

Symmetry of objects and phenomena in the world.

Examination of the meaning of $-\infty, 0, +\infty$

Symmetry of Utopia vs. Dystopia or Happiness vs. Misery

After all, existence of desirable things \circ and undesirable things \bullet must both exist in the society as long as it can be called a society. We all, having the nature of Yahoos, are tend to follow the voice of people who claim the attainment of all \circ society. However, the fact that such claim is totally nonsense we have to bear in mind.

Malthus wrote in the end of his book referred above that evil \bullet exists in the world not to create despair, but activity. We have to exert ourselves to avoid it. Since the mean nature of immediate profit making is embedded to every one of us, evil \bullet can never be eliminated from the world. We can keep challenging to eliminate \bullet from the world feeling ourselves happiness in such engagements.

The notion of utopia or happiness exists only in human minds. Such notion, image, or idea are formed from various elements around ourselves. Elements can be classified into two kinds, desirable ones \circ and undesirable ones \bullet .

The construction of idea or figure out of many elements is the nature of us human beings. Such habit is referred to as **Gestalt** psychology.

Since in Gestalt psychology, the formation of ideas are commonly presented by figures, we will here try presenting the idea formation from various contradictory elements the concepts of Utopia and Happiness.

The reason why the Utopia (U) and Happiness(H) are drawn separately is that U is about society and H is individualistic. U is connected to the transitive verb (arity 2), such as **Love** and H is connected to the intransitive verb (arity1) such as **Live**. The former is physical and the latter is meta-physical.

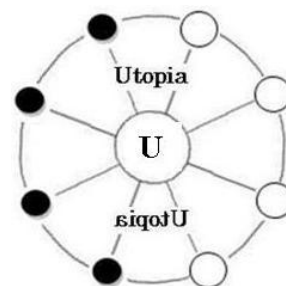
An imaginary figure – Gestalt of Utopia and Happiness:

Elements of social relations:

- \circ Humanity - \bullet Yahoomanity
- \circ Love - \bullet Hate
- \circ Virtue - \bullet Vice
- \circ Benevolence - \bullet Greed

E Pluribus Unum. Out of many one. 多から一が生まれる。

E Unum Pluribus? Out of one many. 一から多がうまれる。



Society is composed from many people, so that everyone must behave with consideration for others. Golden Rule to keep society in harmony is:

キーワード：論語(Confucious)：「己の欲せざる所を人に施す勿かれ」

Keyword: Do not do to others what you do not want to be done upon yourself.

Utopia and Dystopia together make up a Holistic Real Society?

Elements of personal behavior:

- \circ Live - \bullet Death
- \circ Joy - \bullet Sorrow
- \circ Satisfaction - \bullet Discontent
- \circ Hope - \bullet Despair

Happiness is individualistic. The way one chooses is what it counts.

キーワード：老子：「道の道とす可きは常の道に非ず」

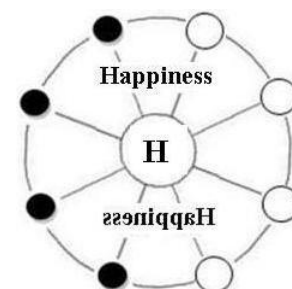
Keyword: The way that is called as way is not the way of yours.

無為而無不為：Dao, 道.

When you find out your own way, everything is done without doing anything.

When you go astray, nothing can be done by doing everything.

(When you feel yourself busy, better be careful if you are not out of the "way".)



Further examples of symmetrical phenomena

The generality of symmetrical deployment of many pairs of mutually contradicting elements seems to exist in wide range of phenomena in various natural and social sciences.

The story of Alice in the Mirror world is about an alternative world where right and left in real world is inverted to right and left. The music in that world should also sound in inverted way from the normal world as shown below by the inverted musical notes using Bach's Invention No.1 as an example. (You may listen to the Normal and Mirror "Bach-Gounod's Ave-Maria" from URL given below).



Normal world music.

<http://enekan.jp/mp3/ave.mp3>



Mirror world music

http://enekan.jp/mp3/ave_m.mp3

http://enekan.jp/mp3/ave_h.mp3

Further examples of the universality of symmetry are: odd vs. even, yin vs. yang, good vs. bad, beauty vs. ugly. In physics such symmetry is called as "parity" and the parity in universe is nearly held but not exact, as proved by the Lee-Yan's theory. It is interesting to note that human body is nearly symmetrical as we have left and right hands which function nearly equally well but not exactly the same.

When any symmetrical matter of notion is taken up, one should also notice the existence of limiting case of either end of such symmetrical object or notion.

Symmetrical phenomenon has two terminals and one middle point in between

The Taj Mahal (Agra, Uttar Pradesh, India) is one of the most architecturally amazing buildings in the world, renowned for its symmetry. It may be amusing to think if it is possible for an architecture to have only center and without wings (refer to the yin-yang symbol denoting that whole made up from mutually contradicting elements).

Take for example the amount of assets one has. It can vary starting from 0 and goes up to 1 and then ends at ∞ . One should notice that 1 is a representative of any finite number say, 100, 1million or 1trillion etc. Thus, in the case of



such sequence of numbers **1 is located at the center between 0 and ∞** . We are apt to think that 1 is much closer to 0 than to ∞ . However, since 1 can represent any large number as far as it is finite so that the "distance" from 1 to the both terminals should be the same.

This fact is better visualized if, instead of number itself but exponential number is used. When every number x is referred to by a new number S which is defined by the relation $X = a^S$, or $S = \log_e X$

Number S varies in the range, $-\infty, 0, +\infty$, corresponding to the change of X in the range 0, 1, $+\infty$. The symmetric arrangement of number S is apparent in which 0 is not a terminal number but a standard finite number corresponding to $X = 1$.

The relation of numbers X and S can be seen in various real phenomena. For instance, if X represents the amount of money one possesses, the "utility" of that sum of money can be given by S as, given by the equation $S/S_0 = \log_e X$, or $X = X_0 e^{S/S_0}$, where subscripts 0 refers to the value of X or S at any given standard state. This relation exists because of the fact that human appreciation of obtaining 1 unit of money (the **utility increase** by receiving 1 unit of money, mathematically this corresponds to the derivative of S by X,; dS/dX) varies in proportion to $1/X$. This simple fact, $dS/dX = 1/X$, applies in various physical and social problems including **thermodynamics** (where $X = T$, $S = \text{entropy}$), **seismology** (where $X = E$ the energy of an earthquake and $S = \text{seismic magnitude}$), **brightness magnitude of stars** (where $-X = \text{amount of light flux of a star in lux}$) and etc.

The "**just noticeable difference: jnd**" theory put forward by Weber-Fechner also is the consequence of such relation between X(amount of stimulus one is receiving) and strength of sensation one is feeling S.

Summarizing these generality of figurative symmetry in various phenomena we can understand that **Utopia or Happiness and and Dystopia or Misery cannot exist alone**. Happiness can exist because Misery exists. There is no absolute Happiness nor absolute Utopia but in order for the real world cannot exists unless we set the image in mind the limiting cases of Happiness or Misery.

Refer to: 莊周夢蝶 *Zhuāng Zhōu mèng dié*: Impossible to tell if which is dreaming Zhuang or the Butterfly. Which is which, Happy or Unhappy? 隻手音声: "One handed clap". Nobody can hear? Hakuin-Zen.