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If money doesn't make us happy, why do we act as if it does?

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Abstract

Research on income and subjective well-being shows that among the non-poor, increased income has little or no lasting impact on happiness. Yet the desire for more income remains a powerful motive among many people at all income levels. Is this simply because many people are misinformed and believe that higher incomes will make them happier, or are they motivated by something other than the pursuit of happiness? This paper argues for the latter. The paper begins by exploring this question, reviewing the literature on income and subjective well-being, and discussing of the role of utility in decision making. This paper then argues that three main factors lead us to value increased income even if it does not make us happier. First, happiness is just one value among many, and not the only conscious goal people set for themselves. Second, even when people are striving to maximize happiness, our tendency to overweight short-term payoffs leads us to overvalue the short-term rewards that income provides. Finally, I argue that our values-based decision making competes with other motivational systems and evolutionary drives. Three evolutionary desires are discussed: (1) to store resources, (2) to be sexually attractive, and (3) to manage our social relationships and our personal identity within those relationships. While all three motivations play a role in our desire for increased income, this paper argues that it is the third – the use of money and consumption as a social tool – that has the most important overall influence on our desire for increased income past the point where it ceases to increase personal happiness.

Keywords: Happiness; Income; Life satisfaction; Motivation; Evolutionary theory

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1. Introduction

From ancient religious texts and philosophers, to the contemporary voluntary simplicity movement, there have always been voices criticizing what they see as excessive consumption (De Young, 1991, 1996; Dove & Bailey, 2003; Craig-Lees & Hill, 2002; Huneke, 2005; Shaw & Newholm, 2002; Zavestoski, 2002). In the past, advocates of reducing our focus on consumption have largely been motivated by the idea that there is something psychologically or spiritually unhealthy about high levels of materialism (Belk, 1985; Kasser, 2002; Richins & Dawson, 1992; for more contingent views see Nickerson, Schwarz, Diener, & Kahneman, 2003; Srivastava, Locke, & Bartol, 2001; Vohs, Mead, & Goode, 2006). Now, environmentalists have joined in the debate, arguing that only reduction of our overall levels of consumption can ultimately solve global warming and other ecological concerns (Princen, Maniates, & Conca, 2002). As these ecological issues become ever more pressing, the questions of whether we should try to limit our overall consumption level, and if so how this might be achieved, gain increased urgency.

History suggests that advocates for reduced consumption have an uphill battle ahead of them. Subcultures, such as religious monasteries, have at times enjoyed success in making low-consumption lifestyles normative within their own groups. But in mainstream cultures affluent enough to make higher levels of consumption a plausible choice, anti-consumerist lifestyles have remained in the minority.

However, those who advocate for low-consumption lifestyles have recently received a boost from scientific studies (reviewed below) showing that higher levels of consumption are at most, very weakly related to higher levels of subjective well-being. In the academic literature, the term *subjective well-being* refers to how positively or negatively a person experiences their own life, and it includes such things as positive emotional states, cognitive appraisals of one's life satisfaction, and a person's subjective sense that they are leading a meaningful life. Following the lead of publications like the *Journal of Happiness Studies*, in this paper I will use the terms subjective well-being and happiness interchangeably.

Data showing a very weak link between income and subjective well-being (reviewed in Ahuvia, 2007; Ahuvia & Friedman, 1998) present a puzzle. If the philosophers and religious leaders who have for millennia argued that happiness is not to be found in consumption were right all along, why have the lifestyles they advocate remained subcultural minorities? Is it simply that people did not find their arguments persuasive? Or, is there more going on at a psychological level?

At its core, this paper addresses the question: *if money doesn't buy happiness, why do people act as though it does?* This paper is organized as follows. First, it reviews Aristotelian and common economic views on the role of subjective well-being as a human motivation; both suggest that at some deeper level, all human action aims to increase one's happiness. Second, research evidence is reviewed showing that, in fact, there is at best a very weak relationship between consumption and happiness. Third, the paper addresses the question, are people pursuing income because they are simply mistaken about its potential to provide happiness? Or, do people pursue money in part because of motivations outside of a desire for increased happiness? Fourth, the paper looks in more detail at possible motivations, other than the desire for increased happiness, which might explain people's desire for high levels of consumption. Finally, the paper concludes by discussing the implications for anti-consumption advocates of these alternative explanations for why people pursue income.

2. Subjective well-being as the fundamental human motivation: Aristotelian and economic views

Aristotle has been cited as the first written source of the idea that all human action is implicitly motivated by a desire to increase one's subjective well-being (Csikszentmihalyi, 1990, 1999). For example, Lyubomirsky (2001) writes that "the dawn of the new millennium finds increased research evidence supporting Aristotle's (trans. 1974) two millennia-old argument that happiness is the whole aim and end of human existence." Hence, Aristotle is relevant here because his ideas live on in current psychological theory. Many psychologists, especially those working in the field of positive psychology, assume that all human actions strive to increase subjective well-being, and that actions can be evaluated as more or less successful to the extent they achieve this goal (for a review, see Kahneman, Diener, & Schwarz, 1999).

Like many contemporary psychologists (Reynolds & Gutman, 1988; Zaltman & Coulter, 1995), Aristotle saw motivation as a series of means-ends chains. Aristotle begins his *Nichomachean Ethics* (trans. 1962) with the observation that people pursue a huge variety of activities, from saddle-making to politics, and each activity has its own end or objective. He notes that each of these objectives, such as the production of a good saddle, has in turn another end, in this case comfortable and effective horsemanship. Horsemanship in turn has its own objective, such as victory in battle. This means-ends chain could go on forever if there were not some final objective or end, which Aristotle called "the good." What is this final good? "What is always chosen as an end in itself and never as a means to something else is called final in an unqualified sense. This description seems to apply to happiness (eudemonia) above all else: for we always choose happiness as an end in itself and never for the sake of something else" (p. 15). The left side of Fig. 1 shows a simplified

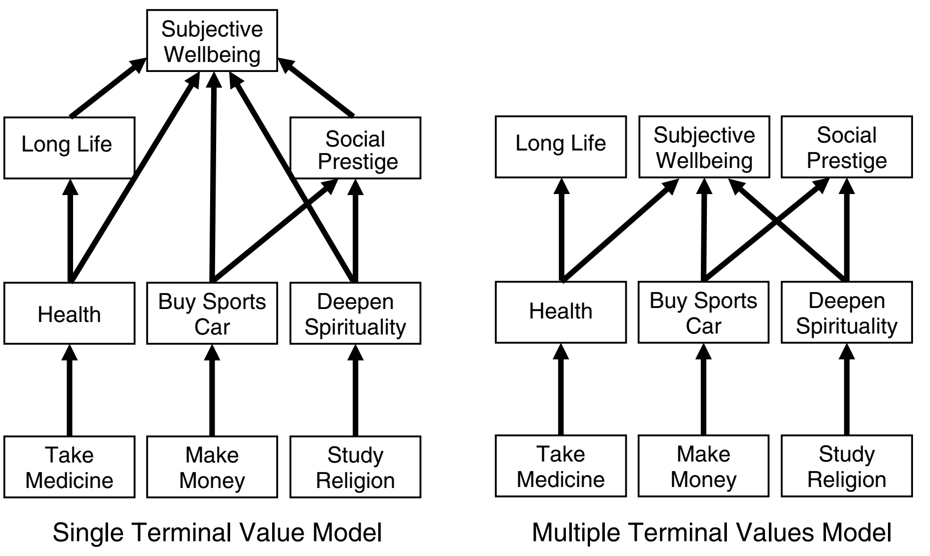

Fig. 1. The single terminal value model and the multiple terminal values model.

hypothetical illustration of how various goals may all lead up to the ultimate goal of subjective well-being.

Aristotle's argument has two parts. First he argues that there must be a single terminal value above all other values; then he argues that subjective well-being is that value. We will call this the *single terminal value* model, illustrated on the left side of Fig. 1. In principle, one could argue that a value other than subjective well-being belongs in the privileged place at the top of the values hierarchy, and to a certain extent current economics does this when it argues for utility as the single terminal value. However, the relationship between utility and subjective well-being is complex and inconsistently applied, as we will see just below. With the exception of subjective well-being, all the other constructs in Fig. 1 are arbitrary examples included only for illustrative purposes.

Historically, economic concepts of utility emerged from Aristotelian notions of happiness (Bruni, 2004). Modern economics began with Bentham (1789/1948) concept of utility, which developed out of Aristotelian eudemonia (i.e. subjective well-being). But Bentham differed from Aristotle in at least two key ways. First, Aristotle believed that while all actions aimed at producing subjective well-being, only ethical actions were successful in achieving this goal. In contrast, Bentham believed that people could achieve personal utility from both ethical and unethical actions. Second, Bentham's utility was more 'down to earth' than Aristotle's eudemonia, in that it focused more directly on physical and psychological pleasures. Nonetheless, both Aristotle's eudemonia and Bentham's utility where specific formulations of the more general construct of subjective well-being, in that both referred to specific psychological experiences that were seen as the essence of a good life.

The huge revolution in economic theory came with Robbins (1935), and later Samuelson (1938), who radically redefined utility. In this new definition, utility is not a psychological experience that occurs during or after consumption. Instead, it is a placeholder term for whatever people maximize when choosing between alternatives. For this reason, it has recently come to be called "decision utility," and contrasted with old notions of "experience utility" which referred to a positive psychological state (Frey & Stutzer, 2002; Kahneman & Sugden, 2005). Because choices reveal preferences, which in turn can reveal a person's utility function, revealed preferences *define* decision utility. Therefore, any freely made choice made with complete information, maximizes decision utility.

Decision utility is a useful construct in many descriptive forms of economic research and theory. But it puts economists in a dilemma when addressing normative issues. Anyone who has freely made a choice based on accurate information has, by definition, maximized their utility regardless of how miserable this person may be as a result of that choice. For example, strictly speaking, the gambler who understands that the odds are against him but gambles anyway, loses his home, job and family, and ends up living on the sidewalk in a cardboard box – has maximized his utility! This is possible because *decision utility is not a psychological state*, it is simply a hypothetical construct that economists use to model decision making.

The problem for normative economics is that if we take this definition of decision utility seriously and say there is no necessary connection between utility and subjective well-being, it is difficult to argue that policies that "maximize utility" are a good thing. What if the decision utility that people were maximizing turned out to make them physically sick and emotionally miserable; would we still want to maximize it? Because of this profound limitation of decision utility, some economists and many policy analysts use the word "utility" to mean a form of experience utility akin to subjective well-being (Frey & Stutzer, 2002; Kahneman & Sugden, 2005), even though they generally do not qualify these statements by noting that they have left behind the economic assumptions which underlie notions like revealed preferences. For example, in an attempt to rebut Layard's (2003) claim that increases in income over $20,000 per year do not significantly increase one's happiness, Kling (2003) equates utility with happiness:

> To an economist, it is literally axiomatic that if people pursue higher incomes, then higher incomes make them happier.
>
> From the standpoint of revealed preference, the statement that income over $20,000 does not raise happiness simply falls apart. Observing the fact that even people with very high incomes choose to work, an economist would infer that for most people the point at which income brings sharply diminishing returns to happiness must be much higher than $20,000. If $20,000 were the point of diminishing returns, then people who earn more than that would reduce their work effort and consume more leisure.

Kling's statements show how difficult it is for economists to stick to a strict notion of decision utility. Subjective well-being is just too important to be left unaddressed. So in practice, the term "utility" leads something of a double life, at times referring narrowly to decision utility, and at times referring to some type of psychologically experienced utility that we will put under the general heading of subjective well-being.

Kling's loose use of the term utility notwithstanding, his argument is not without intuitive appeal. Like Aristotle, many people believe that subjective well-being is the final goal underlying all human action. Rational choice theory suggests that revealed preferences imply motivation. So, this logic goes, if people strive for money, it must be because at some conscious or unconscious level they think it will increase their happiness. Over time, people should get pretty good at figuring out what does, or does not, make them happy. Almost everyone does strive for money – *how could so many people be wrong in their beliefs?* For an answer to that vexing question, we should start with the data.

3. Money, past a minimal point, doesn't buy much happiness

Twenty years of studies consistently show that once basic needs are met, increases in income produce short-term pleasure, but have almost no lasting impact on happiness (for reviews see Ahuvia, 2007; Ahuvia & Friedman, 1998; Diener & Biswas-Diener, 2002; Layard, 2005). Most research on income and subjective well-being uses self-report measures to assess variables such as people's emotional states, life satisfaction, psychological adjustment, and/or sense of meaning in life, and then correlates these with their level of income. Typically, income explains only about 2–5% of the variance in subjective well-being when studies are conducted in developed countries (Ahuvia, 2007). A sophisticated multilevel analysis by Schyns (2000) found that individual income explained only 2.5% of the difference in subjective well-being between people. This R^2 has been raised somewhat in studies using improving measures of economic status that account for wealth, cost of living, family size and other variables (Heady, Muffels, & Wooden, 2004; Hsieh, 2004; Saris, 2001), but still stayed relatively low at around 5% in developed economies, leaving 95% of the variance in subjective well-being to be explained by other variables. This basic result is backed up by research which finds that upper income people do not spend more of their day in enjoyable activities as compared to lower income people, but that upper income people do experience more stress (Kahneman, Krueger, Schkade, Schwarz, & Stone, 2006).

For all but the truly destitute, the chance of increased income improving one's subjective well-being may be even lower than is suggested by studies using linear correlations. Studies have found evidence of a rather abrupt inflection point at around the income level where basic needs are met, and after that point the influence of income on happiness drops off sharply (Ahuvia & Friedman, 1998; Argyle, 1999; Cummins, 2000; Fuentes & Rojas, 2001; Lever, 2004). Part of this large difference in subjective well-being between the very poor and everyone else is due to the everyday difficulties of living in destitute conditions, and part may be due to the ability of money to act as a buffer that mitigates the impact of unexpected negative events (Johnson & Krueger, 2006) – a buffer that the poor do not have. The correlations between income and happiness mentioned above are based mostly on linear statistical models, which average together the strong effects of increased income on the poor with the much weaker effects of increased income on the non-poor. Thus, most of the variance explained in these correlations comes from alleviating the unhappiness of the very poor, rather than improving the living standard of the non-poor (Argyle, 1999; Burchardt, 2005; Firebaugh & Tach, 2005; Hsieh, 2004; Schyns, 2003).

Finally, even though the correlation between income and subjective well-being is quite low, a good deal of this correlation may be spurious. Unemployment reduces income, but leads to decreases in subjective well-being far beyond what can be explained by the drop in income alone (Clark, Georgellis, & Sanfey, 1999; Oswald, 1997). Heavy consumer debt is more common at lower income levels (Lea, Webley, & Walker, 1995), and is found to reduce subjective well-being independent of income (Ahuvia & Friedman, 1998).

Perhaps more surprisingly, rather than wealth causing subjective well-being, the causation could go in the other direction. Aspects of a happy personality, such as optimism, have been shown to lead to higher incomes (Argyle, 1996; Diener & Lucas, 1999; Myers & Diener, 1995). The influence of these personality variables can be so powerful, as noted in Cummins', 2000 review, that when income is included in models, along with psychological variables such as optimism, control, and self-esteem, income does not show unique significance.

Here we reach the crux of the issue. For the non-poor, science has shown that trying to improve one's subjective well-being by increasing one's income seems to be a fool's errand[1]. What kind of an impact is this fact likely to have on consumer behavior? If all human actions are ultimately motivated by a desire for subjective well-being, and increased incomes can be demonstrated not to increase subjective well-being in the long run, will this finally be the time that a low-consumption lifestyle moves from the social periphery to become the social norm?

The answer depends, in large part, on what really lies behind the common human drive for increased consumption. It is reasonable to assume that most people have not yet heard about and/or believed studies showing the weak link between income and happiness, and overestimate the long-term psychological impact that an increase in income will have on them (Kahneman et al., 2006). So perhaps our high level of consumption simply reflects a lack of accurate information. I suspect, however, that this is a very partial explanation

[1] Although the focus of this paper is on individual lifestyle choices, it should be noted that these and similar findings are also used to argue against a focus on economic growth in already industrialized nations at the national policy level (Easterlin, 2001).

for the continued appeal of increased income among the non-poor. Consider a common situation where misinformation really is the central issue. For example, when people are driving someplace and learn that they are heading in the wrong direction, they simply turn the car around. But when people learn that the pursuit of more money is not likely to lead them to lasting subjective well-being, the person rarely makes a radical change their behavior.

4. Multiple terminal values

The Aristotelian view allows for multiple values, but maintains that ultimately they are all routes to the single terminal value of subjective well-being. The right side of Fig. 1 provides an alternative hypothetical illustration of a means-end chain arriving at multiple terminal values. The only difference between the left and right sides of the figure, is that in the right hand diagram omits the arrows from long life to subjective well-being, and from social prestige to subjective well-being. Thus placing long life, subjective well-being, and social prestige on equal footing as terminal values.

Currently, the most influential theory on the organization of values (Schwartz & Sagiv, 1995) presents a multiple terminal values model. Schwartz and Sagiv (1995) list ten basic categories of human values: power, achievement, hedonism, stimulation, self-direction, universalism, benevolence, tradition, conformity and security. Rather than arranging these values in a pyramid with subjective well-being on top, they are arranged in a circomplex (i.e. circle). In this view, the pursuit of subjective well-being is not the ultimate end of all action, but just one possible value competing with others such as the pursuit of honor or the desire to follow cultural traditions. As another example, Grouzet et al. (2005) present a model of "life goals" which are similar to values, and are also arranged in a circomplex.

In conference presentations of this work, the questioners have challenged the multiple values perspective on the grounds that it is logically untenable. These proponents of the Aristotelian position have argued that although research may reveal multiple *pen* ultimate values that respondents can articulate, there must still be a single, truly ultimate value at the top of the pyramid, and subjective well-being is the best candidate. These questioners ask rhetorically, if we adopt a multiple terminal values model, what happens when a person faces a tradeoff between two terminal values, say social prestige and a long life? Neo-Aristotelians argue that there must be some final value that acts as a common currency and allows people to make tradeoffs between other values.

It is indeed true that for any given choice, the decision maker must use some implicit decision rule to choose from various goals and motives. But this decision rule does not have to be in the form "maximize subjective well-being," or indeed, maximize anything at all[2]. Take the example of a person choosing between actions that produces honor but no pleasure, and actions that produces pleasure but not honor (Ahuvia, 2002; Ahuvia & Wong, 2002). A person who cares equally about honor and pleasure might simply assess how many "honor points" s/he would receive versus how many "pleasure points" s/he would receive, and choose whichever action produces more total points. Or, if the person valued honor more than pleasure, s/he might weight each honor point by a factor of 2, or

[2] This is not to say that the decision process can not be modeled as some sort of maximization, but being able to model it that way post hoc does not mean that's the process people follow psychologically.

vise versa, if s/he placed more importance on pleasure than honor. But why might people value honor more than pleasure, or vice versa, if they didn't think one or the other would bring them increased subjective well-being? There are many possible answers to this: perhaps they were taught to value one over the other in childhood; or conversely, perhaps they are rebelling against what they were taught in childhood, or perhaps they have a genetic disposition in one direction or the other...the list is as long as our imagination can make it.

The multiple values perspective offers three distinct advantages over the single terminal value model. First, Occam's razor argues for multiple terminal values. If you compare the models in Fig. 1, you will notice that the single terminal value model has two more connections than does the multiple terminal values model, so that all constructs can be linked to subjective well-being. This is not an arbitrary feature of the design of these diagrams; rather, it reflects the essential nature of the single terminal value model. To transform any multiple terminal values model into a single terminal value model, one adds connections between the multiple terminal values, and subjective well-being (or any other value to be used as the single terminal value).

This added complexity in the model would be justified if it were needed to explain the data, but it is not. Research that looks empirically at the structure of values or other life goals does not find it necessary to add connections between subjective well-being and every other value (Grouzet et al., 2005; Schwartz & Sagiv, 1995). Similarly, a study directly looking at whether individuals try to maximize general satisfaction (Frijters, 2000) found that while this did seem to be *one* goal that people had, the "relationships were not very strong" and the findings "give only limited support to the hypothesis" (p. 281) that people even try to maximize subjective well-being, much less that this is all they try to do. Rather than the single terminal value model being required by data, proponents of this model argue for it on logical grounds, i.e. it is logically necessary to explain how people choose between alternative actions that each maximize different values. However, as we have seen above, the single terminal value model is not really required to explain these choices. Therefore, posting this model simply adds unneeded complexity to the theory.

A second advantage of the multiple terminal values perspective is that it makes sense of the regret people often feel after making a hard choice between competing values. Say a woman wanted to achieve goal G, and could do so by acquiring either object 1 or object 2. This woman had no other motive for acquiring either object 1 or 2, except to achieve goal G. This is akin to the single terminal values model where goal G is subjective well-being, and everything we do is purely instrumental towards acquiring subjective well-being. If she acquires object 1 and successfully achieves goal G, she would not miss object 2, because her only motive for wanting object 2 is instrumental. But, to return to our earlier example, if she has to choose between pleasure and honor, she is likely to feel some regret no matter which choice she makes. If she chooses pleasure, she will experience the loss of honor as a real loss, and vice versa if she chooses honor. Choices that involve significant values tradeoffs are often difficult, because we truly value each of the different values not simply as a means to achieve happiness, but as a fundamental good in its own right.

Finally, the multiple values perspective does a better job than the single terminal values model of explaining the often fickle human decision process. To return one last time to our choice between honor and pleasure, a man might well have a decision rule that says prioritize honor over pleasure except on Saturday nights, in which case prioritize pleasure over honor. It is difficult to explain why someone would reasonably think that pleasure on Saturday nights would produce much more happiness, and therefore be more highly weighted in decision making, then pleasure any other night of the week. If people really are always trying to maximize subjective well-being, this type of context-driven decision rule doesn't make much sense. However, the multiple terminal values perspective allows for any number of decision rules that a person might use in choosing between values.

In sum then, the multiple terminal values model provides a simpler explanation for the date, is consistent with the human experience of regret when making difficult values trade offs, and is a better fit with our often quirky choice heuristics because it posits no underlying unified rationality to all human action.

5. Time inconsistent preferences and hyperbolic discounting

Let us assume for the sake of argument that a given individual does value happiness above all else. This person still might overemphasize the pursuit of money, due to a factor that psychologists often call time inconsistent preferences, economists often call hyperbolic discounting, and the layperson calls shortsightedness or succumbing to temptation.

Drug addicts serve as a classic example of people who are so heavily influenced by near-term gratifications that they behave in ways quite counter to their overall best interests. At a conscious level they often know that they would be happier if they stopped using drugs, but they experience a strong compulsion to use drugs nonetheless. Addiction is an extreme example of a much more common phenomenon, in which people prefer near-term gratification over larger, more delayed rewards (Hoch, Stephen, & Loewenstein, 1991). Our ongoing desire for money may be another example of this phenomenon. There is no question that receiving a raise produces a short-term boost to one's mood (Schyns, 2003). In addition to the positive feelings that come with receiving money per se, money can be used to obtain products and experiences that produce very dependable short-term mood elevations, e.g., chocolate, movies, alcohol, or for some people, even shopping expeditions as an end in themselves (Babin, Darden, & Griffin, 1994; Faber, Christenson, De Zwaan, & Mitchell, 1995). Proponents of less consumerist lifestyles readily acknowledge that these short-term rewards exist, but stress that they are short lived and do not contribute much to an ongoing sense of overall happiness (Kasser, 2002). However, from a motivational point of view, we know that immediate or near-term gratifications have an unduly strong influence on behavior (Hoch & Loewenstein, 1991). So, like dieters who eat sweets knowing full well that they will regret it later, people may be motivated to pursue money even if they believe that scientific evidence shows that pursuing wealth is not the best way to improve their overall sense of well-being. Hence, the disproportionately compelling quality of near-term rewards may explain part of our continued desire for money, beyond what would maximize our happiness.

6. Evolutionary drives that compete with the desire for happiness

Time inconsistent preferences are often enmeshed with a closely related phenomenon which I call competing motivational systems. In time inconsistent preferences small benefits of a particular kind are preferred over large benefits of that same kind at a later time. For example, a small increase in physical pleasure now is preferred to a much larger increase in physical pleasure later, or a small increase in public reputation now is preferred to a much larger increase in public reputation later. In contrast, competing motivational systems may result in a preference for one type of reward over another. People may value happiness, but our values operate simultaneously with involuntary reflexes, conditioned responses and innate evolutionary drives to shape our actual behavior. As a result, a person's values are only a moderate predictor of that person's behavior.

With the resurgence of evolutionary theory in the social sciences, the debate about "nature versus nurture" has recaptured the attention of the scientific community. After World War II, legitimate fears about the destructive power of racism led many people to shun any consideration of genetic predispositions for complex behaviors. But in the past decade the pendulum has begun to swing back the other way, particularly due to twins studies showing significant genetic influences over personality and other areas of human psychology (Rose, 1995). This broader intellectual trend has fed a renewed interest in evolutionary psychology, which sees human behavior, including the desire for income, as rooted in evolutionarily derived biological drives (for reviews see Buss, 2003; Jones, 1999; Lea & Webley, 2006).

One reason for believing that the desire for income and consumption may have evolutionary roots is the observation that the desire for money follows the same patterns with regard to subjective well-being as drives that are clearly biological, such as the need for food, sex and sleep. As with income, if people are severely deprived of food, sex or sleep, they tend to be quite unhappy (Myers, 2000). Subjective well-being tends to increase as quantities of food, sex, sleep and income rise to some basic level. But past that level, increases in any of these things do not continue to bring increased subjective well-being. In fact, the strong desire for food, sex, sleep or income, beyond a moderate level, is associated with depression and neurosis (Kasser, 2002). While in most cases deprivation of any of these things leads to unhappiness, ascetic religious groups often place these drives into a similar category, and voluntarily deprive themselves of some or all of them without ill effects to their subjective well-being. So, in some important ways the desire for money operates like other desires which are clearly biological. And as with biological drives, evidence suggests that the desire for more wealth is a cultural universal (Easterlin, 2004, p. 27), although it manifests itself in a myriad of very diverse ways.

Buss (2000) maintains that we have a wide range of "evolved desires" (p. 21). Three of these desires have a strong plausible connection to a high-consumption lifestyle: the desire to acquire and store resources; the desire for anything that makes us sexually attractive; and the desire for successful social relations, including a desire for high-status in the social system.

The most obvious of these, the desire to accumulate resources, is in some ways the least promising explanation for high-consumption lifestyles. Certainly storing resources has survival value, and it is seen in many animals. But however plausible this kind of drive seems, the fact that US savings rates have recently fallen below 0% (Nutting, 2005) suggests that if this drive exists, it is easily overpowered by other considerations, and is probably not the cause of our contemporary income fixation.

After simple survival, the desire to be sexually attractive is seen by many evolutionary theorists as the single most powerful underlying motivation. Miller, a prominent proponent of evolutionary psychology, has written specifically about evolutionary influences on consumer behavior (1999, 2000). Miller first distinguishes between the practical value of products and their symbolic value as "signals," and goes so far as to argue that while "most sexual signals go unrecognized" it is still the case that "*every* signal (is) sexual" (emphasis added) which results in nothing less than "the phenomenon we call modern civilization" (p. 18, Miller, 1999). While sex appeal is a major motivation in a great deal of consumer behavior, Miller vastly overestimates the breadth of its explanatory domain when he claims that it explains all symbolic consumer behavior. For example, Miller (1999) claims that male audiophiles buy expensive headphones to impress potential mates, what he calls "the Sennheiser effect," after a manufacturer's brand name.

Data from an ethnographic study of the Midwest Audiofest in Lima, Ohio, conducted by the author, are relevant to Miller's claim. The Midwest Audiofest draws several hundred customers of Sennheiser and competing brands from larger metropolitan areas located within easy driving distance. The Audiofest is held in a hotel where manufacturers of audiophile equipment invite participants to listen to their wares in rented suites. The Audiofest website declares, "So a bunch of guys (and some women!) want to get together and listen to audio gear; beats the hell outta golf, doesn't it?" The clause, "and some women!" shows that organizers are well aware of how male-dominated these events tend to be. But even this modest claim might have stretched the truth a bit. In six hours of going from room to room talking to participants, I encountered only three women who were not hotel employees; none were listening to the audio gear. Two were wives of some of the organizers who had agreed to staff the front desk taking registration fees, and one was the companion of an audio salesperson. As men sat and listened with critical attention to the latest products, she sat in an adjoining room watching television.

Miller's (1999) theory is inconsistent with the data. Male peacocks develop lavish tails because female peacocks prefer males who have them. But how can men be using Sennheiser headphones to signal their wealth to potential mates, when the potential mates would have no idea how expensive a Sennheiser headphone is? And why would males signal wealth through an obscure but lavish product, when so many more recognizable alternatives like cars and clothes exist? Finally, evolutionary biologists believe that female animals prefer highly resourced males, in part as a signal of genetic fitness, but also because females hope that the males will share those resources with them and their offspring. But it is a widely held belief among the male audiophiles I spoke with that women actively dislike much audiophile gear and see it as a huge expense that men lavish on themselves rather than spending the money on family needs. Audiophiles have even coined the term "WAF" which stands for *wife acceptance factor*. Equipment that these male audiophiles think would not be too harshly condemned by their spouses earns a high WAF rating. Needing to rate products by their WAF is not indicative of a purchase made to gain the favor of potential or actual mates. In sum, while it is undoubtedly true that the desire to be sexually attractive motivates a good deal of consumer behavior, including a portion of our motivation to acquire money, it is a reductionist mistake to believe that it is the hidden cause of virtually all consumption beyond what is needed for physical survival.

This brings us to our most promising evolved desire, the desire to successfully manage our social relationships. Since human evolution has taken place in the context of social groups, nurturing bonds with others and improving one's standing in the group may have evolved to be innate goals (Koselka, 1993). Consumer culture theory (Arnould & Thompson, 2005) suggests that much of economic behavior centers on managing one's place in the social world (Ahuvia, 2005). Grouzet et al. (2005) typology of goals implies that people approach social relationships in terms both of status competition, and of a desire for positive, close and reciprocal relationships. Consumption is highly involved in both of these types of social interaction, to such an extent that person–person relationships infuse and permeate almost all aspects of consumer behavior. But income itself has a much stronger influence on social prestige[3] than it does on the closeness of our relationships.

If people have an evolved desire for hierarchical status (along with an evolved desire for other, less hierarchical forms of relationships), and income can be instrumental in this status, than why doesn't higher income produce much subjective well-being? We have not evolved to be happy; we have evolved to have children who survive and procreate. The search for subjective well-being is one mechanism for guiding our behavior toward survival, but it is not the only one. Since biologically based drives are at least somewhat independent of the desire for subjective well-being, they can often conflict with it. For example, the sex drive has been linked empirically to subjective well-being in that people who lack positive romantic/sexual relationships tend to be much less happy than those who have successful relationships (Myers, 2000). But once these relationships are achieved, sexual motives are not always satisfied. Many people have destroyed marital relationships that made them happy in order to attain sexual variety. In this way, satisfying the sex drive is sometimes linked to subjective well-being, but also sometimes to a partially autonomous system that can work against subjective well-being.

A similar phenomenon could be occurring with the drive for income-based social prestige. Going back to Veblen (1899/1965), economists have noted that much of consumption is centered on gaining and displaying social status. Consumers are often presumed to want this social status because it brings subjective well-being. Indeed, research shows that social *acceptance* is an important determinant of subjective well-being, and that social isolation or loneliness is empirically associated with unhappiness (Myers, 2000). But achieving prestige from earning a lot of money is not the same as achieving the close personal relationships associated with subjective well-being. In fact, wealth-based prestige has been shown to have no positive effect on subjective well-being (Sheldon & Kasser, 1998). Further, the more people want the type of prestige that comes from wealth, the less happy they tend to be (Kasser, 2002). The desire for social prestige, like the sex drive, may be part of a motivational system that operates somewhat independently from our desire to be happy. Up to some basic point, money does provide significant gains in subjective well-being. But the motivational system does not automatically switch off after that point is reached. Past that point, rather than leading to subjective well-being, the pursuit of social prestige through wealth may become a competing motivational system.

This observation raises an issue for future research that may help us explain one of the more robust and curious findings in psychology: not only do people overestimate how much lasting subjective well-being a raise or professional achievement will bring them, but they have a remarkably hard time learning from this experience, and repeat the same mistake over and over again (Gilbert, Pinel, Wilson, Blumberg, & Wheatley, 1998). An evolutionary perspective can help us make sense of this recurring amnesia. When a person is deliriously happy, they are not highly motivated to improve their situation. A species that was constantly sated and delighted would not do the work it takes to survive and procreate. Therefore, a psychological system where the happiness one gets from an achievement lasts for many years would be demotivating and ultimately nonadaptive. On the other hand, prior to embarking on a project, the *belief* that it will provide large and lasting

[3] It should be noted that social comparisons about income are not exclusively focused on social status. For example, people may attain information from these comparisons which influences what they feel is fair for a person like them to have, and then feel deprived or cheated if they don't have what they feel is rightfully theirs.

increases in subjective well-being is very motivating, and therefore highly adaptive. So perhaps, evolution plays a repeated trick on us, wiring us to believe more resources will make us lastingly happier so we are motivated to act, and then reneging on the deal after the goal is achieved so we are motivated to act yet again. Of course, for this to work, we would need a kind of built-in selective amnesia to make us repeat the cycle again and again without remembering that it did not really work the last time. Perhaps then, it is not surprising that we seem built to have just this kind of recurring memory loss.

Lea and Webley (2006) provide yet another evolutionary account of our desire for money. They describe two basic types of evolutionary drives: tools and drugs. A tool is something with survival value for our genes, like sugars that provide calories. A drug is something with no actual survival value that we desire because it mimics something with survival value; for example, the sugar substitute saccharine. These are called "drugs" because, like recreational drugs such as cocaine, they produce a positive neurological response without providing any of the underlying evolutionary benefits that such a response was supposed to signal. Pornography is another good example of a "drug" in this sense of the word: it produces a positive neurological response by mimicking something with survival value for our genes, but does not produce the actual survival benefit. For this reason, the term "mimic" might have expressed Lea and Webley's meaning more clearly, without bringing in the highly political debate around what constitutes a drug. Specifically in the case of money, Lea and Webley (2006) argue that money is desired in part as a tool for the beneficial things it can buy, and in part as a drug, because money itself triggers a positive response by stimulating either a hard-coded drive for trade, or a hard-coded desire for play objects.

I agree with Lea and Webley (2006) that the distinction between tools and drugs (or as I prefer, "mimics") is potentially fruitful. But their specific explanation for why people are so concerned with acquiring money – that the thought of money itself stimulates innate drives from trade and for play – is not very compelling. Certainly people enjoy play, but if money were really highly desired as an extension of our "instinct to play with objects that can be held in the hand" (p. 175), then the defunct Italian lira would be almost as highly desired as the euro. As for the idea that the sight of money excites "trading receptors" in the brain (p. 174) in much the same way that the smell of baking cookies stimulates hunger, the scientific community awaits strong neurological evidence on this point.

Lea and Webley (2006) provide an excellent review of the ways that money can be used as a powerful symbol to influence our sense of identity and/or our relationships with others. Yet the case they make to explain its appeal neglects the strong attraction that these symbolic benefits have for people. Instead they posit the rather less convincing drive for trade and the use of money as a tangible play object. I believe that this approach takes them off track since, as I have argued here, once one's basic physical needs have been met, the overarching theme in consumption is the social properties of money and the things it can buy. In this way there may be hope for the anti-consumption forces. The desire for social connection and prestige may be innate, but the role that money plays in fulfilling those desires is more flexible. Which brings us to the Rolex dilemma.

7. Conclusion: The Rolex dilemma

This essay suggests that changing consumerist tendencies requires much more than intellectually convincing people that more stuff won't make them happy. First, subjective well-being is not the only value people strive to maximize; second, when people try to maximize any given value, they often make shortsighted decisions that overweight near-term gratifications; and third, our behavior reflects evolutionary motivational systems that aren't always in sync with our values. Specifically, people use consumption not just to be happy, but to manage their identity and social relationships. In some cases, this hard-wired social fixation leads people to actions that increase their subjective well-being, like forming strong friendships. In other cases it leads to status consumption that, past a minimal level, empirically has no positive affect on subjective well-being. What's more, while successfully achieving high-status consumption-displays creates no lasting increase in subjective well-being, the strong desire to enact these displays is itself correlated with lower levels of subjective well-being (Richins, 1994; Richins & Dawson, 1992; Sirgy, 1997; Stutzer, 2004; Stutzer & Frey, 2004). So, this type of materialism is psychologically harmful.

Bearing this in mind, what strategies might environmentalists or other anti-consumption advocates employ? Anti-consumption advocates have two major criticisms of high-consumption lifestyles: that they are psychologically bad for consumers themselves (Kasser, 2002), and that they have negative effects on the world, such as environmental degradation or the exploitation of low wage labor (Princen et al., 2002; Shaw & Newholm, 2002). These two different criticisms produce a split in the anti-consumption movement. For activists concerned with improving consumer subjective well-being, it is important for people to temper their competitive status consumption. But activists more concerned with the ecological aspects of consumption might choose to redirect the targets of high-status consumption, rather than seeking to reduce it altogether.

This raises what I will call the "Rolex dilemma." A stainless steel Rolex can cost upwards of $6000, and is functionally inferior to a $40 quartz watch. Therefore, for many people concerned with the consumers' subjective well-being, the Rolex is an icon for what is wrong with competitive high-status consumption. On the other hand, to an environmentalist, a Rolex has much to recommend it. There are few ways one can spend $6000 and have a lower ecological impact than buying a stainless steel Rolex, handmade by skilled and well-paid craftspeople. From an ecological perspective, it might make sense to redirect status consumption toward goods like a Rolex, rather than to fight the strong human tendency toward status consumption head on. Of course, giving $6000 to fund ecological reclamation is better for the environment than buying a Rolex. But charitable giving to ecological causes can also be a competitive status enterprise. So the option of working in harmony with the human drive for status, and shaping it in more eco-friendly ways, is highly viable for ecologists, whereas this approach offers little to recommend it to anti-consumption activists who are highly concerned with consumers' subjective well-being.

The question of whether money can buy happiness is an ancient debate. We are now getting data suggesting that, once one's basic needs are met, the answer is no. But this finding in turn raises a new question: if money does not buy happiness, why do people act as though does? This essay has suggested that subjective well-being is not our only goal in life, that people are overly attracted to near-term rewards, and that our actions often are driven by evolved desires that can be inconsistent with personal subjective well-being. For anti-consumption advocates, this raises the Rolex dilemma: should anti-consumption forces try to reduce status consumption in general, or rather to steer it in less ecologically harmful directions? Future research is needed to flesh out the pros and cons of each approach. It is a debate of great importance to humanity, but not one that is likely to be resolved any time soon.

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