CONSUMPTION AND HAPPINESS: ALTERNATIVE APPROACHES

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1. Introduction

The standard approach to consumer behavior in economics takes utility to be a positive function of the level of consumption of goods and services, an approach which is taken to imply that the level of satisfaction, or happiness, increases when a person consumer more. Basic textbooks portray the consumer as choosing between consumption of two goods, between consumption and leisure, and between consumption at different points in time to maximize utility; in all this it is assumed that more consumption is always better for the consumer in the sense of increasing his or her utility. Consumers are taken to have some prior needs or wants, which are fulfilled by consumption, leading to higher levels of satisfaction or happiness. In fact several principles of economics principles texts define the entire subject of economics to be the subject which examines how scarce resources are allocated in alternative ways to satisfy human wants. The goal of economic activity is taken by most mainstream economists is to achieve efficiency, which is usually interpreted to require maximization of the value of the production of goods and services.

This view appears to reflect popular perceptions about the importance of consumption in societies. More (of goods and services) is taken for granted to be better and success people is often measured by the ability of people to purchase more goods and services. Consumption is seen as the driving force of the economy, providing people with the incentive to expend their time and energy to obtain more and better things.

Such views about the positive role of consumption have always found a few dissenters. First, moral philosophers and especially religious traditions have pointed out that the pursuit of consumption – at least beyond a certain level - can and, indeed has, diverted people from more noble and exalted goals which bring true happiness;

sometimes this conflict is expressed in terms of the opposition of "having" versus "being". Second, it is held by some that the pursuit of ever-increasing consumption can lead to adverse consequences on other things which are valued by people, and which even make them happy now or later. People nevertheless consume more without taking such adverse consequences into account because they either do not understand the nature of these consequences, or ignore the effects of their behavior on others, or because they are myopic do not give sufficient weight to the future. Examples of such other things include growth, employment, income distribution, community, and the environment.

However, such dissent has been met with suspicion. Who are moralists and religious leaders to dictate the meaning of true happiness for others? All people should be allowed to pursue happiness in the way they see fit. Consumption not only provides happiness to those who consume but arguably also has other favorable consequences, by giving people the incentive to work, trade and innovate for a better life, leading to higher levels of production and economic growth and by boosting aggregate demand and reducing unemployment. Economic activity in markets strengthens communities. Not only can the quest for a better life make the economy expand, but also provide the resources with which to clean up the environment.

A relatively small but growing number of economists and other social scientists have produced empirical studies that question the fact that increases in consumption and income – at least significantly – affect happiness as evaluated by the consumers themselves.[1] The pioneering contributions of Easterlin (1973, 1995, 2001), and subsequent work by Oswald (1997), Deiner and Shigehiro (2000), and Frey and Stutzer (2002) among others, suggest a number of empirical regularities. Time series data for

individual countries do not reflect significant (and in some cases any) increases in the average level of self-reported happiness over time, despite significant increases in income and consumption. Panel data on specific individuals over their lives suggest that despite large increases in income, these individuals usually do not show significant increases in self-reported happiness. Cross-sectional studies across countries suggest that countries with higher levels of per capita income and consumption do not have higher average levels of self-reported happiness beyond a certain level of income which is far below the income of the rich countries of the world. Even individuals who win lotteries have been found to report no greater happiness after a few years. To be sure, there is some support for the consumption-happiness connection. Cross-sectional studies within countries seems consistent with it: people in higher income groups with higher levels of consumption report higher levels of self-reported happiness than people in lower income groups; it seems that it is better to be rich than poor in a particular society at a particular point in time. Cross-country studies do suggest a positive income-happiness link at low levels of income. Some studies suggest that people are happier – even if temporarily – if their consumption and income increases. However, the bulk of the evidence seems to contradict the consumption-happiness relationship.

Is something amiss with the standard economists' view and popular opinion about consumption and happiness? Some have indeed argued that this is indeed, and proposed action ranging from self-help through voluntary simplicity (see Schor, 1998) to consumption taxes (Frank, 1999) to curb consumption and increase happiness.

The purpose of this paper is to examine and evaluate alternative approaches to explaining the recent empirical consumption/income and self-reported happiness relation

and discuss their broader implications for the relation between consumption and happiness. The rest of the paper proceeds as follows. Section 2 discusses some grounds for dismissing the relevance of these finding and argues against them. Section 3 discusses some popular and plausible explanations of the consumption-happiness relation based on the idea that people consume because others do so. Section 4 examines how these explanations suggest a simple and parsimonious modification of the theory of consumer behavior which stresses the importance of relative consumption and summarizes some of its implications. Section 5 turns to some other approaches to the consumption-happiness relation to argue that although they have some validity, they do not undermine the case for the simple relative consumption approach, but suggests a somewhat broad interpretation of it. Section 6 briefly discusses some further implications of these approaches and formalizations taking a view that is broader than the connection between consumption and individual self-reported happiness. .

It should be stated at the outset that this paper does not present any new empirical results or develop any novel models. Its purpose, rather, is to synthesis and to broaden the analysis by finding connections between different strands of a rapidly-growing literature on the relation between consumption and happiness. I hope that there is some value added to this exercise.

2. Happiness and its determinants

We first examine some arguments which appear to undermine the consumption-happiness relationship (more accurately, the absence of a relationship).

The first is to suggest that the dissenters have been much too hasty in dismissing the consumption-happiness link because they have not examined all of the relevant

evidence. This is a difficult line to pursue, however. As noted earlier, there is by now a large body of evidence that confirms the link. But there are a few contributions which provide contrary results of which we briefly discuss two. Frijters, Haisken-DeNew and Shields (2004) apply a conditional fixed-effect ordinal estimate to data on East Germans using panel data from the German Socio-Economic Panel for the period 1991-2001 to find that both real income and employment status are important predictors of life satisfaction. However, there are a number of reasons for doubting the generality of these results. One suspects that there were changes in economic and political conditions of life in the region which are not captured adequately by the annual dummies. It is possible also that the former East Germans could have increased their life-satisfaction if their conditions were improving relative to that of the former West Germans. Finally, the results show that life-satisfaction gains were mostly concentrated in the immediate post-unification period, suggesting that the happiness gains are not necessarily long-lasting. Heady, Muffels and Wooden (2004) uses panel data from Australia, Britain, Germany, Hungary and the Netherlands to find that income and wealth as well as non-durable consumption (where data is available for it) have significantly positive effects on life satisfaction overall. The effects are found to be stronger than just the effects of income. However, the overall effect of these variables is still relatively small, and much weaker than the effects of say employment status. Thus, while somewhat strengthening the impact of money on happiness, and suggesting that consumption has a stronger effect on happiness than income, these findings do not contradict the result that consumption and income have small effects on happiness.

The second is to argue that even if consumption does not appear to increase happiness as measured by self-reported subjective well-being, that does not have any bearing on the connection between happiness and consumption because subjective well-being does not really measure happiness. Doubts about the identification of happiness and subjective well-being can be raised at least three levels.

One, it may be asked if happiness or satisfaction indicators based on such surveys, what is called subjective well-being, measures anything at all. This kind of criticism seems unwarranted (see di Tella and McCulloch, 2006) because of the reasonable degree of correlation these indicators have with other indicators such as left-frontal brain activity and with measures of depression and suicide, and with the similar implications they have in various studies using different kinds of questions and in different contexts.

Two, although subjective well-being measures may be measuring something, it is not clear that they really capture people's true feelings. Self-reported subjective happiness measures ask people to remember how they felt at an earlier period, and it is possible that people may not recall this in an accurate manner. Kahneman (1999) has pointed out, in fact, that there are significant biases in the way that people recall their level of happiness, that is, remembered subjective happiness, in comparison to what he calls objective happiness as measured by the simple average of experienced levels of satisfaction. Examples of such systematic biases include adaptation to changed circumstances and the current emotional state and the environment of the respondent. However, these biases do not necessarily make subjective happiness measures inadequate. Repeated surveys of different people in different situations can remove some of the biases. Moreover, the difference between these measures and Kahneman's

objective measure need not only arise because of difficulties in recalling past feelings, but also because they may involve judgment and reflection, which is likely to be missing from instantaneous reactions. For instance, they may involve judgments about what is truly important to one's well-being and happiness rather than just feelings.

Three, it can be argued that subjective well-being should not be regarded as happiness because it overlooks many aspects of our "true" level of well-being. Alternative definitions of happiness and well-being involve such concepts as functionings and capabilities (Sen, 1999), flourishing, or some spiritual idea of true happiness. This does not negate the finding that self-reported happiness does not increase with consumption and income at least beyond a point, and in fact continues to make it relevant, for at least three reasons. First, some of the alternative happiness concepts have empirical implications similar to subjective well-being. In particular, increases in income and consumption do increase people's well-being as measured by functionings and capabilities at low levels of consumption, but do not do so beyond a certain point. Second, a broad definition of happiness could include some of these alternative concepts *in addition* to the subjective well-being concept. If so, the results regarding subjective well-being are relevant. Third, the subjective well-being concept provides at least a minimalist defense of the notion that more is better (even if they are chasing false goals, at least it makes them feel better), and if it fails to do so, the overall notion that more consumption is better becomes more questionable.

Third, it can be argued that the absence of any tendency of happiness to rise despite significant increases in consumption and income can be explained by the fact that happiness does not depend on consumption and income alone, but on many other things.

It is therefore quite possible that increases in consumption have led to increases in happiness, but that these gains have been nullified by adverse movements in the other determinants. Di Tella and McCulloch (2006) argue against this view stating that in fact many of the things that happiness depends on have actually moved in a positive direction, so that they cannot be blamed for negligible changes in happiness. However, this argument may not be very convincing without a more thorough investigation of the other causes of happiness and in their direction of change. For instance, although some measures of the environment may have improved, others, such as those indicating global warming have arguably worsened. Other determinants of happiness, for instance, interactions with friends and community bonds, have arguably moved in a direction which reduces happiness (Lane, 2000, Putnam, 2000) There are, however, more weighty arguments to be made against this approach. First, one should examine whether these other determinants are truly independent of increases in consumption and income; if they have worsened by increases in consumption or by the same reasons which have increased consumption. Second, one can examine more careful analyses of the determinants of happiness to control for other determinants. Most exercises in doing so have in fact found that income and consumption have relatively small effects on subjective wellbeing. These findings, however, leave open the question whether the other determinants of happiness which have a strong impact are indirectly affected by consumption and its determinants.

3. Consuming because others consume

Having argued against possible ways of discrediting the absence of the consumption-happiness relation, this section discusses a popular explanation of it. This explanation

has been referred to in the literature in a various ways, including: consumption because others consume, the relative consumption hypothesis, positional consumption, and interdependent consumption and preferences. Although it is not clear that these expressions are precisely equivalent, they appear to involve two main features: first, that the consumption level of individuals depends positively on what (at least some) others consume, and second that the level of utility, satisfaction or happiness that people obtain from consumption is affected by what other people consume. There are a number of variants of this explanation, which may be classified into at least six categories.

One is that individuals derive – or perceive they derive – benefits in terms of higher income by having higher levels of consumption (of certain things) in relation to the level of consumption of others. Examples include spending more on clothing than others to make a better impression on others for the purpose getting jobs and clients, spending more on education to become more attractive to potential employers (see Frank, 1999) and spending more on consumption goods in general may signal higher wealth, making it possible to possible to attract wealthier mates in an effort to increase the absolute level of income and (joint) consumption (Cole, et. al. 1992). In these examples, it is not the absolute amount of consumption that increases income, but consumption spending relative to that of others. Since income determines consumption, which increases utility, it is relative consumption which determines utility. Moreover, more consumption by others will lead consumers to want to consume more. Since relative consumption is not valued for its own sake, but for its effect on absolute consumption, we may refer to this as the instrumental motive.

A second is that the very nature of certain goods makes the utility derived from them depend on what others consume. Following Hirsch (1976) we can call them positional goods. For instance, if what one wishes to consume is a good view of nature (say, the seashore), then the height of one's house or apartment and its distance from the seashore are relevant, but what is important is not so much the absolute height of one's house and the distance from the seashore, but what these are in comparison to the houses owned by others. Hirsch (1976) has argued that goods are very likely to have such positional properties if their supply is very limited, as is the case with famous paintings and houses with spectacular views.

A third relates to information issues. The acquisition of goods by others serves as a form of publicity for the goods, and may make us want to increase our consumption of them. Duesenberry (1949, p. 26-27) argues that sometimes "individuals ... come in contact with goods superior to the ones they use with a certain frequency. Each such contact is a demonstration of the superiority of those goods and a threat to the existence of current consumption pattern. ... For any particular family the frequency of contact with superior goods will increase primarily as the consumption expenditures of others increase. When that occurs, impulses to increase expenditure will increase in frequency, and strength and resistance to them will be inadequate". Not only does observing others consume goods make us more aware of their desirable properties, but the mere fact that others consume these goods may make us think that they have desirable properties (which we do not observe directly). Samuelson (2004) has extended the argument from a focus on the information regarding the quality of goods to information about the environment as a whole, in which the process of evolution selects individuals whose

consumption behavior is conditional on the observed consumption behavior of others in a setting in which a higher (lower) consumption level of others reflects and environment in which it is well-advised (ill-advised) for a person to consume high amounts, thereby making optimal use of information in response to uncertainties about the environment. The analysis provides a rigorous account of why an individual's utility function may include relative consumption considerations because of evolutionary selection processes, but is too abstract to shed light on what kinds of uncertainty about the environment one is discussing, and thereby to evaluate its empirical importance. Returning to specific goods, increased consumption of these goods by others will make us more likely to increase our consumption of these goods.

A fourth category concerns what is called network externalities. If most people in a society have telephones, answering machines, fax machines, or e-mail, not having them may exclude us from the flow of information. As Lichtenberg (1998, p. 159) points out, "[t]he person without an answering machine forces the messenger to work harder by calling repeatedly, and is more likely not to be reached at all. This may be more than an inconvenience: it may cost a businessperson her livelihood if the caller is a customer with alternative providers". In cases where these network effects affect one's income, this becomes an element of the first category discussed above. In other cases, in which people's happiness directly depends on these externalities (for example, by being in contact with one's friends) we see that relative consumption matters directly as well. We will consume more if others do the same, and the utility we receive from our consumption will depend on what others consume. The notion of network externalities

can be extended to goods such as books and music, if their consumption allows discussions with others, which increases utility.

A fifth relates to consumption norms. If most people consume something, a consumption norm is created which makes individuals "need" to consume it. Smith (1776. p. 351-2)) wrote about this more than two centuries ago:

> By necessaries I understand not only the commodities which are indispensably necessary for the support of life, but what ever the custom of the country renders it indecent for creditable people, even the lowest order to be without ... Custom ... has rendered leather shoes a necessary of life in England. The poorest creditable person of either sex would be ashamed to appear in public without them.

The need being fulfilled here, according to Sen (1983), is the need of not being ashamed; Smith is clearly arguing that the commodity capable of satisfying this need depends on what many others do, and is therefore changeable as customs change. In our times, if most people have straight teeth, it is likely to make the rest be ashamed to have crooked teeth, so that parents obtain braces for their children to avoid shame. Although consumption norms are likely strongest for goods visible to others, they may apply to other goods as well, because not consuming them can damage one's self respect.

A final hypothesis concerns status. Define status as the position one has in society as perceived by others, on a scale about which there is general agreement. Assume that the scale that there is agreement about is income or wealth, so that one has higher status if one more income or wealth, and that individuals prefer a higher status than a lower status. Assume also that income or wealth are not directly observable, but consumption is. The assumption that consumption is observable is valid for items that others observe one consuming, that is, what has been called conspicuous consumption. Then, to attain higher status individuals will try to increase their conspicuous consumption compared to

that of others. Although the importance of status and conspicuous consumption has been pointed out by several writers in the last three centuries or so, it has not been absorbed into mainstream economic theory and given its due (Mason, 1998). Its importance was recognized by John Rae, to some extent by Smith, and by Nassau Senior, but then de-emphasized by the marginalists. The locus classicus of this approach is Veblen (1899), who argues that individuals seeking to gain status exhibit this wealth through the conspicuous consumption of leisure, and more importantly, through the conspicuous consumption of goods. But Veblen has frequently been dismissed by economists as being a sociologist, not an economist. Duesenberry (1949, 28-32) has also stressed the role of status in increasing consumption especially in societies with a high degree of social mobility and argued that utility depends on a person's consumption relative his or her peers. But until very recently, Duesenberry's contributions to the analysis of consumption has been overshadowed by alternative approaches based on, for instance, the life-cycle approach. A recent contribution by an economist, Schor (1998), which contains useful and original empirical work on status seeking consumption, is written in the form of a popular book rather than as a scholarly treatise which can be expected to receive much attention from professional economists. Despite its relative neglect by economists, status consumption has been studied by other social scientists such as sociologists and anthropologists, and by marketing researchers.[9] Recent work by economists has paid more attention to status issue, both in the theoretical and empirical literatures (see, for instance, Frank, 1999).

Status seeking often has a socially opprobrious connotation. Trying to keep up with most other people consume with the motive of maintaining one's self respect or self

esteem rather than trying to get ahead of others may make this behavior less morally reprehensible, .but makes the status motive indistinguishable from the motive of following social norms.

Two comments on the relative importance of these explanations is in order. One, individuals may consume specific goods for a number of the reasons discussed above, reasons which may reinforce each other. Thus, even if a professional buys more expensive clothing for the instrumental reason, he may also be doing it for the status or social-norms motives. This implies that these two motives may be more prevalent than is sometimes believed. Two, some of the explanations apply to particular goods, whereas the norms and, especially, the status explanations apply to a broad range of goods. Thus, network externalities, instrumental reasons, intrinsically positional properties, and information issues may be important for specific goods. It is not appropriate to identify the status-conferring value of one isolated good; status-motivated consumption is more accurately identified by a whole range of products (Mason, 1998: p. 132). Douglas and Isherwood (1978) argue that it is impossible to determine the meaning or value of goods in post-modern societies by taking each good individually, since goods reveal their purpose only when they are considered together. This meaning is particularly important for status-related consumption. This observation has two implications. First, consumption norms and status consumption are likely to be much more important empirically than the other explanations. Second, the other explanations may have an important role in how people allocate their consumption expenditure and which specific goods they buy, whereas the consumption norm and status consumption explanations are more likely to determine aggregate consumption.

Empirical studies appear to show that relative consumption considerations and the status motive play an important role in affecting consumer choices. Luttmer (2004) finds that controlling for income and a number of other possible determinants, higher incomes of neighbors leads to lower level of self-reported happiness. He also finds that this negative relation is higher for people who socialize more with their neighbors. Solnick and Hemenway (1998) and Alpizar et. al. (2005) use survey and experimental results to show that relative consumption considerations are important for a variety of goods and services, but they are more important for visible goods. These and other finds show that relative consumption effects are important, but do not have clear implications for the reason why this is so. However, Luttmer finds that people who socialize more with their neighbors, and not those who interact with relatives or co-workers, have stronger relative income effects, which suggests that status motives may be more important. The fact that relative consumption effects prevail in a broad range of products, and not just a few, seems to suggest the importance of both norm and status effects.

4. The relative consumption hypothesis and its alternatives

In this section we first provide a simple formalization of the notions discussed in the previous section, then consider two of its implications, and finally compare it to other related formulations.

4.1 The relative consumption hypothesis

A simple way to formalize the idea of the previous section, following the suggestion of Duesenberry (1949), is to assume that a consumer's utility depends on her consumption

relative to that of others, in addition to the absolute level of consumption and other relevant variables, so that

$$u_i = u\,(c_i,\, c_i/c,\, \boldsymbol{x_i},\, \boldsymbol{X}), \tag{1}$$

where c_i denotes the level of consumption of individual i, c the average level of consumption of all individuals, $\boldsymbol{x_i}$ a vector of all other influences on the utility of individual i which are specific to that individual (for instance, time spent on leisure by the individual, whether one is unemployed or not), and $\boldsymbol{X}$ a vector of all societal or general influences on the utility of the individual (for instance, the state of the environment, the general rate of unemployment, and the nature of government). The partial derivative u_1 can be taken to be positive out of deference for the standard approach to consumption. The central feature of the present approach is that the partial u_2 is positive, and depicts the notion that the utility derived by an individual depends on the consumption level of that person relative to the average consumption of others, or what is referred to as *relative consumption*. The other two arguments, with individual partials depending on the nature of the relevant variable, are meant to take into account other relevant influences on happiness.

4.2 Implications of the relative consumption hypothesis

To examine the implications of the relative consumption approach, we first consider the simple case in which utility is given by

$$u_i = u\,(c_i,\, c_i/c), \tag{2}$$

in which we suppress the other arguments of the utility function given by (1). We assume that $u_i > 0$. Implicitly it is being assumed that consumption does not require any activity on the part of individuals which affect their utility directly. Thus, consumption

does not require work which reduces leisure, or it requires a fixed amount of work and hence leisure. We may assume that

$$y_i = A,$$

where A represents technology, and where the fixed amount of work done by every individual is constant (or even zero) and is ignored. The individual's decision is to maximize her own utility by choosing her own level of consumption, taking average consumption of all consumers to be given, subject to the budget constraint

$$c_i \leq y_i \,. \tag{3}$$

The solution to the consumer's decision-making problem is trivial. She will consume all her income, so that $c_i = A$, and the consumer's utility is given by $u_i = u\ (A, 1)$. If the economy grows to technological change, that is, increases in A, which is exogenous and does not require any activity on the part of individuals, then the utility of consumers will increase as long as $u_1 > 0$, that is the marginal utility of the absolute level of consumption is positive. If this marginal utility increases at a diminishing rate, and becomes zero at some level of consumption, then further technological change will not have any appreciable effect on utility, and eventually will have no effect all. The consumption of each individual will keep increasing, but since relative consumption does not change, even with $u_2 > 0$, utility, and happiness will not increase. This pattern of growth may be pointless, but it is not inefficient in the sense that people could be made better off without reducing the utility of others. Moreover, for consumption levels to have no effect on happiness, it is required that $u_1 > 0$.

An obvious shortcoming of this simple model is that in it individuals have no opportunity cost of consumption. A simple way to introduce opportunity costs into the model is to assume

$$u_i = u\ (c_i\ \ c_i/c,\ \ \ l_i) \tag{4}$$

where c_i denotes consumption of person i, c is average consumption, and l_i denotes the number of hours of leisure for person i.[2] As before, $u_i > 0$ for i=1,2, and since consumers like leisure, $u_3 > 0$. We assume that all individuals have a production function given by

$$y_i = y(n_i), \tag{5}$$

where $y' > 0$ and $y'' \leq 0$. Individuals need to satisfy their budget constraint, given by inequality (3), and the time constraint

$$l_i + n_i = 1, \tag{6}$$

where the total time available to an individual is normalized to unity. Each individual maximizes utility by choosing c_i, l_i, and n_i, taking as given c.

This simple model of labor-leisure choice can be analyzed graphically using Figure 1. This figure uses three sets of curves. First, the production function is shown by line y. Second, we can draw the consumer indifference curves over consumption and leisure assuming that the individual's consumption is equal to the average level of consumption. Assuming $c_i = c$, we can find the indifference map of the individual i, from the utility function given by $u\ (c_i\ \ 1,\ \ l_i)$. Indifference curves from this map are shown by the solid lines marked u^j. The highest indifference curve that the individual can reach on the indifference map given the production function is u^1. If this were the consumer's indifference map (which it is not, since it is a hypothetical one drawn for $c_i = c$), the consumer would choose point E_1. Third, we have the individual's actual indifferent curve

with c given. Draw the individual's indifference curve through this point with c given by the consumption level at E_1. This indifference curve will be flatter than the hypothetical one shown by u^1, since the additional consumption required to compensate for a given reduction in leisure is less than in the hypothetical case, because additional consumption yields additional utility for both absolute and relative consumption reasons, as long as $u_2>0$. The indifference curve is shown by the dashed indifference curve u_i^1. The individual's indifference map for a given level of c is shown by the dashed indifference curves.

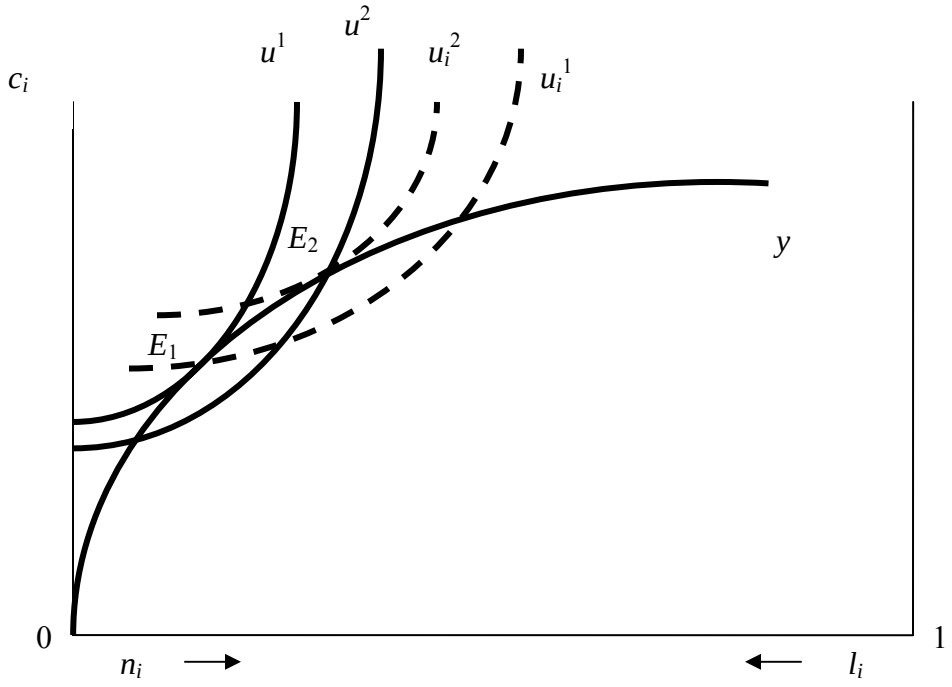

Figure 1

For this indifference map individual's utility, for the given level of c, is maximized at E_2. The individual's equilibrium for the given level of c shown by the level

of consumption at E_1 is therefore at a higher level of consumption and labor and a lower level of leisure than what is shown at E_1.

Since all individuals are identical because they have identical utility and production functions, their consumption level will be equal to the average consumption level. Thus, point E_2 need not be the equilibrium for the economy at which not only is each individual maximizing utility given the average level of consumption, but also each individual's consumption is equal to the average level of consumption. If we assume, for simplicity, that the shape of the indifferences curves is unchanged by changes in the average level of consumption, although each indifference curve denotes a lower level of utility when average consumption is higher, then E_2 is indeed the equilibrium of the economy, since the individual chooses the same point whatever the average level of consumption, including that at E_2. At this equilibrium it is clear that each individual obtains a lower level of utility than at E_1. Since in equilibrium each individual's consumption is equal to the average level of consumption, the solid indifference curves denote the correct level of utility. Since E_2 is on a lower indifference curves than is E_1 (since $u^2 < u^1$), all individuals are worse off at the equilibrium at E_2 than at E_2, which yields the highest level of utility under the condition that all individuals consume at the same level.

Our assumption that the individual's optimal level of consumption is independent of the average level of consumption of all individuals can be shown to hold for a variety of utility functions. For instance, it is implied by the Cobb-Douglas utility function of the form

$$u_i = c_i^{\alpha} (c_i/c)^{\beta} \ l_i^{\gamma},$$

where with the production function given by $y_i = n_i^{\delta}$ with $\delta \leq 1$, the individual's optimal amount of consumption is given by

$$c_i = \left[1-[\alpha(\beta+\delta)/[\gamma+\alpha(\beta+\delta)]]\right]^{\delta},$$

which is independent of c. However, the assumption goes against the idea, discussed in the previous section, that people consume more because others consume more. In that approach, an increase in c implies that the utility-maximizing consumption choice must be higher as well. What this requires is that a rise in c from the point E_2 must make the indifference curve of the consumer with a given (higher) level of c flatter, implying that the individual's equilibrium is to the right of E_2. This result requires that $[u_{12} + u_{22}\, c]$, which affects how the change in c affects the *total* (including both the absolute and relative consumption effects) marginal utility of c_i, is negative.

If this restriction is satisfied, the increase in c, which reduces c_i/c, will increase the marginal contribution c_i makes on utility, thereby requiring less of an increase in c_i to compensate for a given reduction in leisure. Assuming that our restriction is satisfied, c_i rises with c, implying a reaction curve for the ith individual given by $c_i = \rho(c)$ with $\rho'>0$. With some further restrictions on the utility function which ensure that $\rho'<1$ we can show that there will exist an equilibrium at which $c=R(c)$, which determines the equilibrium for the economy. This equilibrium will lie to the right of E_2. However, it will remain true that at this equilibrium the dashed indifference curve (with given c) will be flatter than the solid indifference curve (with $c_i = c$), so that as shown earlier, the equilibrium level of consumption will imply a higher level of consumption and work, and a lower level of leisure, then the socially optimal level shown by E_1.

We may now examine the implications of economic growth resulting from an improvement in technology. Consider the special case in which the production function reflects constant returns to labor, so that it is a straight line through the origin. Assume that technological change shifts the production function from y^1 to y^2. The equilibrium with the production function at y^1 is shown by E_1, where the production line is tangent to the dashed indifference curve showing utility level u_i^1. When the production line shifts to y^2, suppose first that the effect of increases in c_i on the effect on the marginal rate of substitution between consumption and leisure is 'small' (which is more likely to hold if the curvature of the indifference curves is small), so that the individual moves from E_1 to a point on the y^2 line to the right of E_1. Since c_i increases, average consumption, c, also increases, which, as discussed earlier, makes the individual's indifference map become flatter, as shown by the dotted indifference curve. This flattening of the indifference curve and the fact that the production line is steeper pushes the individual's equilibrium choice to the right of E_1, to a point like E_2. There is nothing in our assumptions to rule out that E_2 is not to the right of the solid indifference curve through E_1. If this is indeed the case, technological change will imply a sufficiently large increase in consumption and decline in leisure to reduce utility as measured by the solid indifference curves.

Five observations about this analysis are in order. First, this is more likely to happen the steeper are the solid indifference curves (which happens when u_1, measuring the direct consumption effect, is smaller) and the stronger the tendency of average consumption to increases marginal utility of a person's own consumption. Note, however, that unlike the previous simple case, the absence of the absolute consumption effect is not required. Second, it is more likely to occur the stronger are the substitution

effect than of income effect of improvements in technology, which is the case that leads to upward-rising supply curves of labor. Third, if we introduce diminishing returns into the analysis, as in Figure 1, the likelihood of this occurring is higher when the strength of diminishing returns is weaker. Fourth, a necessary condition for a fall in utility due to increasing consumption caused by technological change is that there is a fall in leisure and a rise in working hours. We will return to this point later. Finally, the assumption that higher average levels of consumption drive up optimal levels of individual consumption play an important role in this discussion, but do not do so in the earlier discussion on the social sub-optimality of decentralized equilibrium with relative consumption.

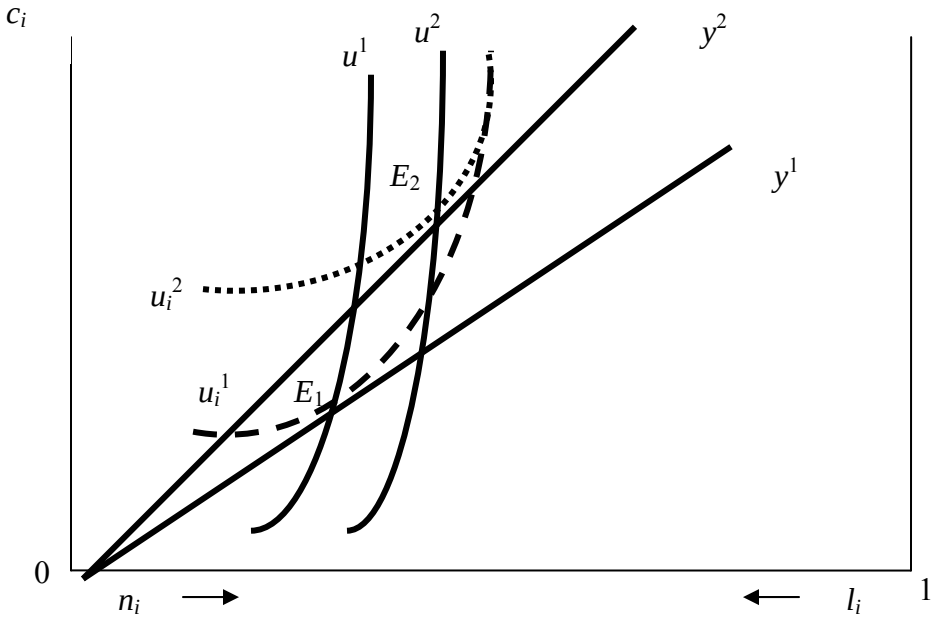

Figure 2

A number of previous contributions have examined these two implications of the relative consumption hypothesis, and the analysis here can claim to do no more than

present these ideas in a simple and, arguably, transparent way. Dupor and Liu (2003) analyze the implications of concern for the consumption of others by making individual utility depend on consumption (positively), and the average consumption of others (negatively). This formulation is implied the one used here. However, the more specific formulation to emphasize that it is *relative* consumption matters, and also for analytical convenience because the formulation implies that when all individuals consume the same amount, $c_i/c = 1$, from which observation relevant implications follow in a simple manner. Moreover, our analysis imposes some additional restrictions on behavior – for instance, that our consumption increases when that of others does – while Dupor and Liu consider a variety of cases. Their analysis, therefore, focuses on the sub-optimality of decentralized equilibria, but not on the implications of happiness of increases in consumption and income due to the process of growth.

Growth is explicitly analyzed by several contributions. Carroll et.al. (1997) and Alvarez-Quadrado et. al. (2004) examine status by making instantaneous utility depend on absolute consumption as well as consumption relative to a reference stock of past consumption which depends on past consumption by others. They point out the resulting sub-optimality due to consumption externalities in the model with intertemporal maximization, but do not address the implication of the model for the evolution of happiness. They also adopt a Cobb-Douglas instantaneous utility function, and do not introduce leisure or other non-relative aspects of consumption. Closer to out analysis are the models of de la Croix (1998) and Cooper et al (2001). De la Croix (1998) makes utility depend on absolute consumption and on social norms regarding consumption which depend on past norms and recent consumption. Since past norms are social, and

hence determined by the consumption of others, externalities are produced. Individual optimization therefore leads to non-optimality as well as the possibility of growth without significantly increasing happiness. Cooper et. al.'s (2001) model is even more in line with our results because they examine two consumption goods – one which provides utility because of the absolute level of its consumption, and the other which yields utility only due to relative consumption. A new growth theory model is used to examine the growth process, and endogenous technological change implies that the relative consumption sector expands due to its faster growth which induces more product innovation in it. As the relative-consumption sector becomes relatively larger, consumption growth has a lower and lower effect on utility.

4.3 Alternative formulations

The formalization which we will call the relative consumption formulation, is different from some alternative formulations used in the literature and may be briefly compared to them.

One formulation introduces relative consumption considerations into the utility function by making the level of consumption of positional and non-positional goods, and the rank the consumer has in the distribution of consumption of positional goods. This approach is due to Frank (1985) who examines the problem of over-consumption of what he calls positional and non-positional goods using a utility function given by

$$u_i = u(x_i, y_i, R(x_i,)),$$

where x_i is the level of consumption of the positional good, y_i the level of consumption of the non-positional good, and $R(x_i)$ is in the unit interval and showing the percentile ranking of x_i in the population of x_i values. Similar formulations, employing the rank

interpretation of status, are used by Robson (1992) and Hopkins and Kornienko (2004). This formulation differs from the relative consumption formulation because it considers two types of consumption goods while ours incorporate only one, and this one makes utility depend on the percentile rank in the consumption of the positional good while ours takes it to be consumption relative to that of others.

The first difference is minor, since leisure can be though of as a non-positional consumption good, an interpretation Frank himself at times makes in his paper. However, this difference makes it clear that we should think of leisure as an example of goods for which relative consumption is not important, of which other examples could include goods which are not consumed in public and saving. This broadening of interpretation suggests that increases in leisure may not be necessary for immiserizing growth, as suggested in the discussion above.

The second difference is more substantive. For some kinds changes in the distribution of income the two formulations will yield identical results. Moreover, their implication about the non-optimality of decentralized decision-making is identical. In both formulations the individual takes as given the consumption of others, and consumes too much of the (positional) good because she believes that her relative position in terms of rank and in terms of the relative level of consumption increase, failing to see that in equilibrium these gains are neutralized by the behavior of others. However, rank and relative consumption may have very different implications in general. If the consumption of those of a higher rank increase without changing an individual's rank there will be no effect on the utility of the consumer in the rank version, but there will be an effect on the utility in the relative consumption version. Changes in rank can also occur without

changes in relative consumption. Suppose there is no change in average consumption, but there is a rise in the consumption of one person of low rank, and an offsetting decline in the consumption of someone of high rank. Now consider a person of intermediate rank who finds that the person of high rank is still above her rank while the person of lower rank has overtaken her. She will find her rank to be lower and experience a decline in utility in the rank version, but will experience no decline in income in the relative consumption version. If the decline in consumption of the person of higher rank is much larger than that of our individual, and indeed the consumption of many similarly higher-ranked persons is reduced, the average consumption level in the economy will fall, and the relative consumption formulation would imply a rise in utility, while the rank formulation would imply a fall in utility.

The difference between the two formulations raises the question of which one is better. The relative consumption formulation has some advantages over the rank formulation for at least two reasons. First, it is simpler, because it can treat all individuals as being identical, and thereby characterize equilibrium more easily as one in which all individuals consume the same amount. Second, it captures more of the reasons why people consume because others do so, being relevant for information, social norm, network externality reasons, as well some aspects of instrumental mechanisms for higher consumption and status. For instance, people may wish to consume more when others do not because they want to go up in rank, but to adhere to social norms and to keep up with the Joneses (rather than going above them). The rank formalization, however, seems to be relevant mainly for some kinds of instrumental and status reasons, and for some intrinsically positional goods. The advantage of the rank formalization over the relative

consumption one arises because it is more sensitive to changes in the consumption level of people who are close to individuals in rank, which may be more relevant for capturing the fact that people have reference groups, and do not necessarily compare their consumption with those of everyone else. However, changes in media and communications have extended reference groups well beyond those who are close in terms of consumption and income, and the relative consumption formalization may capture this situation better.

A second alternative formulation does not introduce relative consumption considerations into the utility function at all. Although utility depends directly only on the absolute level of consumption, the utility maximizing individual finds that utility depends on relative consumption, because relative consumption affects the consumer's absolute consumption and income. For the simple case in which we can ignore work and leisure, this can be shown with the following equations:

$$u_i = u(c_i)$$

$$c_i = y_i$$

$$y_i = y(c_i / c)$$

This last equation states that individuals can obtain more income if they consume more than others, to show how productive they are. This implies,

$$u_i = u(y(c_i / c),$$

implying the relative consumption hypothesis. Postlewaite (1998) makes a spirited case in favor of this approach against those introducing consumption externalities directly into the utility function. There is clearly a case for using this approach in cases in which relative consumption is actually of instrumental importance for raising income and

consumption. These cases are also more common than is sometimes thought to be the case, as the discussion by Cole et. al. (1992) suggests. However, Postlewaite (1995) goes on to argue against incorporating externalities directly into the utility function. He argues that (neoclassical) economics has done very well by parsimoniously making utility depend only on consumption and income and omitting other things. This parsimony has made it attractive and successful, and made it avoid the slippery slope of making the optimizing approach tautologous by incorporation whatever one wants into the utility function. By avoiding reduced form utility functions it is more capable of understanding how precisely concern with relative issues arises through the interaction of market and non-market spheres, and provide a better understanding of how to deal with social non-optimality due to the presence of such relative concerns, that is, by understanding the institutional environment in which relative concerns arise and changing that environment.

These arguments, however, are questionable for a number of reasons. First, it is not clear that the success of neoclassical economics has to do with its parsimonious assumptions rather than reasons related to network externalities and increasing returns concerning the functioning of academic communities and ideological hegemony. Moreover, to the extent that its success can be traced to its intellectual content, it may have to more with the ability of neoclassical economics to immunize itself against, and react to, criticism by modifying itself in directions that have reduced its parsimony. Second, it is not clear that introducing relative concerns in non-market spheres with suitable stories introduces any more discipline than does the route of modifying the utility function. We are free to make up almost any story we want to make it imply that relative concerns affect absolute consumption without being able to test their relevance directly.

Third, there may be a case for introducing relative concerns directly into the utility function because they may reflect not reduced forms, but because people truly have utility functions of that type. It is hard to argue that people want to consume more to avoid shame because by consuming more they believe that they will obtain higher income than others. There may, in fact, be evolutionary mechanisms at work which make people have relative concerns hardwired into their utility functions, as many have argued, including Frank (1999). Fourth, utility functions can be thought of as part of a simple methodological approach with which to organize thinking, and it may be convenient and parsimonious methodology to tell stories based on the assumption that people have relative concerns This is not to argue that this approach is better than Postlewaite's, but that there is room for both. The attractiveness of introducing relative concerns arises from the fact that one can examine the implications of so doing to model a variety of stories discussed earlier in a simple way. Finally, and directly relevant to the questions this paper deals with, the Postelwaite approach does not explain why utility fails to increase when consumption and income increase, if utility depends only on absolute magnitudes.

A final approach that can be compared to the relative income hypothesis is one that has been used by Easterlin (2001) in his attempt to develop a unified theory to explain the income-happiness relationship. Easterlin makes subjective well-being of a person depend positively on income and negatively on the level of aspiration. Given the level of aspirations, an increase in income leads to an increase in subjective well-being, and this relationship guides consumer decisions. However, when income actually rises, the level of aspirations also rises, and experienced utility may not rise overall, or rise less

than it would have had aspirations not increased. The relative consumption approach is in the spirit of Easterlin's approach, but has some advantages over it. First, Easterlin's aspirations theory may be too general to be a useful theory. We do not know what aspirations depend on and therefore do not know why they increase with income. We do not know whether aspirations change because they follow from human nature or are context specific, and therefore do not tell us what to do about it. Second, and related to the non-specificity problems, it does not tell us why people systematically ignore the effects of increases in consumption and income on their aspirations, and also why aspirations increase with income in a manner which just about offsets gains in income. In all these respects the relative consumption hypothesis is arguably superior because it focuses on particular sets of mechanisms such as status, social norms, and other issues which are both broad and specific. It also sheds light on why people consume more – because of externalities, and why utility does not rise appreciably with consumption. However, Easterlin's approach is more general than the specific relative consumption hypothesis, because it draws attention to possible reasons for which aspirations may change which are unrelated to issues in which an individual's utility or happiness depends on one's consumption relative to that of others. In the next section we turn to some such issues.

5. Alternatives to the relative consumption explanation

A number of other explanations of why consumption increases without significantly increasing happiness over time have been proposed. This section explores a variety of such explanations to examine their relation to the relative consumption hypothesis.

5.1 Needs

A needs-based explanation starts from the observation that the amount of real income required to satisfy a given level of needs has increased. This observation explains why consumption has increased and why these increases have not made people better off. People who are used to meeting a given level of needs have to consume more goods and services to meeting those needs. But since the same level of needs is being satisfied, people are not better off. Segal (1998) argues that, at least in the US, although consumption has increased significantly, the amount of income required to satisfy fundamental economic needs - some of which were not being adequately satisfied in earlier times - has also increased significantly, so that people are not really better off: they are merely consuming more to satisfy the same needs that they earlier satisfied with less goods, or which they did not earlier have enough income to satisfy adequately. Segal examines such needs as safe housing, education, transportation, and food to make this point.

While this explanation seems plausible enough, two comments may be made about it. First, it is not clear that increases in the consumption of a large range of goods only reflects the reduced efficiency of goods in fulfilling needs, or whether they imply higher need fulfillment. For instance, when Segal argues that the need-required income for housing has grown considerably because real house prices (for the median sales price of existing homes) have increased significantly, and because of the decline in personal safety, which has increased the need for safe and more expensive housing, he does not take into account that the quality of (median price) houses may have changed considerably as well, implying that the more expensive houses are satisfying additional

needs. Second, it is not clear from the explanation why the efficiency of goods in satisfying needs has fallen in such a way that consumption improvements satisfy just the same needs. One plausible explanation which is often given is role of relative consumption. We have already discussed how, for instance in the case of footwear, what is required to satisfy the need not to be ashamed depends on what others consume. Sometimes consumption needs may not just reflect psychological processes, but may translate in to the non-availability or inferiority of less expensive substitutes and therefore create the necessity of spending more to meet virtually the same needs. As more people use private cars as means of transportation the support for public transportation may diminish, public transportation services may decline or even diminish, requiring other people to buy cars as well. As more people consume expensive goods cheaper substitutes may not be produced if the market for them is not large enough to make them profitable to cover costs in the presence of fixed costs or increasing returns to scale. As more people use refrigeration, small nearby groceries for daily shopping may vanish, requiring others to shop less frequently at distant supermarkets and buy refrigerators. As more people buy home alarm systems and live in expenses gated communities others may become more vulnerable to crime, requiring them to spend more as well. As people buy bigger cars, it can become less safe to drive in smaller cars, requiring small-car owners to buy bigger and more expensive cars. In all these cases, increases in consumption by others induce people to consume more. Yet, as everyone consumes more, the same needs of safe transportation, food, and safe housing are fulfilled with more consumer goods. Consumption levels of others determines what level of consumption satisfies our needs and hence, our level of satisfaction.

5.2 Adaptation and habit formation

The psychological literature has drawn attention to the roles of habit formation and adaptation. The essential idea is that changes in, rather than levels of, relevant states produces positive affect. Regarding consumption, utility may be said to depend more on positive changes in the level of consumption, rather than on the level of consumption. This implies that people will seek to increase consumption to increase their utility, but once they have done so, and attained a higher level of consumption, their level of utility will be no higher, unless they continue to increase their level of consumption.

Within economics, several contributions have discussed this issue and analyzed its implications. A key contribution is that of Scitovsky (1976), who drew on the psychological literature to argue that people obtain joy from stimulation and novelty (although too much novelty can be painful), but get bored with comfort. Thus, they seek novelty in consuming new things, but after some initial period of satisfaction, they get bored with their comforts. This is similar to the process of habit formation and addiction, in which people get used to certain things and a certain level of comfort which cease to give pleasure, but without which people experience pain. These ideas are also closely related to the adaptation approach which has been imported into economics. There is evidence that people and other animals adapt quickly to changed circumstances. Examples include adapting to temperature changes. People even adapt quickly to losses – for instances quadriplegics report similar mixes of moods and emotions as able-bodied people, and the blind and retarded are better adapted to their limitations than most people believe (Frank, 1999, p. 76). This adaptation also occurs in response to gains. It has

also been argued pleasure center of the brain is activated not by good conditions in some absolute sense, but by *improving* conditions (Frank, 1989).

These ideas are independent of our relative consumption hypothesis in which it is consumption relative to others that matters. This approach has been formalized in terms of a relative consumption hypothesis, but rather than making utility depend on consumption relative to that of others, it makes it depend on consumption relative to that of that person in the past. Alvarez-Quadrado et. al. (2004), for instance, model the two phenomena, which they call habit and keeping up with the Joneses, in a similar way using the relative consumption hypothesis (using a reference stock of consumption), in both cases making utility depend on consumption relative to past consumption levels, but in the habit version the consumer internalizes her past consumption level in maximizing intertemporal utility, but does not do so in the keeping up with the Joneses version because here past consumption is that of others. In the absence of externalities, the habit formation model does not produce any social sub-optimality, but in the keeping up with the Joneses case it does. The standard way to model habit in growth models, in fact, is to use the concept of the reference stock of consumption to measure habit, thereby introducing a stock in addition to capital in growth models. Optimization models imply that growth affects saving, but do not result in sub-optimality. Regarding growth, if the economy grows at a steady rate in steady state, there are no necessary adverse implications for happiness. It is arguable that habit leads to departures from optimization because people do not take into account that fact their consumption will have an effect on their habit stock, and that this may cause both sub-optimality and happiness problems. But these implications are not the same as the relative consumption effect in our sense.

However, there is some relationship between these ideas and our relative consumption hypothesis. First, habit formation may partly reflect internal adaptation, but is also likely to have a social aspect, that is, people may get used to things not just because they consume it, but also because others do, and this may become embodied in social norms as in de la Croix's (1997) model. Second, as Scitovsky (1976) notes, not all consumer goods lead to boredom. Some goods, as Frank (1999) also argues, lead to gains that last. If people seek novelty in goods that they see others consuming, and not goods that they can spend many hours and years enjoying, they are more likely to get bored with them. In fact, Scitovsky argues in favor of a liberal arts education which will allow people to appreciate fine things like good music and good books – rather than consume to emulate mass culture – which they do not consume because they are too unfamiliar to them. Thus, consuming goods because others consume them is likely to lead people to get more adapted to them, preventing them from buying goods which provide lasting gains.

5.3 Consumption and time

Time is often thought of as the only truly scarce resource; time is limited. This insight leads to several different explanations of why, when people consume more, they do not increase their happiness, and even to some explanations of why people consume more.

It is argued that to obtain happiness from consumption one needs to spend time on consumption, because consumption takes time. The problem of the harried consumer who has little time to obtain satisfaction from consumption, which takes time, has been very insightfully discussed by Linder (1970). Moreover, and independently of whether consumption directly takes up time, in order to consume, people have to spend more time

working then they will have less time for consumption, for other kinds of leisure (what is sometimes called pure leisure), and for household chores. Reduction in time for consumption can imply less happiness from consumption, and less time spent on pure leisure can reduce happiness in other ways. For instance, it can reduce time spent with friends and family (see Lane, 2000), in doing physical activities, doing other things that require no (additional) consumption expenditures which may nevertheless provide satisfaction, such as reading borrowed books or playing or listening to music, indulging in hobbies which provide "flow", and in sleeping.

The fact that consumption takes time at first sight seems to provide a plausible explanation of why consuming more and having more income does not necessarily make us happier. However, although in many cases consumption does take time, there are many kinds of consumption that take very little, or no, time at all. Though we take time to read books and enjoy a film, we take very little time to "consume" a house, clothing, or a garden. Indeed, consumption for status reasons is mainly to show things, and not to take time in enjoying them. Moreover, many kinds of consumer goods actually reduce the amount of times spent at home on chores (for instance, washing and drying machines and vacuum cleaners) and the time taken for other consumption activities (for instance, faster travel, faster communication through e-mail), and this should increase time for more pleasurable leisure activities. However, there is little evidence that this kind of consumption has actually reduced time, because people insist on higher standards of cleanliness and because they travel and communicate more; Binswanger (2006) refers to this as the time-saving treadmill. Finally, if people do need time to consume, why do they not take the time constraint into account in deciding how much to buy and consume?

It is possible that people do not sometimes realize that they have a time constraint when they buy things (just as they do not do so in making other plans, especially for the future) but why do they systematically do so all of the time? Linder (1970) provides some interesting reasons for this bias (such as the fact that people underestimate the time required to repair and maintain some major consumption goods) which seem plausible enough, but are unlikely to appeal to those economists who are overly wedded to the idea of the optimizing agent.

A plausible explanation for the emergence of time constraints is that the consumers value their relative consumption in addition to their absolute level of consumption which, as discussed in the analysis of the last section leads to working too much and having too little leisure. Some support to this idea is given by the labor supply decisions of women whose decision to work seems to be positively related to the income of their husbands relative to their sister's husbands, suggesting that relative consumption considerations affect the labor-leisure choice (see Neumark and Postlewaite, 1998). This also makes them switch increasingly to consumption goods which do not take much time to consume (a substitution effect brought about by the shortage of time). Moreover, having less time to spend on obtaining information about goods, consumers may rely more on observing what others are consuming in judging their desirability. All this increases the importance of relative consumption.

There is some debate about whether there has in fact been an increase in time spent at work and a decline in leisure. Schor (1991) argues that this is indeed the case in recent times in the US, but her findings have been challenged by others. However, it should be noted that it is not just the amount of leisure and work, but their quality, which

can affect happiness. Thus, greater attention to relative consumption can make people do the kind of work which is less intrinsically satisfying but pays more, and this can lead to more stress which leads to spending time on less satisfying and more passive ways of spending leisure time, such as watching television. There may also be controversy about whether the increase in time spent at work (for say the US in comparison to many European countries) is due to relative consumption reasons, or because of other factors such as institutional reasons which make firms want to employ fewer workers for longer hours (in order to economize on expenses on worker benefits), the weakness of unions in the bargaining process, and lower income tax rates. Even if these reasons are valid, it is interesting to examine their relationship to the relative consumption hypothesis. The importance given to relative consumption may want people not to change laws which reduce the length of the working year, which weaken unions to keep wages and hence prices low to get cheap consumption goods, and to resist increases in taxes because they value private rather than public consumption for which relative consumption effects are likely to be stronger.

5.4 Corporations, the media and sales promotion

Increases in consumption have often been explained in terms of the sales-promotion activities of firms and the media. Galbraith (1958) argues that wants increase as production increases, in large part because as production increases firms try to sell more, produce new goods, and spend more on sales promotion. Thus firms are not necessarily responding to "wants", but actually creating them through their own efforts. Galbraith looks at this process with the analogy of the squirrel wheel which seems to be an appropriate model for the "good society". This approach can be used to show both why

consumption increases – because of the sales activities of firms and the media, and why it need not increase happiness over time – because sales activities, to be successful over time, need to create disappointments, so that consumers will wish to buy more or different things and because they make people buy things they later regret having bought. Moreover, an important way in which firms increase sales is by introducing new products. Although more consume choices in mainstream consumer theory is supposed to increase utility, the introduction of new products, by increasing the range of choices, can actually reduce happiness by creating an overwhelming array of possibilities, a phenomenon that Schwartz (2004) has dubbed the paradox of choice. Binswanger (2006) summarizes research which shows that the addition of more choices, at least beyond a point, has been found to make people less well off, and argues that this may be due to constraints imposed in making choices in the presence of more alternatives (due to information costs, decision-making abilities, and time constraints of consumers) and greater post-decisional regret and post-choice discomfort.

Galbraith's analysis has been criticized on a number of grounds. First, he is accused of imposing his own elitist tastes on others. Second, he has been criticized for exaggerating the effects of sales promotion can have on consumption. It has been argued, for instance, that advertising merely shifts consumer purchases from the product of one firm to that of another without increasing the total sales of a good and does not increase overall consumption (Schmalensee, 1972).Third, his view seems to suggest that consumers are mere pawns in the hands of corporations and the media, and that advertising is capable of making people buy things they do not want. If it were so easy,

why is there so much marketing research and why are so many advertising campaigns unsuccessful?

These criticisms, however, do not necessarily invalidate Galbraith's argument. First, although Galbraith may well have had elitist tastes, the force of this criticism is reduced vastly since people actually report to being not significantly happier when they consume more according to their own reckoning. Second, although it is difficult to find clear-cut evidence that advertising expenditures increase consumption as a whole (see Lee et. al., 1987), such advertising is notnthe only forms of sales-promotion activity. Sales promotion activity includes the development of new products (as formalized in Cooper.et. al., 2001, discussed earlier). In initial stages of marketing these products, advertising has been found to have a major role (see Lee et. al., 1987, p. 366). Moreover, the sales-promoting effects of television programs and film, many of them funded by major corporations who also sell goods and services, are not included in standard advertising outlays, and may have large effects in increasing consumption. The fact that most consumers are not passive pawns means that advertising campaigns can sometimes fail, and much effort needs to be expended in persuasion.

In principle, the activities of firms can have an effect on consumer behavior by increasing their aspirations in a manner completely unrelated to the relative consumption hypothesis. However, sales promotion activities of firms and the relative consumption hypothesis – keeping up with the Joneses, for instance – are related. Galbraith (1958), in fact, argued that people's consumption increases both because of the sales promotion by firms and because of the status motive. There are a number of ways the two may be related. First, advertisments, television shows and films extend the reference groups of

consumers, making them want to consume what other people, including celebrities, with whom they would not otherwise come into contact, do. Second, advertisers often work on consumers in complicated ways which exploit their propensity to emulate and seek status, by suggesting – in subtle and sometimes not-so-subtle ways – why this or that product will increase their status or make them more like people who are rich and beautiful. Thus, firms and the media may have an important role in ensuring that the relative consumption effect remains a strong one despite increases in the level of consumption.

5.5 Consumer Finance, Debt and Bankruptcy

Consumer borrowing and debt can explain both increases in consumption and why consumers do not become happier by consuming more. Increases in consumption are explained by the fact that consumers have easier access to credit. As they obtain more credit and consume more, however, their debt level increases, and this can reduce their happiness. Increasing consumer borrowing and indebtedness have been discussed by a number of writers – including Schor (1998) and Frank (1999) – in explaining increases in consumption, and in discussing problems that result from it.

A number of trends lend some force to this explanation. First, there has occurred a reduction in the borrowing constraints facing many consumers in the US and some other countries, even low-income ones. Second, there has been an increase in consumer debt in the US, the UK and several other (though no means all) countries as measured, for instance, by the consumer debt-income ratio. Third, there has been an increase in rate of consumer bankruptcy in the US, which increases distress. Fourth, there is evidence that increases in consumer debt reduce the happiness of borrowers. Brown, Taylor and Price

(2005) use data from the British Household Panel Surveys from 1995 and 2000 on GHQ12 (General Health Questionnaire with 12 questions relating to different aspects of well-being) scores and self-reported debt data to find that levels of outstanding debt other than home mortgage debt have a significantly negative effect on happiness measured by the GHQ12, controlling for other variables such as family income, age and other personal characteristics, savings and expected changes in financial conditions.

However, this explanation is also open to some criticisms. First, increases in consumption require both the desire to consume more as well as the means to do so. Even if the means are increased by easier financing, it leaves open the question as to what explains the desire to consume in the first place. If the desire to consume for other reasons – for instance, because others consume – is already present, if consumers face credit constraints which are reduced, their consumption will increase. Second, it is not clear why utility-maximizing individuals do not take into account the adverse effects of consumption, borrowing and greater indebtedness, unless they consume more and hence incur more debt than they would be they did so optimally, and this can be explained by the relative consumption hypothesis. Third, it is sometimes argued that high levels of indebtedness and consequent bankruptcy are primarily due to unexpected events like medical expenses due to health problems, unemployment and divorce (Sullivan, et. al. 2000), especially health and injury problems (Himmelstein et. al., 2005). The problem of indebtedness and bankruptcy, according to this view, can be traced to low levels, and the rolling-back of, public safety nets. Against this view, Fay et. al. (2002) argue that consumer bankruptcy decisions are strategic in the sense that borrowers declare bankruptcy when they gain financially by doing so. Both sides of this argument,

however, involve methodological flaws. Fay et. al. (2002) do not take into account the fact that borrowers may well declare bankruptcy when they gain financially from doing so given their level of debt, but that the debt can be explained by unexpected expenses due to, for instance, illness and injury. However, the fact that many who declare bankruptcy give medical or other expenses as their main reason for so doing begs the question of why they do not maintain a prudential level of saving to deal with such contingencies which could enable at least some of them to avoid bankruptcy. Pressures to increase consumption and therefore having a low level of precautionary saving may well provide an explanation (although unexpected changes in government and other safety nets could also provide an explanation). Fourth, Although the numbers in high levels of debt and running into financial problems is increasing, people with such problems is not large enough to explain the non-increasing levels of happiness.

6. Some broader considerations

We have argued that simple relative consumption hypothesis, broadened with considerations suggested by the alternative approaches just discussed, has many important implications. It explains why high levels of consumption are socially inefficient. It explains why rising consumption and income beyond a point may not increase self-reported happiness. It suggests that the excessive focus on efficiency and the idea is more is better in mainstream economics may be misguided. It points out that popular perceptions about consumption are off the mark. These implications are well known in the literature and reviewed in this paper. But what can the broader view taken in this paper say in addition? We conclude with a brief discussion of some examples.

6.1 Beyond relative consumption effects

The relative consumption effect has led to many kinds of policy proposals do deal with the problem. One particularly attractive one, advocated by Frank (1999), is the replacement of the income tax by an appropriately progressive generalized consumption tax. The imposition of the consumption tax implies that people will have less incentive to consume and more to save. Moreover, as the tax induces people consume less, the need to consume more is reduced further to the extent that people's consumption depends on what others consume. Frank also argues that the overall consumption tax is a good way to reduce consumption because it gives people the choice of reducing consumption of what they consider less important, rather than leaving it to the government.

While there is much in this proposal to recommend, some potential problems with it can be noticed if we take a broad view of the relative consumption hypothesis. The fact that large-ticket status goods will become more expensive because of the consumption tax may make them more, rather than less attractive, and possibly increase their consumption among the rich. For the relatively poor the problem is likely to come from a different source. Whereas Frank assumes that the consumption tax will make reduce consumption primarily of less important status goods, it may well be the case that consumers may think of status goods as more important in maintaining their self-respect, and that they may cut down on the money spent on other typical non-observable goods, such as health care, safe housing and good food. The problem then is that rather than curb conspicuous consumption the tax may reduce the consumption of goods which provide a healthy life and safe living conditions. The phenomena of adaptation can also explain why, despite what one would call a lower standard of living and health, people would

adapt to their changed circumstances and not feel unhappy enough to change their behavior. Nevertheless, they are likely to face adverse long-term consequences.

6.2 Consumption and other things we value

The consumption-happiness relationship and the general literature on subjective well-being and its determinants has implications for some broader implications of consumption on things that are valuable in themselves, such as employment, the environment, and equality, but which also affect people's self-reported happiness. We briefly discuss only two examples

6.21 Unemployment

If increases in consumption do not increase happiness, at least beyond some level of consumption, and are in fact socially inefficient, why not try to reduce aggregate consumption through consumption taxes or by some other means? It may be argued against this proposal that a reduction in consumption reduces aggregate demand, hence output and employment along standard Keynesian lines, ushering in a recession. An increase in unemployment, given the level of income, is well known to have a significant effect on happiness, an effect which is much stronger than that of income (see Clark and Oswald, 1994, Frey and Stutzer, 2002). di Tella et. al. (2003) also shows that recessions imply psychic costs in addition to what is employed by the reductions in production and the number unemployed.

Economists like Frank (1999) and Schor (1998) have not given sufficient attention to this problem. Frank has argued that the reduction in consumption would simply be compensated by a rise in investment which any discussion of how this will come about, apparently relying on some version of the neoclassical synthesis argument

that the economy will return to full employment in the medium to long run. In the presence of redistributive effects of deflation, and uncertain, for instance, it is unclear how wage and price flexibility will automatically restore unemployment. Schor is a little more attentive to the problem, recommending slow reductions in consumption, and also suggesting that the reduced supply of labor accompanying the reduction in consumption will go some way towards solving this problem. The first point raises the issue of what slow adjustments need to be made to offset the problem. Regarding the second point, it cannot be ensured that people will not still seek high incomes and save more rather than consume, thereby not reducing their work hours significantly.

Clearly, these issues need to be analyzed in more depth. Here we confine ourselves to two comments. One, consumption led increases in income and employment may not be sustainable if it is dependent on consumer debt. Debt-led consumption growth can be choked off by redistributions of income from debtors to creditors who have a lower propensity to consume, and by financial problems which raise the interest rate and reduce asset values (see Dutt, 2006). Two, a reduction in private consumption will have to be accompanied by other demand-creating policies, for instance, redistribution to the poor and increases in government expenditure, especially on infrastructure and social services, if macroeconomic contract is to be avoided. Both may become more politically feasible if the incentives for high level of consumption are reduced.

6.22 Inequality

We now examine the implication of increases in inequality for happiness in the presence of the relative consumption and status effects. We do not explore what increased

inequality in the first place, although it is possible that this is due to concern with relative consumption which weakens support for policies which help the poor and improve the income distribution.

Frank (2000) argues that the increase in inequality that has occurred in the US has had an adverse effect on the well-being of the middle-class because they are relatively poorer than the rich. He notes, further, that in an effort to increase their consumption, people in the middle class will get into debt, making them financially insecure, and also make them vote against the funding of public service so as to keep taxes low, thereby exacerbating their own position through the deterioration of education, health, transportation and the environment.

Even without introducing these complications caused by debt and public services, we can use some simple assumptions to show how greater inequality reduces overall happiness in a two-class economy with the rich and the poor, denoted by R and P (where we can interpret the poor as Frank's middle class, leaving the truly poor outside the analysis). If we assume that everyone's utility depends on relative consumption and income, and for the rich it depends on their consumption relative to that of other rich people (since they keep up with their peers, not down with the poor), while for the poor it depends on their consumption relative to that of other poor and the rich (a weighted average), increasing inequality can reduce overall happiness. We have

$$u_{iR} = u_R\,(c_{iR} / c_R\,)$$

$$u_{iP} = u_P\,(c_{iP} /(\theta c_P + (1\text{-}\theta)c_R\,))$$

Assume now that all individuals consume their entire income, so that $c_{ij} = y_{ij}$. Assuming that all the rich have identical income, as do the poor, so that $Y_{ij} = Y_j$. We can measure

income inequality is measured by $\sigma = Y_R / Y_P$, the utility of the rich and poor are given by $u_{iR} = u_R$ (1) and $u_{iP} = u_P$ (1/(θ + (1-θ)σ)). As inequality increases, the rich are no better off, but the poor are worse off. They are also more worse off the higher is σ, the weight they attach to the consumption and income of the rich in their relative consumption estimation, which are increased by the media and advertising through the broadening of peer groups.[3]

However, Hopkins and Kornienko (2004) use a rank based formulation to show that increases in equality which leads to a larger density of people in the middle-income range will lead to greater conspicuous consumption since there are more people one can potentially overtake, and under some circumstances is worse for the people because there are fewer people at the poor end and the poor have less people around them with whom they can make a favorable comparison.

Which set of results in more likely? The answer depends on which kind of formalization captures these consumption externalities better, the relative consumption approach with class distinctions, or the rank approach. We have already commented on the differences between the relative consumption and rank approaches earlier. Here we should add that there are two additional assumptions made for the relative consumption approach as compared to the rank approach. First, the poor and the rich are homogenous, which is a simplification of the assumption that the differences within each class are much smaller than differences between them. The groups are polarized with biomodal distributions. Thus the poor are hurt when their gap with the rich increases, even if they do not lose in terms of rank. Second, the poor are concerned with the consumption and income of the rich, while the rich are concerned with that of the poor (see also Knell,

1999). Given these assumptions it is more likely that a rise in inequality will reduce happiness. If, however, rank is more important, more inequality may increase happiness.

6.3 Ethical and religious implications

High and increasing levels of consumption have often been criticized from moral and religious perspectives because they allegedly divert people from the pursuit or path of true happiness, and because they have other bad moral consequences. The pursuit of happiness through consumption and material possession blinds people to seeking true happiness by reflecting on the true meaning of life, by achieving self-realization, or by seeking unity with god. The pursuit of happiness through consumption is also regarded as being morally unjustified because it leads to high levels of consumption by some, who forget about the plight of those who are less fortunate, and because they are destructive of the world's environment which is the gift of god to us. These pronouncements, while coming from all of the world's great religions, may be considered to be irrelevant by those who do not believe in them.

The issues discussed in this paper, however, have implications for these ethical and religious ideas for at least three reasons. First, to the extent that beyond a certain level of consumption people do not significantly increase their level of happiness as judged by themselves, implies that the pursuit of consumption is overrated even by strictly selfish standards. Second, the literature on the determinants of happiness leads us to an analysis of why the effects of our pursuit of happiness through consumption may have adverse impacts on other things we may consider to be important, an issue discussed in the previous subsection. Here we comment briefly on a third implication, that ethical

and religious perspectives can have a role to play in achieving greater happiness as judged by people themselves.

The discussion of this paper suggests that increases in the level of consumption do nor lead to significant increases in happiness, and in fact lead to the loss of happiness by a number of indicators for a variety of reasons, of which a very important one is that we consume more because others do. We have argued that a major reason why we do so is related to the fact that we try to consume more than others to gain status, and because we are ashamed to fall behind other people. These kinds of feelings arise because we compete with others in the sphere of consumption and income. In modern times competitiveness is found in a variety of spheres, but because comparisons are most easily made in the metric of money, income and consumption has, in many societies, become the main sphere of competition. People try to keep up with others, or consume more than them, because they are in competition with each other to see who can consume more.

Even if competitiveness is a given characteristic of human beings, we can choose, to compete in things other than consumption by narrowing the sphere of competition to become the best writer, the best poet, the best writer of couplets. There are societal forces that work against such narrowing. How to compare a writer of science fiction to a writer of crime fiction, and how exactly to decide who is a better crime writer? It is tempting to fall back to the measuring rod of money, and hence consumption. An antidote to these broadening forces could be narrowing forces, those which remind us that the most satisfying form of competition is to compete with oneself – to be the best person one can be. Most of the world's religions have in one way or another recommended this type of quest (see Dutt, 2001). A narrowing in the sphere of competition, aided by such

religious and ethical crutches, can arguably make consumption less dependent on the consumption of others. Consumption can be reduced and also be allocated to goods and services which yield more lasting happiness.

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NOTES

[1] I do not distinguish here between consumption and income, given the close link between the two in theory and in empirical data. Of course the two concepts are not equal, perhaps because consumption is more stable than income due to the smoothing of consumption.

[2] Note that individual utility does not depend on relative leisure, but only on their absolute amount of leisure. Veblen (1899) discuss the importance of conspicuous leisure as well conspicuous consumption, which may suggest that relative leisure may also affect the individual's utility. However, Veblen also argued that at advanced stages of the economy the importance of conspicuous leisure would pale in comparison to that of consumption.

[3] This formulation has ignored absolute consumption effects. Their introduction would modify our analysis somewhat, but with the assumption of diminishing marginal utility, greater inequality, by increasing the consumption of the rich would have small positive effects compared to the loss suffered by the poor.