for worker's health and well-being in the form of accidents, illness and stress. It identifies labor intensification, competitive pressure, time-squeeze, modern technology and lack of worker control of their jobs as the primary causes of increased stress. The lack of health and safety controls and regulations are particularly glaring in developing countries.

- **Social Relationships, Happiness and Well-Being**

There are a variety of social settings which are associated with greater levels of well being. Conversely other states are associated with low levels. Interpersonal problems including difficult family relationships, stressful work environment and ostracism from social groups can all cause strong negative feelings and low self esteem. Loneliness stems from a lack of a confidant and friends and in turn increases the risk of psychological problems and low life satisfaction (Argyle, 1987 and Baumeister, 1991). Social developments, which cause disruption, including moving, dissolution of marriage and death of a partner, can all have a devastating impact on well-being. Some of these negativities can not easily be dealt with by society aside from counseling and support of friends and relatives. Others, such as moving, can be addressed either by the business community or the government. In the latter case incentives to keep movement of employees to different locations can be minimized by tax incentives and reorientation of business human relations departments to focus on keeping families together in one location for longer periods of time.

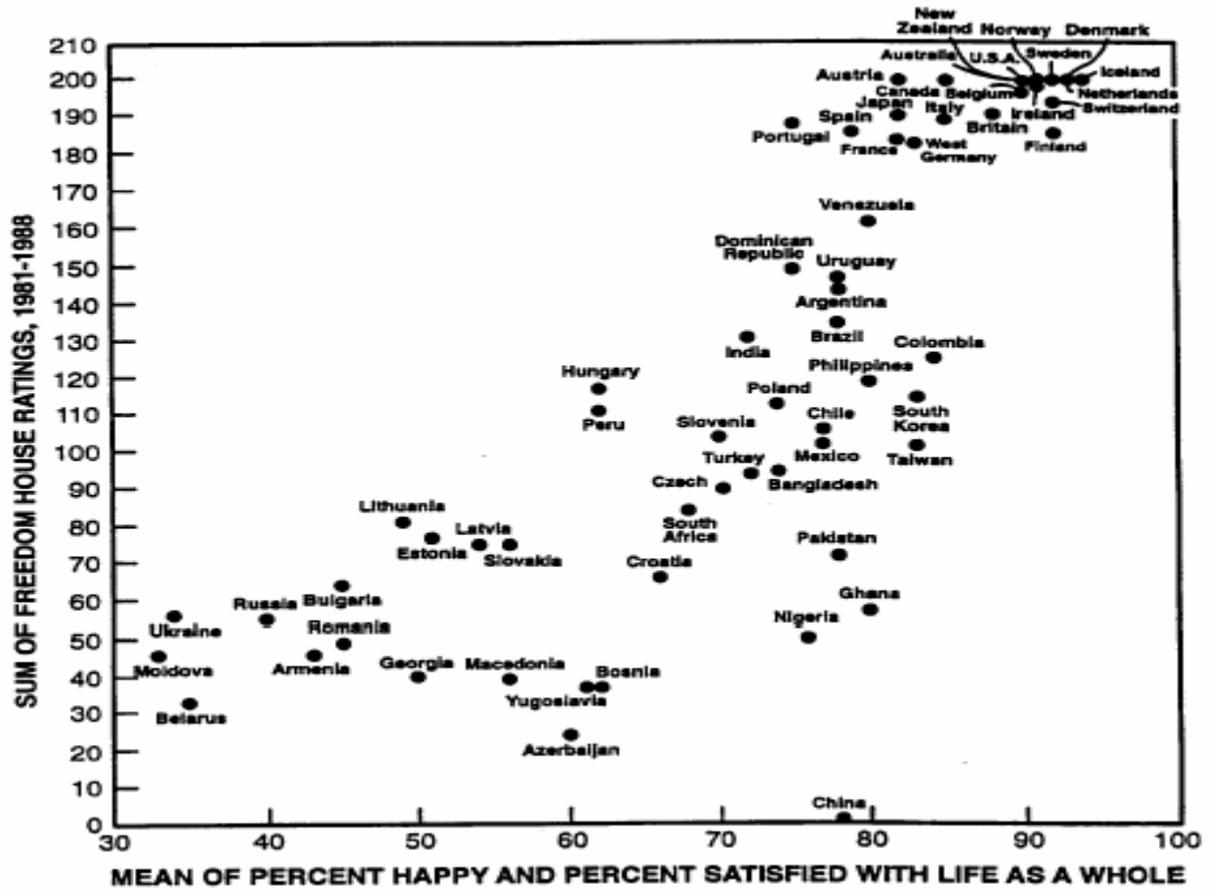
A complete analysis of the relationship between happiness and social capital is beyond the scope of this paper. However we can note that suicide rates are low (the extreme of unhappiness) when trust in others is strong and also when there is a high level of membership in organizations outside of work. Furthermore, there is evidence that well-being is positively correlated with the level of social capital in the society. When there is

a break down in social connectedness the level of well being tends to decline (Twenge (2002). In the United States there seems to be a trend toward a lower level of social connectedness and a rise in mental illness even as incomes per capita are rising.

- **Governance, Happiness and Well-Being**

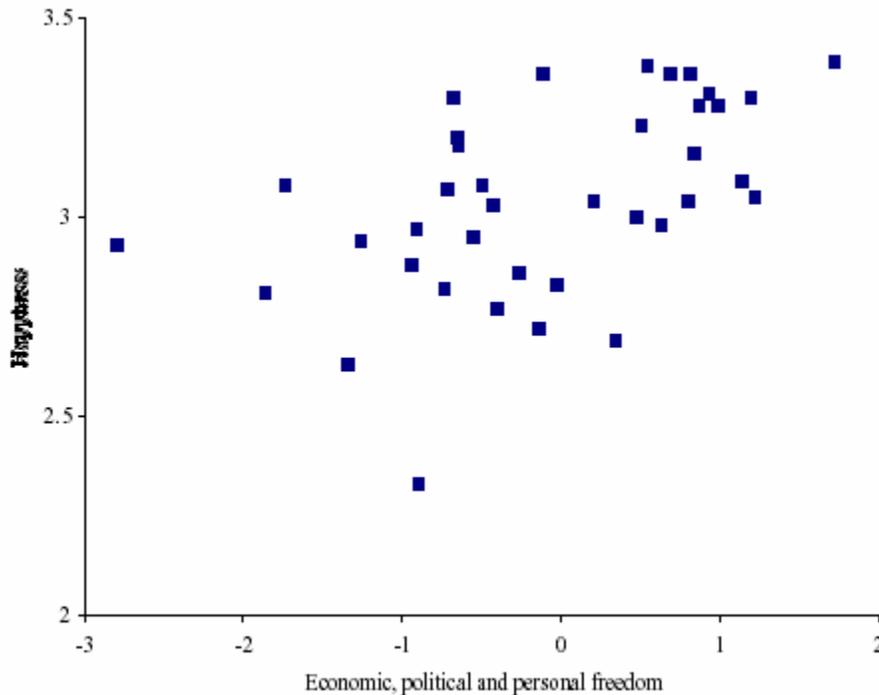
We noted above that there is a concave relationship between political freedom and happiness across a variety of countries as reflected in Inglehart and Klingemann (2000) and shown in Figure 7. Examination of this figure shows that many of the countries showing low happiness levels also were living in authoritarian states without much economic or political freedom. This could mean that other factors, including democracy but also better health and more personal freedoms could also account for the positive relationship between income and happiness. It also exhibits the weakness of depending too much of simple correlations and two dimensional graphical schematics to prove a point. If we expand our range of variables that could be correlated with happiness we observe that political and personal freedoms are also closely correlated with happiness (see Figure 8). This relationship needs to be further explored within the context of a wider analytical test. Most of the results reported above are for the United States and European countries, all of which are market democracies.

Figure 7 Freedom and Happiness



Source: Inglehard and Klingemann (2000, p.178), Figure 7.5.

Figure 8 Freedom and Happiness Across Nations



Source: Veenhoven (2000), Appendix I as taken from Frey and Stutzer (2002, p.58)

In Europe the relationship between publicly provided unemployment is positively correlated with happiness (di Tella et al (2003). Furthermore their evidence does not imply that generous welfare has made life too easy for the unemployed. Their results show that there is no downward trend in the unhappiness of being unemployed. It is still unpleasant, only less so in societies that provide more generous benefits.

- **Trust, Stability, Corruption, Happiness and Well-Being**

Exploring these ideas a bit further Helliwell (2003) concluded that people with the highest feeling of well being are those who live in societies where social and political institutions are effective, there is a high degree of mutual trust and where the level of corruption is low. Other studies, including those of Inglehard and Klingemann (2000) and

Veenhoven (2000) found that economic freedom was positively related to happiness, particularly in poorer countries. Diener et al (1995) suggest that human rights and individual freedom were also correlated with well being. Repressive regimes reduce the sense of well being. On the other hand stability in society is also an important component in establishing a feeling of well being. This is reflected by low well-being indicators in the former Soviet Union in the unstable years following liberation from Soviet oppression (Helliwell (2003), Inglehart and Klingemann (2000) and Veehoven (2000)).

- **Other important relationships – impact on well-being of race, gender age and life style habits.**

The probit and logit regression results of Blanchflower and Oswald (2000) and di Tella, Mac Cullock and Oswald (2003) tell us something about the relationship of race, gender and age on measures of well-being. First, happiness and life satisfaction are U shaped in age. In both Britain and the US well being reaches a minimum around the age of forty, other things held constant. With respect to race, in the US blacks appear to be less happy than whites, other things equal, although the gap has narrowed in recent decades. Women are happier than men, other things equal and married people are happier than those who are divorced. The impact of those “in relationships” (ie. married and with partner) versus those who were not was not addressed. These results seem to be robust over the industrial countries studied and across different functional form regressions reports by the different researchers. There is some evidence that moderation in life style results in greater happiness. The abstemious and high livers seem to be less happy than the mildly hedonistic other things equal (Veehoven (2003)).

ILO (2004) suggests that for developing countries the low status of women results in a higher rate of insecurity and hence a lower level of well-being. Women earn less and the regularity of employment is also lower among women than men. These factors are more important detrimental effects on well-being in developing compared with developed countries.

- **Other Aspects of Happiness Research**

There is also evidence that behavior is varied and responds to different stimuli. Some people will act on baser instincts and this might make them happy for the moment. One common characteristic of such actions for most people is that regret sets in sometime later. The problem for social scientists is to develop theories that hold generally and are not so complicated that they are useful for making generalizations.

There are also a number of articles on happiness in the Journal of Happiness Studies and further references are available on the web site <http://www.eur.nl/fsw/research/happiness/> The various dimensions of happiness are explored and particular attention is paid to the measurement of happiness and subjective well being. One article by Rutt Veenhoven, (2000) introduces four measures of happiness: livability of the environment, living conditions for the individual, external utility of life and internal utility of life. By breaking down happiness in this way Veenhoven hope to be able to isolate the different aspects of emotional, psychological and environmental factor that contributes to happiness.

- **Managerial decision making, intuition and happiness**

We turn now to a discussion of the lower left quadrant of Figure 1, intuitive decision making in business It was mentioned earlier that happiness and utility are very closely related at low levels of income but not at higher levels. After surpassing a certain threshold, additional dollar income does not make the person who earned it any happier. Top-managers are usually in a group whose income levels are within a range that is way above the threshold. Every day they make a lot of decisions that have an impact on the company they manage, as well as on lives of its employees. These decisions can also

influence public policy, particularly if lobbying and interest groups are particularly vocal. For these reasons it is important to investigate the decision making process of this influential group of decision makers.

The general process of decision making has been the subject of investigation for many years now. Its evolution is representative of the changes which have been taking place in different areas of management science - from an analytical approach towards decision making to one that puts more emphasis on personal judgment and intuition.

Henry Mintzberg (2001), a management guru, puts it this way:

How should decisions be made? Easy, we figured that out long ago. First define the problem, then diagnose its causes, next design possible solutions, and finally decide which is the best. And, of course, implement the choice. But do people always make decisions that way? We propose that this rational, or “thinking first” model of decision making should be supplemented with two very different models – a “seeing first” and a “doing first” model. When practicing managers use all three models, they can improve the quality of their decisions. Healthy organizations, like healthy people, have the capacity for all three. (Mintzberg (2001, page 1)

“Seeing first” model consists of four phases: preparation, incubation, illumination, verification (Mintzberg, 2001). In the literature, this model is referred to as the intuitive decision making model. Young (2002), linked the work of Ken Wilber (1995) on levels of consciousness to CEOs’ decision making and problem solving abilities. He argues that executives at higher levels of consciousness begin to realize that reliance on sense (i.e., seeing, touching, hearing, smell, and feeling) as a way of knowing is essentially limited (Whitehead 1938, cited as in Young 2000). At this level a manager acquires an intuitive capacity for “higher order synthesizing, making connections between different contexts, relating truths, coordinating ideas, and integrating concepts” (Wilber 1995 cited as in Young 2000). In the process of becoming more conscious, intuition plays a larger role and the manager begins to see more clearly the importance of the opinions and values of others as well as the ethical and moral dimensions of the problems being dealt with (Young 2000). This process also involves increasing compassion and empathy and this helps to improve the quality of CEO’s relationship with his coworkers, employees,

stakeholders as well as his family, friends and society, in general. It also contributes to increase in his feeling of happiness and well-being as well as the well-being of others (Lane 2000).

Another aspect of the application of intuition to managerial decision making is that managers experience an intensification of satisfaction derived from the work experience itself.

In a slightly different context Simon (1987) concerned decision making and intuition in a group of chess grandmasters. When asked about rapid decisions, they usually respond: “It is done by intuition”. Supported by this observation, Simon explained intuition as subconscious pattern recognition based on experience stored in memory and retrieved when needed (Frantz 2003). Csikszentmihalyi (1975) also interviewed a number of chess masters in regard to their experience during a play. He found out that the structure of chess is well adapted to induce the state, which he gave a name of *flow*. He defined it as an “optimal experience” during which person produces a sense of enjoyment, energy, fulfillment and selflessness. The prerequisite for flow experience is a balance between the challenges perceived in a given situation and the skills a person brings to it (Csikszentmihalyi and Csikszentmihalyi 1988). In order to remain in flow, one must increase the complexity of the activity by developing new skills and taking on new challenges. Business managers engage in solving challenging problems can be compared with these chess players as they experience “flow” in making successful business decisions.

The determinant of flow is the nature of activity, which needs to be clearly structured and should allow for variable and controllable level of challenges. The other determinant is ability of a person, who must recognize the challenge in a situation. This ability is partly inborn but also can be learned (Csikszentmihalyi and Csikszentmihalyi 1988). Once a person is immersed in the activity, the rest of the world disappears from awareness. Concentration on the game excludes thoughts that are relevant, and perceptions of events outside the board are held in abeyance (Csikszentmihalyi 1975).

There is an astonishing similarity in the way people describe their emotions and sensations during both flow and intuition experiences. When in flow, people mention feeling of being in control, power, warmth, well-being, ability to radiate energy (Csikszentmihalyi 1975). On the other hand, highly intuitive managers in the process of decision making refer to burst of enthusiasm and energy, feeling of total harmony, warmth and confidence (Agor 1986).

Both, Csikszentmihalyi (Csikszentmihalyi and Csikszentmihalyi 1988) and Simon (1987), remarked that phenomena of respectively flow and intuition in the chess experience can be related to the management activities.

Some direct evidence also suggests that the intuitive skills of managers depend on the same kind of mechanisms as the intuitive skills of chess masters [...] (Simon 1987).

There are a number of other reports of the intuition experience that indicate its interconnection with flow-state. Both the flow state and the use of intuition are observed during the same kinds of activities and generate similar symptoms. Surgeons interviewed by Csikszentmihalyi (1975) said that during surgery (which is highly autotelic activity, meaning it easily generates flow), unlike in everyday life, “they usually know the right thing to do”. This can be interpreted as acting intuitively during the operation.

Another phenomenon observed is that people who are in a flow state or making intuitive decisions are so involved with the process itself that they lose sight of the end products of their work (Csikszentmihalyi 1975, Rowan 1986, Koestner et al. 1991). Csikszentmihalyi (1975) introduced the idea that creativity and meditation, which otherwise have been proved to be closely related to intuitive experience (Mcnaughton 2003, Cappon 1994), are analogous to the flow experiences. Managerial intuition interacting with flow can raise the effectiveness of decision makers in the work place. At the same time flow and intuition can lead to a heightened experience of well-being and satisfaction with life through enabling an executive to experience a sense of enjoyment, energy, fulfillment and selflessness. Life itself can generate joy and satisfaction above and beyond “personal success that is socially recognized” (Wade 1996)

Kehr (2004) proposed a more comprehensive model of the relationship between flow-state, motivation and managerial performance. Structural components of the model were implicit motives (those that come from enjoying activity or a thing for their own sake), explicit motives (e.g., originating from a desire to exercise activities or possess items that increase one's social status), and perceived abilities. The functional processes of the model included volition and problem solving. These functions compensated for the inadequate implicit or explicit motivation (volition) and inadequate perceived abilities (problem solving). Implicit motives are subconsciously aroused and lead to affective preferences and implicit behavioral impulses. Explicit motives are consciously recognized and result in rational cognitive preferences and explicit action tendencies. The third component, perceived abilities, refers to individual's perception of the amount of actual control he or she can exert over the environment. Kehr (2004) associated congruence of implicit motives, explicit motives, and perceived abilities with flow experience. He predicted that behavioral congruence with affective and cognitive preferences (activated explicit motives) is a sufficient condition for intrinsic motivation which is prerequisite of flow state.

Discrepancies between implicit and explicit motive systems among managers proved to cause intrapersonal conflict in terms of conflicting behavioral tendencies and to result in preference reversals, performance deficits, impaired well-being, and health problems (Kehr 2004). For example, doing a job that guarantees high social status, but no joy from doing it for its own sake, causes disturbance of flow experience (Kehr 2004), impedes intuition in decision this person makes at work (Agor 1986) and in result causes dissatisfaction and decreased subjective well-being.

- **Policy implications from this research and analysis of well-being and happiness**

1. Development of Happiness indicators

Many of the impacts of economic and social change on happiness are not captured by the current array of social and economic indicators. The usual economic indicators that stress GNP/GDP, unemployment and inflation, exchange rates, monetary growth and budget and international deficits have been recently supplemented by measures of social progress, as exemplified by the human development report on the United Nations, which puts emphasis on education, life expectancy, infant mortality, poverty, women's issues and discrimination.

These measures, however, fall short of directly reflecting the subjective measures of well being of individuals in society. Health expenditures, particularly mental health expenditures are going up, expenditures on prisons, crime prevention and the justice system, consumption of alcohol, cigarettes and illegal substances are going up. Defense spending is going up and environmental protection expenditures are going up. All of these expenditures are reflected in the growth in GDP. Yet in all of these cases the impact on these growing expenditures could well reflect a diminution in the perceived well being of society.

We have seen time and time again in our review of the literature on psychology and sociology that social relationships are a key ingredient in having a happy life. Family and friends are important in achieving a feeling of well-being. Yet students are unlikely to be able to obtain any information about the social environment that they are likely to encounter when looking for a job. There is oodles of material on wages and benefits but

“very little information about how meaningful or engaging particular jobs will be. Indeed, because of the lack of systematic well-being indicators, young adults might not

systematically compare professions and consider how engaging the work is or how much stress is involved. If they do consider how engaging, meaningful or stressful the work is, they are likely to have garnered this information from a favorite television drama series rather than from systematic research findings.” Deiner and Seligman (2004, p.22).

Consider, for example the kinds of questions that are stimulated by alternative economic and well-being approaches that are suggested in Table 4 below. We know that economic models are constructed on the assumption that actions arising from this approach where people choose among alternatives to maximize their well-being. However, if individuals aren’t aware of the alternatives and, in some cases, don’t realize what would enhance their well-being because of a lack of data or inefficient use of data they have, then a more useful set of data on the benefits and drawbacks of different alternatives based on well-being indicators might be useful. A set of well-being indicators would make it easier for people to make choices that increase well-being. These choices might not necessarily yield the largest salary or the highest level of savings.

Having well-being indicators would also prompt researchers to look at consumption patterns and well-being to see how they are related. In this way more concrete statements could be made about some of the questions raised earlier about prisons, defense spending, and consumption of alcohol, cigarettes, banned substances and environmental abuse. It could be that societies that have heretofore put so much focus on worker productivity and ways to increase it have lost their focus on what a society should be aiming to do. By developing a series of indicators of well being we can at least give people an alternative to focus on. Certainly there is a synergy between the two. People who are happy and well adjusted, who have a high level of well-being are probably more productive at work and in the society generally than those who are unhappy and maladjusted.

Table 4 Types of Questions Stimulated by Economic versus Well-Being approaches

| Domain | Economic Approach | Well-being Approach |
|---------|------------------------------|------------------------------------|
| Society | How can government stimulate | How does economic growth influence |

| | | |
|----------------------|---|--|
| | Economic growth? How does central bank policy affect inflation?. | well-being? |
| Income | How does income inequality affected economic growth? How do tax rates influence economic growth? | Does income inequality influence well-being? |
| Work | How does pay influence productivity? | How does unemployment influence well-being? What makes a job enjoyable and engaging? Are happy workers more or less productive than unhappy workers? |
| Physical health | How much is productivity reduced by illness? | Do individuals who report high well-being have better health than those who report low well-being? |
| Mental disorders | How do mental disorders interfere with productivity? How costly are mental disorders to society? | How much misery do mental disorders cause? Does therapy enhance the well-being of persons with mental disorders? |
| Social relationships | How do couples jointly determine their participation in the labor market? How are resources distributed within a household? | Why are married people on average happier than unmarried people? How does geographic mobility influence well-being? |
| Defense | How does defense spending influence income and government budgets? | What are the social consequences of war and war preparedness? |

Source: Diener and Seligman (2004, Table 2) augmented with and author's comments.

2. Well-being and general macroeconomics policies

If we think of the macroeconomic implications of happiness we can imagine a better bottom line having to do with increasing the level well-being as a result of a change in the emphasis of the policy matrix. Layard's (2003) second lecture talks about rethinking policy so that they can stimulate an increase in well-being and happiness. He suggests some ways to increase happiness, such as by increasing taxes and stimulating the consumption of leisure while suppressing consumption of goods and other services. The advantages of improving income distribution are disputed since people get utility out of being "higher" than others in the income distribution. This means that in terms of happiness deterioration in the income distribution would make some people happier and

would also make others less happy. However evidence from Europe suggests that overall happiness is increased by improving the income distribution (Alesina et al (2001). This evidence is supported by ILO (2004). Furthermore, the ILO study provides strong support for putting an upper limit on earnings. This point of view was quite strong among rural residents in poorer countries. For example in Indonesia, nearly $\frac{3}{4}$ of rural residents interviewed thought there should be a upper limit on earnings.

Frank (1999) notes that competition among consumers does not necessarily result in an increase in happiness. He presents a simple comparison of a situation where the average house size is 1250 square feet. Consumers who have a larger house are happier because they are above the average. If the average house size doubles to 2500 square feet those who were above the average before will now be unhappy and strive to increase their earning capacity so they can qualify to buy a house larger than 2500 sq. feet. In the new equilibrium there is no increase in happiness despite the considerable expenditure of resources to make the house twice as big as they were in the first place. Lane (2000) asks whether this is a net benefit to society and suggests that taxes should be raised to cut off such conspicuous consumption and the additional tax revenue used to provide more parks, better health care, better education, protecting the environment and more research and development. Layard (2003) is in agreement with the basic thrust of Frank's argument.

3. Happiness and the Unemployment - Inflation trade off

In his third lecture, Layard discusses the implications of making a happier society – greater emphasis on job security since unemployment reduces happiness a lot, more spending on maintaining good mental health, supporting leisure and leisure activities through more spending on environment, parks etc. The accumulated research evidence on the impact of unemployment on happiness supports this view. Studies of British workers by Clark and Oswald (1994) note that “joblessness depressed well-being more than any other single characteristic, including important negative ones such as divorce and separation.” P. 65 Similar results have been observed in Germany, Australia and the

United States and these are reviewed in more detail in Frey and Stutzer (2002). While it could be argued that the causation runs from unhappiness to unemployed – those who are unhappy are poorer workers and are therefore more subject to retrenchment – there is no evidence to support this position. Indeed there is significant evidence to support the conclusion that not only are the unemployed unhappier they are also more likely to fall ill and to suffer from some kind of psychic cost in terms of higher incidence of mental illness, depression, alcohol and drug abuse. High rates of youth unemployment in industrial countries are also associated with a higher incidence of sociopathic behavior, more gangs and higher crime rates.

In addition there is some evidence that an increase in the general level of unemployment makes the rest of society feel worse!!! (Di Tella, Mac Culloch and Oswald, 2001 and 2003). Looking at 12 European countries in the earlier article, the authors find that a small rise in unemployment is consistent with a down shift from one life satisfaction category to another (e.g. from “not very satisfied” to “not at all satisfied”) on an average basis. However these effects are not linear since when unemployment is high there are more unemployed around to make the individual feel as if he is not alone. The old adage “misery loves company” does something to assuage the social disruption and pain of unemployment. Nevertheless, this is not to discount the real and significant impact on happiness and subjective well being of job loss. Di Tella et al argue

“the economist’s standard method of judging the disutility of being laid off focuses on pecuniary loss. According to our calculations this is a mistake, because it understates the full well-being costs, which ... appear to be nonpecuniary.” (di Tella et al (2003, p 819).

The sting also appears to be more painful to those who have lost the most in terms of status, self-esteem and income. Losing one low paying entry level job is not particularly painful, particularly if you can look forward to easily finding another. It’s another matter to be ousted as CEO of a big company with no prospect of catching on elsewhere. The fall is from a much greater height.(see the article by Thomas (2004) displayed in Box on the experience of stock brokers who had been laid off.)

Box

Depression, a Frequent Visitor to Wall St.

By LANDON THOMAS Jr.

EARLY one afternoon in July, Dennis J. Bertrum, a former top brokerage executive at Prudential Securities, leapt out of the bedroom window of his 26th-floor apartment on the Upper West Side of Manhattan.

No note was found, but the police said the death was a suicide.

In and out of work since 1996, Mr. Bertrum, a pioneer in the managed account business who was described by friends as a bon vivant, had been on a persistent quest to return to the brokerage business that he had loved since his days selling stocks for E. F. Hutton in the 1970's, colleagues say. But for Mr. Bertrum, an unemployed 55-year-old who friends say had a history of Jekyll-and-Hyde-type mood swings, few doors were opening.

Just weeks before he took his own life, he had been interviewing for a senior job in the private wealth management division of Merrill Lynch but he and the firm could not come to terms, friends said, adding that they do not blame the firm for what ultimately happened. Merrill declined to comment.

Instead, his friends and family described a man who for years had been in therapy for a bipolar condition and who had quit taking his medication, Wellbutrin, just three weeks before his death. Mr. Bertrum was twice divorced and in the process of ending a relationship, and family members say that with no income, he was feeling financial pressure. His brother, Carl A. Butrum, who called him a week before he died, said he was on a down swing.

For a man who had achieved financial and professional success in the 1990's, the letdown of not securing the Merrill job could have been brutal, his friends and family said.

"It's pretty traumatic when you are in your 50's, you are skilled and can operate at a high level but your expectations don't pan out," said Stephen C. Winks, a financial consultant and a former colleague of Mr. Bertrum's at Prudential. "I think it weighed heavily on him."

Suicides in the brokerage industry are rare, and those that can be documented have been linked in the public mind to wiped-out portfolios and plummeting markets like those of 1929, 1987 and even 2000. But the chronic depression associated with suicides is not rare on Wall Street.

A survey conducted in 2000 - the only known study of its kind - concluded that 23 percent of a small sampling of male brokers and traders at seven of the largest firms on Wall Street suffered from clinical depression, a rate far above what was then the national average of 7 percent for men. And that was before the market fell by one-third from its record high, before Wall Street firms shed 30,000 jobs and before an explosion of investor lawsuits and arbitration cases.

All of this has led some experts to conclude that the rate of depression among brokers and traders is related more to the grinding pressures of a rapidly changing industry than to the vicissitudes of the markets.

"Brokers have little control over their jobs or the outcomes of their trades," said Alden M. Cass, a licensed clinical psychologist who wrote the study and now coaches Wall Street traders and brokers on coping with the psychological travails of their professions. "These frustrations can lead to a form of 'learned helplessness,' or a feeling that you are in a prison with no way out. Such feelings have been linked to levels of clinical depression."

Relatively few brokers and bankers appear to be seeking professional help to cope with the pressure, according to data collected by insurance companies. Experts say many brokers fear that doing so would be seen by their employers as a sign of weakness in a high-testosterone industry like finance. So brokers bottle up their feelings and soldier on - until they crack, health professionals say.

"I would have predicted higher rates of behavioral health claims for stock brokers because of the high stress," said Dr. Ronald S. Leopold, the national director for group disability at MetLife, who collected the data. "But what we see in jobs where there is a combination of tremendous stress and opportunity is the work-until-you-drop phenomenon. There is no question in my mind that these people have high rates of depression, and it is no wonder that we are seeing some of them crash."

MR. BERTRUM'S story - a terrible piece of life-altering news causes a man already close to the edge to teeter off it - bears an eerie similarity to that of Raymond J. Foster, a broker and branch manager in the Cleveland office of Prudential Securities.

Three years ago, Mr. Foster, 60, a 10-year veteran of the firm, was abruptly fired, denied any severance and barred from returning to his office. Shocked by the news, he returned - glassy-eyed and quiet, according to a police report - to his home in the suburb of Shaker Heights and put an end to his life with one blast from a shotgun.

Hours later, his wife, Patricia, discovered his body slumped over in a chair in the family's garage. In the kitchen, she found a hastily scribbled note, but it offered no explanation for what he had done.

According to former colleagues, Mr. Foster was facing escalating pressures at the office, where he was struggling to please a new regional supervisor. A spokesman for Wachovia Securities, formerly Prudential, declined to comment.

Mr. Foster was not an introspective man, or prone to revealing his innermost feelings, colleagues said. Voluble at the office, where he was by all accounts a respected branch manager who liked to talk about his collection of Porsches, he had become more withdrawn at home and offered his wife no window into his black moods. "In retrospect, it's apparent that Ray was able to mask his deepest feelings of depression and rage," Mrs. Foster said.

Mr. Foster apparently never sought help, according to his wife, even though some of his colleagues recalled how the mounting burden of his job had led to the occasional outburst.

"This job comes with pressure," said Terrence Diehl, a former broker at Prudential who worked for Mr. Foster. "I have seen guys in tight places. Some guys work through it and some guys lie down."

Keeping his clients from pursuing the second option has been Mr. Cass's mission for two years. After completing his study on broker depression, Mr. Cass, 28, built a private practice called the Catalyst Strategies Group where he offers executive coaching sessions - distinct from traditional therapy sessions - to a small but growing number of frazzled brokers and bankers. They have spurned the in-house counseling services offered by their employers, choosing instead to pay \$250 an hour for coaching from Mr. Cass, who earned his doctorate at Nova Southeastern University in Fort Lauderdale, Fla. Other professionals counsel brokers, but few market themselves as aggressively as Mr. Cass, who has a Web site with testimonials from the bankers he has helped.

With a management consultant's style and his deep summer tan, Mr. Cass does not come across as the typical psychologist. He also brings a knowledge of banking and finance, honed while hanging out in Wall Street bars when he was studying for his doctorate in the late 1990's.

He offers his clients a variety of options so that they may be more productive at the office: straight-up coaching sessions, 24-hour phone access and a special program, called "back in 45," in which he meets a client for a 45-minute lunch and strives to lift him up from the slough of his despond. (Lunch is on the client.)

HE takes special care, as well, to talk the language of Wall Street, spurning clinical terms - including the word "depression" itself - that may conjure up in wary brokers' minds the specter of a couch and a ticking clock. Instead, he prefers a more accessible vernacular, encouraging clients to "think bullish," "don't be bearish" and "don't aim, just throw the ball."

His approach is not the only unorthodox aspect of his practice. His office is a cramped suite in an anonymous office building near Madison Square Garden, not the neighborhood that jumps to mind for a psychologist.

On a recent evening, he had one of his original clients in for a coaching session, a broker who has worked in the industry for more than 20 years, switching from one job to another, from large Wall Street firms to smaller operations. Battling a history of depression, he had reached out to health professionals at his companies as well as independent therapists, but could find no succor before finding the name of Mr. Cass in an Internet search.

The broker earned as much as \$250,000 a year during the bull market, but his salary had shrunk to \$75,000 by the time he was fired, just a day before the coaching session. Jumpy and angular, with cufflinks that glimmered in the dim light of Mr. Cass's office, the broker recounted his firing as a miniature waterfall gurgled soothingly in the background. "He was screaming at me," said the broker, who asked not to have his name disclosed but did let a reporter sit in on his session, as he presented the details of his dismissal. "It was a complete dressing-down."

Sitting on a couch, the broker needed no prodding to plunge into his past neuroses and brutally analyze his current psychic state. Mr. Cass asked him how the dismissal made him feel.

"It was gut-wrenching," he said. "But I knew there was truth to what he was saying." The broker said he thought, "Let him fire me," and he asked the boss to pay him. "He said he would," the broker added, "but only after I gave him the keys to the office."

He paused, his eyes darting around the small office, crossing and uncrossing his legs. "It was a difficult day," he added. "My stomach was churning. I had headaches, a lot of psychological paralysis."

Nodding his head, Mr. Cass asked, "How does your wife take this?"

"We live in the age of the dot-com billionaire, and she wonders when it's going to happen to me," he said, bitterly. "It's just so hard to make a living on Wall Street." The broker's voice rose as he railed against the rising tide of complaints from customers and the relentless move toward online trading that was making it harder and harder to bring home a decent paycheck.

"You are a victim of circumstance," Mr. Cass said as he urged his client toward more bullish thinking.

"I've been on Wall Street for 20 years - I don't have an M.B.A. or a C.P.A.," the broker said. "I have experience in getting customers, but now I feel emasculated, isolated. You are a man without a country."

Given his shrinking salary, the broker, who lives in a leafy New York suburb and has two children, wondered how he was going to make ends meet.

"I'm a lousy provider, an underachiever," he said, spitting out the words as if they were poison pellets. "We can't make it on my wife's income alone. What is going to become of us?"

He paused and spoke of the rage and the self-destructive thoughts that he said were consuming him that day. "You don't have your foot on the ledge," he added, letting his words trail off. "But I didn't want to be in traffic or in a crowded place. I didn't have a lot of control."

Taking it all in, Mr. Cass asked, "So what's the bullish thought?"

Again, the broker revisited the day of his firing. "He was screaming at me and I felt myself get smaller and smaller, like I was shrinking in a cartoon," he said before stopping himself. "But then I had the bullish thought: how silly this guy looked; I mean he looked like a raving idiot."

A smile tugged slightly at his lips.

Leaning forward, Mr. Cass responded: "Now you are in control. You are no longer in a cycle of bearish thoughts."

The broker told Mr. Cass that on the same day he was fired, he called an old colleague who offered him a job on the spot - in a new supervisory position. "I really have to be on my game now," he said. "But it's encouraging. At least I'm not lying in bed with two sheets over my head. That is what I did in the past."

Nodding with encouragement - rooting him on, it seemed - Mr. Cass said: "Look at you. You are starting fresh; now you can reset your business goals."

While the broker said the sessions with Mr. Cass had helped him, he conceded that at any time, events at the office could send him back into the kind of depressive fugue that sometimes leads to suicide.

"The act of suicide is an act to grasp control," he said. "I've been there. You are looking for a path but you begin to wonder whether the people around you might be better off without you. I remember there was a time when I would be driving to work, feeling the rigidity of my musculature at 7 a.m. And I forced myself to put a picture of my child's face in front of me. That's the only way I could keep going."

This result is supported by the work of Helliwell (2003), who found that unemployment had a greater negative impact on well being in developed nation than in developing nations. The psychological impact of loss of self esteem where greater where there was greater emphasis on material success. This result is consistent with the finding that unemployment has a larger deleterious effect on men than women.

The evidence for developing countries is similar to the evidence reported for industrial countries. For example in South Africa, Kingdon and Knight (2000) found that well-being was adversely affected by unemployment. They further discovered that even those in the labor force that were not actively seeking employment were as adversely affected as those who were actively seeking work and therefore measure as unemployed. These results suggest that the discouraged worker effect tends to reduce the perceived negative impact of unemployment on well-being. To reflect this some adjustments should be made to the official unemployment rate to reflect labor force drop outs and those who are underemployed.

What are the effects of inflation on happiness? Here the evidence is also quite convincing. Again relying on Di Tella Mac Culloch and Oswald (2001) the evidence suggests that inflation has a less onerous effect on happiness than unemployment The

misery index which simply adds together the two puts too much weight on inflation and too little weight on unemployment. Inflation has a negative impact on SWB. However it is not as severe as a corresponding increase in unemployment.

Unemployment and inflation affect people's happiness levels in different ways. Macroeconomists are fond of using the "misery index" which adds together the rate of unemployment and the rate of inflation to describe the converse of happiness as it relates to the macro economy. Research on happiness suggests that the misery index is quite misleading. Unemployment has a far greater negative effect on consumers and society in general than does inflation. The social stigma of being out of work and the negative effect on feelings of self worth are quite high when a worker is laid off. This suggests that obtaining unemployment compensations does little to reduce these feelings and increase happiness. The negative impact on "subjective well being" (SWB) is also related to the social norms of the society. The stronger the social norm to be self sufficient and live from one's own income rather than be on the dole, the greater is the negative impact on satisfaction with life. (see Stutzer and Lalive, 2000)

R. Di Tella, R.J. Mac Culloch and A.J. Oswald (2001) measure the trade off between unemployment and inflation on feelings of SWB and suggest that the weight of unemployment is nearly two times as much as inflation. The implication is that the inflation rate has to decrease by 2 percentage points to offset a one percent rise in unemployment.

Others, such as Frank (1988) suggest that the trade off is even more lopsided, although he does not present any evidence to support this claim. Frank argues that while high levels of inflation can be very unsettling and reduce happiness the evidence suggests that the adverse impact on happiness is not very large when inflation is low. These results suggest that macroeconomic policy makers should take a more aggressive stance in reducing unemployment – perhaps adopting an "unemployment target" rather than an "inflation target" for macroeconomic policy.

ILO (2004) takes the analysis several steps further by expanding the notion of unemployment to the broader notion of economic security. In the view of the ILO the term economic security encompasses seven forms of work-related security including income, labor markets, employment, skills, work, jobs and representation (read unionization). These security issues form the basis for raising levels of happiness and well-being. They argue that the key factor in raising well-being is the extent of income security, as measured by income protection and a low degree of income inequality. They assemble a wide range of information for countries around the globe. This widens the scope of inquiry since most of the other studies on well-being have been carried out for industrial countries.

The findings of the ILO report are consistent with the results of the research reported in this section and other sections of this paper. However it strengthens the case for looking at broader indicators of labor market security including underemployment and labor market practices such as labor market safety, working hours and child labour.

4. Happiness and economic growth

Charles Kenny (1999) suggests that happiness causes growth to accelerate. His theory is supported by time series data on happiness and GDP growth for a series of OECD countries. One powerful argument that supports this inference is that happiness and trust are correlated and this leads to cohesiveness and more rapid growth. A further argument could be that many of the costs that arise in an unhappy society lacking trust will be ameliorated and lead to stronger and more efficient growth if members of a society are happy. These include moral hazard, cut throat competition, free riders, high transaction costs, corruption and principal/agent problems and crime. These ideas need to be further explored with large data sets and dynamic models. Increased emphasis on well-being and happiness from this macroeconomic perspective will have the beneficial effect not only of increasing income per capital but also of reducing the external diseconomies of societies that lack trust and social cohesion. ILO (2004) suggest that rapid growth need

not necessarily create greater well-being and security although it can do so if it is accompanied by appropriate policies to strengthen economic security.

5. Happiness and governance

It is logical that people in a repressive and controlling authoritarian regime are less likely to be happy than in a democracy where there are many freedoms guaranteed. There is some evidence to support this statement. Freer economic systems are correlated with greater happiness (Frey and Stutzer (2002) and Veenhoven (2000)). Graphs that plot well-being against measures of democracy and freedom show very strong positive correlations, much more so than the plots of well-being and income. There is a possibility, however, that the strength of this relationship may depend to some extent upon extreme values. There is a very large middle ground where it may be difficult to say whether the form and nature of government has a very strong effect on happiness or subjective well being. Certainly there is evidence that Russian citizens were unhappy under the repressive Soviet system. The repressive regimes of Idi Amin and Pol Pot also created a large measure of unhappiness. In more benign cases the positive relationship between happiness and freedom is also strong although not overwhelming. Happiness levels are around 3.5 (out of a possible 4) in the freest societies and around 3 in those that are less free (Veenhoven, 2000). ILO (2004) suggests that political democracy and a trend toward greater civil liberties significantly increases economic security.

6. Happiness and competition

It seems logical that there might be some relationship between the degree of competition in a society and the amount of happiness. Societies that are more competitive probably have more stress and therefore a lower index of well being. Societies that are more cooperative and “laid back” might be expected to have a higher level of subjective well-being. The comment by Ian Thorpe, the highly competitive Australian swimming champion when asked about his experience in his second Olympics is appropriate. “It’s not about winning medals. It’s about sharing your experience with your friends.” Even

the most highly competitive athletes like Thorpe are moved more by cooperation and comradeship than competition.

With this in mind can we find any evidence regarding a relationship between happiness and competition? Surprisingly, there is very little evidence. It is definitely an area for further research. The ILO (2004) finds evidence that globalization may have a negative effect on economic security although there are a number of other factors that also have to be considered to be sure this relationship is robust..

Ng (2002) makes the point that Asians may be less happy than their counterparts in Europe because they are under more pressure to succeed and work long hours. More importantly he relates the lower coefficient of well being to the competitiveness of the Asian economies. They vigorously strive for higher standards of living; they take less leisure time than their European or North American counterparts. Furthermore high levels of population concentration and pollution contribute to stress and reduced levels of well being. Also he argues that the emphasis on scholarly attainment and doing well on exams “may be detrimental to real creativity and personal and social happiness. Ng also argues that in Singapore

“...it is more important for Singaporeans to avoid the excessive rat race to make more money and to compete in conspicuous consumption. Factors more important for long-term welfare should be emphasized instead. Apart from such well-known factors like health, relationships and faith recent happiness studies also demonstrate the importance of freedom and democracy.” (Ng, p. 209).

Ng’s observations are supported by the research of Swinward et al (2001) which shows Singaporean adults are more materialistic and less happy than Americans.

7. Happiness, Intuition and Flow

Intuitiveness is often misinterpreted with emotionality (Khatri & Ng 2000). Too much of emotionality may lead to “false intuitions” – naïve optimism, esoteric thinking, superstitious thinking, or stereotypical thinking (Teglasi and Epstein 1998, Vaughan 1979). At the same time intuitive wisdom maybe achieved only by individuals whose information processing system led by emotions has the capacity to operate at higher levels of complexity (Epstein 1994). Self-regulatory processes such as focus of attention, approach-withdrawal, and effortful control present the person with the tools to moderate emotional reactivity (Rothbart & Ahadi 1994 cited as in Teglasi and Epstein 1998).

The regulation of temperament makes it possible to bring higher-order mental processes to the organization of experience (Barkley 1996 cited as in Teglasi and Epstein 1998) that is prerequisite to draw meaningful lessons from daily encounter (Teglasi and Epstein 1998) and to develop intuition that leads to optimality decisions making.

There are a number of levels at which intuition can be developed, especially when it comes to managerial activities. First of all, educational system should be reformed in a sense that it should require student to develop and use not only analytical information processing mode, but also to encourage him/her to bring into play so called “right-brain” skills, such as creativity, intuition or insightfulness. Birgerstam (2002) proposed a course that was designed to teach the students to raise their consciousness of what they were doing and to express what they were intuitively felt to be correct. Students were themselves responsible for defining targets for their studies. At the initial phase they were exposed to huge amounts of information in order to experience confusion and complexity of the study area. Motivation was to be increased by personally oriented learning, personal involvement being prerequisite for intuition (Csikszentmihalyi 1990, 1997 cited as in Birgerstam 2002). If schools and universities were eager to incorporate those suggestions to their curricula (as Stanford University has done), it might be a good beginning for the new trend in teaching, promoting use of intuition.

Apart from macro-level changes in education, every individual, especially one who exercises power over others, as it is a case with top-managers, should be made aware of the necessity to develop intuition skills. When referring to the methods of development of

those skills, majority of studies points to practices of meditation, listening to music, exercising, daydreaming, keeping a journal (Agor 1986, Hayashi 2001, Rowan 1989, Sadler-Smith 2004, McNaughton 2003). Meditation is known to induce relaxed states during which rhythm of brain waves cycle slows down and in result reduces tension and anxiety (Rowan 1989). On the other hand, stress, pain, exhaustion, and boredom agitate the mind and block the pathways to intuition (Rowan 1989). Csikszentmihalyi (1997) argues, that the key skill in generating flow, and indirectly giving way to genuine intuition, is a capability to control attention and any discipline can serve it: meditation, prayer, exercise, aerobic, martial arts. Further he states:

“The important thing is to enjoy the activity for its own sake, and to know that what matters is not the result, but the control one is acquiring over one’s attention. [...] Even the most routine task, like washing dishes, dressing, or mowing the lawn, become more rewarding if we approach them with the care it would take to make a work of art. We must then transfer some psychic energy each day from tasks that we don’t like doing, or from passive leisure, into something we never did before, or something that we enjoy doing but don’t do often enough because it seems too much trouble.” (Csikszentmihalyi 1997)

In other words, intrinsic motivation for different activities should be developed. If it is impossible this activity should be change for the one that generates such a intrinsic motivation.

Those recommendations are especially significant for managers as strategic decision makers. At the same time they are particularly difficult to follow for them. Their life-styles are stress-prone, exhaustive, full of tension and anxiety. Executives rarely find time for their families, not mentioning some leisure activities or meditation. They seldom experience flow-state during their routine everyday activities.

Happy top-managers, having influence over other representatives of the community, condition happiness of the whole society. That it is so important that studies as the present one, are not kept taboo, but circulate among members of world business network, making their members aware of the true meaning of happiness.

8. Life Philosophy and other lessons

Layard (2003) and Lane (2000) both talk about the importance of developing a sound philosophy of life, reducing stress, enjoying leisure, friends and family and nature. They also talk about developing a moral sense of values and by being cooperative and friendly to others. Happiness research shows that enjoying friends and family are ranked high as promoting a higher level of SWB by those interviewed. This view receives further support by data from the Day Reconstruction Survey displayed below in Tables 5 and 6

Table 5

| | Happiness index | Average hours per day |
|------------------------|-----------------|-----------------------|
| Sex | 4.7 | 0.2 |
| Socializing after work | 4.1 | 1.1 |
| Dinner | 3.9 | 0.8 |
| Relaxing | 3.9 | 2.2 |
| Lunch | 3.8 | 0.6 |
| Exercising | 3.8 | 0.2 |
| Praying | 3.8 | 0.5 |
| Socializing at work | 3.8 | 1.1 |
| Watching TV | 3.6 | 2.2 |
| Phone at home | 3.5 | 0.9 |
| Napping | 3.3 | 0.9 |
| Cooking | 3.2 | 1.1 |
| Shopping | 3.2 | 0.4 |
| Computer at home | 3.1 | 0.5 |
| Housework | 3.0 | 1.1 |
| Childcare | 3.0 | 1.1 |

| | | |
|-----------------|-----|-----|
| Evening commute | 2.8 | 0.6 |
| Working | 2.7 | 6.9 |
| Morning commute | 2.0 | 0.4 |

Source: Day Reconstruction Study. Average happiness is the net effect.

Table 6 Happiness while spending time with different people

| Interaction with: | Average Happiness |
|-------------------|-------------------|
| Friends | 3.3 |
| Parents/relatives | 3.0 |
| Spouse | 2.8 |
| My children | 2.7 |
| Co-workers | 2.6 |
| Clients/customers | 2.4 |
| Alone | 2.2 |
| Boss | 2.0 |

Source: Based on Day Reconstruction Study.

As further evidence of the importance of family or friends we cite the work of David Niven (2000). He reviewed over a thousand studies written in the 1990s that explored the characteristics and beliefs of happy people. He distilled these into 100 aphorisms. Nearly 40 percent of these aphorisms had to do with the importance of friends and family and leisure. Where the pursuit of higher income came in it was as a negative impact on happiness. Some of the headings were

Don't confuse stuff with success, Keep your family Close, Be socially supportive, Join a Group, Go Visit your Neighbor, Friendship beats money, Share with Others How Important They are to You, Cultivate Friendships, Choose your companions wisely.

Both Lane (2000) and Frank (1988) argue that society should put more resources into supporting communities, stimulating friendship and providing a full life experience. Frank argues that by spending less on conspicuous consumption – big houses, expensive cars, lots of appliances – and more on these “inconspicuous” items such as better air quality, more urban park land, cleaner water, reduction in crime and medical research to extend life happiness will be enhanced (1988, p.90).

This analysis by Frank and Lane is based on a compilation of results and averages for large numbers of respondents to questionnaires. When we ask the question “Are people the best judges of their own well being?”, the answer is more complex. Certainly, this analysis would lead us to believe that if people generally knew what made them happy they would get off the money making treadmill and work fewer hours in less stressful jobs. Yet most people continue to run on the money treadmill. Why?

A full analysis to answer this question of how people become attuned to their own well being and adjust their action accordingly is beyond the scope of this paper. One thing that is clear is that the answer is not the same for everyone. Introspection may work for some people while others are naturally good-natured and might be better off just winging it and using their intuition. It also may be true in some cases that goods substitute for emotional needs that have not been met and reducing them could exacerbate unhappiness.

An approach that would have merit for most people might contain several components. First, periodic contemplation and reflection have been shown to be useful practices in a wide variety of circumstances to get in better touch with what is valuable in our lives. These periods of quiet thought are a way to get off the treadmill and the repetitive routine that has become the “normal” way of life for most of us.

Second, it is important to consider the relationship between happiness and the broad idea of “right action” or the virtues. In the tradition of Socrates people seeking wisdom, contentment and happiness should reflect and deliberate with a view to developing and refining desirable character traits such as compassion, understanding, friendliness and

steadiness of mind. These virtues contribute to well being and feelings of happiness. When cultivated over a lifetime they support us as we negotiate the inevitable ups and downs. They also help us to make the kinds of economic choices that will contribute rather than subtract from our “happiness coefficient”.

Or you may be one of those people where happiness and consumption are closely related. If this is the case perhaps you can just go on the way you have been and enjoy life as it unfolds – enjoying all the new consumption goods that come on the market each year.

Lastly, it is important to consider the social context. Social capital and private capital can be accumulated and developed. We can move to a community where the level of social capital is higher and through our own efforts we can build up and sustain our own levels of personal capital. The sense of individual accomplishment and social cohesion that comes from attaining a modicum of emotional stability, feeling of belonging to a community and a deep sense of job satisfaction can go a long way in raising the level of subjective well being and happiness. How far public policy can go to support these objectives will require new and imaginative approaches.

• **Final thoughts**

In conclusion we can indicate a series of suggestions for leading a happy life both for a society and for individuals living in that society.

- Live in a democratic and stable political environment where income per capita is high enough to meet basic needs and social policy protects against poverty.
- Live in an environment where the social networks supports the ability to form social bonds and friendship and where family values are supported.
- Live in a society where the work environment is supportive and not confrontational and where work is interesting, challenging and income adequate.
- Live in a society with good medical benefits, including mental as well as physical health.

- Have important goals related to your own values.
- Adopt a philosophy or religion that provides intention, guidelines, purpose and meaning in your life.

Societies that promote and encourage these values will be a happy society with a higher subjective well-being coefficient. Hopefully, such a society will also be highly productive of both economic and social goods.

An agenda for achieving higher levels of subjective well being is still in the early stages in Singapore and the other richer countries of the Asian region. In the past, when incomes were low, the level of well-being and income were probably more closely related. In recent years as income has grown rapidly and economies like Singapore, Hong Kong and Korea have attained developed country status. As a result it is likely that there has been a growing divergence between well-being and levels of per capita income. At the same time, a slow down in economic growth resulting in increased levels of unemployment has also probably resulted in an increase in stress and a decline in happiness and well-being.

However it is difficult to draw strong inferences regarding the Singaporean experience. This is because to our knowledge there is a limited availability of time series data on well-being and happiness for a wide sample of Singaporean residents. Nevertheless, the work of Ng and Swinward et al (2001) suggests that Singaporeans have a somewhat lower level of well-being than some industrial countries. They also tend to be more materialistic. Using a probability samples of adults in the US and Singapore Swinyard, et al (2001) find that adults in Singapore are less happy and more materialistic than those in the US. Ng (2002) argues that Singapore and other East Asian economies have lower well-being than some industrial countries like Australia.

The stated goals of Singapore include prosperity and progress. Given the results of research for other economies presented in this paper, perhaps it is time to reassess whether well-being and happiness could be added to these goals.

For the other, poorer countries of the Asian region, many of the issues raised by the ILO in its recent report would be more relevant. Job security, higher pay and better working conditions are all part of a package of policies that can increase well-being in these countries. Better health and educational facilities as well as providing more facilities for recreation and family leisure are also critical to raising the level of well-being in these countries.

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Appendix: Data sources for happiness research

European data is collected by various research firms within the European Community under the direction of the European Commission. This data source has been used by the researchers doing analysis of happiness and subjective well being including Di Tella, Mc Cullock and Oswald (2001, 2002 and 2002) Blanchflower and Oswald (2002), and Frey and Stutzer (2002). Di Tella et al report results from a sample of 271,224 from European countries from 1975 to 1992 while Blanchflower and Oswald (2000) report results for over 54,000 respondents in Great Britain between 1975 and 1998, also using Eurobarometer surveys. Clark and Oswald (1996) also report results for a sample of over 5000 workers in Great Britain. In the United States most researchers have relied upon information gathered by National Research Center at the University of Chicago. Di Tella, Mc Cullock and Oswald report results for over 25,000 observation for the years 1972 to 1994. The regression results from these studies are typically obtained from ordered probit or logit models with a number of controls introduced for the impact of the

independent variables such as income, marital status, race, age, employed or unemployed and models with a number of controls for other variables. To study well-being on a world scale the data set assembled by Inglehart et al (2000) *World Value Surveys and Surveys and Surveys and European Values Surveys 1981-84,1990-93,1995-97 ICPSR version*, Ann Arbor Michigan, Institute for Social Research and Inter-university Consortium for Political and Social Research has been used by a number of researchers including Helliwell (2002).