This historic paper was written in the night from 24th to 25th August 2011 and has first been dated with 14th October 2011. It paved the way for the Project UE_2013 and the author's simulated Institute "Terra Simulada Ilimitada" founded in Brazil, Belo Horizonte – MG, year 1998.

Two major figures are responsible for the success of this project: Dr. Štefan Bogdan Šalej and my late father Marjan Pibernik. Both have their birthdays on the same day which is 14th October.

In my vision of May 2011, I saw a space craft, USS Enterprise NCC-1701A similar vessel landing in my home village of Mojstrana one level of existence above our 3D and on October 14th 2008. Mojstrana is the birthplace of the idea for the entire project that was conceived back in 1987. After reading the book "Andrew and the three Martians" I started to change this world into a moneyless society. Full implementation of E=mQ² should contribute to eternal peace and prosperity for all kinds already joined on 4D. I dedicate this work to Dr. Šalej, my late father Marjan and Alan Zeeper my teacher, spiritual guide and ally.

Dr. Štefan Bogdan Šalej, 14.10.1943

Marjan Pibernik 14.10.1946 – 14.09.2008

»Dragi in spoštovani Andraž,
Najlepša hvala za Vaše čez dnevne e-maile. Rad jih čitam, čeprav moje intelektualne sposobnosti še zdaleč ne dosegajo Vaše inteligentne stopnje.
Ker se v teh mesecih popolnoma posvečam moji raziskavi na področju javnega podjetništva, Vas prosim, če me izpustite iz Vaše liste pošiljanja e-mailov, dokler ne bom imel zopet čas, da jih prebiram, kot si to zaslužijo.
Lepe pozdrave, Bogdan Šalej« 19.07.2012

European Studies - Management of EU Projects - MA thesis title:

Acceleration mechanism for world integration: the example of the European Union

Additional outcome during research for MA thesis (title above) based upon project disposition for the EU Twinning Project SR05-IB-TR-01 from 2nd October 2007 utilizing Prospect Theory to develop how human brain stores memories and energy required for this process.

The author Mag. (FH) Andraž Pibernik wishes to express his gratitude to Al Zeeper from Edmonton, Canada for reviewing this paper and correcting the English text.

For more information about Al Zeeper's great contribution to physics please visit his webpages: http://www.einsteingravity.com/

Introduction

During the development of a reward and punishment system for the EU Twinning Project of the Ministry of Capital Investments in Belgrade, Serbia in October 2007 the author came upon an astonishing discovery. The system was based upon Prospect Theory presented in 1979 by Kahneman and Tversky. The reference point in the value function of Prospect Theory can be seen as a -/+ loaded atom which is a basic unit of matter. By October 2nd 2007 the Author hypothetically introduced a method of how the human brain stores memories and adapted Einstein's energy-mass equivalence formula to energy conservation by exchanging c^2 with Q^2. Surprisingly Einstein's general relativity does not apply with energy-mass conservation so it is actually useless.

The new $E=mQ^2$ represents the conservation of energy and in the case of the human brain this would be memories, numbers, names, places, pictures, words of a different language etc. Q^2 would be representing an individual who speaks and understands two languages. Q alone stands for the quantum speed of thinking in the human brain in quantum steps per second. This quantum steps per second can be defined as reflections or storage of different reference points within one quantum system (human brain) such as memories, objects i.e. all tangibles and intangibles one obtained during his life as quantum steps into the future are only possible in a very limited way. As for the EU Twinning Project disposition it was noted that people can

be motivated not only by tangible objects but also intangibles such as praise and criticism. It was said that each praise or criticism can be seen as a reference point including tangible gifts such as a book, a pen etc. which remain stored in our memory and these objects will always remind us of the person who gave them to us. It was also said that people who had hard lives and cried a lot as well as of sadness but also of happiness have more reference points saved and are more open to acquiring new knowledge. A good example would be the students from former Yugoslavia whose families suffered civil war and fled to Austria. The majority of them learned very quickly the German language and they were among the best students in different universities. The author experienced similar examples also during his stay in Brazil in 1998.

Certain energy is required to store memories into our brain with the help of electric impulses. Our whole body is an electrical power plant and it was said that we need 100 Watts of chemical energy to make around 10^16 analogue computing operations per second. It might appear to someone who is a researcher and is working a lot using his brain that he starts losing weight. Or another example: the world's best chess players lose up to 4 kilos of weight during the period of just one chess tournament.

Before turning back to $E=mQ^2$ a short introduction to the development of prospect theory follows.

Prospect Theory and its development

Prospect Theory was developed by Daniel Kahneman and Amos Tversky as an alternative model to EUT – Expected Utility Theory by Neumann and Morgenstern.

In its basic formulation it is a descriptive model. The Author found out later that combined with what Herrmann and Bauer developed in 1996 as a method of bundling prices it can also be used as a prescriptive model.

The mechanism is so great that one can travel into the past (of course only in his mind) and take out certain events that already happened and present them back the

way he wants in present time. Another good combination of Kahneman/Tversky & Herrmann/Bauer is that sometimes one can predict the future outcome of an event by 80:20 normally by 50:50.

The model also works great when instruments of simulation are implied and it also works great in combination with Sigmund Freud's theory of Motivation. For this reason the author chose a test subject to whom he became acquainted with during secondary commercial college.

This acquaintance took part within a TV reality show just before finishing his Master Degree in Slovenia.

The author used Hermann and Bauer's rules as depicted in picture 1 one and wrote some separate praise words: $[v(x) + v(y)] > [v(x + y)]$, for $x, y > 0$, separate praise is associated with more pleasure for an individual just like one receiving more birthday presents separately.

x = Praise comment on the reality show's internet forum No. 1: You are the best, you will win for sure.

y = Praise comment on the reality show's internet forum No. 2: Go I love you (fictitious girl's name)

The subject was turned around the reference point represented by 0 in the coordinate system of the Picture 1 (his status quo) so many times that he almost lost his mind.

The author decided to test how far he can go on the negative side. The criticism was administered slowly but painfully. Knowing the person and using fictitious names made the work easier. Not to forget it was all part of a simulation for scientific purposes. The test was carried out in 2006.

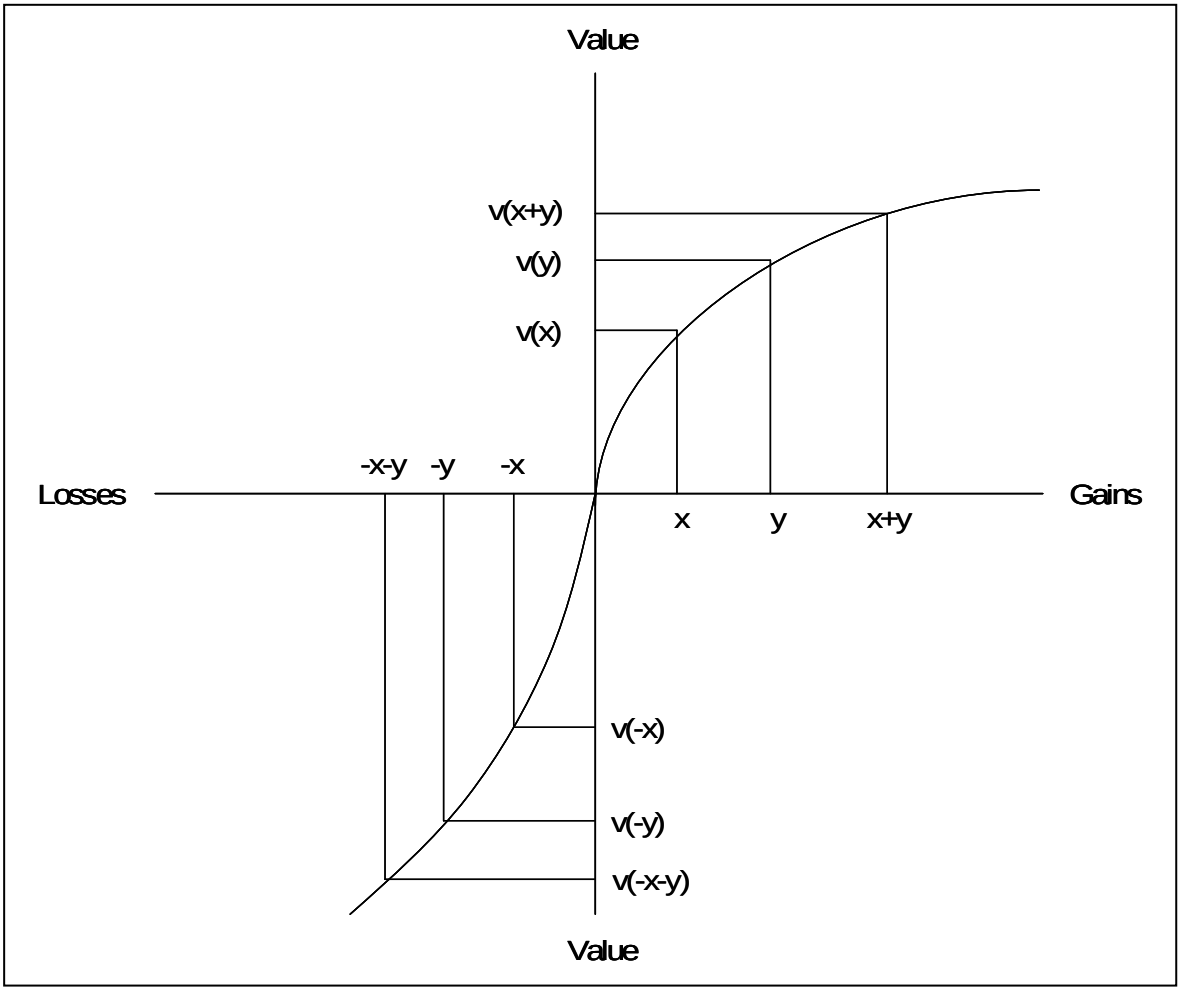
Writing more separate words of criticism would correspond to the equation below:
$[v(-x) + v(-y)] < [v(-x -y)]$, for $x, y > 0$

According to the equation above, separate criticism is more painful than those which are combined.

x = Negative comment criticism on the reality show's internet forum No. 1: You are a loser you do not know how to drive.

y = Negative comment criticism on the reality show's internet forum No. 2: I am sure that after this reality show nobody will take you seriously.

z = was the climax of the whole experiment (not depicted on picture 1) when a modified picture of the subject's promotion vehicle was sent around by mass mail. After this event it was clear to the author why several wars in the past were sparked. The subject was threatening the author on the phone several times and the goal (by that time future goal) was achieved by breaking up all contacts with this subject.



Picture 1: Value function of the Prospect Theory.

Herrmann and Bauer (Picture 1) open a new chapter at the end of their article published in “Zeitschrift für betriebswirtschaftliche Forschung” vol. 7/8 1996 writing that a global “customer satisfaction" could be achieved.

For now to achieve a global peoples satisfaction we would need a technology that would eliminate poverty and hunger, provide virtually all basic material wants and needs equally and sufficiently to all.

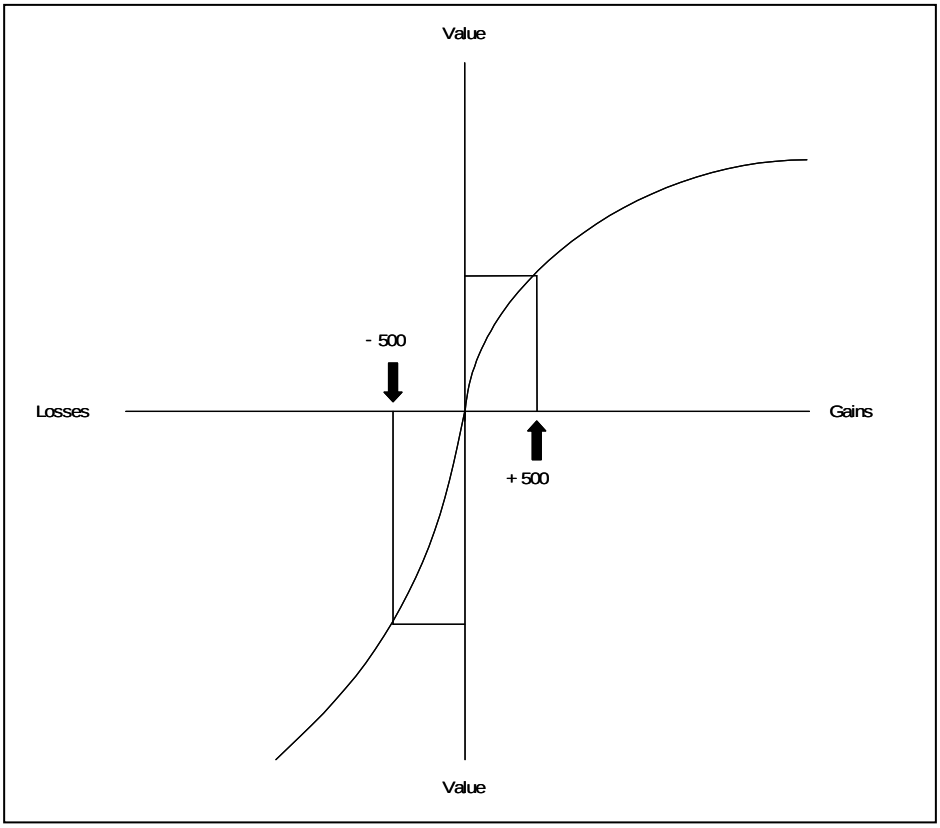
However if we follow the research of the theoretical physicist Dr. Michio Kaku, mentioning the Kardashev scale with Type 1, Type 2 and Type 3 civilizations we are nowhere to be found because we are a Type 0 civilization getting our energy from dead plants, oil and coal.

However we are in a big transition from Type 0 to Type 1 and EU was formed as a political and trading block to oppose NAFTA, Canada, USA and Mexico. EU is the beginning of a Type 1 economy. Huge planetary trading blocs are the beginning of a Type 1 economy.

What makes Prospect Theory so interesting is that it incorporates psychophysics and it is used to describe economic phenomena better than standard theories. It can also be used to help to accelerate and understand the transition from a Type 0 to Type 1 economy. The author found back in 2003 that the diminishing sensitivity in the value function of the Prospect Theory is the key to this question. Before turning back to diminishing sensitivity the psychophysics of the value function must be explained.

According to Kahneman and Tversky our perceptual apparatus is attuned to the evaluation of changes or differences rather than to the evaluation of absolute magnitudes. When we respond to attributes such as brightness, temperature, the past and present of our experience defines an adaptation level or reference point and stimuli are perceived in relation to this reference point. As seen in picture 1 the value function is concave above the reference point and convex below it. That is, the marginal value of both gains and losses generally decreases with their magnitude. Many sensory and perceptual dimensions share the property that the psychological response is a concave function of the magnitude of physical change. For example, it

is easier to discriminate between a change of 3° and a change of 6° in room temperature, than it is to discriminate between a change of 13° and a change of 16°. Analogous to this, Kahneman and Tversky propose that the difference in value between a gain of 100 and a gain of 200 appears to be greater than the difference between a gain of 1.100 and a gain of 1.200. The same implies for losses unless the larger loss is intolerable. Back to our example with a subject receiving criticism, for sure he never expected nearly 200 comments on his reality show forum mainly negative comments with lots of criticism and he finally came to the point where the large losses became intolerable. This example shows that gains and loses do not need to be defined in monetary values. Also Kahneman and Tversky did not use any $ or other signs for money in their original formulation of this text. In their 1979 original formulation of prospect theory they hypothesize that the value function for changes of wealth is normally concave above the reference point and often convex below it. It's important to note that losses loom larger (see picture 2 below) than gains and that people tend to take more risk below the reference point (when they are loosing) and take less risk above the reference point (when they are winning). The extent of loss aversion gave a factor of 2:1 so that losses loomed two times larger than gains.



Picture 2: Hypothetical Value function of the Prospect Theory

Important to notice is that each one of us (or each country, trading block) has a certain reference level (or reference point) however it was proven theoretically as well as empirically that these reference levels change over time. This would mean that Greece is now in financial trouble but will be one of the most interesting destinations in the future. Compared with Croatia as a very interesting destination it is enough for the Croatian government and their spending policies to have the same problems in the future when Greece recovers. One has to bare in mind that Greece is the treasury of knowledge and that the name EUROPA originates from Greece.

As already mentioned, a country has its reference point and within this country for example Austria, there are another 8 million other inhabitants with their reference levels. As mentioned in the previous paper, a reward and punishment system for the EU Twinning Project, developed for the Ministry of Capital Investments, is all about adapting the reference levels of individuals within a certain group, organization, country, trading block or even among countries and individuals on the planet.

Thanks to Bruno Kreisky the Austrians got a lot of benefits at work, free school books and free using of a public means of transportation both to and from school for the pupils. By his supporters Bruno Kreisky is seen as the last socialist of the old school.

One has to imagine that humanity achieved a straight line at the end of the concave curve above and at the end of the convex curve under the reference point. This is achieved today only by those who have nothing to lose financially. As well as those who take critics for granted and see it as praise. For the rich people who have everything there still is some fear of becoming sick and the fear of mortality. The phenomenon of diminishing sensitivity is herewith almost eliminated and people now have no fear of losing anything what they fear to lose in today's life and economies around the globe. No fear of terrorist attacks, no fear of war, no poverty and no hunger. Sounds like science fiction but this might soon become reality. See appendix 1 on page 15 where this is depicted. The outcome of such change in society would lead to self improvement and a collective improvement of the human race. One would spend more energy on helping others rather than accumulating wealth and thinking about their own fiscal remuneration.

As mentioned above we are being transformed towards a Type 1 civilization according to the Kardashev scale and a Type 1 civilization is transforming 2 kg of matter per second into energy. The future also implies antimatter-matter collisions where the entire rest mass of the particle is converted into kinetic energy. But obstacles such as terrorism and the worst forms of turbo capitalism are blocking our way.

Our capitalist society is based on accumulating as much wealth as possible. Fiscal remuneration pays a key role in our lives. The author mentioned Bruno Kreisky because he managed to introduce some sort of socialist system within a strongly capitalist oriented society like Austria. Josip Broz Tito and Bruno Kreisky both succeeded in giving people full employment. However in communist Yugoslavia everybody got paid the same whether a person was working or not. In Austria however a good worker or a person with ambition was promoted to a better salary and could buy and choose a car in a free market. On the contrary in Yugoslavia you had to pay for the car but then you were waiting for 7 or more years to get it. In Austria you gave a relatively small amount of your salary for a refrigerator and took it home with you. In Yugoslavia you had to save at least one or two years and wait for the refrigerator. But people in the former Yugoslavia were happy, they worked until 14h and afterwards it was time for family or some more work to earn additional money. On the weekends, family and friends are having picnics and playing with children and it's a perfect society for those who follow the rules. The author is comparing Austria and the former Yugoslavia because some sort of post-capitalist liberal democracy or utopian socialist society will have to be introduced to save this world out of deeper and deeper crisis. Nobody wants a World War III where afterwards those remaining would be building a new future by fighting for uncontaminated land with sticks and stones.

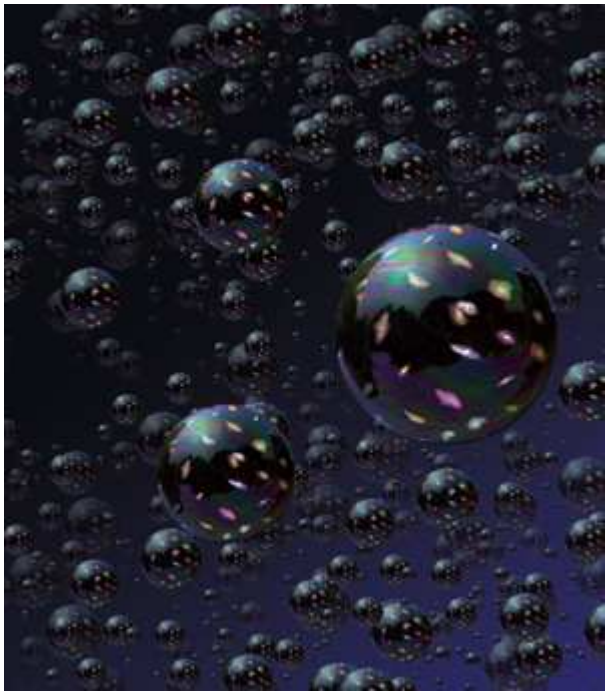
What the author would like to point out is that this form of capitalism is sending us backwards. In the past it was said that socialism was sending us backwards many steps which is true because if you compare the infrastructure of Vienna and Budapest you would see that Austria and Vienna went forward for 30 years whereas Hungary and Budapest went back for 30 years and the difference is 60 years in total. What about the difference in people's minds? Did they go backwards? No they

moved forward. Their children are studying abroad they study alone, they read the newspapers use the internet and work a lot more than before for a lot less money. No time for picnics anymore but only burnouts due to turbo capitalism. But parents are happy to see their children achieving success? Perhaps it is possible that the president of the United Earth has already been born. By United Earth it is meant that all the nations of Earth should unite under the Flag of the UN into a one Earth Republic to assure peace and prosperity for all human kind. Gene Roddenberry wrote about such a society in 1964. The Earth was far more advanced than today and technology took care of providing for virtually all the basic needs of humanity. The society was based around self-improvement and collectively improving the human race, instead of cutthroat competition, combined with heavy automation and a means of essentially free labor where menial tasks are automated and goods are made freely available to all citizens due to the super abundance. To achieve this it might take generations one could say, but what we need is a “New World Economy” with a goal of making money obsolete. It is the money that makes the world going down. The concept of a moneyless society in which each person contributes freely and willingly to the good of the whole is not unique to Gene Roddenberry, but was a theme developed in utopian socialist theory writings such as William Morris's “News from Nowhere” published in 1890 in the United Kingdom. Perhaps here another book should be mentioned and the author is Slovenian Vid Pečjak, title: “Drejček in trije Marsovčki”, in English: “Andrew and the three Martians” which was published in 1961 prior to Gene Roddenberry who developed Star Trek. This is a science fiction book for children in which the three Martians (who were not allowed to land on Earth) when asked how life was on their planet, they answered; children go to school if they want and no washing is necessary. They go to bed when they want and what is most important is that war is forbidden on Mars which is still allowed on Earth. The Author of this research paper read this book at the age of 8 and was fascinated when Andrew also asked about shopping habits and the Martians answered that you go into a shopping mall and choose an item, but you do not have to pay for it, because there is no cashier. A perfect concept of a moneyless society and the goal of the three Martians who risked their landing on Earth was to give this idea to little Andrew so that he would spread it among his friends and teachers and professors etc. The book was reprinted seven times and translated into Croatian, Serbian and Czech languages.

The author is of an opinion that before we start transforming our society or changing our choices and values we should understand how our brain works in order to find a common reference level, starting with our garden neighbours or people at work. We need to connect with our superiors, professors, family members and friends on this social reference level. More complicated reference levels are international relations where individuals represent the rest of the population. As seen in Croatia the ex-prime minister was transferred from a prison in Salzburg to one in Remetinac Zagreb, because he simply caused a financial crime working for his own pocket on behalf of the people, which is often the case in today's world.

Back to how our brain works. This is a study of a period expanding from 2003 till today for more than 8 years. According to Dr. Karl Albrecht: Knowing how your brain works can help you use it more deliberately for your own benefit and success in life.

Our brain is not like our solar system with a sun and a few planets, it's an ocean of consciousness. It can be compared to a very complicated Quantum System or even a Universe, better yet a Multiverse.

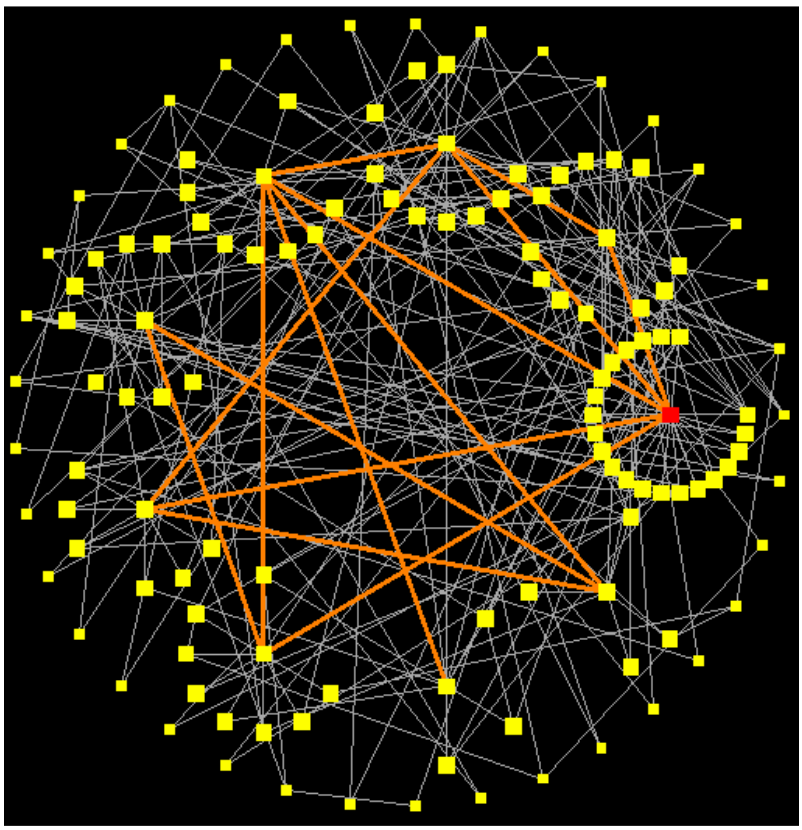


Picture 3: Multiverse human brain

However it is true that we start at the level of a moon, planet, solar system, Galaxy, Universe and end up in a Multiverse before we leave this planet. According to Muslim

belief in the Quran, there are seven heavens and each is part of the unseen universe. Hinduism also has the concept of seven heavens.

The Author mentioned above that a human brain stores memories in the form of reference points. A reference point is a -/+ loaded atom which reminds us of how much I lost in order to gain that much. Our brain is attuned to changes in wealth or welfare, in losses and gains relative to this reference point rather than to final states or assets. We use reflection in order to travel among these reference points and the more we reflect the more space we create for further saving of new reference points. People who travel a lot into foreign countries and learn foreign languages might be an example of how each word of a foreign language is stored. Did I have to pay for this item to learn how it is spelled in that foreign language? Or the girl was so cute and gave it to me for free. Once again we observe losses and gains. Picture 4 shows a quantum system. There are many such reference points connected to each other. This could be a brain of a mouse where between two reference points there is a message that the way to get from A to C is to go around B, because it is too dangerous (loss of life) to go there directly. Or to get food (gains) go from C to D across A and B.



Picture 4: Quantum System

For all this to happen there is a need for a certain amount of energy and that is why Albert Einstein's mass-energy equivalence formula was adopted to the micro-cosmos or human brain by exchanging c^2 to Q^2.

Albert Einstein

In physics, mass–energy equivalence is the concept that all objects with mass contain energy, and all energy has mass. Special relativity expresses this relationship using the mass–energy equivalence formula where:

$E=mc^2$
E = the energy equivalent to the mass (in joules),
m = mass (in kilograms), and
c = the speed of light in a vacuum (celeritas) (in meters per second).

Andraž Pibernik based upon **EU Twinning Project SR05-IB-TR-01** disposition.

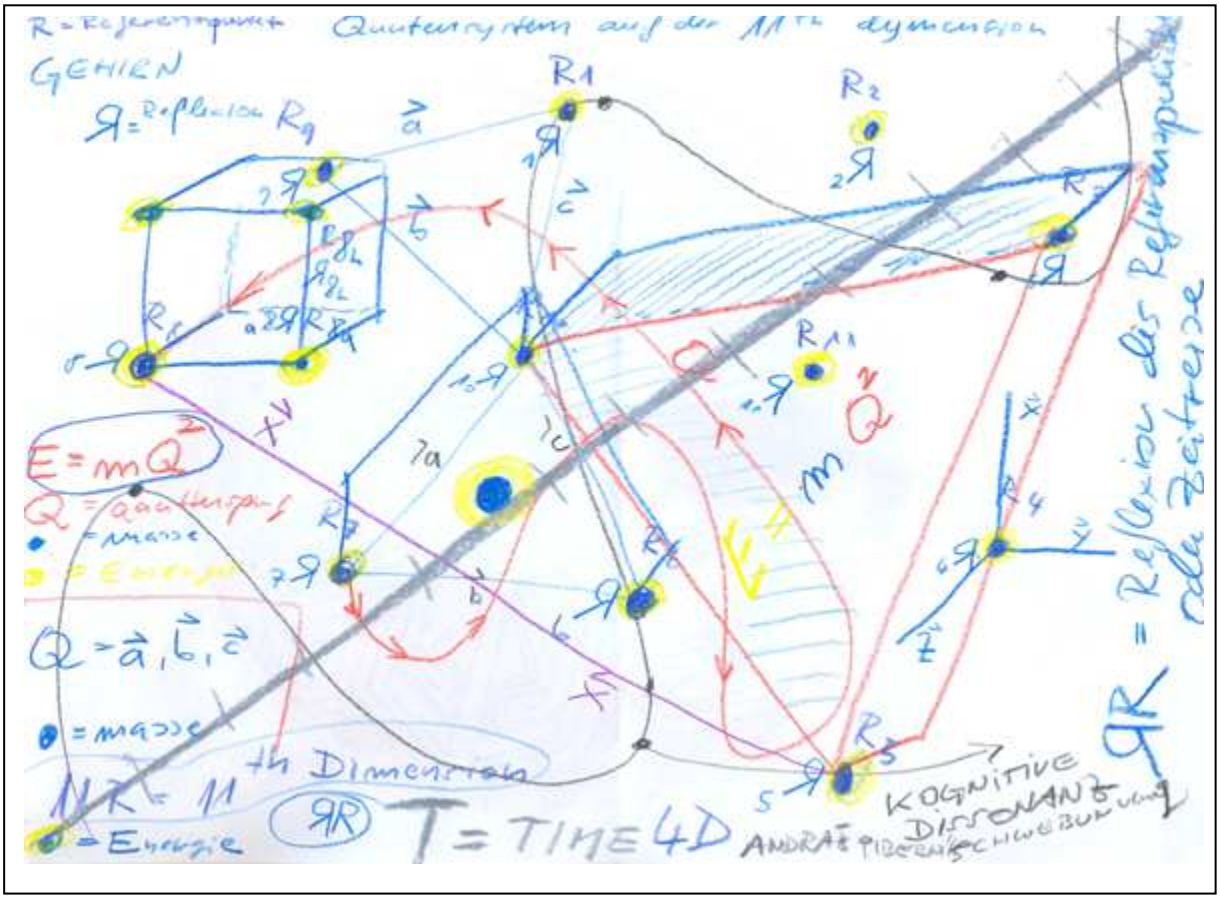
$E = mQ^2$
E = the energy equivalent to the mass (in joules),
m = mass (in kilograms),
Q = the quantum speed of thinking in the human brain (in quantum steps per second) in form of permanent reflection and storing memories in a -/+ loaded reference points defined in Prospect Theory – where at the end the energy is conserved.

If we look around us Einstein was right, nothing can travel faster than the speed of light. But inside our mind and our brain, our thoughts are much faster than the speed of light and besides that the quantum steps that we make (reflections), some individuals can be in several locations at one time. So called time travel is possible but only within our brain. Time travel would be defined as recalling memories from the past.

According to Rodney Kawecki, Einstein's general relativity does not apply with energy-mass conservation, so it is actually useless. It does not apply to the force of gravity or the force of acceleration. $E=mQ^2$ for now tested only inside the human

brain represents the conservation of energy as a part of particle mass (both intangible and only in the form of electric impulses travelling through the brain) interaction conserving that energy.

To compare the speed of light and the speed of thoughts for example, Neil Armstrong can be at any given time 1.5 seconds faster than light on the moon's landing spot where he spoke out his famous words in 1969. Given that starting point is planet Earth.



Picture 5: Hand drawn application of $E=mQ^2$

The concept of cognitive dissonance is applied, because people tend to exhibit a certain level of anxiety when deciding for one option, but thinking of the possibility that this might be a bad decision. A person who just spent too much money on a new car might decide to say that the new vehicle is much less likely to break down than his or her old car. This belief may or may not be true but it would reduce dissonance and make the person feel better. One thing is for sure, the more cognitive dissonances someone is experiencing, the more resistant he would become against

this unpleasant feeling and energy consumption because our brains work empirically. As already mentioned, Einstein's general relativity does not apply to the force of gravity or the force of acceleration. In the case of the cognitive dissonance, the function of the human brain is accelerated which means more quantum steps per second, as well as into future, as also into past in form out of reflection in order to find a good excuse for what one decided or what one bought. (The example of a too expensive car) So there is a strong acceleration of thoughts in the form of quantum steps and reorganizing the values and memories inside one's brain. $E=mQ^2$ can be implied for acceleration, but also to the force of gravity.

The latest discovery by the author was the fact that the equation $E=mQ^2$ is only the basic, but true energy equation. In authors finding mass and energy are combined as human body or Q. The more languages you know, the more of a person you are. If a Q is one person who speaks and understands two languages (average), one is Q^2 and Q contains mass and energy. Mass is the body, energy is the soul having home in our brain.

So the equation should be E=Q^n.

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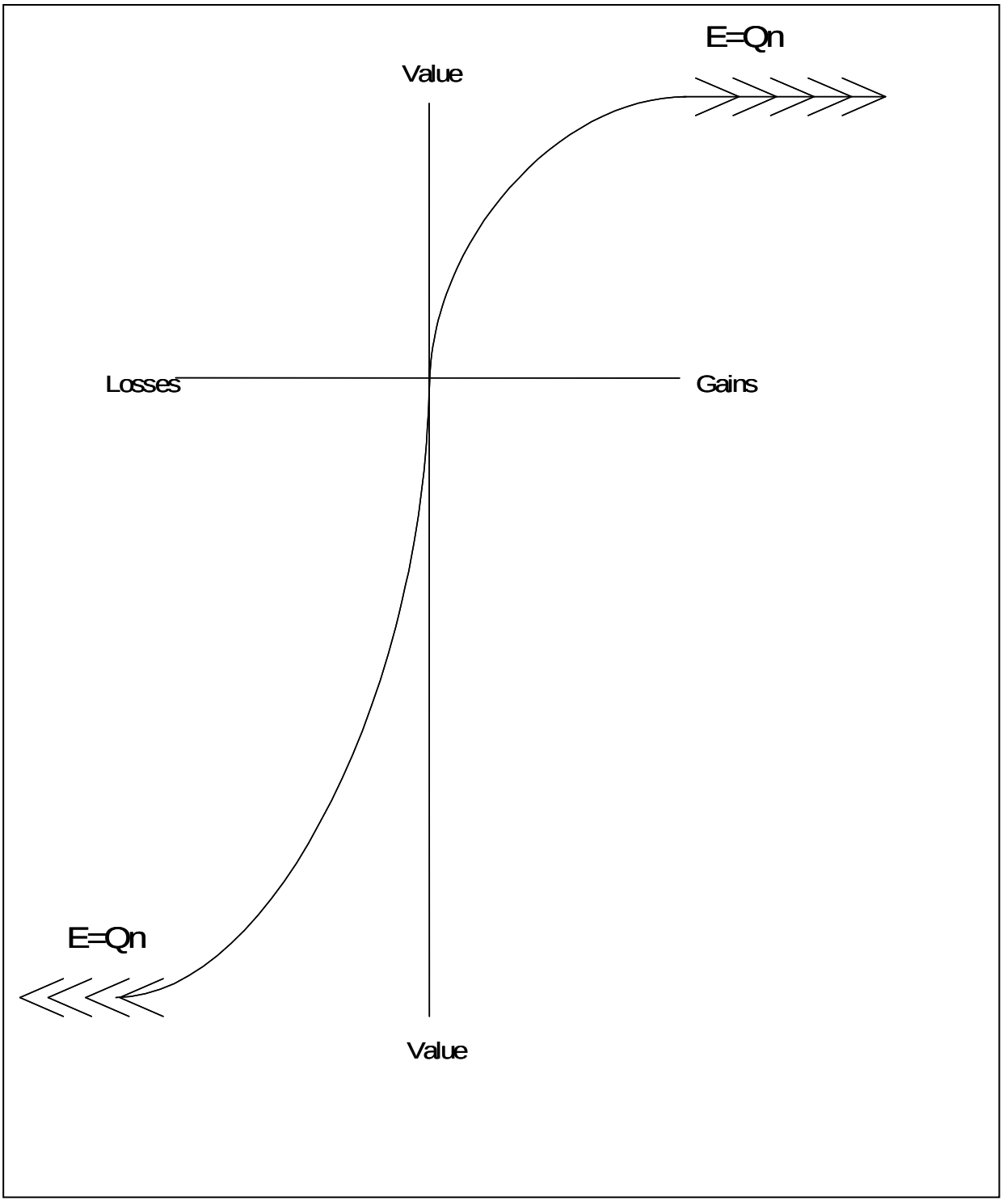
Appendix 1



Picture 6: Humanity disabling sensitivity and mind accelerating in -/+ directions

This is a theoretical foundation for what author wrote on page 7 (pg. 4). If we put forces of gravity to work both curves join sooner or later to form an 8 shape curve. It is interesting that the coordinate system has a form of a cross and the curves can run into all directions creating a Multiverse picture like depicted in the Picture 3.

Paper was reviewed by:
Ass. Prof. Mag. Dr. Dr. hc. Schapour Zafarpour
o.-Univ. Prof. Dipl.-Ing. Dr. Dr. hc. Udo Wagner
Prof. Dr. Štefan Bogdan Šalej

The author Andraž Pibernik, MSc. dedicates this work which is now a piece of history to his first elementary school teacher Mrs. Vera Gartner for inspiration to learn more than 8 foreign languages at the age of 7 years and for urging the author to read the book about Andrew and the three Martians that changed his life promoting a moneyless society and peace for All Kinds. Special thanks go to the elementary school of 16th December in Mojstrana, Slovenia and its director Mr. Emil Brezavšček for being proud on one of his pupils who chose a different way of post elementary education mainly abroad leading to inaugurating a new era of peace and prosperity for All Kinds. Special thanks go to the author of the book Andrew and the three Martians Dr. Vid Pečjak for writing this book that captured the imagination of a young pioneer Andy being visited by the three Martians with the mission of promoting each scientific work that contributes to peace and moneyless society, self betterment and betterment of all species across the Omniverses. The author is honoured to be a part of the team of people who will contribute to the greatest change in the society for the last 6000+ years. He wants to thank to Mr. Erik Margan from Inštitut Jožefa Štefana for his critical view of the research and to Alan Zeeper for his support in difficult times. Both stood at the author's side no matter the magnitude of the dilemma. Dr. Štefan Bogdan Šalej deserves a special thank for calibrating the author's mind for this project in Brazil back in 1998 with his lecture on the importance of simulation within practical education and business management. Mrs. Dir. Mag. Maja Amrusch-Hoja, the director of the Bilingual Secondary Commercial College for Business Administration TAK/HAK and Prof. (FH) Mag. Ingird Schwab-Matkovits, the manager of the University of Applied Sciences in Eisenstadt both contributed to the largest project of all times by accepting the author to their study programme with all the confidence and personal engagement the author needs on his life long learning quest to change the world so that the poor will live in peace and prosperity and the rich will be lost for a while before they reach the same reference level of prosperity the poor did in their dreams of a better and equal world for all of us and All Kind out there in the vastness of infinity. Thanks to Srečko Šorli Amrit Nirvikar for abolishing time … ∞