

The Principle of Greatest Happiness in Western Economic Thought and its
Relation to Buddhist Economics

by

Georg Erber¹

Preliminary: Do not quote without permission

Abstract:

Western economic thinkers in the 19th century rediscovered the principle of greatest happiness (PGH). However, as Eastern philosophical and religious thinking shows it was part of common knowledge in Buddhism and Hinduism over the past millennia. PGH did not have the same agenda as later on utilitarianism of John Stanley Jevons, with the utility maximization principle (UMP) of individuals disconnected from the rest of the society. The UMP was more an outcome of a fusion between moral ethical thinking as a social phenomenon with the Newtonian principles of mechanics based on differential calculus. The huge success of natural sciences in the 19th century during the industrial revolution was too tempting not to imitate its methodologies and concepts in the social sciences as social physics (SP). This kind of approach still has many followers unsurprisingly in the natural science community nowadays. The paper studies these interconnections between these different strands of Western thinking which lead after a century to the neoclassical paradigm in economics which took the UMP as its foundation for economic analysis. Richard Layard, an English labour economist, pointed out among others by empirical research that wellbeing or happiness is not significantly correlated with an ever increasing material wealth. Here might emerge a bridge between Buddhist economics and the recent rediscovery of the PGH in modern Western economics. The paper will close with the suggestion of some first possible corrections necessary for UMP to obtain a PGH consistent with the current challenges to the global society.

¹ Address: Dr. Georg Erber, German Institute for Economic Research – DIW Berlin, Mohrenstrasse 58, 10117 Berlin, Germany, phone: +49-30-89789697, Fax: -103, e-mail: Gerber@diw.de .

Introduction

Research on happiness has become a highly debated research topic in the West over the last couple of years. Searching the IDEAS-database – database of research papers and publications in economics - for the keyword happiness, one ends up with more than 1000 hits. This has not been the case ten years ago. The significant growth of income in the West over the last two centuries and in particular after WWII has led to new questions concerning the aims of economic activity. Furthermore the environmental crisis and the prospect of significant climate change caused by excessive use of global resources in particular of energy and natural resources point again towards the need not to exhaust the resource base (Stern 2007; Barney 1980; Meadows, Meadows 1972). Limits towards resource based growth become a key concern in the global policy agenda even if the studies quoted leave lots of rooms for well founded criticism. If economic well-being would be intrinsically connected towards energy and resource based growth than sooner or later economics would face a crisis. Beside the macro perspective, however, a micro perspective is needed to understand how societies could develop towards a model of sustainable economics by taking into account the constraints of our global environment.

Well known economists have started to ask themselves and their profession: *Would You Be Happier If You Were Richer?* (see Kahnemann et al. 2006). This might seem obscure for many outsiders because many people think that economics is just about how to get rich and wealthy. However, there is an increasing discomfort emerging that the continuous striving for greater material wealth does not emotionally make most people to feel that they are better off. If this conjecture is right, it might offer a way out of the dilemma suggested before that an unregulated growth process of the global economy would deplete its resource base in a not to distant future. Many people challenge the materialistic way of life where a bigger house, a bigger car and spending more money on more and more quite futile consumer items really makes them feel more happy in the end.

Psychologists of the West can tell a lot of stories about the neurosis of people facing little or no material shortcomings feel emotionally dissatisfied, lonely and lack a direction of life. So there is anecdotal as well as statistical evidence from surveys that wellbeing or happiness are not highly correlated with another (see e.g. Layard 2005, Easterlin 2001, Dixon 1987, Oswald 1987). Having accomplished material wellbeing obviously does not lead to greater happiness in the end. What are the reasons behind these findings? What are the shortcomings of traditional economic theory that they cannot cope with this problem? Are we in need of a

fundamental reform in economic thinking? What might be learned from different approaches like Buddhist economics who claim that they built their theories on different foundations?

The present short paper cannot deal with all these questions in depth, but it is an attempt to show how in the development of Western economic thought some fundamental research topics have been lost. Furthermore the author makes the claim that utility theory shows up to have become more and more a dead end as a micro foundation for economic reasoning. Therefore there is a need of a fundamental reform in economic reasoning which does not treat shortages in the traditional model as externalities in economic decision making (Hamilton 1994) which later on in an end-of-pipe fashion has to be corrected by a social planner to take care of obvious market failures based on the assumption of utility maximizing individuals lacking any kind of social responsibility.

The global social and environmental crisis looming more and more at the horizon demand for a better analytical framework which would embed different aspects of human well being like social networks, environmental sustainability and appropriate leisure time into the common microeconomic framework. For this purpose the author suggests a generalized happiness function which significant differs from the common utility function approach. Furthermore he suggests that a happiness search approach based on the Markov Chain Monte Carlo (MCMC) would better describe the way of human behaviour in search for greater happiness by taking into account the information problems than the traditional Newtonian-Leibniz-approach of using calculus to maximize a well-defined analytical problem as the concept for human behaviour in economics.

The Happiness versus Utility Principle in Economics, Philosophy, and Theology

The happiness principle or its derivative the greatest happiness of most people have obtained a constitutional value in the US declaration of independence of 1776. It has become a cornerstone of liberal philosophy in the West of the 18th century.² However, this passage of the declaration does not explain what that really means. One reason might have been that it

² “When in the Course of human events, it becomes necessary for one people to dissolve the political bands which have connected them with another, and to assume among the powers of the earth, the separate and equal station to which *the Laws of Nature and of Nature's God* entitle them, a decent respect to the opinions of mankind requires that they should declare the causes which impel them to the separation.

We hold these truths to be self-evident, that *all men are created equal*, that they are endowed by their Creator with certain *unalienable Rights*, that among these are *Life, Liberty and the pursuit of Happiness*. That to secure these rights, Governments are instituted among Men, deriving their just Powers from the consent of the governed, — That whenever any Form of Government becomes destructive of these ends, it is the Right of the People to alter or to abolish it, and to institute new Government, laying its foundation on such principles and organizing its powers in such form, as to them shall seem most likely to effect their *Safety and Happiness*.” see the Introduction of the Declaration of Independence of 1776.

was considered common knowledge that did not need further explanation. However, this common knowledge of happiness has been lost if it ever existed at this time. Therefore it nowadays seems necessary to search for a better understanding and its evolution or even confusion it caused in the minds of many thinkers, economists, philosophers or theologians.

That the foundations of economic thinking have their roots in philosophy in particular moral philosophy and theology should not be surprising. Adam Smith, considered by many to be the first modern economist, was from the beginning a moral philosopher himself. In his first great writing, *The Theory of Moral Sentiments* in 1759, he studied in great detail the emotional aspects of human behaviour. Why people behave like they do? What drives them?

His key assumption was that they are driven by emotions (see e.g. Fudenberg, Levine 2006). Some of them considered to be of virtue for the society and some are considered to be harmful selfishness, i. e. *homo homini lupus est*. What Smith was searching for is a reconciliation of the selfish aspects of human behaviour with the common good. His final answer he found in his opus magnum, the *Wealth of Nations* of 1776, more than twenty-seven years after publishing the *Theory of Moral Sentiments* was the invisible hand. The competition of the selfish people controls the otherwise harmful consequences of selfishness, i.e. act as an invisible hand.

The invisible hand establishes social harmony even if the individuals are using all their effort to violate it. They fail to succeed with their selfishness because of the countervailing power of the rest of society. They are kept by their independent actions unintentionally under control. In modern terminology one could talk from emergent system behaviour what was on Smith's mind of an invisible hand.³ This has been the credo of liberal thinker in the West since then.

In economics as a particular field of liberal philosophy the key proponents always quoted again and again by economists are people like Hayek (1948, 1960, 1973, 1976, 1979) or Friedman (1980, 2007) who defended the liberal order against those political forces who tend to establish social controls usually by state institutions as a visible hand and by this limit the

³ “An emergent behaviour or emergent property can appear when a number of simple entities (agents) operate in an environment, forming more complex behaviours as a collective. If emergence happens over disparate size scales, then the reason is usually a causal relation across different scales. In other words there is often a form of top-down feedback in systems with emergent properties. The processes from which emergent properties result may occur in either the observed or observing system, and can commonly be identified by their patterns of accumulating change, most generally called 'growth'. Why emergent behaviours occur include: intricate causal relations across different scales and feedback, known as interconnectivity. The emergent property itself may be either very predictable or unpredictable and unprecedented, and represent a new level of the system's evolution. The complex behaviour or properties are not a property of any single such entity, nor can they easily be predicted or deduced from behaviour in the lower-level entities: they are irreducible.” quoted from Wikipedia article on Emergence.

individual liberties of the people. Nowadays, economist would call this outcome a non-cooperative Nash-equilibrium in a game with atomistic players (Nash 1950, 1951). The principle, however, is thought by many to have an even more fundamental character concerning all kinds of organizational aspects as self-organization in complex systems. Since societies are complex systems they face the same principles as other complex systems which show emergent behaviour.

State interference therefore has always been something like a mortal sin committed by those who tempted to restrain the individual rights even if they are selfish.⁴ Laissez-faire has become the war cry of liberals in particular when defending individual liberty against state interference. Deriving people from their free expression of selfish motives would tend to lead to hypocrisy on the one hand, and agony and inaction on the other because people would lose their most forceful emotional driver, selfishness and greed for material wealth.

This divide in opinion about how the pursuit of happiness – including selfishness – should be established as a liberal constitution of a society has never been closed between those who claimed that selfishness is part of human nature and those who claim also as part of the century of enlightenment could be educated towards a more social behaviour.

However, this kind of liberal attitude vanishes immediately when it comes to liberal labour laws. Enforcing the labour contract by all kinds of means even violating individual rights of privacy or certain degrees of self-determination as human rights lose their attractiveness, when it comes to enforce the employers rights against those of their employees. Here the visible hand of the employer as a general rule maker and controller of anything their employees are doing during their work day is generally unchallenged by the same economists who stylize themselves as liberal minds protecting the rights of the individual against the oppression of public intervention by a democratic state. The countervailing power of trade unions to challenge the omnipresence of employers to give orders is considered as generally harmful to establish an efficient economic order. Therefore asymmetric labour relations are not a key topic on the agenda of market liberals. Striving for greatest happiness of employees is not something seriously considered by neoclassic economists.

⁴ Behind this the question of a positive world order and a kind-hearted God lingers as well. Why God let happen so much injustice in the world? A key question for all theologians and moral philosophers. Smith answer seemingly solved the paradox of injustice by explaining that harmony is re-established by the invisible hand. There exists an endogenous correction mechanism which constrains individual excesses by the countervailing forces of competitors a representatives of the society. Even if some weak individual suffer those who cause the suffering will be punished in the end by the invisible hand. Therefore social justice could be established at least on the long-run.

Here market liberal content that the labour market should be freed from labour laws constraining the employers will to give any kind of order to their employees. Cutting wages at free will – the market drives this decisions caused by weak demand for their products or the capital owners ask for higher revenues, dismissing and relocating work from one country to another leaving behind lots of unemployed workers - have always been considered as collateral damage in the process of greater happiness for most of the people. This illustrates the ambiguity of the application of this idea when it has to face real world situations beyond the consumer sphere. As a consumer you might strive for greatest happiness, but not as a depend employee. Fair wages and decent employment conditions are beyond the research agenda of many market liberal economists.

Utility is something much more appropriate to fit in this framework where cost minimizing or profit maximizing principles are the essential means of economic model building. Greatest happiness of employees is nothing a employer considers worthwhile to take seriously into his consideration. Even nowadays the concept of social responsibility in the governance of companies (see e.g. Crane et al. 2008, May, Cheney, Roper 2007, McBarnet, Voiculescu, Campbell 2007, Zerk 2006. Rossi 2001, Kalisky 2001) lacks significant support at the management level when it comes to real life situations at the shop floor level. However, it shows that the shortages emerge of accomplishing the greatest happiness of the greatest number when a visible hand, e.g. labour laws and labour organizations to enforce them, are lacking. Most employees experience the company they work for not as a happy place where social responsible managers act according to the principles of greatest happiness.

Let us now turn, however, towards the issue of happiness versus utility as conceptual approaches in economics.

What constitutes happiness and what gives utility?

Happiness is an emotional state of mind. Utility is a perception of aims for humans emerging from pragmatism⁵ in a sense that means best match given aims, i.e. a functional approach per

⁵ “Pragmatism is a philosophic school generally considered to have originated in the late nineteenth century with Charles Peirce, who first stated the pragmatic maxim. It came to fruition in the early twentieth-century philosophies of William James and John Dewey. Most of the thinkers who describe themselves as pragmatists consider practical consequences or real effects to be vital components of both meaning and truth. Other important aspects of pragmatism include anti-Cartesianism, radical empiricism, instrumentalism, anti-realism, verificationism, conceptual relativity, a denial of the fact-value distinction, a high regard for science, and fallibilism. Pragmatism began enjoying renewed attention from the 1950s on, because of a new school of philosophers who put forth a revised pragmatism that criticized the logical positivism that had dominated philosophy in the United States and Britain since the 1930s, notably in the work of analytic philosophers like W. V. O. Quine and Wilfrid Sellars. Their naturalized epistemology was further developed and widely publicized by Richard Rorty, whose later work grew closer to continental philosophy and is often considered relativistic. Contemporary pragmatism is still divided between those thinkers who work strictly within the analytic tradition,

se. Since material resources are scarce, it is useful not to waste them. Efficiency is therefore the core idea of economics, i.e. the allocation of scarce resources towards its best use. Or another way to state this relation, to maximize your consumption under a given income and prices, i.e. the budget constraint.

If this really leads to happiness of people, it is beyond the scope of utilitarian philosophy and neoclassical economics. It was never in the minds of utilitarian to define or measure happiness. Contrary they spent much effort on measuring utility and preference orderings. They more became involved in a theory of rational choice. Preference ordering and rational decision making combined with the problem of consistency of choice stood more and more on the research agenda of utilitarian theorists. This estranged them more and more from their initial topic of happiness.

Rational choice theories take preferences without giving them any particular qualification or ethical meaning at their centre stage. This might or might not relate to happiness. Modern rational choice theories have become more or less indifferent to these issues. What is in their mind is more a rational choice engine, which is programmable for any purpose. This fits well to the strong affinity with natural sciences. By considering humans and society can be treated by similar methods and approaches like in natural sciences. Creating something which have become known as social physics (SP).

Happiness also like material wealth is scarce, but it cannot be accomplished in the same way as utility. There are quite different ways towards happiness. Therefore it is much more difficult in an engineering sense to accomplish happiness according to certain codified rules and procedures. Happiness can occur unexpected and by events outside the control of the individual. Winning a prize in a lottery creates sudden happiness. Falling in love with someone creates happiness. Often these events happen in a serendipitic⁶ way. Many if not most are not directly related to material wealth or its efficient allocation of material goods. Only few people feel happy just by performing enrichment or being economically efficient. A common saying in the West is, money does not make happy, but some also add it calms your mind, i.e. makes you free from economic worries.

Max Weber, a German sociologist, summarized a view concerning the Western Christian perception on happiness in a book with the title, *The Protestant Ethic and the Spirit of*

and a more relativistic strand in the wake of Rorty and lastly neoclassical pragmatists like Susan Haack who stay closer to the work of Peirce, James and Dewey.” quoted from Wikipedia on Pragmatism.

⁶ A term used for an event of finding something without intentionally having searched for it. Discoveries are often related to serendipity. Browsing is often a technique tempting to find something which one has not searched for, but has a meaning after it is discovered by pure chance.

Capitalism (Weber 1934). Religious beliefs and human behaviour were directly linked with each other. Laziness or being idle were associated with a sinful life and punished by going literally to hell after death. So if people became unhappy in performing their duties of hard work and suffering, it was just a price to be paid for salvation after death in heaven. People should work hard - day and night - in real life to be paid by salvation afterwards in heaven. They literally should work for Gods blessing or some call it Gods wage. Many people performing social work at low payments do this for religious beliefs. Therefore happiness is connected by Weber with the individual conforming with social spiritual values like the protestant work ethic. Instead of making reference towards the internal state of well being as happiness, it is the conformity with social values which creates happiness. You are happy because the people of your society give you respect and honour and by this happiness. This introduces a social conditionality towards happiness. Happiness can only be obtained, if society values your behaviour as supportive to its well being.

People following the Protestant work ethic, often realizing later on that they pay a high price of unhappiness and have to suffer dissatisfaction. Utilitarians like Bentham have condemned, therefore, often an attitude toward greater happiness as hedonism⁷, which primarily is focused on consumption (waste of time, i.e. idleness, and waste of goods) instead of production (increase of material wealth and efficient allocation of material goods). This kind of ethic is deeply rooted in the protestant vision that the purpose of human life is to suffer and toil.⁸ Doing so they would later on be paid by going to heaven instead of hell. They just performed Gods will as righteous citizens by being industrious.

Taking choice theory as a starting point, the freedom of choice towards happiness emerges in Kant's dictum of the categorical imperative.⁹ In Kant's view there is a need of general absolute

⁷ "The basic idea behind hedonistic thought is that pleasure is the only thing that is good for a person. This is often used as a justification for evaluating actions in terms of how much pleasure and how little pain (i.e. suffering) they produce. In very simple terms, a hedonist strives to maximise this total pleasure (pleasure minus pain). The nineteenth-century British philosophers John Stuart Mill and Jeremy Bentham defended the ethical theory of Utilitarianism, according to which we should perform whichever action is best for everyone. Conjoining hedonism, as a view as to what is good for people, to utilitarianism has the result that all action should be directed toward achieving the greatest amount of happiness for the greatest number of people. Though consistent in their pursuit of happiness, Bentham and Mill's versions of hedonism differ." quoted from Wikipedia on Hedonism.

⁸ "Those of you who *earn your bread* by means of *your* toil and sweat *should* rejoice, because that *bread* is blessed;..." See e.g. teachings of St Cosmas of Aitolos, a Christian Saint.

⁹ "In Kant's view, the nature of a moral act is one which would be the right thing to do for any person in similar circumstances. The capacity which allows us to make moral decisions is called pure practical reason, which should be contrasted with pure reason - the capacity to know; and with mere practical reason - which allows us to interact with the world in experience. Hypothetical imperatives guide action in an instrumental way, or in other words, they tell us about which means will be best to achieve our ends. But hypothetical imperatives do not tell us anything about the ends we should choose. On the other hand, Kant considers the right to be prior to the good. What is right to do cannot be determined with reference to anything empirical or sensuous; rather, they can

ethical principles and there is a need of reciprocity in ethical principles. You should only do what you accept it as just if others would do this to you for the same reasons. This points toward an internal moral judgement contrary to Smith external restraints by the market as a social regulation for selfishness and greed.

Even if nowadays this kind of connection between religious and philosophical beliefs and Western economic thinking might have been lost to a large extent, it still is present in the Western attitude towards a work ethic, which has little in common with the greatest happiness principle. It even reversed its meaning in Christian moral thinking in a sense that unhappiness on earth is needed for happiness in heaven. In this way it really becomes dichotomous or create even a life and happiness antinomy.

There are some similarities to Buddhist philosophy, which takes unhappiness on earth as a fundamental fact of life. Living is intrinsically associated with facing unhappiness, because the world does not going the way people want it to. From the contradiction between human desires and worldly reality people suffer unhappiness. To escape people in Buddhist thinking could do this after death by entering a state of nirvana, similar to heaven in Christianity a state of salvation from unhappiness. The way to accomplish this, however, is totally different. Instead of becoming highly productive the Buddhist philosophical answer to the question of, how to accomplish greater happiness, is the distraction from all the worldly temptations (mara), material wealth in particular. Good Buddhists therefore should spend most of their time on spiritual accomplishments by meditation to learn to forgive their greed to own and control the worldly affairs. It is a position of disengagement from worldly affairs. Only the ability to reduce their ambitions to own, control and govern worldly affairs opens up peoples minds and gives them greater happiness, enlightenment.

Therefore a Buddhist economic principle is fundamentally based on self-restraint. Cling less to material wealth gives you a more peaceful mind and by this greater happiness. That is far beyond the Western Protestant principle that hard work and material wealth gives you greater happiness and salvation in heaven (see e.g. Barro, McCleary 2003, 2002).

only be determined by pure practical reason. Reason, separate from all empirical experience, is capable of determining the principle according to which all ends can be determined as moral, and it is this fundamental principle of moral reason which is known as the categorical imperative.” quotes by Wikipedia on. Categorical Imperative.

Empirical Happiness Research

Happiness research has become a hot topic in social sciences in Western countries in particular in economics recently.¹⁰ The reasons are not quite obvious. One might have been that the explanation for successful economic development by neoclassical growth theories faced a crisis (Obvious is the growing awareness that the standard approach of economics using utility maximizing individuals and companies minimizing costs and maximizing profits fail to satisfy the social necessities of a stable society, a sustainable ecological environment and the satisfaction of greatest happiness principle).

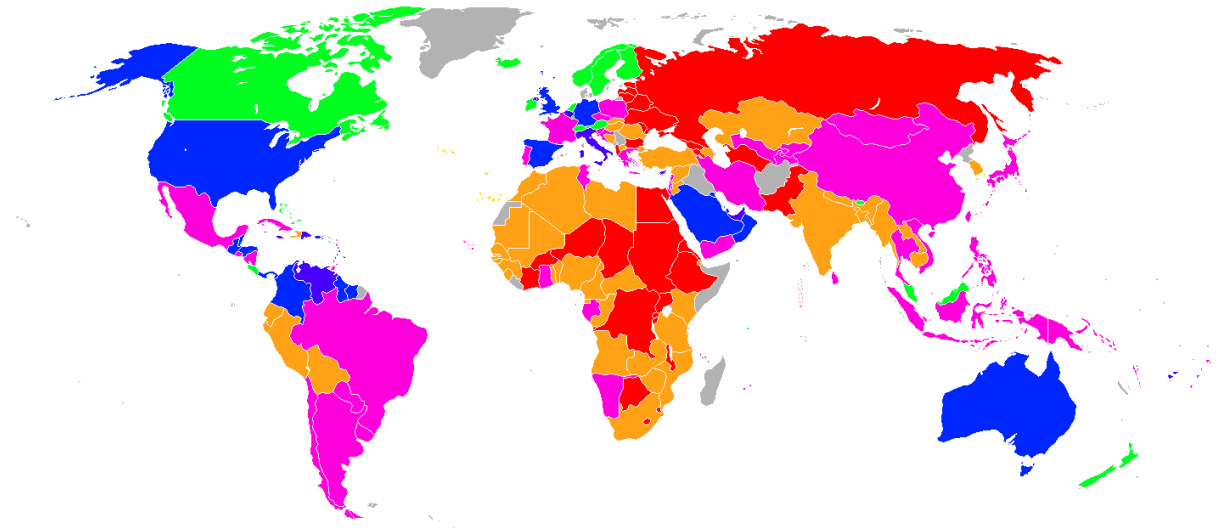
Even in the West after two hundred years of the industrial revolution neither approached a communist paradise of affluence nor a capitalist society which guarantees welfare, happiness and wellbeing to the people has been accomplished. However, the emotional state of people feeling happy even under conditions of poverty is striking psychologists, social psychologists, sociologists and now even economists in the social sciences (see e. g. Layard 2005). By asking people repeatedly about their emotional state of mind and giving a self-assessment on the degree of their personal happiness they found out that happiness is only weakly linked towards material wealth after a certain threshold level to maintain a certain standard of living has been accomplished.

Even if there are many unsolved research questions about - how to measure it? – there is sufficient empirical evidence that the link between material wealth accounted as personal disposable income have not the strong correlation with the emotional states people by self-assessment declare as their happiness (see e.g. Dixon 1997, Kahnemann et al. 2006, Frey, Stutzer 2005, Oswald 1997, Frank 1997, Ng 1997). There even emerged some paradoxes as Easterlin (2001, p. 470) stated: *“Why at a point-in-time are happiness and income positively associated, but over the life-cycle there is no relation?”* However, looking at a global map of satisfaction with life (see figure 1) one gets the impression that income levels at the macro comparison matter a lot to obtain satisfaction with life. Interestingly, the European Nordic countries, Canada and Austria together with Switzerland are getting the top ratings. These countries have contrary to the other Anglo-Saxon countries like the US and the UK in particular a highly developed social welfare system. In this dimension they are with regard to health care, pension system und unemployment insurance offering the highest level of social insurance. This kind of insurance against major high risks in life, seem to give people there a

¹⁰ Nowadays this has become a serious object of empirical research, see e.g. World Database on Happiness, <http://worlddatabaseofhappiness.eur.nl/> or

greater satisfaction with life compared to those countries with less social protection against these risks.

Figure 1 - Satisfaction with Life Index Map



green = most happy, blue, purple, orange, red = least happy

Source: Map coloured according to [The World Map of Happiness](#), Adrian White, Analytic Social Psychologist, University of Leicester.

Another empirical evidence which showed up in a number of studies (see e.g. Becchetti, Pelloni, Rossetti 2008) point out the importance of sociability and relation goods towards happiness. Being part of a crowd of people is an important ingredient towards emotional happiness. Instead the emergence of a Single society in Western societies (see e.g. Putham 1995, 2000) show an increasing failure to maintain - what Putham denoted as social capital - in a purely by market forces and utility maximizing individuals driven society. Taking the economic paradigm enshrined in neoclassical economics as a lifestyle tends to make people unhappier as before.

The Happiness Function, $H(.)$

What do I mean by the happiness function, $H(.)$? Contrary to the common utility function $U(.)$ it not only represents a relation between a bundle of products (material goods and even services), but takes into account other factors which contribute to the well being of a human. Material wealth is just an enabler for happiness, but not the end of human efforts to get happy. Therefore happiness is related to the necessary subsistence bundle of goods and services common in the standard utility function, but it has to include more than that. One can think of a happiness function as a generalization of the utility function approach, but one has to

consider that it also changes the meaning of the utility concept fundamentally (see previous sections of this paper).

First one should also mention that a product set of particular items of goods and services $X^{n+m} \in \mathbb{R}^{+;(n+m)} = \{g_1, \dots, g_n; s_1, \dots, s_m\}$, with n and m denoting the respective number of goods, g , and services, s , should have as a whole the property that they are governed by the law of diminishing returns to happiness, i.e.

$$\frac{dH(.)}{dX} < 0 \quad \text{where} \quad X \text{ denotes an aggregator function for } X = g(X^{n+m}) \in \mathbb{R}^+ .$$

Furthermore it converges against a happiness ceiling, i.e. increasing the quantities of goods and services cannot increase happiness any more. So the shape of the happiness function is more one like a Gompertz function.

A Gompertz curve or Gompertz function, named after Benjamin Gompertz, is a sigmoid function. It is a type of mathematical model for a relation, where the growth of the dependent variable is slowest at the start and end when the function converges against the saturation level α , i.e.

$$H(X) = \alpha \cdot \exp^{\beta \cdot \exp(\gamma \cdot X)}$$

where

α is a parameter denoting the upper asymptote

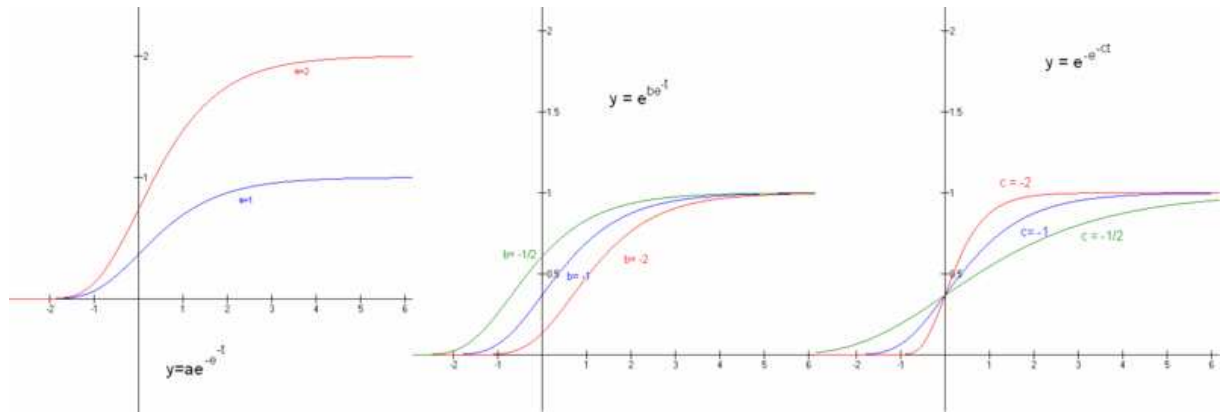
γ is a parameter denoting the happiness growth rate

$\beta \wedge \gamma$ are negative numbers determining the respective shape of the function (see figure 1 below), and exp is the Euler's Number ($e = 2.71828\dots$).¹¹

As a consequence this implies for the happiness function that an overall increasing volume of goods and services cannot increase overall happiness to a certain extent, given by the saturation level α . Beyond this material wealth does not improve happiness anymore. One simple reason for this is the time constraint of consumption. To extract happiness from some products one has to have sufficient time to spend on.

Figure 1 – Gompertz functional form of the happiness function

¹¹ This seems a better suited representation than a logistics which is symmetric with regard to the median saturation point.



It is the problem of luxury consumption that it has insufficient leisure time at its disposal so that one cannot consume all the products which could be bought given one has sufficient wealth and income at ones disposal. Furthermore even owning the most expensive items cannot establish more happiness. The attempt to extract happiness from ever preposterous luxury items show clearly the dilemma. One simply often spends money on luxury items to impress others but much less so to derive direct happiness from it (see e.g. Veblen, 1899). Therefore it directly points to happiness obtained from social relations and in particular the perception generated from others. This form of happiness is a more indirect happiness similar to the indirect utility function (see Roy, 1947). A key element is the impacts obtained by being included in social networks, S_n , which generates happiness. To be part of a community, a family, groups with a particular social status, etc. are contributing to the happiness of an individual. Often people spend a lot of their income just to establish a position in a social network which they desire to belong to. In modern economic theory this issue has been addressed under the term social capital, which, however, tends to subsume human relation as many other aspects under the perspective of capital accumulation. Instead I would insist that human relations are not governed by this kind of valuation principle. To enrich ones human relations and extract from this happiness does not has the same meaning as investing in social capital or networks. Therefore the happiness function include additional factors contributing to the happiness than products.

$$H(X, S^n).$$

Social networks contributing to greater happiness are, however, complementary towards products. Therefore it is not easy to substitute one against the other. To obtain more happiness by participating in social networks it might be even necessary – similar to a limitational function to reduce the material wealth represented by the product bundle to built social relations.

The key constraint for each individual is its time constraint. For each individual the day has 24 hours regardless of how much material wealth he owns. The way he allocates his time, however, decides how happy he can be in the end. Besides maintaining social relations one desires to obtain a happy life by having demand for leisure time, L^l , i.e. time for oneself e.g. for meditating or just to stay idle because this rest gives oneself a deep satisfaction. People who increasingly lack such leisure time painfully get aware of this shortage. Managers face the burn out syndrome, people get stressed when lacking recreational time, and so on. Again this is a complementary factor towards the two before mentioned ones.

$$H(X, S^n, L^l)$$

Another important factor before treated as an externality in economics is the environment in particular the stability and sustainability of an ecological and institutional setting which keeps the living conditions at a level where high risks for challenging the survival of an individual are avoided. Let us denote this by the variable E^s denoting environmental sustainability. This gives my final representation of a happiness function of an individual.

$$H(X, S^n, L^l, E^s)$$

As can be seen for people making their decision using a happiness function instead of a simple utility function will generate quite different results. Interpreting the saturation level in the sense of Herbert Simon or Katona as a satisficing level chosen by each individual according to their intrinsic preferences, the decision problem becomes to explore the solution space given the respective constraint of the function and the associated time consumption needed to fulfil this type of activity. The absolute time constraint is given by T . Therefore the time allocation problem is to allocate one's scarce time between the different activities, i.e.

$$T \geq t_x(X) + t_s(S^n) + t_l(L^l) + t_e(E^s).$$

$$1 \geq (\theta_x(X) + \theta_s(S^n) + \theta_l(L^l) + \theta_e(E^s)).$$

where we use the θ as respective time shares for the respective activity in the time budget constraint. Therefore each individual searches for greatest happiness by allocating his time obeying the constraint set by the happiness function. Greatest happiness is obtained when one cannot improve one's happiness by any other activity set anymore. Therefore someone striving for greatest happiness allocates his time budget according to the happiness function. According to his preferences he chooses between the different types of activities which gives

him greatest happiness. This is an equivalent to the utility maximization principle under the usual budget constraint of given prices and income.

Greatest Happiness as a Bayesian Search Process

In traditional economics following the Newtonian approach of maximizing a given function lead to the usual utility maximizing approach using a Lagrangian function to embody the budget constraint as a central part of utility maximization problem. My stand here is that people do not know this function in advance. Instead they have to search for happiness solutions using more a Bayesian inference engine. They start with a prior distribution about the potential location of their time shares giving them their greatest happiness. However, after the realization they tend to adjust this experience outcome by a Markov process calculating posterior densities according their happiness states. This has not to be done by the usual gradient techniques common in non-linear maximization problems like e.g. gradient methods or Gauss-Marquardt algorithms. To my mind a more realistic and therefore promising approach is that like in a Monte Carlo simulation people explore the solution space and check for their respective states of happiness. From this sample they derive the posterior adjusted distribution function after some sampling. Again they take a second step sample of time allocations and after a while readjusts their choice densities again. This is a familiar approach known from Markov Chain Monte Carlo simulations abbreviated as MCMC (see e.g. Liu 2001, Bremaud et al. 1999, Gilks et al. 1996).

This kind of search process forgives the standard analytical approach which would not be promising because the functional space due to the non-linearity will tend to be difficult to solve analytically if there exists such a solution at all. However, this Monte Carlo explorative technique does not need such conditions. By sampling the time allocation space and make after the realization their respective valuations on different states of happiness and calculate from these outcomes a new posterior density function of random time allocation according to the principles summarized in the happiness function one could at least guarantee an ergodic improvement of happiness as a stochastic process without knowing if one has reached the maximum Maximorum of the happiness function at any time.¹² Even time-varying happiness functions could be treated by this approach in an adaptive Kalman-Filtering sense.

If people end up in a local greatest happiness state that would be fine for them, if they lack any incentive to search for further improvements. If they tend to sample in a greater solution

¹² A software package which has implemented MCMC is WinBugs. (see Spiegelhalter, Thomas, Best, Lunn 2003).

space so that the posterior density allows for increased variance in the respective time shares one could even suggest that the likelihood to come close in a finite number of steps converge towards the greatest happiness is assured. If one would allow for immortality one could even guarantee greatest happiness in the end.

Conclusions

The present paper gave a brief overview of the diversion of the principle of greatest happiness and the utility maximization principle and its relations towards the religious and philosophical backgrounds in particular their connections to the protestant work ethic on the one hand and the connection with natural sciences based on the Newtonian-Leibniz method of calculus. The latter stimulated a view on social sciences as something termed as social physics. Using the same approaches and methodologies should contribute to a more scientific approach in social theory. However, this led to a certain dead end.

By neglecting the emotional state of people and treat them as social atoms, i.e. individuals, disconnected in their utility maximization and selfishness cannot constitute a happy society and assure sustainability of the environment. By clinging to the paradigm modern neoclassical economic could only treat these problems as externalities in the Pigouvian sense. Instead in the quasi-religious belief of Smith in the invisible hand, one nowadays accepts the possibility of market failures. As an external social engineer economist try to correct such market failures by using the visible hand of the state, i.e. the government, to enforce necessary correction to improve social welfare.

The paper concludes with an alternative attempt to rebuilt the utility function with the aim to make individual happiness dependent on additional factors like social relations, leisure time, and environmental sustainability giving people a safeguard against catastrophic events like it has come to the political agenda like global climate change, social unrest and disintegrating states. By including these factors and taking into account that individual reflect in their behaviour these factors in their decision making, a coordination process between individuals would lead to different outcome - including as well social cooperation as a win-win-strategy to accomplish the greatest happiness of the greatest number. Instead of an ex post adjustment of market failures by a social planner, this approach fosters an ex ante adjustment in the individual choices to avoid coordination failures in the decision making process itself.

A different choice equilibrium between conflicting interests would emerge endogenously as part of a rational bargaining process. Furthermore the approach suggested here gives up the maximization principle, because this to be part of the decision process would need a perfect

information about the decision function, i.e. happiness function, and the constraining environmental conditions. Instead we suggest it would be more appropriate to take the search for greater happiness literally. Using a MCMC-approach to derive a sampling strategy for greater happiness to derive probability functions in the Bayesian inference methodology would not forgive the aim of increasing happiness, but takes into account the badly informed state of the individual agents who have to learn the hard way to reach greater happiness than before. Furthermore the fundamental scarcity people face is less the budget constraint given by money values but the even more deeply constraint of living time and their appropriate time allocation.

The currently highly popular happiness research agenda in the Western society also meet with some thinking which emerged in the Buddhist economics community in particular in Thailand. It is related to less emphasising the importance of material wealth and instead of the internal emotional states of a person related to spiritual growth and maintaining an environmental sustainable behaviour of the economic dimension of a society. Therefore one could expect a fruitful dialogue between Western and Buddhist economist in the future in search for establishing a new foundation of economic principles for human behaviour.

References

- Barney, G. O. (1980): *Global 2000 report to the President of the US: entering the 21st Century*. Volume III. The government's global model, Pergamon Press, New York.
- Barro, R. J., McCleary, R. M. (2002): Religion and Political Economy in an International Panel, Harvard University (mimeographed).
- Barro, R. J., McCleary, R. M. (2003): Religion and Economic Growth, NBER WP 9682, National Bureau of Economic Research, Cambridge, Massachusetts, May 2003.
- Beccetti, L., Pelloni, A., Rosetti, F. (2008): *Relation Goods, Sociability, and Happiness*, Research Paper Series No. 117, Centre for Economic and International Studies, Vol.6 (4), University of Rome, March 2008.
- Brooks, A. C. (2008): *Gross National Happiness: Why Happiness Matters for America--and How We Can Get More of It*, Basic Books, 2008,
- Bremaud, P. (1999): *Markov Chains: Gibbs Fields, Monte Carlo Simulation and Queues*, Springer, 1999.
- Crane, A., McWilliams, A., Matten, D., Moon, J., Siegel, D. S. eds. (2008): *The Oxford Handbook of Corporate Social Responsibility*. Oxford, England; New York, NY: Oxford University Press.
- Dixon, H. D. (1997): Controversy: Economics and Happiness, in: *The Economic Journal*, 107, 1812-1814.
- Easterlin, R. A. (2001): Income and Happiness: Towards a Unified Theory, in: *The Economic Journal*, 111, 465-484.
- Frank, R. H. (1997). The Frame of Reference as a Public Good, in: *The Economic Journal*, 107, 1832-1847.
- Frey, B. S., Stutzer, A. (2005): Happiness Research: State and Prospects, in: *Review of Social Economy*, 63(2), June 2005 , 207-228.
- Friedman, M. (2007): *The Power of Choice*, 2007.
- Friedman, M. (1980): *Free to Choose*, 1980.
- Fudenberg, D., Levine. D.K. (2006): A Dual-Self Model of Impulse Control, in: *American Economic Review*, 96(5), 1449-1476.
- Gilbert, D. (2006): *Stumbling on Happiness*, 2006, Knopf.
- Gilks, W: R. et al (eds) (1996): *Markov Chain Monte Carlo in Practice*, Chapman & Hall, 1996.
- Hayek, F. A. (1948): *Individualism and Economic Order*, 1948.
- Hayek, F. A. (1960): *The Constitution of Liberty*, 1960.
- Hayek, F. A. (1973): *Rules and Order*, Vol. 1 of Law, Legislation and Liberty (3 volumes)
- Hayek, F. A. (1976): *The Mirage of Social Justice*, Vol. 2 of Law, Legislation and Liberty (3 volumes)
- Hayek, F. A: (1979): *The Political Order of a Free People*, Vol. 2 of Law, Legislation and Liberty (3 volumes), 1979.

- Kahnemann, D., Krueger, A. B., Schwarz, N., Stone, A. A. (2006): *Would you be happier if you were richer?*, CEPS Working paper 125, Princeton University Center of Economic Policy Studies, Princeton, may 2006.
- Kaliski, B. ed. (2001): Social Responsibility and Organizational Ethics. in: *Encyclopedia of Business and Finance* (2nd ed., Vol. 1). New York: Macmillan Reference.
- Kaliski, B. ed.. (2001): Ethics in Management. (2001). in: *Encyclopedia of Business and Finance* (2nd ed., Vol. 1). New York: Macmillan Reference.
- Hamilton, K. (1994): Green Adjustments to GDP, in: *Resources Policy*, 20(3), 155–68.
- Layard, R. (2005): *Happiness: Lessons from a New Science*, 2005, Penguin Press.
- Larson, R.W. (1990) *The solitary side of life: An examination of the time people spend alone from childhood to old age*. Review, Chapter 10, 155-183. (in Argyle)
- Liu, J. S. (2001): *Monte Carlo Strategies in Scientific Computing*, Springer, 2001.
- Lu, L., Argyle, M. (1992): *Happiness and cooperation. Personality and Individual Differences*, Chapter 12, 1019-1030. (in Argyle)
- May, S., Cheney, G., Roper, J. (2007): *The Debate over Corporate Social Responsibility*. Oxford, England; New York, NY: Oxford University Press.
- McBarnet, D. J., Voiculescu, A., Campbell, T. (2007): *The New Corporate Accountability: Corporate Social Responsibility and the Law*. Cambridge, England: Cambridge University Press.
- Meadows, D. H., Meadows, D. L. et al. (1972): *The Limits to Growth*, Universe Books.
- Nash, J. (1950): Equilibrium points in n-person games, in: *Proceedings of the National Academy of Sciences*, 36(1),48-49.
- Nash, J. (1951): Non-Cooperative Games, in: *The Annals of Mathematics*, 54(2), 286-295.
- Ng, Y.-W. (1997): A Case for Happiness, Cardinalism, and Interpersonal Comparability, in: *The Economic Journal*, 107, 1848-1858.
- Oswald, A. J. (1997): Happiness and Economic performance, in: *The Economic Journal*, 107, 1815-1831.
- Putham, R. D. (1995): Bowling Alone: America's Declining Social Capital, in: *Journal of Democracy*, 6(1). 65-78.
- Putnam. R. D: (2000): *Bowling Alone: The Collapse and Revival of American Community*, Simon & Schuster, New York..
- Rossi, A. S. (2001): *Caring and Doing for Others: Social Responsibility in the Domains of Family, Work, and Community*. Chicago, IL: University of Chicago Press.
- Roy, R. (1947) : La Distribution du Revenu Entre Les Divers Biens, *Econometrica*, 15, 205-225.
- Spiegelhalter, D., Thomas, A., Best, N., Lunn, D. (2003): *WinBUGS User Manual Version 1.4*, Cambridge, UK, January 2003.
- Stern, N. (2007): *The Economics of Climate Change - The Stern Review*, Cambridge University Press, Cambridge, UK.
- Weiss, R.S. (1973): *Loneliness. The experience of emotional and social isolation*. Cambridge, MA. MIT Press.

- Weeler, L., Reis, H., Nezlek, J. (1983): Loneliness, social interaction and social roles. in: *Journal of Personality and Social Psychology*, 45. 943-953.
- Zerk, J. A. (2006).: *Multinationals and Corporate Social Responsibility: Limitations and Opportunities in International Law*. Cambridge, UK: Cambridge University Press. ISBN 0521844991. OCLC 76849750.