

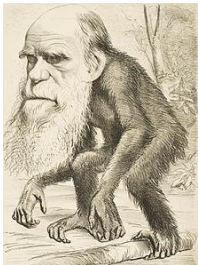
Hideo Shingu

Today's Verbum :

There are more things in heaven and earth, Horatio, Than are dreamt of in your philosophy.  
William Shakespeare, Hamlet (Act I, Scene 5)

The Origin of Species. How Homo Sapience (The wise creature) appeared on earth.  
Charles Darwin (1859)

There is grandeur in this view of life, with its several powers, having been originally breathed by the Creator into a few forms or into one; and that, whilst this planet has gone cycling on according to the fixed law of gravity, from so simple a beginning endless forms most beautiful and most wonderful have been, and are being evolved.



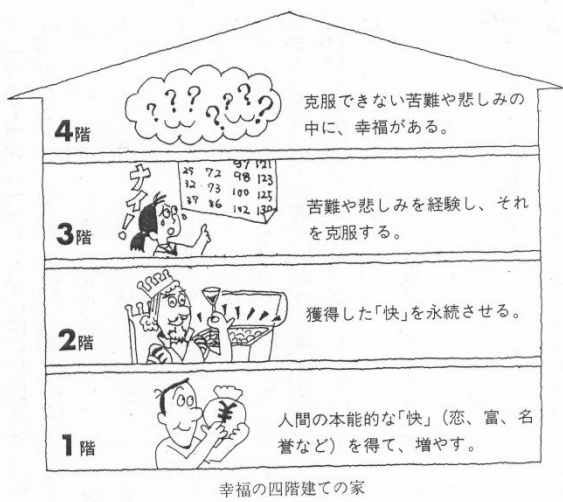
[http://en.wikipedia.org/wiki/On\\_the\\_Origin\\_of\\_Species](http://en.wikipedia.org/wiki/On_the_Origin_of_Species)

In order to live a happy life, one must **live**.

To live a life one needs continuous supply of BMR : Basal Metabolic Rate (Energy flow per second)  
2000kCal/day -----4.2x2,000,000/86400 -----100jule/sec = 100watt (BMR for a horse : 750watt).  
With one piece of candy Glico = one can run for 300m : (1000watt x 60seconds)

The difference between other creatures and Homo-Sapience : People laugh! People seek happiness.  
幸福到来了! Xing fu dao lai le! I am happy!

Beate certe omnes vivere volumus : We all certainly want to live happily. Cicero-Augustinus



4th Story

Happiness in sorrow and hardship itself.

3rd Story

Happiness in overcoming sorrow and hardship

2nd Story

Happiness in continuation of pleasures

1st Story

Happiness in pleasure of Love, Wealth and Fame

The Four Storied Structure of Happiness. (Shingu : NHK Books (1998), Happiness)

Hideo Shingu

Today's Verbum : Otia Dant Vitia. Leisure gives vice 暇は悪を生む

小人閑居為不善 無所不至 xiao ren xian ju wei bu zheng wu suo bu zhi : 大学 Da xue

There is no evil to which the mean man, dwelling retired, will not proceed. <http://ctext.org/liji/da-xue>

**The stress theory** for the healthy life. Hans Selye GAS General Adaptation Syndrome

The new way of looking at the effect of stress on one's health.: **Stress is indispensable for happiness.**

Experimental examinations (**psychophysical tests**) can demonstrate such views.

example 1

Assume there are 10 candies for two persons. The ways to divide 10 between these two persons are given in a chart below: The difference in the way of division must evoke the difference in emotion. The indices of the difference in emolumentum (utility ~ happiness) corresponding to the method of division can be contrived in several ways. **Fill in the empty boxes** by the numbers you think adequate.

happiness way of division	Summation		Multiplication		Entropic Happiness *
	Happiness	H-S	Happiness	H-M	
0 - 10	10		0	0	0
1 - 9	10		9	0.36	0.576
2 - 8	10				0.756
3 - 7	10				0.888
4 - 6	10				0.971
5 - 5	10		25	1.00	1.000
6 - 4	10				0.971
7 - 3	10				0.888
8 - 2	10				0.756
9 - 1	10				0.576
10 - 0	10		0		0

\*  $\log(0.25)/\log x(1-x)$

Note: Each having 3 pieces, Happiness of two people equals to the case of distribution 1 and 9.  $3 \times 3 = 1 \times 9$  but total pieces sum up to  $3 + 3 = 6$  and  $1 + 9 = 10$ . The extra 4 may be given to the 3rd person. Principle of estimating the **Efficiency** of concentration of matters has base in this principle.

Thus one wants to become happy but if you are satisfied, happiness may go away. The stress to make effort to become happy can be regarded as the source of the feeling of happiness.

When everyone has become rich, no one is rich. This is the subtle point of the feeling of happiness not so many people realize. The notion of **4th story happiness** may have foundation on this psychophysical nature of Homo-Sapience.

Aristotle wrote in **Nicomacos Ethics**, finding happiness in leisure is meaningless. He claims that the happiness should be found in one's work. Leisure becomes meaningful when it helps making good work (the term re-creation has such meaning, so that if re-creation becomes the purpose of life, one never can be happy).

He also wrote in **Poetics**, a drama is better if it is of tragedy rather than of comedy. Tragedy gives people "Catharsis (Greek: κάθαρσις)" of mind and let people realize the value of life ( as Homo Sapience?), appreciate life's wonders. The term catharsis may give explanation for the value of "stress" in life or the 4th stage happiness.

Quiz: find correspondence.

- ①La Traviata      ②Madame butterfly      ③Carmen      ■      ①Oresteia      ②Oidipous      ③Medea
- ①Puccini          ②Bizet                      ③Verdi          ■      ①Aeschylus,      ②Sophocles      ③Euripides
- ①Dumas fils      ②Mérimée                  ③Long          <http://www.youtube.com/watch?v=9X68GM1b2Mc>

Today's Verbum : **Equality does not bring about happiness. Inequality neither.**

(I) **Difficulty of realizing "equality".** Yakov I. Perelman *Яков Исидорович Перельман*

Two men were making fire at a camp-site to cook porridge for lunch. One of them **A** brought with him **5 wood pieces** to make fire and the other man **B brought 3**. While they are cooking, a girl **C** came up and asked if she can join the lunch? Two welcomed her and three cooked lunch together with **8 wood pieces**. After lunch, C said she had to go and left **8 kopeck coins** to be shared between A and B since she brought her share of food materials but **no wood piece**.

Fill in the number of coins in the empty space below that should go to A and to B respectively.

A	kopeck
B	kopeck

(II) **Be and Do or Live and Love.**

If one lives by oneself, one has to think only about one's own happiness. When one starts to love somebody, one must worry about how the other party is thinking. The **δράμα** starts!

*E'strano · Sempre Libera. Strange · Always free. 不思議 · いつも自由に。*

<http://www.youtube.com/watch?v=SSPK7Ayuw3s&feature=related> *La Traviata. The last scene of Act I*

「あいみでの のちのころに くらぶれば むかしはものを おもはざりけり」 Atsutada Fujiwara 1000 AD

(See each other · my mind before seeing · compared with · after that · free from worry)

(III) **Everyone Is Right** Tales of Nasreddin Hodja <http://www.pitt.edu/~dash/hodja.html#everyone>



Once when Nasreddin Hodja was serving as qadi, one of his neighbors came to him with a complaint against a fellow neighbor.

The Hodja listened to the charges carefully, then concluded, "Yes, dear neighbor, **you are quite right.**"

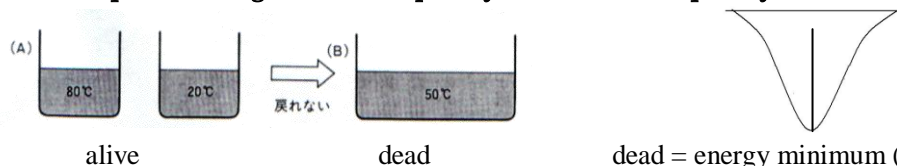
Then the other neighbor came to him. The Hodja listened to his defense carefully, then concluded,

"Yes, dear neighbor, **you are quite right.**"

The Hodja's wife, having listened in on the entire proceeding, said to him, "Husband, both men cannot be right."

The Hodja answered, "Yes, dear wife, **you are quite right.**"

(IV) **An example of change from "inequality" (state A) to "equality" (state B).**



alive

dead

dead = energy minimum (entropy maximum)

State (A) has various (infinite) possibility of change while state (B) has no option for change. State (A) may be called "**thermally animated**" while (B) is "**thermally dead**". Is death happier than life?

(V) **Pain and Boredom**

There is a rather famous phrase by German philosopher Arthur Schopenhauer: "The biggest enemies of happiness are pain and boredom. [*Die größten Feinde des Glücks sind für ihn Schmerz und Langeweile (Aphorismen zur Lebensweisheit)*]."

There may be "happiness" both in "equality" and "inequality". **Equality** is what is looked for but when it is realized it may as well be the end of the story. **Inequality** is what people strive for but too much inequality brings about unhappiness. Society is composed from many people all are different. Since "**equal society**" is an **oxymoron**. Similarly when the existence of God is proved whole world will end. This is the reason why religion can bring happiness to many people. *Pari de Pascal* does not work. **Human nature is contradictory. Stress is indispensable for happiness.**

สวรรค์บนดิน Paradise on earth is what we look for but, luckily, it never realizes. When it comes true it is the end of the world.

Hideo Shingu

Today's Verbum : **More is less, less is more.**

Supply increases, utility decreases, Supply decreases, utility increases. *Lucrum quoduis semper emolumentum afferre sumae bonorum reciproce proportionale.* Gain thereof is always the utility which is inversely proportional to the total wealth. —**Daniel Bernoulli**

**History of the concept of utility.**

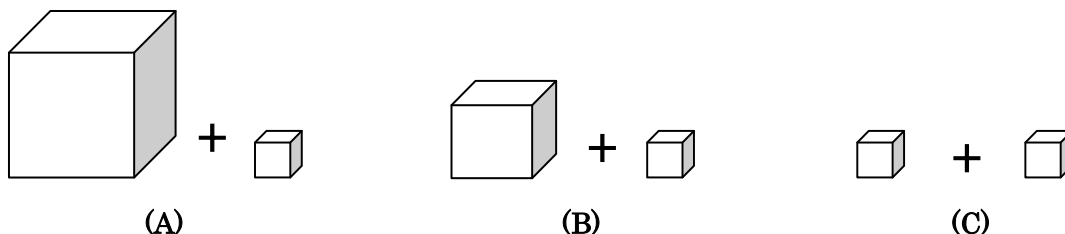
The term utility is derived from Latin, emolumentum, which means *gain, benefit, impact, profit...* Utility is used in economics to mean effect, or impact of certain sum of money, implying that the impact is due not to the sum of money itself but due to the "logarithm" of that sum. Logarithm is nothing but the exponent of a number, so that the numerical value of logarithm (impact) increases much slower than the value of the sum.

As an example assume one has a sum of ¥100 in one's purse, the utility of this money is 2 since  $100 = 10 \times 10 = 10^2$  and the exponent 2 represents the utility of the sum ¥100. Now if one has ¥million in one's purse, the utility is 6 since  $1,000,000 = 10^6$ . You can see the sum of money increased 10,000 times while the utility of money increased only 4 ( $= 6 - 2$ ).

Such relation between the sum of something and its effect are quite common in various phenomena both in physical and in social problems. The utility is variously termed depending on the field which it is involved.

- 0 Greek astronomers' brightness **magnitude of stars.** Ἰππάρχος, *Hipparkhos*; c. 190 BC – c. 120 BC
- 1 St. Petersburg problem by Daniel Bernoulli. The magnitude vs **utility** of assets.
- 2 Weber–Fechner' law on the "just noticeable difference: **jnd**". Psychophysics.
- 3 Neoclassical economics. **Marginal utility** theory.
- 4 Thermodynamic term "**entropy**".
- 5 Richter scale of **magnitude of earthquake.**
- 6 Information science term "**entropy**".
- 7 **Happiness** in general. Four storied structure of happiness.

Reason why the value of impact of sum increases so slowly with the increase in the value of the sum itself, can be seen by an experiment first demonstrated by Weber. The results of Weber's experiments were analyzed by Fechner and generally known as the Weber–Fechner's law or the law of "just noticeable difference: **jnd**".



The effect of added same amount of weight depends upon the weight to which the addition is made.

The increase in utility  $\Delta u$  due to the addition of a fixed amount of weight  $\Delta w$  is inversely proportional to the initial weight  $w$  to which the addition is made. ( $w$  may refer to weight, money, energy, probability, etc.)

$$\Delta u = \Delta w/w \rightarrow du/dw = 1/w \rightarrow u = \int dw/w \rightarrow u = \log_e w \rightarrow w = e^u \rightarrow w = 10^{0.43u}$$

Thus, by getting the same amount of addition to whatever you have, the feeling of utility (= pleasure) is large if you have less and small when you have much. The philosophy "**More is less, less is more**" is a widely applicable wisdom and truth.

When you are getting accustomed to whatever mental or physical stimulus, then you start to want an increase in the amount of that stimulus. If you look at this fact from the inverse point of view, you if you want to keep getting the same amount of utility (= pleasure) from stimulus, the amount of stimulus must keep increasing indefinitely. This is the reason why narcotics ruin your health and also the reason why the economy goes to catastrophe. Also this is the reason why happiness cannot be attained by having more. This is the reason why **the 4th story happiness** exists.