

Chapter 2

Hierarchical Needs, Income Comparisons, and Happiness Levels

Stavros A. Drakopoulos

1 Introduction

The study of happiness and well-being and their relationship with economic variables was a relatively neglected research issue for most academic economists. With a few notable exceptions such as Easterlin (1974) and Scitovsky (1976), the dominant attitude of the economics academic community was that happiness was the subject matter of other social sciences and mainly of psychology. However, in the last decade, an increasing number of economists have started to study the concept of happiness at both the microeconomic and the macroeconomic level. The recent increase of academic articles and books on happiness and economics is a clear manifestation of this current interest (see, for instance, Alesina et al. 2004; Frey and Stutzer 2000; Kenny 1999; Oswald 1997; and for a general review of the literature, Frey and Stutzer 2002a, b, and Layard 2005a).

One of the most important topics of happiness research is the study of the relationship between income and happiness levels. There have been many empirical studies which examine this relationship in many countries using a variety of micro- and macro-level data. There have also been studies that concentrate on international comparisons of happiness levels. One relatively common empirical finding is that substantial increases in real per capita income do not correspond to equivalent increases of individual happiness. Furthermore, some findings suggest that there is a negative correlation between real income and happiness levels (see, for instance, Blanchflower and Oswald 2004; Easterlin 1974, 1995; Lane 2000; Oswald 1997; Wright 2000). These empirical findings, termed usually as the happiness or the Easterlin paradox, are difficult to explain given that for most economists income has a constant positive impact on reported happiness (Bruni 2002, 2004; Phelps

S.A. Drakopoulos (✉)
Department of Philosophy and History of Science, University of Athens,
University Campus, Athens 15771, Greece
e-mail: sdrakop@phs.uoa.gr

2001). As one would expect, a number of explanations have been suggested for this paradox. However, one might get an additional insight from the concepts of hierarchical needs and of comparison income.

Human needs hierarchy is an old idea, but its modern version originates from work in psychology (mainly Maslow 1954). Its basic notion is that there are primary and secondary needs and that the secondary needs become important once the primary ones have been satisfied. It can be argued that income increases for lower income levels satisfy mostly basic needs. Thus, hierarchy might explain why additional increases in income do not have significant effects on reported happiness levels.

The concept of comparison income is another idea which can also contribute to an explanation of the happiness paradox (Clark and Oswald 1996). The main thrust of the comparison income argument in the context of happiness research is that individuals do not extract much happiness from their absolute income, but from their position relative to other people's incomes. Thus, raising everybody's income might not result in an increase of general happiness.

This chapter discusses the role of the above two notions in providing explanations for the observed happiness paradox and also of studies showing a positive relationship between income and happiness up to a certain level of income. With these in mind, the second section of this chapter discusses the empirical aspects of the relationship between income and happiness. The next section provides a brief presentation of the proposed explanations of the income-happiness paradox. Sections 4 and 5 examine the hierarchical formulation and the concept of comparison income and also the way that they can contribute to the better understanding of the income-happiness relationship. A concluding section closes the chapter.

2 Income and Happiness

Before we proceed to an examination of the relationship between income and happiness, a short discussion of the terms that are usually employed in the relevant literature is necessary. In economic theory, the term "utility" has no psychological meaning, but it refers to individual preferences. Thus, a utility function is a numerical representation of a preference ordering. However, in the recent literature on happiness and economics, the term "utility" is again related to the original Benthamite meaning of utility which refers to pleasure and satisfaction. In this sense, the term "total utility" is equivalent to the term "life satisfaction" that is more common in psychology (Clark and Oswald 1996).

Furthermore, "life satisfaction" is often used interchangeably with "happiness," although it has been argued that the former has an advantage over the latter because it emphasizes the subjective nature of the concept (Easterlin 2001). "Subjective well-being" is also another term perceived as synonymous to the previous two, but it is not only used for satisfaction with one's entire life as a whole but also for

specific discomforts and passing moods (Veenhoven 2000). In empirical work, reported subjective well-being is taken as a proxy measure for individual welfare and of happiness (Studer and Frey 2010).

Thus, in this chapter the terms “total utility,” “life satisfaction,” “subjective well-being,” and “happiness” are used interchangeably as it is the case in most recent studies. Finally, we also follow the standard definition in the relevant literature which conceives happiness as the degree to which someone evaluates positively the overall quality of his or her present “life as a whole” (Veenhoven 2000).

Given that for many years most economists were not interested in concepts like well-being and happiness, research on happiness and its relation to economic variables was conducted by a few economists who were oriented toward the study of the social dimensions of economic growth. The pioneering work of R. Easterlin in 1974 which dealt with the relationship between income, happiness, and economic growth is a representative example of this minority attitude (see also Easterlin 2004). Gradually though, and especially in the last decade, the interest of economists in happiness has increased dramatically. There are three main reasons for this. The first has to do with the rise of positive psychology and its impact on other social science fields and thus on economics (see, for instance, Snyder and Lopez 2002). Another reason was the realization that in final analysis, the purpose of economic growth is the presumed overall increase in happiness levels. Finally, another reason that helped the promotion of happiness research was the realization that government intervention can help increase overall happiness by reducing unemployment and inequality levels (see also Layard 2005a). Thus, as one would expect, the focus of happiness research by economists is the study of the relationship between income and happiness.

Traditionally, most economists believe that income has a positive impact on happiness and this is taken as obvious and common fact. There is almost universal agreement that the main aim of economics and economic policy is the raising of incomes so as to ultimately achieve higher levels of individual and aggregate happiness. This can also explain the emphasis on economic growth given that the increase of incomes is attained through economic growth. Thus, the standard treatment found in many economic texts is to assume that life satisfaction or happiness (U) is a function of income (y) and that life satisfaction is raised by income

$$U = U(y) \text{ with } dU/dy > 0 \quad (2.1)$$

Many economic texts use the notions of total utility and life satisfaction interchangeably and do not provide a theoretical reason for the above relation (Atkinson and Stiglitz 1980). In spite of its wide acceptance until recently, few economists had argued that there is no straightforward relationship between the two constructs (see, for instance, Frank 1999; Scitovsky 1976). Furthermore, it has been maintained that the relation between objective (income) and subjective well-being involves complicated methodological assumptions and requires interdisciplinary work in order to be understood properly (see Gasper 2005).

Given the above, there have been a large number of empirical studies examining the income-life satisfaction relationship within a single country at a given moment in time but also across time and countries. Most studies start from the postwar period and concentrate on the US and European countries. In the last few years, other countries are also the subject of empirical investigation (see, for instance, Kenny 2005). As these specialist studies began to proliferate, two general findings have emerged. The first one suggests that the relationship between income and happiness at a particular point in time and country is positive. This implies that higher income individuals, on average, report higher levels of happiness. Given that this relationship has been tested using simple and multiple regressions from various datasets, most specialists accept it as robust (for a review, see Clark et al. 2008). This also supports the standard theoretical approach regarding the two variables.

The second category of findings, however, was not in the direction of the theoretical expectations. In particular, many studies have indicated that increases of income over time do not correspond to equivalent increases in reported happiness (see Layard 2005b). Furthermore, the income-happiness correlation across developed countries is very problematic revealing weak or zero income effects on happiness (Frey and Stutzer 2002b). Clearly, the second set of findings is difficult to be reconciled with the first and with the standard theory, and for this reason, it has been called the “paradox of happiness” (Bruni 2002).

One of the first studies to identify the paradox was Easterlin’s (1974), and for this reason, it is also known as the “Easterlin paradox.” Easterlin’s study is based on post-World-War II US time-series data and shows that although real per capita income has risen dramatically, there is no definite trend on self-reported happiness level. This finding also holds for more recent studies. More specifically, many studies indicate that there has been no improvement in happiness in the USA for over almost half a century although real income per capita more than doubled (Easterlin 1995; Maddison 1991). The findings for Japan are even more strange given the tremendous rise in real income. Although Japanese income increased by almost five times, there was no improvement in mean subjective well-being (Easterlin 1995; Inglehart and Rabier 1986). Similar results hold true for many European countries. There is almost no trend in a period where real income per capita rises within all these countries from 25 to 50% (Blanchflower and Oswald 2004; Easterlin 1995; Kenny 1999). Figure 2.1 presents the trend of life satisfaction in nine European countries.

However, the empirical evidence for less developed countries is more in line with the theoretical expectations. A survey of 22 countries indicates that the higher the gross national product, the lower the correlation between happiness and income (Veenhoven 1991). More recent data from a world survey of country data shows that additional income provides more happiness at low levels of economic development (Frey and Stutzer 2002b).

With these empirical results in mind, some authors such as Easterlin (1995), Lane (2000), and Veenhoven (1991) have suggested that the relationship between income and happiness might be curvilinear. As Frey and Stutzer (2002b) state:

Income provides happiness at low levels of development, but once a certain threshold has been passed, income has little or no effect on happiness. (p. 75)

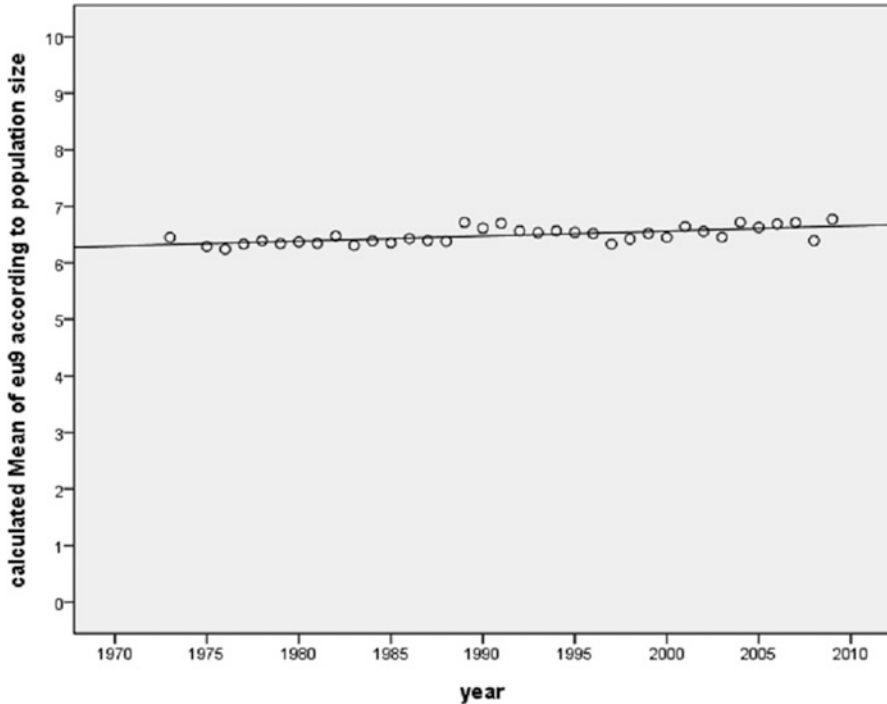


Fig. 2.1 Trend average happiness in EU9 nations (Weighted average of the first nine member states of the European Union 1973–2009; The population weights are about as follows (1995): Belgium 0.037; France 0.215; (West)Germany 0.234; Ireland 0.015; Italy 0.207; Luxembourg 0.002; The Netherlands 0.058; Denmark 0.019; The United Kingdom 0.212; Source: Veenhoven 2011)

This is also supported by the fact that for US data, there is a positive correlation between income and happiness up to the average income level of US \$10,000 (see Frey and Stutzer 2002b). Relative to this, the US population who felt “very happy” peaked in 1957 and has decreased since then, although real income has been increasing continuously (Schor 1991). Furthermore, many cross-sectional empirical studies indicate that more developed countries do not report higher happiness levels once GDP per capita exceeds half that in the USA in mid-1990s (see, for instance, Helliwell 2003; Kenny 1999). In a similar vein, there is evidence that when a country’s income per head is below the threshold level of \$15,000, countries with higher per capita income seem to be happier than those with lower per capita income (Layard 2005b). In general, the curvilinear nature of the income-happiness relationship is currently recognized by many specialists, and it is also supported by many empirical studies (for a review, see Inglehart et al. 2008). However, there is no universal agreement for a theoretical explanation of the curvilinear relationship, but, as we shall see, the hierarchical and the income comparisons approaches might serve as a basis.

3 Explanations of the Paradox

Given the controversial nature of the relationship between income and happiness over time and also of the cross-country studies, it is not surprising that there have been a number of explanations regarding the paradoxical relationship between income and happiness. As one would expect, one reaction was to challenge the empirical findings. Stevenson and Wolfers (2008), for instance, dismiss the long-term evidence for Japan as a result of changes in survey questions. However, many specialists seem to agree that many of the above empirical findings concerning the paradox have stood many reliability tests using various econometric methods (Blanchflower and Oswald 2004; Ferrer-i-Carbonell and Frijters 2004; Myers and Diener 1995). A similar criticism focuses on the semantic aspect: the meaning of the word “happiness” might differ among languages. However, research using bilingual and multilingual participants as well as different stated preference ranking measures suggests that language is not a significant factor (Cummins 2003; Layard 2005a; Veenhoven 2000).

Apart from the above reactions, researchers have attempted to tackle the paradox by focusing on the components of happiness. More specifically, they argue that a number of noneconomic and economic variables affect the level of happiness (Frey and Stutzer 2002a, b). Such variables can be social capital, relational goods, lacking of goals, economic inequality, and unemployment, among others. In particular, it has been pointed out that the deterioration of social capital (trusting people, friendship) in many advanced countries might be a crucial factor for the paradox of happiness (Bjornskov 2003; Putnam 2000). Similar to this line of explanation is the idea of relational goods (for a discussion of this concept, see Sugden 2002). The main argument here is that the lack of relational goods such as close personal relationships might be common in advanced countries and this may reduce overall well-being (Pugno 2009). This approach also draws from current work in psychology (see, for instance, Ash 2000; Gui 2000; Pugno 2005). Lacking of goals, active interests, and meaning (or boredom) has also been proposed as explanations for the observed high levels of unhappiness although incomes were high (Scitovsky 1976; Loewenstein 1999). The concept of freedom has also been connected with the level of well-being. In particular, the three main dimensions of freedom – political, economic, and personal – have been found to exhibit a positive relationship with happiness in many countries (Veenhoven 2000). For Phelps (2001), the paradox of happiness in the USA is attributed to a decline in the percentage of altruists in the population. This is because altruists are more likely to report themselves happy than people with other personality attributes.

Finally, a number of economic variables have been used in order to explain the paradox. The level of income inequality and unemployment are among the main ones that have been suggested. The basis of the negative effects of inequality is the concept of diminishing marginal utility of money: an extra dollar provides much more utility to a poor than to a rich person. This implies that if there is a transfer of money from the rich to the poor, average happiness increases. Thus, the more

equally income is distributed, the higher the level of happiness level in a country (Alesina et al. 2004; see also Layard 2005a). The level of unemployment has also been found to negatively affect happiness levels given that apart from the obvious individual costs, unemployment leads to social problems that affect society as a whole (Di Tella et al. 2003).

All of the above explanations to the paradox of happiness, no doubt, contribute to our understanding of the complex relationship between income and happiness. They all have empirical support and some backing from research in psychology and sociology (for further discussion, see Layard 2005a). In spite of this, however, many leading researchers in the field still claim that these approaches are not adequate in explaining the paradox. As Frey and Stutzer (2002b) state: “The causal factors that relate wealth to happiness, however, are not yet fully understood” (p. 76). This is mainly due to some recent empirical findings and some conceptual problems which undermine the above explanations. For instance, social relations have been found to account for only a fraction of the initial variance of life satisfaction (Ehrhardt et al. 2000). As far as inequality is concerned, there is recent evidence that some groups treat it as a feature of their environment and have a positive attitude toward it. In particular, when individuals focus on other people’s circumstances, extra income might have a strong positive effect on life satisfaction even for high levels of income. This can reduce the effect of the diminishing marginal utility of money mentioned above. This holds true especially for groups who exhibit a large variation of their income mainly due to higher job mobility (Clark 2003). In addition, inequality may also affect social relationships, and this complicates further its impact on happiness level (Helliwell 2003).

It seems that a combination of economic and noneconomic factors might shed more light to the paradox. For this reason, in the next two sections, we concentrate on the idea of needs hierarchy and the role of income comparisons.

4 The Needs Hierarchy Approach

Many authors consider the psychologist A. Maslow as the basic proponent of the needs hierarchy (Maslow 1954, and also Alderfer 1969, with less emphasis on hierarchy though). Today, the idea of needs hierarchy can be found in social sciences such as psychology, politics, and sociology (see, for instance, Ardrey 1970; Deci and Ryan 2000; Doyal and Gough 1984; Levi 1986; Tversky 1969). Furthermore, although this approach has not made a substantial impact to the established contemporary economic theory of choice, a number of influential economists like Little (1957), Encarnacion (1964), Georgescu-Roegen (1966), and Day (1971) have long emphasized the importance of needs hierarchy for choice theory. Furthermore, Earl (1986), Falkinger (1990), Pfouts (2002), Lavoie (2004), and others have recently discussed hierarchical-type preferences (for a review, see Drakopoulos 1994; Drakopoulos and Karayiannis 2004).

The standard approach to economic rationality assumes that economic agents engage in full substitutability which means that all preferences can be substituted fully. To take an example, food can in theory be substituted completely for perfume. This approach is in contrast to needs hierarchy. The conceptual basis of hierarchical choice is that human needs are of varying importance and that they are hierarchical. Primary needs must reach a given level of satisfaction first before the secondary ones are considered. In other words, preferences are hierarchical in the sense that higher priority choice variables must reach certain levels before lower priority choice variables are considered (for a discussion of the definition of primary and secondary needs, see Gasper 2005; Max-Neef 1995).

It must be noted that hierarchical needs-related behavior manifests itself quite strongly in many empirical studies of consumption patterns. In particular, the hierarchical approach predicts that when income is low, a very high percentage of it would be spent on food since food satisfies a basic need. (A detailed analysis of the role of income and substitution effects in the hierarchical model can be found in Lavoie 2004.) There are numerous empirical studies which indicate a significant and positive impact of household income on food variety. This is in line with the hypothesis that consumption evolves along a hierarchical order as income increases (for relevant empirical work in a number of countries, see, for instance, Canterbury 1979; Jackson and Marks 1999; Lluch et al. 1977; Thiele and Weiss 2003). The same pattern of behavior is observed with respect to the saving patterns which is the mirror image of consumption (Canova et al. 2005; Xiao and Noring 1994).

The incorporation of needs hierarchy in the framework of happiness research can provide some interesting insights. The standard approach to an individual's happiness level or life satisfaction is given as

$$U = U(y, z) \quad (2.2)$$

where U is happiness level or life satisfaction, y is the level of income, and z is a vector of characteristics comprising variables that affect life satisfaction. There is no accepted list of these variables, but as we saw, it can include social capital, social aspiration, freedom, emotions, goal completion, and meaning (Clark et al. 2008). These variables may or may not affect income.

There is also no agreement concerning the conceptual basis of happiness or life satisfaction. More specifically, there are two main approaches: the hedonic and the eudaimonic conceptions. The hedonic viewpoint defines well-being in terms of pleasure seeking and pain avoidance, and thus, the basic criterion for happiness is hedonic well-being. The eudaimonic approach focuses on meaning, self-development, and functioning, and the basic criterion for happiness is eudaimonic well-being (Ryan and Deci 2001; Waterman 1993). Both approaches have convergent and divergent aspects but are distinguishable in the sense that according to the eudaimonic approach, pleasure attainment alone should not be identified with happiness. The philosophical roots of these approaches can be found in ancient Greek philosophers and also in the utilitarianism of J. Bentham and J.S. Mill (for a discussion, see Drakopoulos 1991). Modern psychological theories like self-determination

theory attempt to reconcile the two approaches by identifying three fundamental psychological needs which, if satisfied, result in both hedonic and eudaimonic well-being (Ryan and Deci 2000).

The incorporation of needs hierarchy into a happiness or life satisfaction framework implies that the individual has a priority approach to life satisfaction. This means that the most important variables must be satisfied first before the second priority variable comes into the picture. In terms of hedonic and eudaimonic well-being, the hierarchical approach fits better with the latter. The multidimensional character of the eudaimonic approach might be accommodated better with an ordered structure of needs that hierarchical choice implies (see also Drakopoulos 1994). This idea is also supported by empirical findings by a number of job satisfaction (a major determinant of life satisfaction) specialists (see, for instance, Clark and Oswald 1996; Drakopoulos and Theodossiou 1997; Locke 1976).

The application of the hierarchical system in a life satisfaction framework can be the following: we take a simple life satisfaction vector:

$$U = (y, y^*, z) \quad (2.3)$$

where y is the most important variable which can be income, y^* is the aspiration or target level of income which can be determined by a number of factors, and z is the secondary variable which can represent a vector of other variables affecting life satisfaction. The target level of income y^* satisfies the basic needs, and its inclusion in Eq. (2.2) reflects the essence of hierarchy. (For a discussion concerning the determination of y^* , see Ferrer-i-Carbonell 2005.) The other variables (z) satisfy secondary needs and are taken into consideration only when y reaches a satisfactory level or target y^* . We can incorporate all the above by taking a two-part life satisfaction function

$$U(y, z) = \{U_1(y, z), U_2(y, z)\} \quad (2.4)$$

where $U(y, z) = U_1$ for $y \leq y^*$

and $U(y, z) = U_2$ for $y > y^*$

with the following conditions:

$$\partial U_1 / \partial y > 0, \quad \partial U_2 / \partial y > 0,$$

and

$$\partial U_1 / \partial y > \partial U_2 / \partial y$$

The conditions provide the essence of the hierarchical approach to life satisfaction. The first two conditions imply that income has a positive effect on life satisfaction. The last condition indicates that income does not provide the same rate of satisfaction once a given level (y^*) has been reached (although it continues to have a positive effect).

One potential difficulty with the empirical dimension of the hierarchical system might be the definition of basic needs. However, it has been maintained that needs

lower in the hierarchy are likely to be common among individuals of different cultures and that needs higher in the hierarchy are likely to be common among individuals of the same culture (see Georgescu-Roegen 1966; Little 1957; Max-Neef 1995).

The above formulation of happiness can be used as an additional explanation of the observed curvilinear relation between income and happiness: income has strong impact on happiness, but after a certain income level, the effect becomes much weaker.

5 Income Comparisons

As was mentioned above, a strand of literature toward explaining the happiness paradox focuses on “missing” economic variables. One idea which has been suggested is that of income comparisons. The idea that individuals compare their income to the income of similar individuals belongs to the general theoretical framework of reward comparisons. The general notion of comparing rewards with others has a long and persistent presence in the social sciences and in particular in many psychological, social, and managerial theories. Examples of theories where the idea of comparing rewards is central are: social comparison theory, reference group theory, relative deprivation theory, adaptation level theory, dissonance theory, and equity theory (see, for instance, Adams 1963; Deci and Ryan 2000; Festinger 1954; Greenberg 1990; Martin 1981; for surveys, see Earl 1990; Kapteyn and Wansbeek 1982).

The main thrust of the income comparisons argument in the context of happiness research is that individuals do not extract much happiness from their absolute income but from their position relative to other people’s incomes. In terms of the life satisfaction framework that was used above, this implies

$$U = (y, y^c, z) \tag{2.5}$$

with $\partial U / \partial y > 0$

and $\partial U / \partial y^c < 0$

where y^c is the “comparison income” or the “reference group income.” The negative sign of the last relation shows that life satisfaction falls as the income of the relevant reference group increases. Thus, raising everybody’s income does not necessarily increase general happiness. This is because in comparison to others, income has not improved (Andrews 1991; Easterlin 1974, 2001; Ferrer-i-Carbonell 2005; Frank 1985, 1999; Kenny 1999; Veenhoven 1991). A similar line of thought has to do with the changing income aspirations. More specifically, it has been argued that aspirations change over the life cycle roughly in proportion to income and this means that they have offsetting effects on happiness levels. According to this outlook, happiness level has a positive relationship with current income but a

negative one with aspirations about future income. Moreover, aspirations are based on past income. Given that material aspirations change over life cycle in proportion to income, it is likely that happiness level remains constant while income rises. The main example of this approach is the work of Easterlin, but it also draws from work in psychology (Easterlin 2001; Inglehart 1990; Kahneman et al. 1997).

The idea of comparison or relative income is quite important in economics and has been used in many theoretical contexts (Drakopoulos 2011; Lommerud 1989).¹ It was first suggested as a possible way of explaining the paradox by Easterlin (1974). The same author uses it in a later paper (Easterlin 2001), in which he elaborates on the idea of income aspirations in relation to actual income. A number of empirical papers have focused on the empirical testing of the idea in relation to happiness at both the individual and the aggregate level. On individual happiness, McBride (2001) presents an empirical analysis to test for the effect of an individual's own income, past financial situation, and cohort (reference) income on subjective well-being. McBride (2001) finds that the higher the income of the peers, the less satisfied is the individual. Similar findings are presented in a relatively early paper by Tomes (1986) which utilizes social-psychological measures of happiness and satisfaction.

There are numerous empirical studies on the aggregate level. A recent study by Blanchflower and Oswald (2004) investigates happiness in the United States and Great Britain. Apart from confirming the existence of the happiness paradox for the USA and the UK, the authors find that people care about comparison income. They also find indications that income is still important for lower income groups. Similar results are found by other empirical papers concentrating on the USA (Luttmer 2005), Latin America (Graham and Felton 2006), and Canada (Helliwell and Huang 2005) but also for emerging economies like China (Knight et al. 2009). The gist of these works is that life satisfaction or happiness is largely relative in income. Finally, a survey of empirical research on happiness and income shows a clear connection between income comparisons and happiness levels. As Frey and Stutzer (2002b) write: "It is not the absolute level of income that matters most but rather one's position relative to other individuals" (p. 411; see also Ferrer-i-Carbonell 2005).

The concept of income comparisons has also attracted criticism given that there is no universal agreement about the income group that people compare themselves within the relative income hypothesis (Sousa-Poza and Sousa-Poza 2000; but see also the discussion in Rablen 2008). However, the relative income approaches to the paradox might be enhanced (and respond more adequately to criticism) if a hierarchical system is also taken into account. The hierarchical approach implies that happiness depends only partly in comparisons. Basic needs cannot be substituted, and this limits the human capacity for adaptability. As Root Veenvhoven (1991) states: "To a great extent happiness depends on the gratification of innate

¹ In some formal specifications, y is income, y^c is called reference group or comparison income, while the ratio y/y^c is called relative income (see also Clark et al. 2008).

bio-psychological needs which do not adjust to circumstances” (p. 32). Comparisons and adaptation are important once the basic needs are met. Therefore, further increases of income do not result in equivalent increases on happiness because people start comparing their income with the income of similar individuals, and this implies that their absolute income is not as important as before. Thus, a combination of the two approaches might contribute toward a more complete understanding of the paradox of happiness.

6 Concluding Comments

According to most economists, income is among the most important determinants of happiness. This is also supported by many empirical studies which focus at a particular point in time and country. However, the relationship is problematic given that there is ample evidence that increases of income over time do not correspond to equivalent increases in reported happiness and this is the central idea of the paradox of happiness. There have been a number of explanations of the paradox which include economic and non-economic considerations.

The basic aim of this chapter was to highlight two concepts which might enhance further our understanding of the income – happiness relationship. More specifically, it suggested that the combination of the notion of needs hierarchy and of comparison income can shed more light to the issue. Hierarchical choice has been studied by many social scientists and has been applied in a wide variety of social and economic issues. The notion of comparison income belongs to general theoretical framework of reward comparisons. Both needs hierarchy and income comparisons have strong empirical support in many studies across a number of fields. After a discussion of the characteristics of the two concepts in the context of happiness research, the present chapter argued that their combination might explain many empirical results that point to the happiness paradox. In particular, empirical studies indicate that income might be very important variable in providing happiness up to a certain level. After that level has been reached, it ceases to do so and other variables become important. In other words, there exists a curvilinear relationship between the two variables: income has a positive relationship with happiness up to a certain level of income but the relationship weakens after that level. The theoretical implications of needs hierarchy and comparison income mean that income is very important for happiness up to the satisfaction of basic needs. People start comparing their income after the basic needs have been met. Thus, further increases of income do not result in equivalent increases on happiness because people start focusing on comparing their income with the income of other people rather than on their absolute income. The same argument holds when there is a fall in average income: happiness levels will also fall but not to the same extent, unless the reduction in income is so substantial as to affect basic needs satisfaction. One can also get an insight of these points from the recent economic recession in the US and Europe in 2008. Some preliminary studies indicate that due to average income drop,

overall reported happiness has also dropped but not to the same extent as income (see Stellar 2011). This finding also implies that income is not very important for happiness when basic needs are satisfied and when people compare their incomes.

Thus, although many studies have concentrated on suggesting a number of variables which might account for the happiness paradox, a combination of the above two notions might be a way forward towards a more complete understanding of the complex relationship between income and happiness.

References

- Adams, J. (1963). Towards an understanding of inequity. *Journal of Abnormal and Social Psychology*, 67, 422–436.
- Alderfer, C. (1969). An empirical test of a new theory of human needs. *Organizational Behavior and Human Performance*, 4, 142–175.
- Alesina, A., Di Tella, R., & Mac Culloch, R. (2004). Inequality and happiness. *Journal of Public Economics*, 88, 2009–2042.
- Andrews, F. (1991). Stability and change in levels and structure of subjective well-being: USA 1972 and 1988. *Social Indicators Research*, 25, 1–30.
- Ardrey, R. (1970). *The social contract*. New York: Dell.
- Ash, C. (2000). Social self-interest. *Annals of Public and Cooperative Economics*, 72, 261–284.
- Atkinson, A., & Stiglitz, J. (1980). *Lectures in public economics*. New York: McGraw Hill.
- Bjornskov, C. (2003). The happy few: Cross-Country evidence on social capital and life satisfaction. *Kyklos*, 56, 3–16.
- Blanchflower, D., & Oswald, A. (2004). Well-being over time in Britain and the US. *Journal of Public Economics*, 88, 1359–1386.
- Bruni, L. (2002). *A history of happiness in economics*. Paper presented to the European Society for the history of economic thought conference, Crete.
- Bruni, L. (2004). The “technology of happiness” and the tradition of economic science. *Journal of the History of Economic Thought*, 26, 19–44.
- Canova, L., Rattazzi, A., & Webley, P. (2005). The hierarchical structure of saving motives. *Journal of Economic Psychology*, 26, 21–37.
- Canterbery, R. (1979). Inflation, necessities and distributive efficiency. In J. Gapinski & C. Rockwoodn (Eds.), *Essays in post-Keynesian inflation*. Cambridge, MA: Ballinger.
- Clark, A. (2003). *Inequality aversion and income mobility: A direct test* (DELTA Working Paper, No 2003-11, pp. 1–18). Paris.
- Clark, A., & Oswald, A. (1996). Satisfaction and comparison income. *Journal of Public Economics*, 61, 359–381.
- Clark, A., Frijters, P., & Shields, M. (2008). Relative income, happiness and utility: An explanation for the Easterlin paradox and other puzzles. *Journal of Economic Literature*, 46, 95–124.
- Cummins, R. (2003). Normative life satisfaction: Measurement issues and a homeostatic model. *Social Indicators Research*, 64, 225–256.
- Day, R. (1971). Rational choice and economic behaviour. *Theory and Decision*, 1, 229–251.
- Doyal, L., & Gough, I. (1984). A theory of human needs. *Critical Social Policy*, 10, 6–38.
- Deci, E., & Ryan, R. (2000). The ‘what’ and ‘why’ of goal pursuits: Human needs and the self-determination of behaviour. *Psychological Inquiry*, 11, 227–268.
- Di Tella, R., MacCulloch, R., & Oswald, A. (2003). The macroeconomics of happiness. *Review of Economics and Statistics*, 85(4), 809–827.
- Drakopoulos, S. (1991). *Values and economic theory: The case of hedonism*. Aldeshot: Avebury.

- Drakopoulos, S. (1994). Hierarchical choice in economics. *Journal of Economic Surveys*, 8, 133–153.
- Drakopoulos, S. (2011). The concept of comparison income: An historical perspective. *European Journal of the History of Economic Thought*, 18, 441–464.
- Drakopoulos, S., & Karayiannis, A. (2004). The historical development of hierarchical behaviour in economic thought. *Journal of the History of Economic Thought*, 26, 363–378.
- Drakopoulos, S., & Theodossiou, I. (1997). Job satisfaction and target earnings. *Journal of Economic Psychology*, 18, 694–704.
- Earl, P. (1986). *Lifestyle economics*. Brighton: Wheatsheaf Books.
- Earl, P. (1990). Economics and psychology: A survey. *The Economic Journal*, 100, 718–755.
- Easterlin, R. (1974). Does economic growth improve the human lot? Some empirical evidence. In P. David & M. Reder (Eds.), *Nations and households in economic growth: Essays in honor of Moses Abramovitz*. New York: Academic Press.
- Easterlin, R. (1995). Will raising the incomes of all increase the happiness of all? *Journal of Economic Behaviour and Organization*, 27, 35–47.
- Easterlin, R. (2001). Income and happiness: Towards a unified theory. *Economic Journal*, 111, 465–484.
- Easterlin, R. (2004). *The reluctant economist: Perspectives on economics, economic history and demography*. Cambridge: Cambridge University Press.
- Ehrhardt, J., Saris, W., & Veenhoven, R. (2000). Stability and life satisfaction over time. *Journal of Happiness Studies*, 1, 177–205.
- Encarnacion, J. (1964). A Note on Lexicographical Preferences. *Econometrica*, 32(1–2), 215–217.
- Falkinger, J. (1990). On growth along a hierarchy of wants. *Metroeconomica*, 3, 209–233.
- Ferrer-i-Carbonell, A. (2005). Income and well-being: An empirical analysis of the comparison income effect. *Journal of Public Economics*, 89, 997–1019.
- Ferrer-i-Carbonell, A., & Frijets, P. (2004). How important is methodology for the estimates of the determinants of happiness? *Economic Journal*, 114, 641–659.
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, 3, 117–140.
- Frank, R. (1985). *Choosing the right pond*. New York: Oxford University Press.
- Frank, R. (1999). *Luxury fever*. New York: The Free Press.
- Frey, B., & Stutzer, A. (2000). Happiness, economy and institutions. *Economic Journal*, 110, 918–938.
- Frey, B., & Stutzer, A. (2002a). What economists can learn from happiness research? *Journal of Economic Literature*, XL, 402–435.
- Frey, B., & Stutzer, A. (2002b). *Happiness and economics*. Princeton: Princeton University Press.
- Gasper, D. (2005). Subjective and objective well-being in relation to economic inputs: Puzzles and responses. *Review of Social Economy*, 63, 177–206.
- Georgescu-Roegen, N. (1966). *Analytical economics*. Cambridge: Cambridge University Press.
- Graham, C., & Felton, A. (2006). Inequality and happiness: Insights from Latin America. *Journal of Economic Inequality*, 4, 107–122.
- Greenberg, J. (1990). Organizational justice: Yesterday, today and tomorrow. *Journal of Management*, 16, 399–432.
- Gui, B. (2000). Beyond transaction: On the interpersonal dimension of economic reality. *Annals of Public and Cooperative Economics*, 71, 139–168.
- Helliwell, J. (2003). How's life? Combining individual and national variables to explain subjective well-being. *Economic Modelling*, 20, 331–360.
- Helliwell, J., & Huang, H. (2005). *How's the job? Well-being and social capital in the workplace* (NBER Working Paper, 11759). Cambridge: MA.
- Inglehart, R. (1990). *Cultural shift in advanced industrial society*. Princeton: Princeton University Press.
- Inglehart, R., & Rabier, J. (1986). Aspirations adapt to situations. In F. Andrews (Ed.), *Research on the quality of life* (pp. 1–56). Ann Arbor: University of Michigan.

- Inglehart, R., Foa, R., Peterson, C., & Welzel, C. (2008). Development, freedom, and rising happiness: A global perspective (1981–2007). *Perspectives on Psychological Science*, 3, 264–285.
- Jackson, T., & Marks, N. (1999). Consumption, sustainable welfare and human needs —with reference to UK expenditure patterns between 1954 and 1994. *Ecological Economics*, 28, 421–441.
- Kahneman, D., Wakker, P., & Sarin, R. (1997). Back to Bentham? Explorations of experienced utility. *Quarterly Journal of Economics*, 112, 375–405.
- Kapteyn, A., & Wansbeek, T. (1982). Empirical evidence on preference formation. *Journal of Economic Psychology*, 2, 137–154.
- Kenny, C. (1999). Does growth cause happiness or does happiness cause growth? *Kyklos*, 52, 3–26.
- Kenny C. (2005). Does development make you happy? Subjective well-being and economic growth in developing countries. *Social Indicators Research*, 73, 199–219.
- Knight, J., Song, L., & Gunatilaka, R. (2009). Subjective well-being and its determinants in rural China. *China Economic Review*, 20(4), 635–649.
- Lane, R. (2000). *The loss of happiness in the market democracies*. Yale: Yale University Press.
- Lavoie, M. (2004). Post-Keynesian consumer theory: Potential synergies in consumer research and economic psychology. *Journal of Economic Psychology*, 25, 639–649.
- Levi, I. (1986). *Hard choices*. Cambridge: Cambridge University Press.
- Layard, R. (2005a). *Happiness*. New York: The Penguin Press.
- Layard, R. (2005b). Rethinking public economics: The implications of rivalry and habit. In L. Bruni & P. L. Porta (ds.), *Economics and happiness: Framing the analysis* (pp. 147–169). Oxford: Oxford University Press.
- Little, I. M. D. (1957). *A critique of welfare economics*. Oxford: Clarendon Press.
- Lluch, C., Powell, A., & Ross, A. (1977). *Patterns in household demand and saving*. Oxford: Oxford University Press.
- Locke, E. A. (1976). The nature and causes of job satisfaction. In M. Dunnette (Ed.), *Handbook of industrial and organizational psychology* (pp.1297–1349). Chicago: Rand McNally.
- Loewenstein, G. (1999). Because it is there: The challenge of mountaineering. . .for utility theory. *Kyklos*, 52, 315–343.
- Lommerud, K. (1989). Educational subsidies when relative income matters. *Oxford Economic Papers*, 41, 640–652.
- Luttmer, E. (2005). Neighbors as negatives: Relative earnings and well-being. *Quarterly Journal of Economics*, 120, 963–1002.
- Maddison, A. (1991). *Dynamic forces in capitalist development*. Oxford: Oxford University Press.
- Martin, J. (1981). Relative deprivation: A theory of distributive justice for an era of shrinking resources. In L. Cummings & B. Staw (Eds.), *Research in organizational behavior: An annual series of analytical essays and critical reviews* (Vol. 3, pp. 53–107). Greenwich: JAI.
- Maslow, A. (1954). *Motivation and personality*. New York: Harper and Row.
- Max-Neef, M. (1995). Economic growth and quality of life —a threshold hypothesis. *Ecological Economics*, 15, 115–118.
- McBride, M. (2001). Relative-income effects on subjective well-being in the cross-section. *Journal of Economic Behavior and Organization*, 45, 251–278.
- Myers, D., & Diener, E. (1995). Who is happy? *Psychological Science*, 6, 10–19.
- Oswald, A. (1997). Happiness and economic performance. *Economic Journal*, 107, 1815–1831.
- Phelps, C. (2001). A clue to the paradox of happiness. *Journal of Economic Behaviour and Organization*, 45, 293–300.
- Pfouts, R. (2002). On the need for a more complete ontology of the consumer. In E. Fullbrook (Ed.), *Intersubjectivity in economics: Agents and structures* (pp. 71–84). London: Routledge.
- Pugno, M. (2005). *The Happiness paradox: A formal explanation from psycho-economics* (Department of Economics Working Paper, No. 0501). University of Trento.

- Pugno, M. (2009). The Easterlin paradox and the decline of social capital: An integrated explanation. *The Journal of Socio-Economics*, 38, 590–600.
- Putnam, R. (2000). *Bowling alone*. New York: Simon and Schuster.
- Rablen, M. D. (2008). Relativity, rank and the utility of income. *The Economic Journal*, 118, 801–821.
- Ryan, R., & Deci, E. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55, 68–78.
- Ryan, R., & Deci, E. (2001). On happiness and human potential: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology*, 52, 141–166.
- Schor, J. (1991). *The overworked American*. New York: BasicBooks.
- Scitovsky, T. (1976). *The joyless economy: An inquiry into human satisfaction and consumer dissatisfaction*. Oxford: Oxford University Press.
- Snyder C., & Lopez S. (2002). *Handbook of positive psychology*. Oxford: Oxford University Press.
- Sousa-Poza, A., & Sousa-Poza, A. (2000). Taking another look at the gender/job-satisfaction paradox. *Kyklos*, 53, 135–152.
- Stellar, J. (2011) *How has the recession affected our happiness?* Retrieved from internet on August 30, 2011. Available at http://greatergood.berkeley.edu/author/jennifer_stellar
- Stevenson, B., & Wolfers, J. (2008). Economic growth and subjective well-being: Reassessing the Easterlin paradox. *Brookings Papers on Economic Activity*, 39, (1, Spring).
- Studger, A., & Frey, B. (2010). *Recent advances in the economics of individual subjective well-being* (Discussion Paper 04/10). Center of Business and Economics (WWZ), University of Basel.
- Sugden, R. (2002). Beyond sympathy and empathy: Adam Smith's concept of fellow-feeling. *Economics and Philosophy*, 18, 63–87.
- Thiele, S., & Weiss, C. (2003). Consumer demand for food diversity: Evidence for Germany. *Food Policy*, 28, 99–115.
- Tomes N. (1986). Income distribution, happiness and satisfaction: A direct test of the Interdependent Preferences Model. *Journal of Economic Psychology*, 7, 425–446.
- Tversky, A. (1969). Intransitivity of preferences. *Psychological Review*, 76, 31–48.
- Veenhoven, R. (1991). Is happiness relative? *Social Indicators Research*, 24, 1–34.
- Veenhoven, R. (2000). Freedom and happiness: A comparative study in forty-four nations in the early 1990s. In E. Diener & E. Suh (Eds.), *Culture and subjective well-being* (pp. 257–288). Cambridge, MA: MIT Press.
- Veenhoven, R. (2011). *Average happiness in 148 nations 2000–2009*. World database of happiness, Erasmus University Rotterdam, The Netherlands. Retrieved from internet on August 30, 2011 at: http://worlddatabaseofhappiness.eur.nl/hap_nat/findingreports/RankReport_AverageHappiness.php
- Waterman, A. (1993). Two conceptions of happiness: Contrasts of personal expressiveness (eudaimonia) and hedonic enjoyment. *Journal of Personality and Social Psychology*, 64, 678–691.
- Wright, R. (2000). *Nonzero: The logic of human destiny*. New York: Pantheon Books.
- Xiao, J., & Noring, F. (1994). Perceived saving motives and hierarchical financial needs. *Financial Counseling and Planning*, 5, 25–44.