Consumer Capital as the Source of Happiness: 
The Missing Economic Theory Underlying the 
Income-Happiness Paradox

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Abstract

Self-reported happiness does not generally increase with rising income, as established by Richard Easterlin. We argue that the subsequent debate in economics surrounding this income-happiness paradox has paid too little attention to the theoretical foundation for the expected positive relation between income and happiness. We return to the history of economics by revisiting the contributions of Irving Fisher and Kenneth Boulding for the missing economic theory underlying the income-happiness paradox. According to Fisher and Boulding, ‘consumer capital’ is the ultimate source of prosperity. In their view, it is the utilization of this capital stock that renders individuals happiness. Moreover, income that pays for the purchase of goods for consumption can be a ‘bad’, reflecting the cost of maintaining the capital stock. Therefore, Fisher and Boulding’s insights bring a new perspective to the Easterlin paradox, showing that the empirical finding that rising income contributes only little if anything to levels of happiness has been overemphasized at the expense of the theoretically more relevant relation between consumer capital and happiness, and the exact role of income therein.

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1. INTRODUCTION

Revisiting insights from Irving Fisher and Kenneth Boulding, this paper develops a new perspective on the paradox—most strongly associated with Richard Easterlin’s (1974) seminal work—that despite sustained increases in income, levels of self-reported happiness have not risen. In particular, Fisher and Boulding suggest that ‘consumer capital’ is the ultimate source of prosperity, as opposed to income, which, jointly with consumption, can be a ‘bad’ as it can reflect depletion and subsequent restoration of the individual’s capital stock. This insight challenges the idea that income should lead to happiness, meaning that the reigning debate on Easterlin’s paradox is to some extent off the mark. The income-happiness relation has less relevance for economics than does the relation between capital and happiness, which is much more congruent with the conceptualization of prosperity as preference satisfaction. This paper therefore sets out a new research agenda.

Measures of happiness are increasingly used by economists (Di Tella and MacCulloch, 2006; Kahneman and Krueger, 2006).\(^1\) They can be employed to analyze economic policy issues such as the effect of cigarette taxes on the well-being of smokers (Gruber and Mullainathan, 2005), to measure the costs of environmental externalities (Van Praag and Baarsma, 2005; Luechinger, 2009), and to test and add insight to existing economic theories (Frey and Stutzer, 2002b; Di Tella and MacCulloch, 2006). Substantial attention has also been paid to the economic factors underlying observed differences in happiness ratings, both at the individual level and the country level (see Frey and Stutzer, 2002a and Layard, 2005 for an overview).

Following Easterlin’s (1974) paradoxical finding that, in a sample of Western countries, within nations higher income is associated with higher happiness scores, but that across nations and over time happiness does not rise with income, income has

\(^1\) Happiness or, less colloquially, subjective well-being—we follow tradition and use the terms synonymously—is ‘a broad category of phenomena that includes people’s emotional responses, domain satisfactions, and global judgments of life satisfaction’ (Diener et al., 1999, p. 277).
become the most widely studied determinant of happiness by far. Many economists have studied the relationship between income and happiness (e.g. Blanchflower and Oswald, 2004; Clark and Oswald, 1996; Di Tella and MacCulloch, 2006, 2008; Di Tella et al., 2003; Dynan and Ravina, 2007; Easterlin, 2001; Frijters et al., 2004; Layard, 2005; Luttmer, 2005; McBride, 2001; Senik, 2004; Van de Stadt et al., 1985; see Clark et al., 2008 for a survey of the literature). The debate on the income-happiness paradox has grown rather intense. Some work now reports only limited evidence, if any, for a paradoxical absence of increases in happiness as income increases (Deaton, 2008; Stevenson and Wolfers, 2008), whilst other research counters such findings, amongst others, attributing them to the empirical methods used (Easterlin and Sawangfa, 2009; Krueger, 2008; Layard et al., 2009). As further contributions by these same authors show (Easterlin et al., 2010; Sacks et al., 2010), the controversy is unlikely to be settled any time soon (cf. Clark et al., 2008; Easterlin, 2010).

Conspicuously absent in the literature on the income-happiness paradox is any discussion of the premise that income should lead to happiness. Instead of reflecting on this deep-seated idea, economists have focused on the empirics of the income-happiness paradox. The idea that income should lead to happiness is illustrated by the claim of prominent economist Robert Barro (commenting on Stevenson and Wolfers, 2008) that if income and happiness are found to be uncorrelated, he would conclude that the happiness data are flawed (Stevenson and Wolfers, 2008, p. 101). Focusing on the economic theory behind the Easterlin paradox, instead, this paper goes back to the question asked by Tibor Scitovsky in 1976: ‘Whatever made us believe that income yields happiness?’ (Scitovsky, 1976, p. 140). It finds relevant answers by going back further in history and revisiting the contributions of Irving Fisher and Kenneth Boulding. These contributions pose a fundamental challenge to the common premise that income should lead to happiness. As such, learning from Fisher and Boulding’s work may do much to push forward the income-happiness debate, simply by infusing it with more economic theory.

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2 See Diener and Biswas-Diener (2002) for a review of this work. Howell and Howell (2008) provide a meta-analysis of results for developing countries.
The organization of the remainder of this paper is as follows. Section 2 reviews the dominant, empirical perspective on the income-happiness paradox, which involves estimating different specifications of the happiness or utility function. In Section 3 we give a historical perspective on the economics of happiness and income, also seeking to uncover the historical roots of contemporary work on the relation between income and happiness. The historical perspective sets the stage for a revisiting of the insights of Fisher and Boulding in Section 4. We end with concluding comments in Section 5.

2. THE EMPIRICAL PERSPECTIVE

The empirical perspective that reigns in the income-happiness literature revolves around estimating happiness functions of the sort pioneered by Easterlin, who originally proposed the following adaptation to make the specification of the utility functions consistent with the actual patterns in the income-happiness data (Easterlin, 1974, p. 112):

\[ U_i = f\left( \frac{C_i}{\sum a_i C_j} \right) . \]  

(1)

In this equation \( U_i \) and \( C_i \) are the utility index and consumption expenditures of individual \( i \), \( C_j \) is consumption of individual \( j \), and \( a_{ij} \) is the weight individual \( i \) attaches to consumption expenditure by individual \( j \).\(^3\) Easterlin thus takes the utility (i.e. the happiness) to a person of a certain amount of consumption to be a function not of absolute consumption levels, but the consumption level relative to others. Empirically, this model accounts for a larger part of the variation in happiness scores than the model that includes only absolute income.

The most important extension to the utility function in Easterlin’s analysis has been the incorporation of time-series features of the relation between income and

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\(^3\) For the sake of completeness, we should note that Equation (1) and the other equations that follow depict conceptual relationships, not the exact empirical models that have been estimated in the literature.
(individual) happiness. The survey of the income-happiness literature by Clark et al. (2008) gives the following generalized happiness function:

\[ U_t = \beta_1 \ln(y_t) + \beta_2 \ln(y_t/y^*_t) + \gamma X_t. \]  

Equation 2 depicts utility at time \( t \), \( U_t \), as a function of absolute income, \( y_t \), income relative to some reference level of income, \( y^*_t \), and other factors, \( X_t \). Compared to Easterlin (1974), the twist is that the reference level of income \( y^*_t \) need not derive from the income of others (external to the individual) but can also be an individual-specific reference level of income (internal to the individual). When longitudinal data are indeed available, we can have the relative income term \( y^*_t \) refer to one’s past income or to the income level of some reference group, the latter defined in whichever way the researcher deems fit.

Contributions to the income-happiness literature since Easterlin’s analysis come in the form of changes to the operationalization of the relative income or reference level term in the empirical happiness function that is estimated, in turn made possible by increased data availability. Clark et al. (2009a) and Luttmer (2005), for example, use \( y^*_t \) to capture income relative to one’s neighbours or other people who are physically close. Considering people with whom one is in frequent contact likely renders a more relevant reference group than population of a country as a whole as in Easterlin (1974). Blanchflower and Oswald (2004) do the same but draw the line at the (US) state level. Other research uses co-workers as the relevant reference group, including wage relative to one’s colleagues in the happiness function (Brown et al. 2008; Clark et al. 2009b). Individual characteristics most commonly used to identify a reference group for relative income calculations include age, sex and education (Clark and Oswald, 1996; McBride, 2001; Senik, 2004; Van de Stadt et al., 1985). Different relative income terms can even be included simultaneously (Boes et al., 2011; Kingdon and Knight, 2007; Fafchamps and Shilpi, 2008), allowing researchers to identify the most relevant reference group. Relative income can further be operationalized using one or more lags of the individual’s own income (\( t - 1 \), \( t - 2 \) et cetera), although, as indicated, this requires a panel that tracks
individuals over time. Calculating relative income in this way, we can gauge how the happiness of an individual responds not only to income levels but also to the rate at which his or her income increases or decreases.

The number of different ways for operationalizing the reference level of income and specifying the empirical happiness function is potentially limitless. Practically, the only constraint is the aforementioned availability of data. Large-scale longitudinal happiness data of the type needed to incorporate internal reference levels of income are readily available, however. For example, the German Socio-Economic Panel or SOEP (Wagner et al., 2007) has been measuring the happiness of (West) Germans since 1984, and includes replacements for respondents that have dropped out, and extensions to expand coverage to include former East Germans, among others. For cross-country analyses, a most famous data set is the World Values Survey (e.g. Inglehart 1997). Started in 1981, it now contains representative data for up to 98 countries and more than 350,000 individuals. As many countries have been surveyed more than once, it also has a limited time-series component although this series consists of repeated cross-sections. The European Social Survey offers repeated cross-sections for a limited set of European countries, but at regular biannual intervals since 2002 (Jowell and the Central Coordinating Team, 2007). These datasets are either publicly available or, in case of the SOEP, for a small administrative fee.

Looking for conceptual foundations for the empirical perspective on the income-happiness paradox, we find it has sought to adapt insights from psychology and, more importantly, draws on a long history of thinking in economics. Concerning the former, studies of the income-happiness nexus often refer to social comparison theory (e.g. Festinger, 1954), taking income as one of the dimensions on which people compare themselves to others. Adaptation—the gradual habituation to a stimulus (e.g. Frederick and Loewenstein, 1999)—is another phenomenon that has been adopted from psychology to provide underpinning for empirical happiness functions. Most famous is the study by Brickman et al. (1978), finding, for instance, that paraplegics had adapted to their

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4 The ability of the eye to adjust to various degrees of light and dark is the best known manifestation of adaptation.
situation and that their happiness level was not as low as one might expect. The linkages between present-day empirical income-happiness research and the history of economics are more revealing, however, and it is to discussing these linkages that we turn next.

3. THE HISTORICAL PERSPECTIVE

The empirical perspective has conceptual foundations in economics’ early thoughts on welfare, notably those of Jeremy Bentham. At the same time, as we find in this section, research on the income-happiness paradox may have a costly neglect for other relevant ideas in the history of economics.

3.1. Bentham and thereafter

In the history of economics, happiness has had different associations and conceptualizations. At the very first, and strongly influenced by the rise of utilitarianism, happiness came to be tied to Bentham’s (1776) so-called fundamental axiom: ‘it is the greatest happiness of the greatest number that is the measure of right and wrong’. While Bentham (1789) initially referred to this as the ‘the principle of utility’, he later called this ‘the greatest happiness principle’ (Mill, 1863, p. 5). As Bentham used it, then, utility referred to hedonic experience, namely that of pleasure and pain—what we nowadays call ‘experienced utility’: the strength of the disposition to continue or to interrupt the current experience or the hedonic quality of an outcome (Kahneman et al., 1997, p. 375; Kahneman, 1999, pp. 4, 17). Bentham’s greatest happiness principle is echoed in many of the contributions of economists working on happiness, most prominently those of Richard Layard (e.g. Layard, 2005, 2010).

In the subsequent interpretation of John Stuart Mill, everyone counts equally in the calculus of welfare. Moreover, in making their calculations, individuals are able to recognize (and count equally) others affected by their actions (Peart and Levy, 2005). In other words, people are connected by the mechanism of sympathy. Francis Edgeworth (1881) countered that people do not count equally with others but that, rather, there is a difference in the capacity for happiness. Disregarding Edgeworth’s nuances, economists generally assumed cardinal utility, exogenously given and stable preferences, diminishing
marginal utility, and interpersonally comparable utility functions. Under these conditions, it is possible to construct a social welfare function simply by summing up individual utility functions. Contemporary happiness researchers do the same when considering the relationship between per-capita GDP and GDP growth and country levels of happiness, calculated as average happiness scores for representative population samples (e.g. Easterlin, 1974; Stevenson and Wolfers, 2008).

With his *Essay on the Nature and Significance of Economic Science*, Lionel Robbins (1932) questioned the scientific status of interpersonal utility comparisons, whether people are counted equally with others or not, and called for a switch from cardinal to ordinal utility. In response, efficiency and distribution came to be disconnected. Questions of efficiency were answered by means of criteria such as Pareto efficiency and the Kaldor-Hicks compensation test. This requires only ordinal utility, which merely ranks commodity bundles. According to the Pareto efficiency measure of social welfare, for instance, a situation is optimal only if no individual can be made better off without making someone else worse off. Questions of distribution were finally answered in the specification of the social welfare function. In the process, experienced utility was abandoned in favour of ‘decision utility’, the weight that is assigned to the desirability of an outcome in the context of a decision (Kahneman et al., 1997, p. 375; Kahneman, 1999, p. 4, 17).

In the subsequent move towards revealed preference theory (Samuelson, 1938, 1948), which seeks to analyze consumer behaviour on the basis of variable prices and budget constraints (Stigler and Becker, 1977), Bentham’s understanding of utility as experienced utility was further transformed into what we may call the modern interpretation of decision utility. In this view, preferences are revealed by choice, and choices are supported by reasons. In a way, the label decision utility mistakenly suggests that there is still a concern with utility (as opposed to Kahneman’s definition). However, revealed preference theory deliberately ignored measures of utility and indifference through its focus on choice. In this framework, utility does not refer to something that is intrinsically good, but is used as a way of ranking alternative choices or actions (e.g. Hausman and McPherson, 2006). Welfare correspondingly came to be seen as the satisfaction of preferences or desire fulfilment. The more an individual’s preferences are
satisfied, the higher he or she scores on the utility index. Meanwhile, the link with utility as it is intuitively understood, namely as experienced utility or happiness is only implicit and based on rational, utility maximizing choice behaviour. It thereby superseded cardinal utility in consumer theory.

What is more, in this process income and welfare came to be closely linked, if not at the theoretical level, at least at the practical and empirical level. Thus, microeconomics often formulates the Pareto criterion in intermediate terms, notably income, rather than in the more direct term of preference satisfaction—Pareto efficiency then implies a distribution of income in which nobody’s income can be increased without lowering the income of at least one other person. Even more plainly, in macroeconomics welfare has come to be associated with real GDP per capita, undoubtedly the dominant empirical operationalization of welfare in economics. The large and rapidly growing literature on the income-happiness nexus in economics is grounded on this idea of income as an empirical operationalization of welfare.

To be sure, many criticisms have been raised against using GDP as an indicator of the standard of living. These are included in every macroeconomics textbook and include concerns such as that GDP does not take income distribution into account, that it ignores unpaid work, which is a concern that has been raised especially by feminist economists worried about the value of household work, that it does not take the black market into account, and that GDP does not consider what is being produced, e.g. playgrounds for children or nuclear missiles. Moreover, GDP does count work that results from repairing harm and ignores externalities such as damage to the environment. Of special interest in light of recent discussions, GDP does not measure the sustainability of growth. Indeed, one of the fathers of GDP, Simon Kuznets, famously said in his very first report to the U.S. Congress: ‘The welfare of a nation can […] scarcely be inferred from a measure of national income’ (Kuznets, 1934, p. 7). We may say that research on the relationship between income and happiness takes the problematic nature of national income as a measure of welfare into account by adding several control variables to its empirical models (variable $X$, in Equation 2). However, adding determinants of happiness above and beyond income does not actually get to the heart of the issue, and something seems
amiss when insights such as those of Kuznets (1934) are not explicitly dealt with when studying the income-happiness paradox.

3.2. Further historical perspectives on the income-happiness debate

The recent advent of measures of happiness in economics can be seen as taking insights and lessons from the history of economics to heart. By studying measures of subjective well-being, the income-happiness literature cuts short developments in the history of economics that started with Robbins’s (1932) famous essay and reached completion in Samuelson’s revealed preference framework, finding relevant subject matter for economics in the work of Bentham. Thus, the typical quantitative study of income and happiness, which accounts for the bulk of current attention for happiness in economics, tends to interpret utility in classic Benthamite fashion, namely as experienced utility (see, for instance, Clark et al., 2008; Di Tella and MacCulloch, 2008; Van Hoorn et al., 2010). Kahneman’s work on decision and experienced utility (e.g. Dolan and Kahneman, 2008; Kahneman et al., 1997; Kahneman, 1999) thereby goes further, not focusing on empirical relationships but on conceptual issues. Specifically, he fleshes out how the two understandings of utility (experienced utility and decision utility) can both play a role in economic analyses to provide a more complete picture than any of the types utility alone is able to give.

At the same time, its Benthamite foundations notwithstanding, there is also much in the history of economics that is not being considered in the empirically dominated literature on the income-happiness paradox and that offers an alternative perspective. From the outset, economists have been wary of the possibility of national income statistics to capture welfare, yet the idea that income should lead to happiness goes without questioning (except for, as mentioned above, inclusion of some control variables). At the least, we suggest, Easterlin’s paradoxical findings could have inspired an extended appreciation of the history of economics, with insights that do not stop with Bentham but resonate with the important developments and debates in economics after Bentham. Tibor Scitovsky’s discussion of the income-happiness relation in his *The Joyless Economy* (Scitovsky, 1976, pp. 133-145) is a nice illustration of this last idea. He first notes that a psychological mechanism such as social comparison (e.g. Festinger,
1954) may play a role in Easterlin’s (1974) findings (Scitovsky, 1976, pp. 135-140). He then goes on to evaluate the assumption that income should lead to happiness (Scitovsky, 1976, pp. 140-145). He formulates his main concern as follows: ‘A $1000 income in the national accounts shows that someone performed work whose discomfort, if any, he valued less than $1000, and that the services he rendered were worth more than $1000 to someone else. But the sum of the worker’s and the consumer’s net gains could equally well be a small fraction or a large multiple of the $1000 that changed hands, and there is no way to tell which it is’ (Scitovsky, 1976, p. 141). Scitovsky thus argues that the rationale for a positive relationship between income and happiness is less obvious than it seems. He thereby relies on classic revealed preference theory and insights concerning consumer surplus, but also, for example, on insights of the pioneers of national accounts such as Simon Kuznets, finding that income statistics only record the value of a market exchange and exclude the disutility of the work done by the seller (e.g., Kuznets 1934, pp. 6-7). Most of all, however, Scitovsky relies on Irving Fisher and Kenneth Boulding, whose work subsumes his cost argument (Scitovsky, 1976, pp. 140-145) in wider treatises of income and welfare as most fundamental concepts in economics.

Clearly, then, there is more to be learned from the history of economics that is relevant for the income-happiness debate than only Bentham’s insights concerning pleasure and pain. Inspired by Scitovsky, it is to Fisher and Boulding’s theoretical insights on the relation between income and welfare and the idea that higher income should lead to more happiness that we turn next.

4. A NEW THEORETICAL PERSPECTIVE BASED ON AN OLD HISTORICAL ONE

Before evaluating the insights of Fisher and Boulding concerning the relationship between income and happiness, it is useful to briefly touch on their general contributions, starting with Fisher.

4.1. Fisher’s contributions
Irving Fisher, one of the earliest American neoclassical economists, is known mostly for his work on capital, investment, and interest rates, first published in his *The Nature of Capital and Income* (Fisher, 1906 [1930]) and later elaborated in his *The Rate of Interest* (Fisher, 1907). His *The Theory of Interest* (Fisher, 1930) sums up his lifetime work on capital, investment, and interest rates.

In his works, Fisher emphasised the time dimension in economic transactions. He finds that value has a time as well as a quantity dimension because a good in the present has a different value than the same good at a later date. In other words, value is not only a function of the amount of goods and services that are owned or exchanged but also of the moment in time at which they are purchased. The interest rate correspondingly measures the relative price of goods at a future date in terms of goods sacrificed in the present.

### 4.2. Fisher on income and happiness

The time dimension that figures so prominently in Fisher’s writings, also plays a significant role in his views on capital and income. Fisher (1906, p. 52, italics dropped) defines capital as ‘a stock of wealth existing at an instant in time’, and income as ‘the services of wealth’ (i.e. ‘a flow of services through a period of time’). More precisely, he views the income of a community or, similarly, of an individual, as the flow of services rendered by all its instruments (Fisher, 1906, p. 101). And Fisher even uses an etymological argument to back his view on the relation between capital and income: ‘Income from any source is what comes in from that source’ (Fisher, 1906, p. 117).

Further in his discussion of the nature of income (and capital), Fisher (1906, pp. 165-169) discerns two types of final income, subjective, psychic or psychical income, and objective, physical income. His definition of subjective income subsequently comes remarkably close to psychologists’ subjective well-being construct: ‘We define subjective income, then, as the stream of consciousness of any human being. All his conscious life, from his birth to his death, constitutes his subjective income. Sensations, thoughts, feelings, volitions, and all psychical events, in fact, are a part of this income stream. All these conscious experiences which are desirable are positive items of income, or services; all which are undesirable are negative items or disservices’ (Fisher, 1906, p. 168). Fisher (1906, pp. 169-172) goes on to put forward a variety of reasons why physical and psychic
income need not coincide. Most notably, he finds that two individuals with the same objective income (e.g. $500 a year) need not enjoy the same subjective income because the ‘irksomeness’ that earning the income involves may differ between the two. This argument is precedes Scitovsky’s very similar argument stipulating that the monetary size of one’s income or an economic transaction in general does not say anything about the net benefit involved (Scitovsky, 1976:pp. 140-145).

Next to the psychical-physical income dichotomy, Fisher also explicitly discusses the presumed connection between utility and pleasure or happiness. On this point, Fisher (1906, p. 43) argues that ‘the desirability or utility of goods must not be confused with the pleasure which may be ultimately obtained from those goods [...] for pleasure is not the desire, but the satisfaction of the desire’. This thinking of Fisher precedes Kahneman’s distinction between decision and experienced utility by almost a century—as the latter readily acknowledges (e.g. Dolan and Kahneman, 2008, p. 215). The grounds for drawing the distinction differ, however. For Fisher (1906, p. 43) distinguishing between utility/desirability on the one hand and pleasure on the other hand was very much about time (yet again): ‘we have two concepts: utility or desirability—a state of mind at a point in time; and pleasure or satisfaction—an experience of mind through a period of time’. Kahneman and collaborators (e.g. Dolan and Kahneman, 2008; Kahneman et al., 1997; Kahneman, 1999), in contrast, emphasize people’s inability to predict what will make them happy.

While Fisher’s analysis provides some economic theory underlying the link between (money) income and happiness, even more can be learned from Kenneth Boulding, the second historical scholar whose work we consider here. Boulding builds on Fisher’s insights, extending them, and offering a more detailed analysis of the intricacies of the income-happiness relation.

4.3. Boulding’s contributions
Boulding read Fisher’s The Nature of Capital and Income and was ‘tremendously influenced’ by it (Geoff Harcourt in Sardoni, 2003, p. 375). Boulding’s early work on opportunity cost, capital theory and international trade earned him the prestigious J.B. Clark Medal of the American Economic Association in 1949, for which he succeeded
Paul Samuelson and preceded Milton Friedman. In 1968 he was president of the American Economic Association (this time succeeding Milton Friedman). His subsequent work reconstructed a balance-sheet approach to economics inspired by Fisher, founded the evolutionary economics movement, and defended normative economics and the integration of the social sciences.

4.4. Boulding on income and happiness

In his article *Income or Welfare*, published in *The Review of Economic Studies*, Boulding launches an explicit attack on the presumed link between income and welfare, calling it a ‘serious error’ and lamenting how ‘the assumption passes almost unquestioned’ (Boulding, 1949-1950, p. 77). He finds that ‘almost the reverse is the case’ (Boulding, 1949-1950, p. 79). The starting point for this analysis is that expenditure on a good does not signal consumption, but only an asset transfer with accumulated goods increasing and the money stock diminishing in the individual’s balance sheet (Boulding, 1949-1950, p. 77). In this process, relatively liquid assets are transformed into relatively illiquid assets, but this transformation is not yet consumption. Rather, actual consumption of a good takes place after it is bought, when it wears down (Boulding, 1949-1950, p. 80). An important conclusion therefore is that for most commodities it is not their consumption but their utilization that satisfies preferences. There is clear value in, for instance, the use of a house but not in its actual consumption, which constitutes depreciation of capital. Depletion of the housing stock implies the need for repairs such as fixing a roof that leaks or replacing a window that is broken.

The above distinction between consumption and utilization most forcefully applies to durable goods, where there is an obvious time dimension (cf. Fisher): the purchase of a good takes place at a moment in time, whilst the good is used up (i.e. ‘consumed’) over time. Boulding argues, however, that the difference between utilization and consumption also holds in case of ‘one-use goods’ (Boulding, 1949-1950, p. 80). The consumption of heating fuel, for example, arises from a given depreciation of warmth; it is only the depletion of the stock of warmth (e.g. due to poor insulation) that calls for the purchase and subsequent burning of heating fuel in order to restore warmth. In summary, Boulding’s analysis finds—very much in line with Fisher’s view of capital—that ‘it is the
capital stock from which we derive satisfactions, not from the additions to it (production) [i.e. income] or the subtractions from it (consumption) [i.e. ‘out-go’]; that consumption, far from being a desideratum, is a deplorable property of the capital stock which necessitates the equally deplorable activities of production’ (Boulding, 1949-1950, p. 79).

For Boulding, it is obvious then that the concepts of ‘income, output, or gross national product’ need to be separated more clearly ‘from the concept of economic welfare’: ‘There may be, and usually is, a correlation between the level of income and of welfare. But this connection is by no means invariable, and it would be most rash to suppose that an increase in income always means an increase in welfare’ (Boulding, 1949-1950, p. 83). He subsequently endorses Fisher’s psychic income concept, calling it ‘the significant welfare concept’ (ibidem), and gets inspired by it to introduce his idea of ‘psychic capital’ (Boulding, 1950, p. 140).\(^5\) Whereas capital is an accumulation of instruments rendering services, psychic capital is an accumulation of desirable mental states and most closely related to welfare. Moreover, in the same way as a pair of socks can wear out prompting the individual to use money assets to buy a new pair and in this way restore his or her ‘wardrobe capital’, psychic capital can also deplete: ‘We go to the movies in order to produce the mental state of just having gone to the movies […] which depreciates like every other commodity’ (Boulding, 1950, pp. 140-141).\(^6\)

4.5. Fisher, Boulding and the income-happiness paradox

What can we learn from Fisher and Boulding that is relevant to the current literature on the income-happiness paradox and the surrounding debate? Whereas economists have come to make the implicit assumption that higher income entails a higher level of preference satisfaction, Fisher and Boulding’s insights take issue with this deeply

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\(^5\) Boulding’s (1949-1950, p. 83) exact words on psychic income are: ‘psychic income is that which is derived from the possession or use or capital, and is the significant welfare concept. “Real” income or “output,” on the other hand, is significant only because of the power which it gives us to increase our capital stock, and hence our psychic income’.

\(^6\) Schelling (1984, p. 344) similarly argues that ‘we consume past events that we can bring up from memory’.
ingrained idea. Fisher and Boulding find that neither consumption nor income (in their ordinary interpretation) satisfy preferences. Capital, however, does, and it is ultimately the utilization of one’s capital that satisfies one’s preferences. The higher a consumer’s capital stock, the larger the flow of services the consumer may derive from it, the more the consumer is able to satisfy his or her preferences, and the higher his or her happiness (or psychic income if we stick to the terminology introduced by Fisher). The role income and consumption play in this relationship is more subtle than generally appreciated, as Boulding discusses in most detail. Both income and consumption can be ‘bads’, making a positive association between income and happiness much less reasonable than typically assumed (cf. Barro in Stevenson and Wolfers, 2008, p. 101). This holds when goods purchased do not add to the consumer’s capital stock but are meant to restore this stock. In this case, income and subsequent consumption signal a worsening of welfare; people would be better off if their capital stock had not depreciated, if they did not need to buy new clothes to replace worn out items in their wardrobe. Hence, the main lesson for the income-happiness literature that we can learn from Fisher and Boulding is that the current debate on the income-happiness paradox is misguided. The actual theoretical rationale for expecting income to lead to happiness is much less strong than many economists and researchers working on Easterlin’s paradox seem to assume.

Fisher and Boulding’s theoretical insights suggest that empirical research on the economics of happiness, specifically the income-happiness nexus, needs to start working to address two essential issues. The first is how exactly consumer capital and happiness are related; the second concerns the exact role of income and consumption therein. Obvious follow-up questions subsequently are whether consumers’ capital stock has grown during years in which happiness has remained more or less constant or, put differently, whether sustained income increases have led to a corresponding rise in consumer capital. In the view of Fisher and Boulding, a steady, non-increasing stock of

7 Fisher’s concept of psychic income has never caught on, not even on the waves of the recent popularity of happiness measures in economics. The history of economics contains some traces of the ideas embodied in the concept of psychic income though. Pigou (1932, p. 10), for instance, finds that ‘the elements of welfare are states of consciousness’.
consumer capital would certainly account for the relatively stable levels of happiness or psychic income that can be observed across developed countries. By taking up these questions, we can set the debate on the income-happiness paradox on more solid theoretical footing.

Importantly, the need to get the economics of the income-happiness paradox right remains when considering the role of psychological mechanisms, specifically social comparison and adaptation, in this paradox. When happiness economists incorporate these mechanisms in their happiness equations, they typically assume that psychology’s insights on social comparison and adaptation transfer to the domain of income or consumption unabated. The insights of Fisher and Boulding, however, imply that, if anything, these psychological mechanisms are most insightfully applied to consumer capital and not to consumption expenditures or traditional wage income (should the latter be observable in the first place). Keeping up with the Joneses does not involve the act of buying goods but involves commanding a certain stock of consumer capital, as when a larger house signals that the neighbour’s have accumulated more instruments than oneself has done. Similarly, people do not adapt to the actual buying of a car, but to the owning of this car. Social comparison or adaptation can affect the level of happiness that the utilization of any given stock of goods is able to render because people care about the relative amount of services their capital renders them, or because people adapt to the flow of services—including income—they derive from their accumulated instruments. Overall, we see great value in using insights and theories from psychology to get a better understanding of the relationship between income and happiness. It is only after we have the economic theory straight, however, that we can expect to make an adequate analysis of social comparison, adaptation or other psychological mechanisms and how they matter for the income-happiness paradox.8

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8 Coming full circle, adaptation (e.g. Frederick and Loewenstein, 1999) can provide the psychological underpinning for Boulding’s idea, mentioned above, that psychic capital can deplete as when desirable mental states ‘depreciate’ (Boulding, 1950, pp. 140-141).
5. CONCLUDING COMMENTS

Almost 40 years on, research on Easterlin’s (1974) paradoxical findings that sustained increases in income do not lead to higher happiness have not risen, has much need for theoretical reflection. Indeed, the premise underlying the so-called Easterlin paradox, that higher income should lead to more happiness, has not yet received much scrutiny. As a result, something important is missing in assessments of the income-happiness paradox, namely the economic theory underlying this apparent paradox. A return to the history of economics revealed that much of the present research resonates with the historical insights of Jeremy Bentham.

Drawing further on the history of economics, this paper has revisited the work of Irving Fisher and Kenneth Boulding to bring a new, theoretical perspective to Easterlin’s (paradoxical) findings. It has argued that the distinction Fisher and Boulding draw between income and welfare adds an important and insightful perspective to the current income-happiness debate. Fisher and Boulding forcefully argue that welfare and happiness derive from the utilization of one’s capital stock and not from income or consumption. Consumption, moreover, is partially driven by the need to maintain one’s capital stock so that it is actually a ‘bad’. A priori, there is no reason to assume that income adds to consumers’ capital—and higher income more so. More consumption and higher income therefore do not necessarily imply increased satisfaction of preferences.

The implication of Fisher and Boulding’s insights is that, from an economic point of view, the rationale for a positive relationship between income and happiness is less strong than generally assumed. A complete discussion of happiness and how it is affected by income cannot get around the inclusion of (consumer) capital as an important factor for happiness. Happiness likely increases with the satisfaction of preferences. Preferences, in turn, are satisfied through the utilization of capital. The exact role of income herein is unknown but an important question for economists.

The intensifying controversy surrounding Easterlin’s paradox suggests that the time is ripe for a re-appreciation of the insights of Fisher and Boulding and for further analysis of the issues their work raises. ‘Income or welfare’; the question remains as relevant today as 60+ years ago when Boulding (1949-1950) first set out to answer it.
REFERENCES


